

# Star & Furrow

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SACRED SEED

BIODYNAMIC PREPARATIONS

FARMING IN THE ORKNEYS

HOMOEOPATHY FOR FARM ANIMALS

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Biodynamic Quality

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vital soil, vital food

## THE BIODYNAMIC ASSOCIATION (BDA)

**The Association exists in order to support, promote and develop the biodynamic approach to farming, gardening and forestry. This unique form of organic growing seeks to improve the nutritional value of food and the sustainability of land by nurturing the vitality of the soil through the practical application of a holistic and spiritual understanding of nature and the human being. Put simply, our aim is greater vitality for people and planet through more biodynamic acres, more biodynamic food and more understanding of biodynamics.**

Membership is open to everyone. Our members are interested in working with, developing and learning about biodynamics. Subscription rates are £35 (for up to 2 adults per household) or £20 concessions. Membership income funds in part the work of the Association, so they are directly furthering the aims of the BDA; however there are also further benefits.

Members receive a quarterly newsletter, Star and Furrow twice a year, early booking on training courses and events days. They get involved in organising and supporting biodynamic initiatives through the local group network and there are conferences, the AGM and many other events that they can attend. Many are supported in their own biodynamic practical work through advice from the Association from whom they also source their biodynamic preparations and books.

### Biodynamic Certification

The Association owns and administers the Demeter Certification Logo that is used by biodynamic producers in the UK to guarantee to consumers that internationally recognised biodynamic production standards are being followed. These standards cover both production and processing and apply in more than forty countries. They are equivalent to or higher than basic EU organic standards. The certification scheme is accredited by the United Kingdom Accreditation Service and is recognised in the UK with the coding GB-ORG-06.

### Biodynamic Agricultural College

The stated aims of the college are to provide education in biodynamic agriculture. This is done by providing two learning opportunities.

#### Distance Learning

A distance learning course called Biodynamic Principles and Practice, which makes education in biodynamic agriculture available to students worldwide and at the same time offers support to an international culture of learning and researching biodynamic agriculture. [www.bdacollege.org.uk](http://www.bdacollege.org.uk)

#### Work Based Learning Programme

A practical two year apprentice training in biodynamic agriculture and horticulture. This takes place on well-established biodynamic holdings around the country and is open to everyone aged 21 and over. Apprentices usually live and work on the farm in exchange for board, lodging and training. Their practical tuition is supported by weekly tutorials and a programme of seminars and block courses.

The objective of the course is to gain basic agricultural/horticultural skills, understand the principles and practice of biodynamic techniques and create a foundation for developing an independent understanding of the earth, life and human beings from a spiritual perspective.

### Biodynamic Land Trust

The purpose of the Biodynamic Land Trust Limited (BDLT) is to secure land for biodynamic farming, gardening and food growing in the long term. We do this in many ways, including: gift and lease back, bequests, partnerships, community involvement and share offers.

The BDLT is a charitable community benefit society No 31448R, registered with the FSA (now FCA) in 2011 and directed by a small board of volunteer directors who are elected by members at Annual General Meetings. Members join by investing in withdrawable, non-profit shares. Both individuals and organisations can join, each member has one vote. The BDA is the custodian trustee of the Biodynamic Land Trust.

### Biodynamic and Organic Plant Breeding and Seeds Limited, trading as Seed Co-operative

The Biodynamic Association has been instrumental in bringing about the Seed Co-operative. It is working to provide a future for OPEN POLLINATED SEEDS. These seeds are vital for our food future. Due to genetic diversity these seeds are able to naturally adapt to their local conditions and changes in climate.

We work in three main themes:

- Breeding new strains of open pollinated plants.
- Producing certified biodynamic and organic seed.
- Sharing knowledge and skills about seed saving, plant breeding and the importance of seed and food sovereignty.

The Seed Co-operative is registered under the Co-operative and Community Benefit Societies Act 2014 as a Community Benefit Society, registration number 7013

The BDA is a custodian trustee of the Seed Co-operative

### Our Roots in Anthroposophy

Biodynamics was first envisioned by Rudolf Steiner (1861-1925) in a series of lectures given in 1924. Since then, biodynamics has continued to develop and the Association keeps abreast of developments in science, nutrition, education, health and social reform. It is linked to the Agricultural Section of the School of Spiritual Science (Switzerland) and affiliated as a group of the Anthroposophical Society in Great Britain. It is also a full member of Demeter International, SUSTAIN and IFOAM.

### Spiritual Purpose

The BDA makes the most of every penny; we are determined and focussed on achieving our purpose. Our resources are used effectively and efficiently and the co-workers in our organisation are empowered to direct their free and active will to their task. We also notice the last line of the Foundation Stone Meditation by Steiner 'With Single Purpose' and let it resound in our hearts and in our organisation.

### Funding

The Association is a small organisation wholly dependent on subscriptions, donations and grants. There is a growing interest in biodynamics and to meet this welcome development additional funds are being sought. Becoming a member and encouraging others to join is an important way of supporting the work. Donations over and above the recommended membership subscription are also extremely helpful. Even the smallest contribution can make a real difference. For those considering making a Will and possibly leaving something to support biodynamic development, a legacy leaflet is now available. Please contact the office for a copy. For information on all aspects of the Association's work contact:

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## STAR & FURROW

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The function of Star and Furrow is to encourage the free exchange of ideas and experience among those who work with, or are interested in biodynamic farming, gardening and related subjects. Contributors subscribe to no dogma and are bound by no rules. **Their contributions are personal documents, not official utterances by the Association.**

Final dates for contributions are 1st April for the summer issue and 1st October for the winter issue. Copy can either be submitted in a typed printed format or as an electronic text document by e-mail. Please send articles to the editor at the Biodynamic Association Office.

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## Editorial

From a quick look at the contents page you can see that seeds form a significant part of this issue of the Star and Furrow. This comes at a time as the new Seed Cooperative establishes itself at Gosberton in Lincolnshire under the skilful eyes of David Price, Kate Ayre and Hans Steenbergen. I visited the site a few weeks ago and was very impressed by the huge potential that lives there. There is however a lot of practical work to do still! It is in the heart of the UK bulb-growing region and was formerly used for that purpose and so has a large amount of glasshouses. It is an excellent opportunity for biodynamics to shine amongst the surrounding intensive agriculture.

At the Biodynamic Gardening Conference at Ryton Gardens in September, the Cooperative launched its Community Share Offer supported by the showing of the excellent film SEED: The Untold Story. I was inspired especially by a short address by one speaker, Liz Hosken of the Gaia Foundation. I was thus very pleased when she agreed to write a piece on the Sacredness of Seeds for this issue. I feel that it is necessary to recognise and celebrate the role that seeds have within indigenous and traditional communities across the world and the role that women have.

The seed initiative has not only taken root in the UK but also in Portugal where Andre and Sophy Tranquilini have recently started work. Wendy Cook was there in the summer and she describes some of their pioneering work.

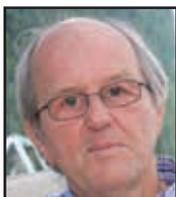
The Biodynamic Land Trust is also pioneering new ventures throughout the UK. This year at the Annual General Meeting in Totnes, we were given a tour of the most recent exciting project, Huxhams Farm, by project leaders Marina O'Connell and Bob Mehew. As Gabriel Kaye explains in her article, support is still needed to ensure the security of the land. Meanwhile the next project is in the wings, Noltland Farm in the Orkneys which Bernard Jarman writes about after his visit in the summer.

Another new initiative is welcomed in this issue: the Ruskin Mill biodynamic training: Growing the land, growing people. This has been developed out of the outstanding work at Ruskin Mill with young people. It is geared to help support those working with biodynamics within a therapeutic setting. Aonghus Gordon outlines the principles upon which it is based in his far-reaching article.

Homoeopathy is very much in the news with several newspaper articles calling for them to be banned, whilst on the other hand Prince Charles regularly uses homoeopathic remedies on his animals at his Gloucestershire Farm to help cut antibiotic use. In this issue, we carry an article explaining the background and treatment of farm animals with homoeopathic remedies. I would be very interested to hear farmers' experiences using homoeopathic medicine on their farms with a view to publishing them in Star and Furrow.

Finally, this issue says farewell to Martin Large, the founder of the Biodynamic Land Trust and wish him well in his 'retirement'. Another long-standing member of the biodynamic community, Timothy Brink is also retiring soon.....but more about that in the next issue.

Wishing everyone a Happy New Year!



Richard Swann

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# From the Director of the BDA Peter Brown

*I would like to do something special and a bit different in this edition and focus on the Seed Co-operative. You will see that there are several articles on seeds inside as well as an invitation for growers to come to a seed growing workshop on Saturday 18th February.*

I feel I cannot over-emphasise how important the issue of seeds is for us right now, here in our country and across the world. We have to choose, we have to act for the future of agriculture, for future generations. Imagine you have a handful of seeds in each hand; in the one open-pollinated seed grown in living soil, which will be able to adapt to local climates, to changes which may come. In the other hand F1 hybrid seed, which has been bred using gene editing and invasive technology, bred from plants grown on soil that is no more than a substrate for the water soluble chemicals the plants are fed. Which hand would you choose? This is the choice we have as modern breeding techniques take over in the seed industry. This is why we need the Seed Co-operative. We have to make it happen; we are making it happen, but we also need you to make it happen!

We have come a long way. Right now it is a busy time at Gosberton Bank Nursery, the property that we bought in February. Seed orders are coming in, being made up and dispatched. Seed cleaning machines are now installed and things are really taking shape as the small team there tries to keep on top of all that needs to be done. 3,800 new Seed Co-operative catalogues for 2017 have just been sent out, together with a leaflet about the community share offer which started in September at the BDA conference.

I feel lucky and thankful that we have fantastic people in place. David Price and Kate Ayre live on site and put their all into making it happen. They have now been joined by Dafna, who is also passionate about seeds, and already many WWOOFers have come and gone, having given their help. Hans Steenbergen, who started Stormy Hall Seeds, the

foundation on which we are building, works ceaselessly to support and guide the work being done. There are of course many others, including the board members, doing all they can to manifest the vision and the goals. Hopefully we are creating a national treasure for the future!!

PLEASE DO JOIN US as a member and co-owner of the UK's community owned seed company. A seed company that never can be sold to powerful companies that might want to buy it in the future, without the agreement of its members. Each member has one vote, whether they have 100 or 100,000 shares. A share leaflet is enclosed in this magazine, if you would like more to pass on to friends, just phone or email, or you can download it from the website. For a minimum £100 in £1 shares you can become part of what we are creating and to help secure Gosberton Bank Nursery for the future. Through the generosity of many people and a few foundations, we have already raised nearly £400,000 in the last two years, but we still have another £350,000 to go to pay back the loans and mortgage, which is against the property. Please help us, join hands with us, to raise the money that is needed via shares or donations, full details are on the website.

I would like to conclude by mentioning three conferences. Our conference at Ryton last September, *Biodynamics: Revitalising our Earth, one garden at a time* was well attended with very good feedback. I must thank everyone involved in making this happen.

In January the Oxford Real Farming Conference has a choice of fantastic talks and debates, including one organised by the Biodynamic Land Trust and another by the Seed Co-operative with the title *Open pollinated seed: antiquated relic of a past agrarian age or the vital ingredient for a sustainable farming future?* Many people from the various biodynamic organisations will be there.

In February the annual Biodynamic farmers conference in Dornach is on the important topic of soil fertility with some good speakers and workshops so I would highly recommend it if you can possibly go – I will be there.

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## The Sacredness of Seed: a Symbol of Life's Capacity to Regenerate

By Liz Hosken

**BACKGROUND:** The Gaia Foundation has been working for 30 years with indigenous and traditional communities and alliances in the Amazon and Africa to revive their knowledge and practices, in the face of relentless pressure to assimilate into the industrial world. Elders in these communities are at the heart of the work to bring back the memory and reconnection with Nature, spirit and the identity of the human community as part of the web of life. This article focusses on the central role seed plays in these traditions, as a sacred symbol of life's regenerative capacity, "to weave the basket of life back together again". Liz Hosken writes about the common understanding which has emerged over the years in her work with communities.

Across the planet indigenous and traditional communities have understood seed as sacred because of its profound symbolic nature. Seed is a symbol of renewal, rebirth, and the cycles of life. The huge potential of life is encoded in the tiny seed as it waits for the right conditions to unfold.

In most African traditions for example, seed is used as a symbol of renewal at each stage in a person's life, from childbirth to initiation, from marriage to death. It is used in celebrations and ceremonies to mark the transition between seasons. And it is used in rituals and offerings at Sacred Natural Sites, shrines and other spiritual places and moments.

Teresa Daudi, a seed custodian from Tharaka, Kenya says: *The traditional seeds are sacred to us and used for special ceremonies like the birth of a child. We take seed when we visit a child, as a special gift for the mother, as a blessing. When we do ceremonies in Sacred Sites, women are responsible for bringing the required seeds and participating in the prayers. Or if we find we have a lot of seed then we make it into a special gruel to share when we are weeding together. We sing together, sharing news and tips on seeds and planting. This brings a lot of joy!*

Women play a central role in these traditions as custodians of seeds – from seed selection, to storage, to deciding which varieties to plant and how much, after assessing which type of rain they might expect in the coming season. Before

harvesting, women identify which crops should be selected for seed, for food or for ceremonial purposes. Over generations, women have expertly selected crops with a wide range of characteristics to meet their needs, from yield to disease resistance, from taste to post harvest use, from cooking time to storability. While traditionally men often have their own crops, it is women who tend to cultivate a much greater diversity of seeds.

The choice of which crop to plant when the rains come requires a deep and subtle capacity to read the ecosystem and the behaviour of the climate. Custodians need to determine which of the seeds they have bred will do best in conditions that they predict are about to unfold. Traditionally from an early age, girls learn with their mothers and grandmothers. They become ecologically literate, learning through practice in the garden, fields and forests. Reading the signs of the ecosystem requires careful observation and attention to detail – changes in the behaviour of insects, plants, animals, birds, levels of moisture, patterns of rain or drought and so on. Knowledge of the constellations and the relationship with the moon cycle also have an important bearing on determining the seasonal cycles, rains and planting systems.

As Anagonou from Benin in West Africa explains: *"In my work as a traditional healer, I preserve seeds, which sym-*

© Pictures  
Courtesy of  
The Gaia  
Foundation

Community displaying the diversity of traditional seeds that they have been reviving in Tharaka, Kenya



*bolize life and the future. Rituals for the protection of forests, plants and animals, and for securing rain and productivity, cannot take place without the use of traditional sacred seeds. Beans, corn and palm nut are the main sacred elements, at the heart of these ceremonies. Seeds are important in many aspects of life in the community – for food, medicine, spirituality and for exchange. For example for marriage ceremonies, white seeds are chosen, whereas red seeds are selected for rituals to communicate with the ancestors.”*

It is through their intimate relationship with their ecosystem, that indigenous and traditional communities have understood that they live in a sacred Universe, which is lawful and ordered. They recognise that the laws of Nature are primary and non-negotiable, and that humans are subject to these laws, as part of the living Universe. Customary laws are derived from the laws of Nature which cultural historian, Thomas Berry, named Earth Jurisprudence, recognising indigenous peoples have a different conception of law from the industrial world. The seed embodies the laws which govern the cycles of life. It is a sacred mystery, that these tiny elements have encoded in them, the unfolding of so many expressions of life, all of which

Seed is a sacred element in sacred natural site rituals for many communities, because it symbolises life and is potentiated by these sites. Sacred natural sites are likened to acupuncture points in the body of the Earth. They are connected as networks which maintain the energetic flow of life and its capacity to regenerate. A priority for these traditions is to protect sacred natural sites and to revive the required rituals, in order to restore the health and balance of the Earth. Sacred natural sites are places where the spiritual, cultural and ecological domains of life interact most potently. They are places of ecological importance, such as wetlands, springs, forests, salt pans, rivers and mountains; they are where the ancestral spirits reside; and they are where cultural ceremonies take place, because they are places of energetic potency and connection.

Kagole Byarufu, a custodian of sacred natural sites from Eastern Uganda explains: *“Many varieties of seeds are needed in our sacred site rituals, to give thanks and to ask for*

*them to be strong and productive when we plant them. We mainly use millet, simusimu, and pigeon peas, enkoore. When we do the rituals, we normally prefer the small seeds, because they are so small and too many to count. When we are performing rituals with these seeds, we say “May you send blessings like these millet grains. May they germinate in plenty to feed all our people”.*

The rituals connect the interrelated world of ancestors or the spiritual world, the human world and the world of Nature. They take place in relation to the seasonal cycles usually at specific sacred natural sites: offering and blessing of seeds, to potentise them before planting; offering of seed to ask for rain; harvest ritual to offer the ripened foods in gratitude for the support from the worlds of spirit and Nature. Ceremonies are performed for other reasons too, such as for sickness or an imbalance in any of the three domains, where a ritual can restore order. Stephen Jenkins, who writes on modern amnesia caused by the breakdown of relationship with the living world that sustains us, emphasises the role of ceremony:

*“Why do you think healthy cultures have so many rituals and ceremonies? It’s because ceremony is the way they remind themselves of the mandate of being human. It’s no easier for them to be human than it is for you or me. But they have a culture that understands how difficult it is and provides a grand choreography of memory to bring that understanding back over and over again.”* (see: [http://thesunmagazine.org/issues/476/jenkinson\\_dying](http://thesunmagazine.org/issues/476/jenkinson_dying))

This is what community elders have been saying across Africa and the Amazon – when asked about how they see the cause of the breakdown they are lamenting, they say ‘because we are not doing what we should be doing. We are not protecting our sacred sites, doing our rituals and maintaining the diversity of seeds and of life for future generations.’ These ceremonies reinforce the community’s memory and experience of the interconnected world in which they are embedded. That is why it is not possible to talk about the sacredness of seed without talking about the whole system – seed relates to sacred natural sites, the ecosystem, climate, the role and eco-literacy of the custodians, rites of passage cycles – the basket of life.



Eco-cultural mapping of ancestral territory of a venda community in South Africa

Seed connects the domesticated system with the wild too. Through the sacred natural site rituals, domesticated seed is left in the wild, and is able to evolve freely with wild relatives, adapting to the growing instability of climate. Wild foods and the places they grow also play a key role in the food system, and are part of the mosaic of wild areas traditionally protected. According to Dr Melaku Worede from Ethiopia, a leading authority on seed systems in Africa, and enhancing diversity: *“Everybody’s food security depends on wild crop biodiversity and evolution. These varieties represent up to date genetic wealth of the Earth and are the first to develop resilient qualities that domestic crops rely on acquiring to survive.”*

In the context of growing climatic instability and pressures from the agrochemical industry to ‘feed the growing population’ with its hazardous toxins and mal-adapted hybrid seeds, the revival of traditional ecological knowledge and practices is central to reconnecting with identity, land, biodiversity and the sacred. Sometimes this work can begin in communities with a practical need because hybrid maize is failing with droughts in southern Africa, for example, and traditional millet and sorghum does much better. But as the dialogues with knowledgeable elders deepens, and the memory and knowledge comes back, the community reconnects with their relationship and the meaning associated with seed, its sacredness and symbolism. This tends to lead

on to the regeneration of their sacred natural sites, and the required rituals. As the people from the Amazon say – *“this journey is about weaving back the basket of life again”* – as the elements reconnect, more coherence and resilience begins to re-emerge, and greater wholeness is restored.

**Relevant materials:**

**Report:** Celebrating African Rural Women: Custodians of Seed, Food and Traditional Knowledge for Climate Change Resilience. <http://www.gaiafoundation.org/CelebratingAfricanRuralWomen.pdf>

**Film trilogy:** Seeds of Freedom, Seeds of Sovereignty & Seeds of Justice: in the hands of farmers. <http://www.seedsoffreedom.info/>

**Report:** A Call for Legal Recognition of Sacred Natural Sites and Territories and their Customary Governance Systems. [http://www.gaiafoundation.org/CalltoAfricanCommission\\_summary.pdf](http://www.gaiafoundation.org/CalltoAfricanCommission_summary.pdf)

*Liz Hosken is founding Director of The Gaia Foundation, and provides training for communities and civil society groups in Africa for reviving indigenous knowledge systems for sustaining seed and food sovereignty. She recently co-authored ‘Celebrating African Women, Custodians of Seed, Food, Life’. The report and a trilogy of seed films can be viewed on: [www.seedsoffreedom.info](http://www.seedsoffreedom.info)*

# Open pollination – *its importance in the origin, evolution and future of our vegetable plants*

By Ute Kirchgaesser

(Notes from a lecture given at the Biodynamic Gardening Conference 2016)

**Most of the plants that surround us today are the flowering plants. They all produce seeds and it is from the seeds that new plants come from. When we put the seed into the soil, the first thing that we notice is that the root goes down and the seed leaves come up above the ground. Root and shoot development then go on to accompany the plant growing process throughout its life. Those of us who prick out small plants know that the best time is when the first seed leaves have unfolded. There in between the seed leaves you can also see the beginnings of a further developing leaf. You also find that the root has also developed further with side roots and so on. If you prick out too late you find that it can be hard to separate the roots as they start to grow together.**

Firstly, I would like to refer to a picture I have drawn from Austrian scientist Lore Kutschera who has studied and taken pictures of many roots (see: <http://www.wurzel-forschung.at/>). This is a picture of the roots from the winter wheat at the start of spring. (See figure 1.)

The above ground plant is around 7-8 cm high with 8-9 leaves. It is also a flowering plant. She describes the root as 'hurrying ahead' as it seems the root development is ahead of the rest of the plant.

I also made a picture of roots growing in a root box. This is done by growing plants in soil in a narrow, long frame with glass on one side and insulation material on the other. The roots grow down to earth along the glass. Paper was placed over the glass and then the roots are drawn using a pencil. This particular one is dandelion (*Taraxacum Officinale*) just over 2 months old. Look how deep the roots grow in 9 weeks! (See figure 2.)

These pictures give an impression of the parts you do not normally see.

Once the seed leaves unfold these are followed by more leaves, which in the case of the dandelion form a rosette and all look the same. After the rosette the plant develops a new impulse, a stem emerges with leaves arranged on the stem in a rhythmical way. The mathematician Fibonacci found there is a clear mathematical structure in the way the leaves go round the stem. You can also see this in the sunflower, which also has a nice mathematical order.

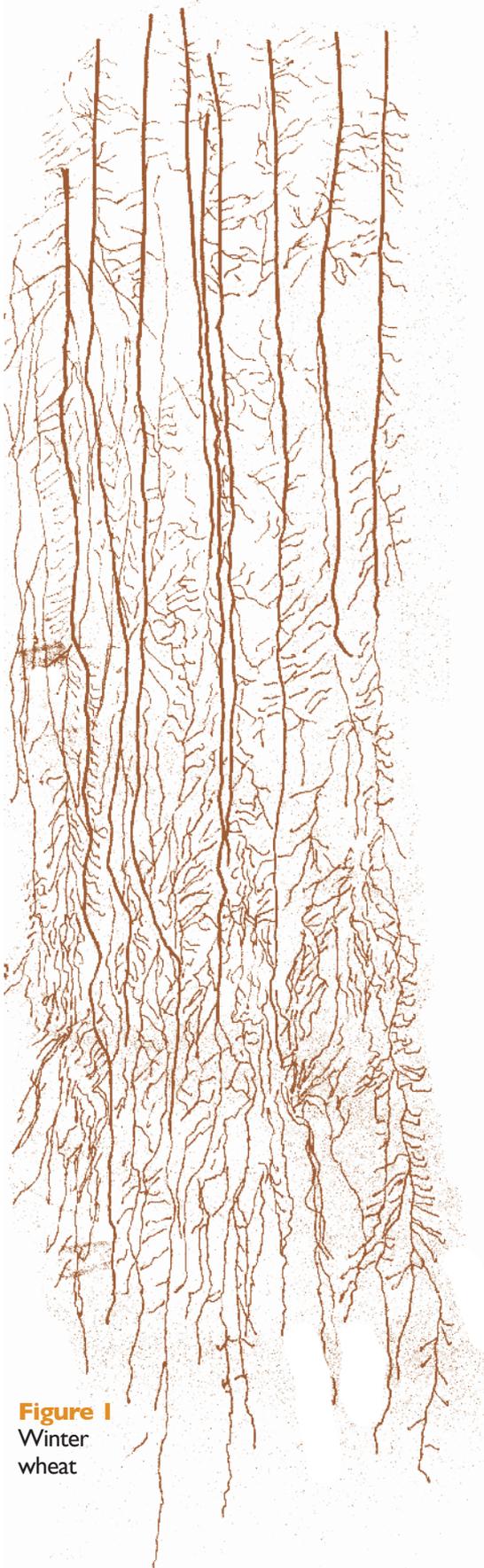
In the flowering plants, there is an order in the way the leaves are organised around the stem. Further to this, there is a big difference between the form of the last leaf at the top of the plant and the first one at the base of the plant. This is a rule that all plants follow from the bottom to the top. (See figure 3.)

We can take the fennel leaf as an example. Here you can see the leaf node, leaf stalk and the leaf blade of which each leaf is composed. All the members of the Umbelliferae family show a strong leaf node tendency. Some plants have hardly any leaf node at all. The first seed leaves have a stalk and a leaf blade, which usually has a round shape. As the plant grows and more leaves develop up the stem, we find that their forms become more spread and differentiated. Around the middle of the plant we find a leaf form that is typical for that plant and by which we can identify it. It is not possible to identify the plant by its seed leaves or the calyx – only the leaves around midpoint.

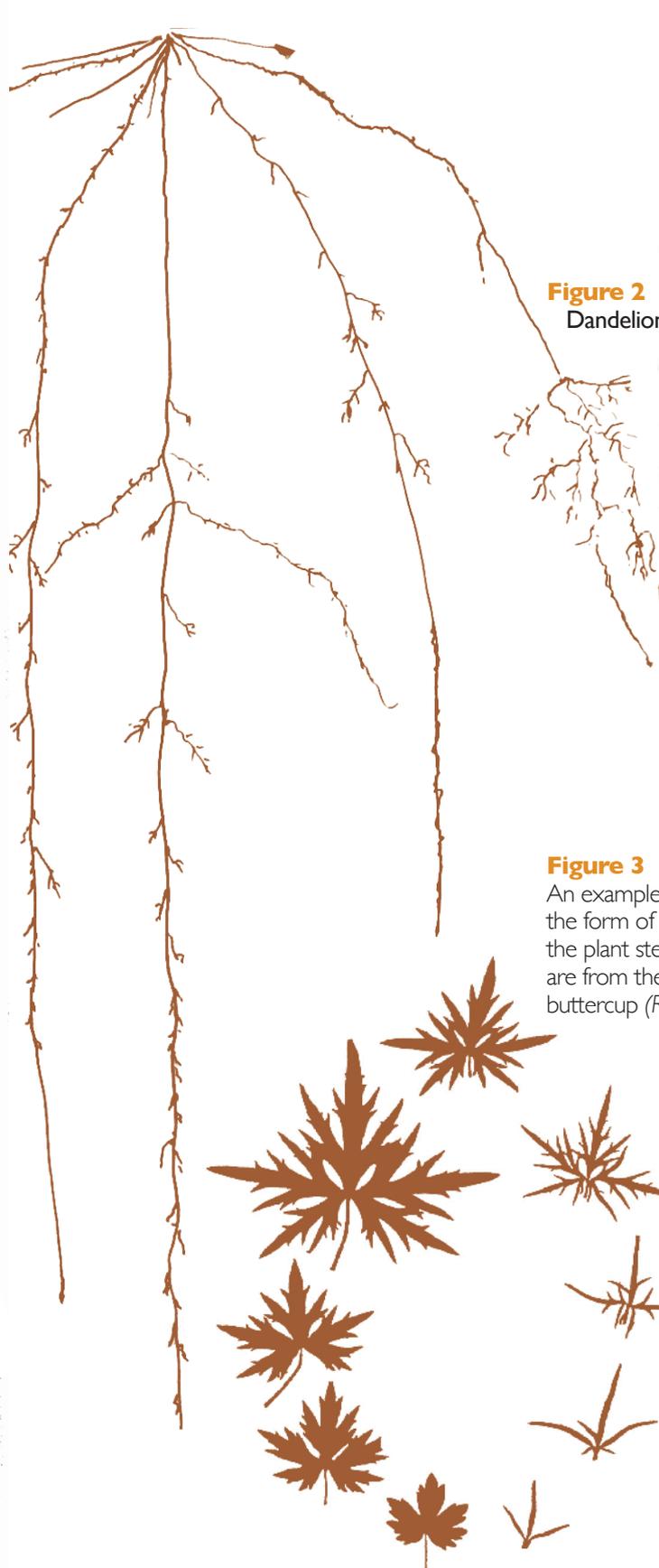
With the fennel, we first have the leaves at the base then as we progress up the stem the leaf stalk becomes shorter. Towards the top of the plant the leaf 'draws back' to the leaf node. (See figure 4.) There is also another thing to note and that is that the calyx leaves that surround the flower bud have parallel veins whilst the rest of the leaves have net veining. In summary, the metamorphosis in the form of the leaves goes from being unspecific to differentiation then 'pulling back' to the leaf node and the calyx. This metamorphosis is found in all flowering plants. In the flower we then find colour and scent and a close relation with the insect world. Generative propagation is the way by which new plants come about in flowering plants.

Back in time before the flowering plants came about there were the ferns and horsetails. If we look at the roots of these plants we find they run horizontally with new plants arising from them. The plants regenerate vegetatively. They give the impression of uprightiness, but have no stem and do not show any leaf metamorphosis.

Mosses have tiny white 'things' underneath which help the plant hold on to something but they have no metabolic activity. All the metabolic activity is within the leaf. In Advent time, we may use moss as part of a table decoration during the month leading up to Christmas. If we only spray it with water we find that it stay fresh all the time. This would not be the case with flowering plants which would either dry out or decay. So you can see the connection with



**Figure 1**  
Winter  
wheat



**Figure 2**  
Dandelion

**Figure 3**  
An example of the change in  
the form of leaves going up  
the plant stem. These leaves  
are from the common  
buttercup (*Ranunculus acris*)

the earth is different for the moss.

Look also at the shape of the moss plants. They are small and the way they grow is the same whether there are many or one on a rock. It doesn't differ in its growing habits. A flowering plant growing on a hill grows differently according to the situation.

With algae the whole organism is the leaf. They also have an organ which helps them to hold on to a rock, but they have no roots. There are different species with specific

characteristics, but they are completely dependent on their surroundings. They also have some orientation but do not hold themselves in three dimensions.

In the evolution of the plant, we thus first had the plant as a leaf dependent in a watery atmosphere (algae). Then we had the leaf on the land but in still quite a moist environment (mosses). The ferns then took a 'step' into the surroundings but they had no vertical root. Then finally came the flowering plants with a vertical downward root

and an upward stem and flower. They also have a relationship to the insect world and aromatic processes.

This time of the evolution of the flowering plants was when humans came to the earth. In the Christian literature we find this in the story of Adam and Eve and the apple in Paradise.

Looking now at wild plants and cultured plants, which are changed or modified by humans. Plants were starting to be bred around 5-7000 BC. At this time quite a lot of other things changed too, such as social and building life. How did humans first breed the plants? This we do not know and today we do not have any new cultured plants. What is the difference between a wild and a cultured plant? Many of the cultured plants have changed from being annual to biannual – for example the carrot or cabbage.

With many agricultural plants we have a kind of emancipation from all the cosmic and seasonal influences that the plants are in. Plants are usually dependent on the season when they grow. For example, a wheat variety that germinates in a year with a lot of sun it will develop differently to the same wheat that is germinating in spring. Spring wheat will make far more rosettes in the spring but if it germinates in summer it grows up to flowering much quicker. Cultured plants have some independence to what is going on in cosmos and the seasons.

Take a (wild) dandelion, cut it vertically in two halves, and plant half in a shady watery, rich soil and the other half in a sunny poor soil. The resulting plants will look quite different to each other. The one will develop into a plant with lush leaves and plenty of growth whilst the other will be small with small leaves and flower very quickly. With our cultural plants we thus know that if a seed grower sells to a farmer who has a rich soil and another with a poor soil we see that still get the same variety!

In the Agricultural Course Steiner spoke about the generative propagation using seeds. In many former cultures the time of sowing was dictated by the priests and as it was meant to have had a large influence on the plants. Steiner also spoke in the Agriculture Course about seed chaos. This happens twice in the life of the plant. Once with growing and ripening and the other time when the seed drops to the ground and meets 'Mother Earth'. It is at this moment when the seed gets its influence from future generations.

Thus the process in plant evolution we see the development of the root going down and the stem rising upwards. The plant connects with both what is above and what is below. The plant has the ability to grow deep roots and at the



same time attain upright-ness.

In cultured plants too as against wild plants, humans have managed to imbue qualities into the plant that belong to the flower (colour, aroma) and can now talk about ripening for the first time. These qualities of ripening find a stable position for the seed which comes to a rest with the call for a new living organism. In the cabbage or carrot for example we have something that has to do with ripening processes (e.g. aromatics, colour which were originally processes that belonged to the flower). And we can store them too. We cannot store a

single leaf but we can store a (cabbage) head. Humans have taken uprightness and put it into the plant (stem, root etc.). The most important things for breeding are not to do with hunger but to connect with things from former times. We are able to digest root processes in plants if filled with flowering processes. Nobody would like to eat the root of a wild carrot despite it smelling the same.

In the Agriculture Course Rudolf Steiner says 'Truly, the farm is a living organism. Above, in the air, it evolves its astrality. Fruit-tree and forest by their very presence develop this astrality. And now when the animals feed on what is there above the Earth, they in their turn develop the real Ego-forces. These they give off in the dung, and the Same Ego-forces will cause the plant in its turn to grow forth from the root in the direction of the force of gravity. Truly a wonderful interplay, but we must understand it stage by stage, progressively, increasingly.' (Agriculture Course Lecture 8)

In our work we have the seasons with same procedures every year. We and the plants are in a process of evolution, we are changing and developing. What helps the plant get in touch with future evolution is its contact with what is below and above the earth. In several places Steiner also speaks of the plant self being located in the centre of the earth and this connection makes plant evolution possible. And this is only possible through open pollination. It is not possible if I only recombine characteristics from the leaf. This does not take us into the future. It is our responsibility to take the plant into the future and we can only do this by connecting the plant self in the earth with the plant's uprightness and the cosmic forces that have to do with the flowering ability of the plant.

*Ute Kirchaesser is a renowned seed grower and plant breeder, Ute has been an active member of Kultursaat, a group of biodynamic plant breeders since 1989. Based in Germany, Kultursaat have developed over 70 new varieties of vegetable that are now used by commercial growers and gardeners across Europe.*

# SEED SAVING AND SEED PRODUCTION; an introductory one day workshop. Saturday February 2017



**Start 10am, Finish 5pm  
Gosberton Bank Nursery,  
Gosberton, Spalding PE11 4PB**

As part of the work of the Seed Co-operative we are building a network of seed growers around the UK. Certified organic and biodynamic growers can join our network and produce seed to supply to the Seed Co-operative. We have the equipment to be able to clean and test seed and market and distribute the seed through our Seed Shop. We also have a licence from Defra for the production, processing, packing and distribution of seed and look after all of the regulatory requirements.

Currently 80% of the open pollinated, organic and biodynamic seed sold in the UK is imported: we need seed growers to change this and re-build some resilience in our food system.

This workshop is aimed at people who want to save seeds and are, or would like to become, seed producers working with the Seed Co-operative.

### We need to know:

what forms of support would be of most help if you already grow seed for us, or if you want to start growing?

**PLEASE:** come along and tell us what you need from us.

### Programme for the day

- 10.00 Welcome**
- 10.15 Seed growing, record keeping, certification, seed legislation, harvesting.**
- 11.30 Tea break**
- 11.45 Pollination, isolation, maintaining varieties.**
- 13.00 Lunch break**
- 14.00 Practical selection,**
- 15.30 Tea break**
- 15.45 Post harvest seed processing, seed cleaning machinery, storage, testing,**
- 16.45 Q & A**
- 17.00 Close**

For more details or to book your place contact

**[hanssteenbergen@seedcooperative.org.uk](mailto:hanssteenbergen@seedcooperative.org.uk)**

Places are limited, please let us know before 1st February.

Full details can also be found at

**[www.seedcooperative.org.uk](http://www.seedcooperative.org.uk)**



**The Nature Institute  
20 May Hill Road  
Ghent, New York 12075**

We are excited to offer in 2017 a limited number of fellowships at The Nature Institute. The fellowships present an opportunity for individuals to deepen their understanding and practice of the science of phenomena, a science that is contextual, qualitative, and holistic, and which forms the basis of our work at The Nature Institute.

The fellowships are meant for individuals who have some knowledge of this approach to science (which we often call Goethean science), and are working in the natural sciences, or in professions in which sciences are taught or applied (e.g. education, agriculture, health professions). Other criteria for participation are that the individuals are self-motivated, early in their careers, and are serious about working with this approach in their own professional settings.

The fellowships will begin on May 15, 2017. The length of the fellowship will depend on individual circumstances; we envision a period of two to six months. At the beginning of the fellowship, Nature Institute staff will offer seminars on the epistemology and practice of phenomena-based and contextual scientific inquiry. Each fellow will engage in a research project for the duration of their time at the Institute. The project should include a strong original observational and experiential component. Fellows will interact with one another and with staff.

For more information please go to:

**<http://natureinstitute.org>**

## Water as a Window on the realm of Life

*Weekend workshops with Simon Charter  
at the Old Mill House, Chalford Gloucestershire.*

*Dates : March 24th - 26th, April 28th- 30th, June 2nd - 4th 2017  
Friday 2pm – Sunday 2pm*



*Water in movement can behave in remarkable ways and simple experiments can reveal wonderful phenomena. Within the fluidity and elegance of harmonic flow archetypal forms arise which can also be seen in clouds, plant structures, bones, even in the stars. We will explore these experiences in a process structured to develop our understanding and unfold meaning.*

*Water is an enigmatic substance and just getting to know it better can be a fascinating experience. The study can help develop an understanding of life in terms of organisms rather than mechanisms, and can stimulate creativity in art and craft as well as in horticulture and agriculture.*

*£150 including refreshments and 3 home cooked meals with CSA vegetables  
More information and bookings contact Ebb and Flow 01453 836060  
email [simon.charter@lve.co.uk](mailto:simon.charter@lve.co.uk)*

*Simon Charter has been working with water since 1989 creating pond and wetland landscapes for their aesthetic value and also for water cleaning. He has designed several Flow-form sculptures. Recently he focused his masters on moving water and education.*

*The Old Mill House has a 150 metre stretch of mill leat which is usually crystal clear. There is a spring, 2 turbines on the site, a large workshop for experiments, always dippers around somewhere and occasionally a flash of bright blue feathers catching the sunlight.*

# SEED: the untold story

By David Price

**In reviewing this film I feel I must start off by declaring something of a vested interest. A large part of my role at the Seed Co-operative is currently the promotion of our Community Share Offer, and we used this film at the launch event. However the vested interest lies in the fact that I feel this film makes such a compelling case for the work of organisations like the Seed Co-operative that I can only recommend that you watch it. If this film doesn't persuade you of the critical importance of supporting the work of organisations like the Seed Co-operative what hope have I of persuading you to buy shares and become part of our community of owners.**

The visual impact of the film is stunning. From an opening sequence showing cress seed growing on someone acting as a propagator as they sleep, to the animations that help to illustrate ideas and explore concepts. Wonderful photography showcases the huge diversity of seed in terms of shape, size, texture, colour and methods of dispersal. Plants, flowers and many habitats are depicted, filmed beautifully and with reverence.

More than anything else though this documentary is a tapestry of stories about people and their relationship with seeds. Will Bonsal of the Scattered Project in Maine, USA, has a vegetable seed library and walks barefoot around his vegetable growing fields as he grows out varieties in order to keep them viable. He has a vast collection of potato varieties including those that were grown in Ireland at the time of the great famine. Will memorably describes how *'genetic diversity [in our crops] is the hedge between us and global famine'*.

Bill McDornan from Native Seeds/SEARCH has established Seed School providing week long training courses in seed growing, harvesting, processing and storage and enthusing members of the younger generations in the traditions of seed saving again. Diana Ott Wheatley in Iowa established the Seed Savers Exchange in the 1970s with a particular interest in beans and now they have 24,000

different accessions of vegetable seed in their seed library.

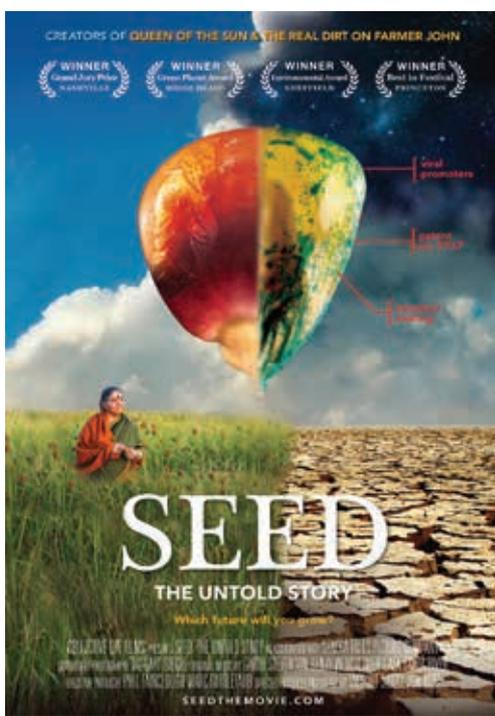
Brothers Patrick and Joe Simcox are also from USA but travel the world looking for plants and seeds that could provide new crop species. They describe how of 300,000 plant species it is thought that 30,000 are edible, but only 120 are used regularly and most people subsist on just 10.

Woven in to these stories of individuals is the wider picture of how seed companies have developed and become synonymous with chemical companies. Stories of communities from Hawaii and India devastated through the use of pesticides, in the case of Hawaii through test sites, and in India through the manipulation of the seed market resulting in an epidemic of suicides amongst Indian farmers. The impact and threat posed by genetic modification is discussed and contrasted with the merits of open pollinated plant breeding based on natural processes.

A number of the individuals featured are from the indigenous communities of the USA, including Rowen White, Wendell Kabutan and Winona LaDuke describing the cultural significance of seed to their community and their history. Winona won a court case against Monsanto to prevent them patenting Wild Rice which had been the staple diet of her tribe for generations. In contrast, Percy Schmeiser, an arable farmer, describes how he was prosecuted by Monsanto for patent infringement and banned from

saving his own seed after his crop was contaminated with pollen from a neighbouring GM canola crop.

The film is by the makers of Queen of the Sun and is now on general release in US cinemas. You can find out more about it at [seedthemovie.com](http://seedthemovie.com). There is talk of a cinema release and even a television screening in the UK in 2017 and the DVD will be out sometime in the next 12 months, when it will undoubtedly be available from the Biodynamic Association. I heartily recommend it when you get a chance to see it, but why wait until then to get involved? Please visit [seedcooperative.org.uk](http://seedcooperative.org.uk) and sign up for your shares and join our community of owners... we can't be a community owned seed company without you!



**SEED 1 -**  
Harvesting Corn in the Sierra Norte Mountains north of Oaxaca, these corn varieties are endangered of disappearing forever.

**SEED 2 -**  
Clayton Brascoupe holds four ears of indigenous corn from the Tesuque Pueblo people near Santa Fe, New Mexico.

**SEED 3 -**  
Vandana Shva stands in the field outside of Navdanya's seed bank in Dehradun, India.



© All photos Courtesy of Collective Eye Films

# Sementes Vivas, Living Seeds –

## *a new project in Portugal*

By Wendy Cook



**In January this year Andre and Sophy Tranquillini, with two of their children, Yasmin and Luca, took their leave of the lush green meadows and hills of Dartington and of the large vegetable garden at Hood Manor (the South Devon Steiner School). Over the past eight years, Andre had been developing the school garden and environmental curriculum for the 300+ pupils, imbuing many with respect for the earth and teaching land-based skills. Their destination was an open-pollination Biodynamic seed production project of 50 acres in central Portugal, where temperatures reach 38°C.**

Beginning in January 2016 this is the brainchild of German entrepreneur Stefan Doebelin and known as Sementes Vivas, or Living Seeds. The objectives are to develop good quality BD seeds to supply southern Europe and to promote biodynamics and organic agriculture in Portugal. There will be a seed-bank that will specialise in adapting Portuguese varieties of seeds and making them available. The land is situated 15 miles away from the small town of Idanha-a-Nova, which is developing several new initiatives, helped by a very forward-looking mayor who actively promotes organic and biodynamic agriculture.

Cork oaks are a feature of the undulating, unspoilt landscape which boasts the Templar town of Monsanto as a backdrop, rising as a sacred confirmation of this special area. Storks build their nests on every conceivable vertical post and peer down like lofty judges in their black-and-white

robes. Andre tells me that the area has 50 types of birds, including eagles, and there are lizards, toads, hares, wild boar, foxes, snakes and grey mongoose.

Already there are crops growing in the fields: watermelons, tomatoes, different squash, courgettes and aubergines. A percentage of the seed will be saved but the bulk of the produce has already been pre-sold to the Boom Festival, a summer music festival even bigger than Glastonbury, positioned on the shores of a nearby lake. The rest of the produce will go to local supermarkets (the organic movement is only just beginning in Portugal). There are orchards with many fruits and almonds, the trees newly liberated from tangles of brambles bravely tackled by Sophy, Andre's wife, and helpers. Almonds and chestnuts do well here. Next door is a large project with a monoculture of organic blueberries, most of which are sold to the UK.

The structure of the project is as a limited company, with workers as potential shareholders. It is a candidate for a Producers' Organic Market, for which at least 15 producers are needed to be shareholders. Andre is now dealing with 15 farms in conversion throughout the country, which involves a great deal of travelling, so he has a hugely demanding role. As he comes from Brazil he already has the language and so does his family – an enormous advantage! I found the language quite impenetrable.

There is a team of eleven, including Stefan and his wife Bettine, and seven nationalities, and they have the first biodynamic apprenticeship in Portugal. There are two specialist plant breeders, Loes and Micha from Belgium and Holland. Micha is currently dealing with a possibility of 278





different species of tomatoes; Loes is testing legumes and in particular cow peas. Jose has long-term experience in BD and Paolo previously worked in a French Camphill community. Hugo and Therese bring their talents, but there is much to do. So far there are nine large polytunnels and some flowforms have just been delivered.

The team are currently housed in rented homes in Idanha-a-Nova which means a lot of car journeys and only a limited number of cars, but the good thing is that the local community are becoming aware of the project and interested, as there is some lively interaction. In time, other accommodation will be developed.

I gave a two-day workshop with lots of team help in the local education centre. People came from far and near and several brought produce, some of which was unusual. Antonio, a former architect, was exploiting cactus (40 acres planned). The evolving products were bread, ice-cream, teas and many other items – very interesting! Another farmer was adding several acorn products to his wide spread of goods. The genial mayor came and stayed, and the lecture was filmed.

So it has been a real privilege to have a small involvement in their new project, which seems to have a sound financial and motivational basis (it is an estimated £5 million enterprise). Portugal is a country that has so much potential; it has known great wealth and empire but more recently its

fortunes have diminished. It borders both France and Spain, where many people go to find work, but it has very much its own culture.

Sementes Vivas will in time be able to use some more experienced volunteers and soon, more apprentices. There is a weekly group studying the Agriculture Lectures and there will be a conference there in October (20th and 21st) with speakers coming from Dornach. Sementes Vivas will have a stall at the next Biofach exhibition in Nuremberg. At the moment the preparations are being sourced from the UK but a preparation-making workshop is being planned around Michaelmas. There cannot be cows on this land according to its current designation, so certain elements will have to be imported until that changes.

During the time that I was there the group acquired another 370 acres of ancient olive grove, some trees being over 200 years old, bordering on the ancient and beautifully preserved Roman town of Idanha-a-Vela, and this on a long-term lease. Sheep will be then be part of the landscape, so there will be plenty to do for those with strength and experience. It is clear that a Waldorf School would be an important addition to this venture.

*Wendy is a cook and author of the well known *The Biodynamic Food and Cookbook*. She lives in Totnes, Devon.*

# Biodynamic Association

vital soil, vital food

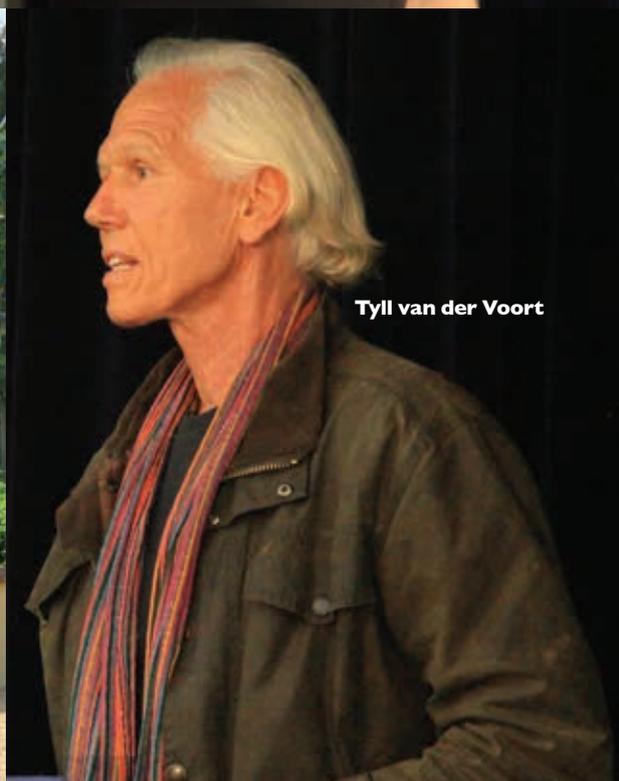
# Conference images 2016



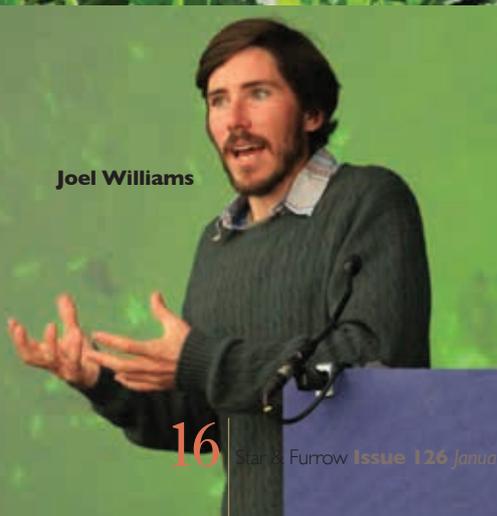
James Campbell



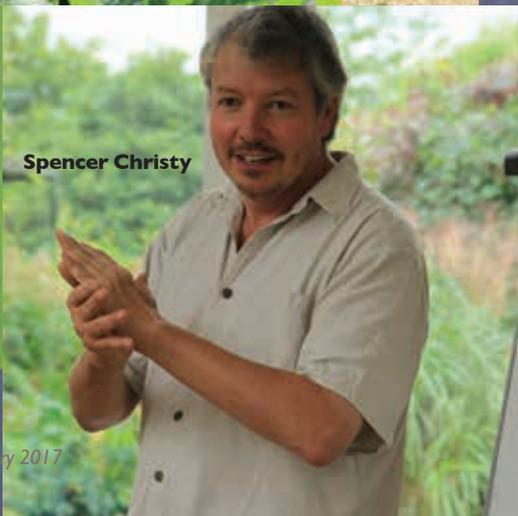
Sebastian Parsons in the Biodynamic Garden



Tyll van der Voort



Joel Williams



Spencer Christy



Kate Ayre

Panel: Charles Dowding, Ed Berger, Beatrice Krehl, David Price and Spencer Christy



Ute Kirchgaesser



Neil Munro



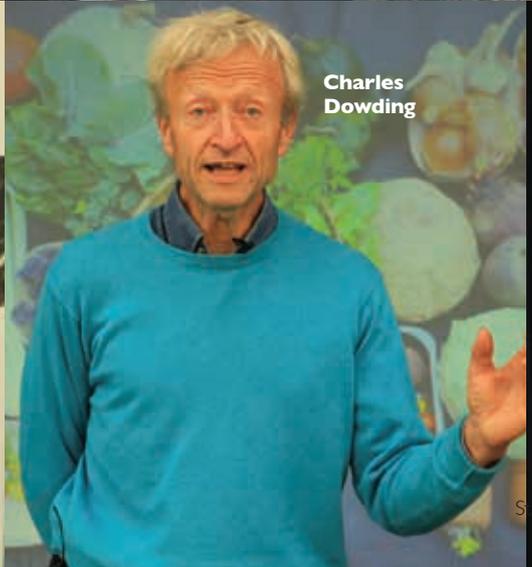
Liz Hosken



Sebastian Parsons



Charles Dowding



Robin Baxter



# Ruskin Mill Trust's new biodynamic training – *Growing the land, growing people*

by Aonghus Gordon – Founder and Chair of Trustees

FROM SEED TO TABLE



## CONTEXT AND VISION

Following the very successful 90th anniversary of Biodynamics in the UK, held at Glasshouse College in November 2014, the teams at Ruskin Mill Trust were involved in a number of exciting conversations regarding new initiatives concerning biodynamics. In particular, these focussed on how to engender the use of biodynamics in therapeutic development and what was it that got in the way of learning for young people who are socially excluded and challenged.

Importantly, a notable event had taken place at the conference. A Lifetime Award for biodynamics was presented to Tyll van der Voort who had spent his career in developing social and therapeutic inclusion in connection with biodynamic horticulture. Key to Tyll's success was the delivery of the highly productive biodynamic garden at Camphill Oaklands Park, in which social dignity and productivity lay at the heart of biodynamic motivation, bringing together the healing of land and the healing of people. Tyll went on, with colleagues, to pioneer the Severn Region Biodynamic training through collaboration with Camphill and with us here at Ruskin Mill Trust. From a spiritual architecture perspective, the Camphill impulse brought social warmth into the heart of biodynamic methods.

During the same period of pioneering development, Ruskin Mill Trust established opportunities for young people excluded from mainstream education to overcome their barriers to learning through a farming and gardening pathway, as well as in a wider aesthetic and cultural context. Importantly, Ruskin Mill Trust developed the use of the biography of place together with the biography of its students to generate a deep sense of belonging (see Figure 1 where this is reflected as Field 1 – Genius Loci).

The new Ruskin Mill Trust biodynamic training melds these two streams, with the aim of contributing to the next generation of leaders in biodynamic therapeutic methods.



**ruskinmill**  
re-imagining potential

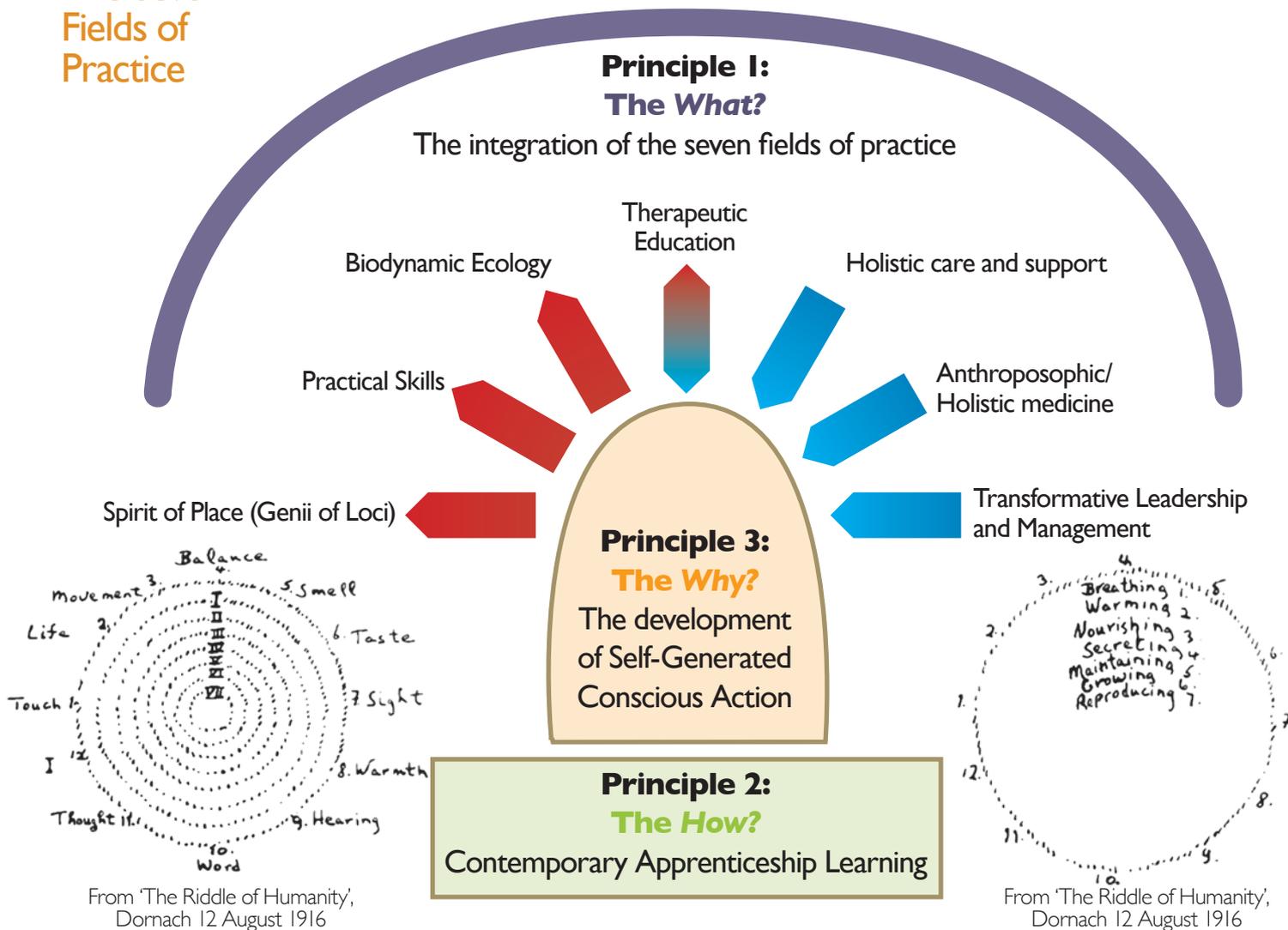
## GROWING THE RUSKIN MILL BIODYNAMIC TRAINING

Generating a new biodynamic course, however, is not straight-forward. Key to the successful design of the course was bringing together the right team, derived from experienced farmers, gardeners, teachers and senior practitioners, within the Trust – where Biodynamic Agriculture is embedded in enterprise, management and education. Peter van Vliet was appointed as Course Director, and was ably assisted by Dr Mandy Nelson who ensured quality assurance was at the heart of the programme development. The course was designed to be equivalent to 'Level 3'. They were joined by Berni Courts and Ed Berger Deputy Principals for Biodynamics at Ruskin Mill College and Glasshouse College respectively, together with Simon Reakes of the Field Centre and myself.

Led by Peter, we began the task of structuring the two year programme. The organising principle was drawn from Ruskin Mill Trust's educational method, Practical Skills Therapeutic Education (PSTE), in which each of the PSTE seven fields of practice (see Figure 1) are gently braided through the duration of the course. Through this, our intention is that something entirely new can be generated, in which therapeutic human development and biodynamics coheres. For this reason we have named the course: *Growing the land, growing people*.

Figure 1  
The Seven  
Fields of  
Practice

**The What? the How? and the Why?**  
in Practical Skills Therapeutic Education



**EXPERIENCE GAINED FROM WORKING AT RUSKIN MILL TRUST**

Over the past 20 years Ruskin Mill Trust's long-term investment and commitment to providing resources, energy and time to biodynamic agriculture and horticulture has provided a vibrant context for delivering special needs education. This has enabled powerful regenerative forces from biodynamic methods to contribute life-giving opportunities for our students. This is tangibly experienced by many who visit the Ruskin Mill Trust colleges and other centres, not only students and their parents and friends, but also the regulatory authorities. In relation to a recent Ofsted inspection at Freeman College in Sheffield (2016), the Ofsted inspectors said about the use of biodynamics:

*'Opportunities to engage in social enterprise are good ... Students working in the biodynamic garden develop excellent vocational skills as well as gain a very good understanding of the growing, cultivating and marketing process, and the importance of caring for the land in a sensitive and sustainable manner'* [FREEMAN COLLEGE, SHEFFIELD, OFSTED REPORT 2016 p5].

Further recognition for biodynamics in the Trust's vision can be found in an Ofsted inspection report for Ruskin Mill College from 2010. As the Ofsted Inspectors commented:

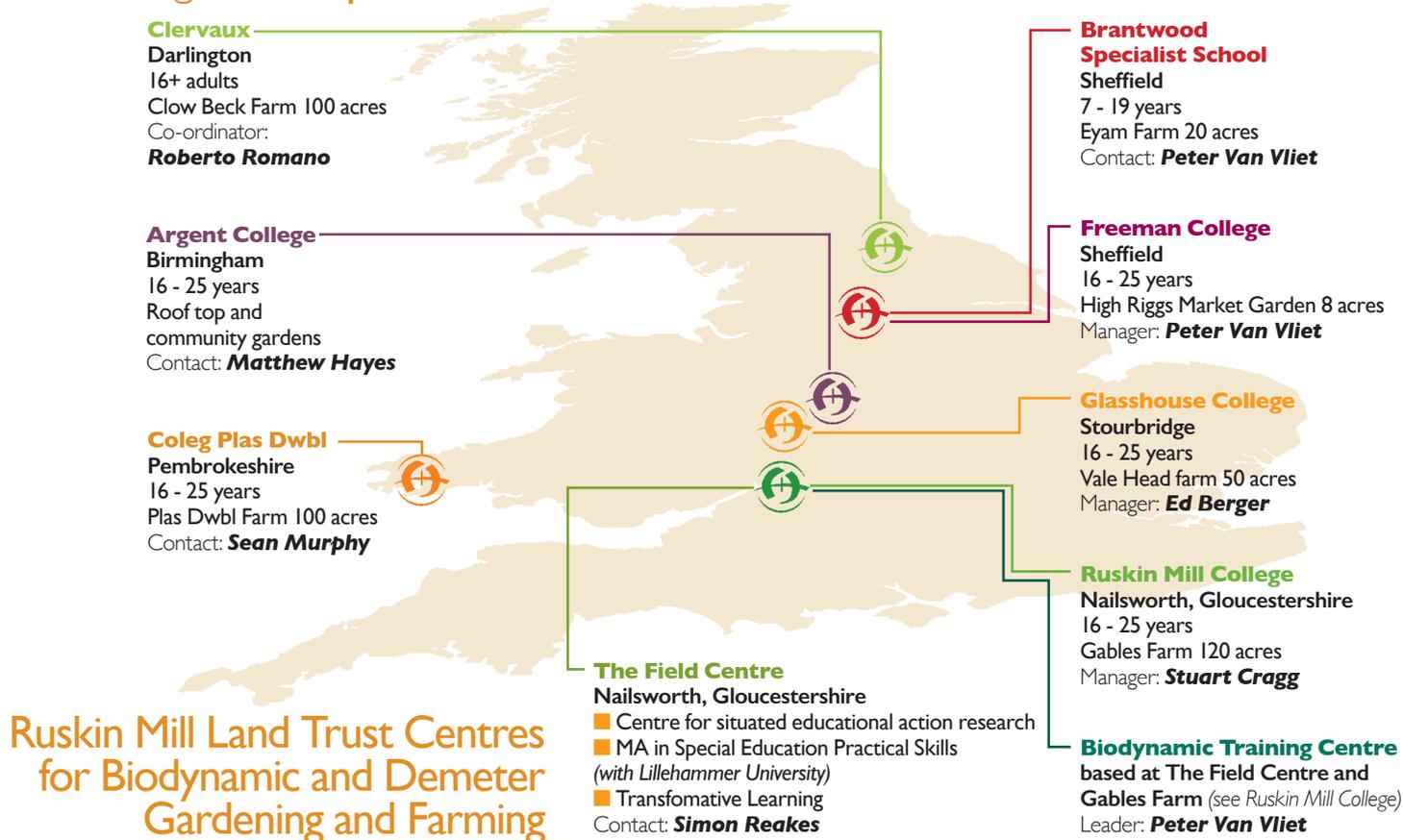
*'The primary course followed by all students is designed coherently around the principles of therapeutic education and of learning through crafts in a biodynamically managed landscape. Everything that happens has the students' educational progress and holistic development at its core. Around this, academic research underpinning the anthroposophical nature of the work, ecological sustainable practices, a relentless focus on training teachers to become professional practitioners ...'*

[Ruskin Mill, Nailsworth, Ofsted Report 2010 p8]

Within the Ruskin Mill method, Biodynamic Ecology (Field 3) acts as an organising principle for the renewal of relationships between earth and people, and it also invites students to develop authentic emotional relationships to animals. Ruskin Mill Trust's animal curriculum plays a significant role in respect of its concept of care. Care for animals, care for one another and care in relationships are performed and role modelled on our biodynamic farms and gardens by and for the students.

Many of the students at the Ruskin Mill colleges and centres find that the ability to engage with the land provides a more effective entry to learning than they have experienced before. We observe that where their initial interaction is with land, animals and materials, rather than with people, their deep humanitarian inclinations are nourished.

Figure 2 Map of the sites



## Ruskin Mill Land Trust Centres for Biodynamic and Demeter Gardening and Farming

Because of this, Biodynamic Ecology (Field 3) and Practical Skills (Field 2), regularly make up at least two thirds of the students' curriculum.

The new Ruskin Mill Trust biodynamic training gives voice to this insight and practice. It will take place in the biodynamic land holdings attached to each of the seven centres operated by the Trust. The Field Centre, by undertaking practice informed research, will ensure the currency, relevance and quality of the training, thereby delivering research informed practice.

### THE SPIRITUAL ARCHITECTURE THAT UNDERPINS THE RUSKIN MILL TRUST USE OF BIODYNAMICS

Key to the Trust's approach in harnessing biodynamic ecology are the pioneering ways in which we have developed what we call 'porous gateways'. These gateways help the students to access land work, which has often been seen as a challenging educational method.

We have often been asked: How does Ruskin Mill Trust really manage to deliver learning outcomes using biodynamics where the processes are not only practical but also ephemeral? My answer is this: Based on my observation, within the heart of every young person is a seed of goodwill – it is our job to find it. We are successful in finding that seed when we work with the interaction of care and empathetic relationships through biodynamic activity. This is where the biodynamic method is so valuable, because embedded within it is what we might call a 'deified knowledge' that the Earth is a living, dynamic entity that requires and rewards care and empathy. With the Greeks this was manifested in the cults of the goddesses Demeter and Natura. At Ruskin Mill Trust we find this when we strive to identify aspects of the Genius Loci, the Spirit of Place, of each of our centres. For example, during our audit of the Genius Loci of Ruskin Mill Col-

lege in Gloucestershire, we uncovered Kuda, the goddess of nature and craft and also also of fertility and prosperity, for the ancient Dobunni tribe. The Dobunni were a Celtic tribe living in Britain prior to the Roman invasion with settlements in the Minchinhampton area, 2 miles from Ruskin Mill College.

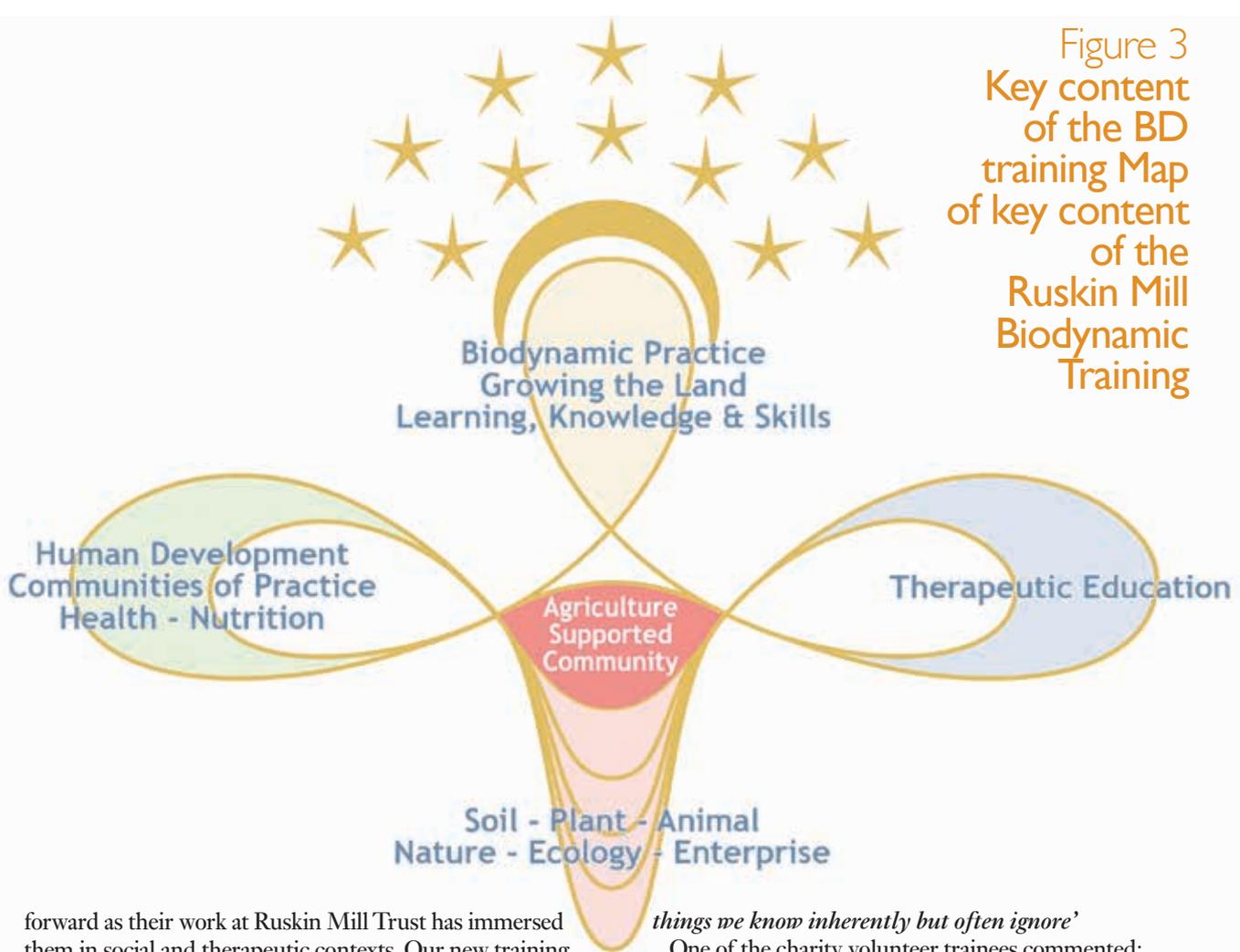
The continuum of a divine feminine sense for care of the land and people is implicit in biodynamic spiritual architecture. This spiritual architecture requires the will of the practitioner to be, in part, subject to a divine intention. An example of this is the use of the biodynamic calendar that is carefully followed in each of the Ruskin Mill Trust biodynamic farms. Rudolf Steiner presented this beautifully in the Agriculture Course, Chapter 6, where he speaks of the will of the farmer or gardener bringing a cosmological request to perform new rituals in location and cosmic time. The practice resulting from this request has, for over 20 years, provided inspiration for Ruskin Mill Trust, and it stands behind the use of our strapline 'Universe, earth and people'.

Our observation is that when the young people at our colleges are presented with the opportunity to care for and nourish the land and the animals living on it, this opens in them a new self-awareness and a new sense of their own capability for learning. Our research centre, the Field Centre, continues to investigate this and thus inform the practice of our staff and volunteers.

### DEVELOPING THE TRAINING FOR A WIDER AUDIENCE

Over the years, Ruskin Mill Trust has benefited from the involvement of many of its farmers and gardeners in Biodynamic training set established many years ago by Tyll. This has been both as contributors and as students who have graduated from the course. They have taken the work

Figure 3  
Key content  
of the BD  
training Map  
of key content  
of the  
Ruskin Mill  
Biodynamic  
Training



forward as their work at Ruskin Mill Trust has immersed them in social and therapeutic contexts. Our new training initiative seeks to build on this foundation to ensure that the skills, knowledge and understanding that they have gained can now be breathed and lived within Ruskin Mill Trust's seven centres, both by the practitioners on the farms and gardens but also by the leaders and senior managers of each of the seven centres. In addition, our intention, reflecting one of our charitable objectives which relates to promoting Rudolf Steiner's insights, is to make sure that these skills are shared more widely and are made available to a public audience.

As a result, the new Ruskin Mill Biodynamic training, Growing the land, growing people, was launched in October this year having been, we are delighted to say, endorsed by the Biodynamic Board of Studies. The initial cohort of 18 participants includes staff and leaders drawn from the Ruskin Mill Trust centres, a group of teachers and staff from the new Steiner Academies that have emerged recently in the south-west of England and a number of charity volunteers. The charity volunteers are following a two year route that includes a full-time commitment to biodynamic practice on one of the Ruskin Mill Trust farms or gardens. In turn, they receive board and lodging and course fees at no cost.

### REFLECTIONS FROM PARTICIPANTS

Peter reports that a number of the participants who have recently started the course have expressed high levels of appreciation for their recent four day block on plants, which took place in October 2016 at Glasshouse College and Vale Head Farm.

A school outdoor classroom teacher said:

*'Many thanks for all the work you have put into a wonderful course. I have been to three horticultural courses my life this the most fun and interesting and you bring up*

*things we know inherently but often ignore'*

One of the charity volunteer trainees commented:  
*'Fascinating to see the plants at different stages of growth. I never realised a carrot was so interesting!'*

### SOME OF THE HIGHLIGHTS TO COME IN 2017

In the January weekend course the participants will journey with Aonghus Gordon and Berni Courts to discover and engage with the principles and practice of the Ruskin Mill Trust method, PSTE, in particular in its relation to biodynamic activity.

At the end of March Joke Bloksma will join us from Holland. Her topic is 'The farm as a kind of individuality', and she will engage with the question: Can the nature of the human being help us to recognise the farm as an individuality?

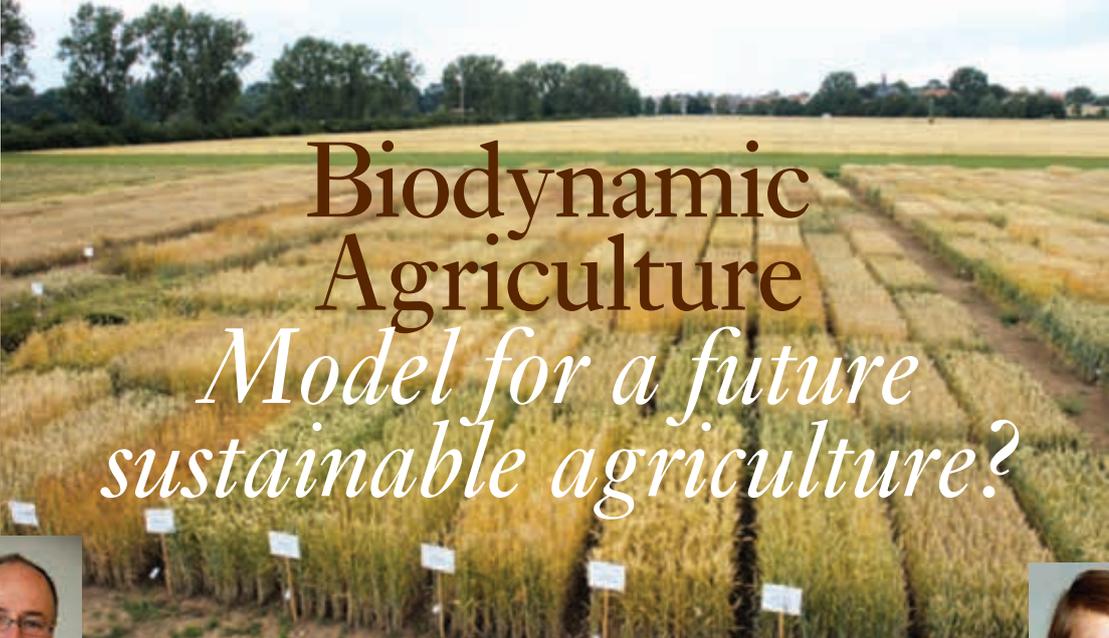
In May we will look at the weather with Aonghus Gordon and Ed Berger. They will provide an introduction to basic meteorological concepts and a phenomenological approach to weather observation.

### A NEW INTAKE IN JANUARY 2017

A new intake to the course for January is currently being advertised and launched. If you are interested in applying for entry in either January or September 2017, please get in touch with Simon Reakes ([simon.reakes@thefieldcentre.org.uk](mailto:simon.reakes@thefieldcentre.org.uk)) at the Field Centre who will provide information about the course content and about opportunities for charity volunteers. There will also be an opportunity for members of the public who are local to our farms and gardens to join in specific modules or weekend activities.

For more details see:

<http://biodynamictraining.org>



# Biodynamic Agriculture

## *Model for a future sustainable agriculture?*



**Prof. Dr. Urs Niggli**, director of the Research Institute for Organic Agriculture (FiBL), Ackerstrasse 113, 5070 Frick, Switzerland, [www.fibl.org](http://www.fibl.org);

Honorary professor at the Witzenhausen campus of the University of Kassel, **Malgorzata Conder** is a scientist in FiBL (CH)



**Biodynamic agriculture was born in 1924 when Rudolf Steiner gave his eight lectures introducing a new approach to agriculture on the Koberwitz estate near Breslau. Founded on the core values of anthroposophy, it places the human being with his perceptive and cognitive capacities at the centre thereby enabling the development of a moral and aesthetic approach.**

Demeter has a global reach today both as an organisation and as a brand. Around 8,000 farmers are using biodynamic techniques to manage a total area of 160,000 ha across the world (Demeter 2016) – this is somewhat less than 0.5% of the total area under organic management. Despite its 90 year history very little notice is taken of biodynamic agriculture in scientific circles. This may be explained on the one hand by the subjectivity attributed to an anthroposophical approach in which each action is considered on an individual basis unlike the objective / factual approach of natural science. On the other hand the comparative scientific studies that do exist give inconsistent results and frequently show no significant differences particularly when compared with organic methods.

The procedures for rhythmic potentiation developed by Lily Kolisko, played a significant role in giving biodynamic agriculture a scientific foundation. In 1923 she developed the 'Steigbild' method and studied how formative forces are influenced by cosmic constellations. She later published 'Agriculture of Tomorrow' together with her husband Eugen Kolisko which was then translated into German in 1953. Despite her tireless efforts in researching the effects of the preparations on plants and animals, the figure of Lily Kolisko is a tragic one since her life's work has never been recognised and remains controversial to this day (Anthrowiki 2016).

In 1962, Kuhn occupied himself with the question as to how a paradigm shift occurs in science (Kuhn 1970). Science generally holds to the conviction that an anomaly will eventually be explained using established thought structures. A few scientists however take up such unexplained anomalies,

ask different questions and seek to explain them using another scientific hypothesis. Dedicated journals, scientific societies and eventually training possibilities begin to emerge allowing new and viable paradigms to develop. Discussions between the 'old' and 'new' paradigms are generally unsatisfactory since there is no common basis on which to make a comparison. Books are written about the new paradigms, the new ideas gain in popularity, interest grows among scientists and the scientific evidence increases. Eventually the new paradigm is accepted and replaces the old one. Wynen took the theory of Kuhn and applied it to organic agriculture and discovered remarkable parallels (Wynen 1996).

While much of what is described as organic agriculture is already part of ordinary science, the integration of biodynamic agriculture is only just beginning. Several important elements of the new paradigm have nonetheless entered the scientific world. These are what this article will address.

### HOW SUSTAINABLE IS BIODYNAMIC AGRICULTURE ?

Numerous individual studies and wide ranging analyses confirm the ecological benefits of organic agriculture (Stolze et al. 2000, Mäder et al. 2002, Hole et al. 2003, Gattinger et al. 2012; Niggli 2014, Skinner et al. 2014; Tuck et al., 2014). The social and economic benefits are only partially confirmed (Niggli et al. 2008). The economic viability of organic agriculture in Europe is strongly influenced by the support given to it by the state. In the many studies focusing on the ecological, social and economic viability of organic agriculture (according to Stolze et al. more than 400 studies had been carried out by 2000 and probably twice as many today), virtually no distinction is made between organic and biodynamic farms because the latter are so few in number.

The studies specifically addressing the sustainability of biodynamic agriculture include for example the following:

■ Mäder et al. (2002) pointed out the exceptionally good input-output balance achieved in the organic farming section of the long term DOK trials but the biodynamic was

indistinguishable from the organic section. In comparison to the integrated agriculture section, organic yields over 21 years averaged 83% while requiring 96% less pest control inputs. NPK applications were between 30 and 64.

■ Turinek et al. (2009) summarised the results of 30 referenced publications in the following way: The biodynamic preparations have an effect on soil quality, biodiversity, efficiency of energy use and landscape quality.

■ Carpenter-Boggs et al. (1999) found little difference in terms of soil biology between biodynamic and organic management. The application of preparations however resulted in measurable but short term changes in the mineralisation of carbon and in the arrangement of fatty acids among micro-organisms.

■ Zaller und Köpke (2003) were able to show that composted cow manure treated with the biodynamic preparations speeds up the breakdown of organic materials in the soil and increases the population of earthworms.

■ Mäder et al. (2002) was able to demonstrate that a number of biological and chemical characteristics in organic and biodynamic soils were significantly different from one another.

■ Fliessbach et al. (2007) demonstrated that the highest soil biomass values were to be found in the biodynamic plots of the DOK trials (21 year trials). There was also greater correlation between biomass and soil aggregate stability on the biodynamic plots.

■ Various authors including Berner et al. (2008), Krauss et al. (2010) and Gadermaier et al. (2011) demonstrated in relation to ploughing, how reduced soil cultivation affects soil humus content, the number and weight of earthworms and soil microbial activity and hides the effect of the biodynamic preparations.

■ Forster et al. (2013) showed how in tropical India similar yields of cotton were produced on organic, biodynamic and conventional crops. The effect on soil fertility is due to be published shortly.

### **WHAT CONTRIBUTION HAS THE BIODYNAMIC IMPULSE MADE TOWARDS ORGANIC RESEARCH AND AGRICULTURAL SCIENCE?**

The influence of biodynamic agriculture can be traced in the development of organic research. An holistic concept existed in germinal form in the organic approaches developed in Europe by Müller and Rusch, Balfour and Howard and by Boucher and Lemaire. Howard spoke of the “rapidly growing evidence that showed how a fertile soil results in healthy plants, healthy animals and ultimately in healthy humans” (Howard 1943). It was however the idea of a farm being an organism which extended the holistic principle to include its socio-economic and landscape dimensions. The concept of the farm organism presents a challenge to a proof-reliant and objective science. Nikolai Fuchs summarised it in the following way: “The results often reflect the whole system and this makes it difficult to determine in a precise way the specific causal aspects they relate to. Simple cause and effect relationships do not exist in the living world and this increases the likelihood of it being seen as unscientific. This says more however about the accepted concept of science than the matter being investigated” (Fuchs 2006).

An important foundation stone of biodynamic culture is the observation of nature’s kingdoms (animals, plants etc.), careful reflection and a genuine willingness to adopt and work with the ways of nature. Biodynamic agriculture has influenced the ethical and cultural development of organic agriculture in a strong and positive way though not in terms of its science. While for example the research leading to species appropriate livestock management in organic agriculture had its origins in the study of how wild animals behave in their natural habitat and then applied it to the various management systems used for domestic animals, the biodynamic approach was built on the relationship that develops between human beings and animals. This led to a completely different range of questions being asked such as for instance how best to reduce animal stress (Probst 2014).

In the breeding of dairy cows – which have a special place on biodynamic farms because some of their organs are used for making biodynamic preparations – great importance is attached to achieving longevity, robust health, efficient roughage conversion and an ability to adapt rapidly to changes in environmental or management conditions (e.g. variation in feed quality). In this field the influence of biodynamic agriculture can also be detected. Biodynamic agriculture has been strongly involved in discussions about the de-horning of cows and the ethical questions it raises regarding animal dignity. This has led the FiBL organic research centre to make recommendations regarding the accommodation of horned cows (FiBL 2016). Careful observation of animal behaviour with the help of such hi-tech instruments as ‘Rumiwatch’ (Zehnder et al. 2012) to collect data on the ruminating, drinking and eating activity of cows as well as the effect of movement on their health, has enabled breeders to select for an improvement in roughage conversion.

Alongside its work with livestock, there has been a long involvement of biodynamic agriculture in plant breeding. An independent source of seeds should guarantee the adaptability of varieties to specific site condition and to biodynamic cultivation methods (Hurter 2014). The principle of farmer participation as it has been developed by ICRISAT underpins biodynamic plant breeding (Ceccarelli 2012).

Numerous developments in the field of food quality have also been inspired by biodynamic research. Picture forming methods have broadened the concept of quality beyond that of analysis. Concepts such as ‘vital quality’ (Balzer-Graf 2016) were completely new twenty five years ago. Not only have many more results been published in the mean time, it has also been possible to correlate the results of picture forming methods with those of analysis (Weibel et al. 2014). The evaluation of the pictures – which demands a lot of individual experience – can now be improved upon by using an automated digital assessment system (Kahl et al. 2014).

The success of a biodynamic farm is dependent on placing the human being and not technology in the centre. Confirmation of this approach is coming from various pieces of research. Small-scale farmers for example produce the vast majority of our food – 84% of the farmers in Brazil manage 24% of the land (GRAIN 2014). In Kenya agricultural yields would double if the total agricultural land was managed by small farmers (GRAIN 2014). Many case studies have also shown that subsistence farmers in sub-Saharan Africa could with the help of organic practices, achieve a

100% increase in yields (Hine et al. 2008). The challenge now is to defend the land rights of small scale farmers and encourage greater cooperation. Unfortunately the trend is in exactly the opposite direction. While the areas under production continue to increase, small farmers are forced to make do with ever smaller areas (generally under 2ha) causing a steady descent into poverty (GRAIN 2014).

## WHAT CAN BIODYNAMIC AGRICULTURE CONTRIBUTE TOWARDS THE FUTURE OF AGRICULTURE AND FOOD?

The World Agriculture Report of 2008 clearly showed that an organic, regionally focused, multi-functional and experience-based agriculture is best placed for meeting the challenges of the future. (IAASTD 2008). It requires a new approach to agricultural research including the need to secure the full range of ecosystem resources. Small-scale farmers and especially women have a crucial role to play in reducing poverty and ensuring food security. New eco-

omic structures to support agriculture like CSAs or urban community initiatives can significantly help to achieve food security. As the various examples given in my contribution demonstrate, organic agriculture possesses all the attributes essential for the future.

This article has been taken from a new publication „Biologisch-dynamisch. 90 Jahre Impulse für eine Landwirtschaft der Zukunft. Agriculture Conference 2014, published in Bonn. (Hg.) Forschungsring e.V., Verlag Lebendige Erde, Darmstadt 2016, 184 S., 18,00 Euro, ISBN 978-3-941-232-13-6

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The DOK trial research plots

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# The biodynamic preparations in context: Individual approaches to preparation work – *Case studies of worldwide practice*

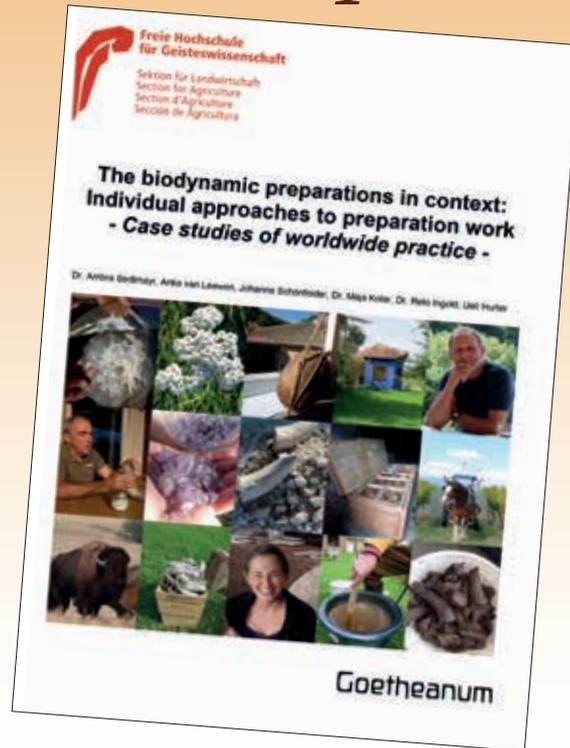
By Dr. Ambra Sedlmayr

## CURRENT QUESTIONS AROUND PREPARATION WORK

The biodynamic preparations are a specialty of biodynamic agriculture. They challenge our intellectual mind since material cause-effect thinking is at a loss to explain the workings of the preparations. The preparations challenge us to develop living thinking. Currently, for most of us the preparations can be grasped more easily with our will and with our feelings than through the mind. In the realm of the will, we do the preparation work and we associate it perhaps to our strongest and deepest intentions of bringing about a harmonious relationship between man, nature and the spiritual world. In the feeling realm, preparation work receives its significance for us through the personal relationship we develop with the preparations and with preparation work. This feeling understanding is not easy to convey. There is a tension between considering ones' own approach as the only valid one and a feeling of insecurity towards disclosing own feelings and questions concerning the mysterious and unintelligible work with the preparations.

Since preparation work has become part of the requirements outlined by the Demeter standards, preparation work on farms started to be inspected for certification purposes. Soon the question arose: when is a biodynamic preparation conforming to Demeter standards and when not? Some certifiers would like to see a clear definition of how work with the preparations should be conducted. This could lead to exact prescriptions. These would become like a straightjacket, limiting the scope of experimental work with the preparations on Demeter certified farms. These are, however, the centres for innovation and development of preparation work.

Can we as a movement find a new social approach to handling the questions that arise out of our engagement with the preparations? Can we find an approach to sharing our own practice and understanding openly, neither feeling we have to have the final answers nor feeling awkward about our insecurities and unresolved questions? Can we be tolerant towards the path each individual takes with regards to preparation practice? Can we create a culture of sharing and exchange that will become the foundation for a new form of quality assurance, that arises from each individual's active learning and caring for the preparations?



## A RESEARCH PROJECT WITH SOCIAL AND SCIENTIFIC AIMS

With the aim of steering the biodynamic movement in the direction of becoming a research community on the preparations, as outlined above, the Section for Agriculture at the Goetheanum carried out an international research project, with both scientific and social aims. Fourteen case studies of preparation makers worldwide were undertaken. The case studies were selected to include the biggest diversity of geographic, climatic and social conditions in which preparation work has been well established. Each case study describes both the personal path and approach to the biodynamic preparations and the details of current preparation practice. In this way, the personal approach and practical work can be seen in context and as a coherent whole. The diversity of practices that have been developed out of the recommendations made by Steiner are for the first time made visible side by side, in a comparable way. The unit of which preparations are a part of and in which they take effect is taken into focus, rather than the effect of preparations in isolated and controlled conditions.

## A TASTER OF THE RESULTS: varying viewpoints and environments produce a diversity of preparation practices around the world

The study shows that preparation makers seek ways to deepen their understanding of the preparations so that they can become ever more able to make valid judgements in their preparation work. A number of methods for learning about the preparations have been identified, such as goetheanistic observation, meditation, formative forces research, and living with questions. It was said that the biodynamic preparations take a farmer on a journey of discovery beyond the material realm, and thereby spur his or her personal development. This is relevant for farming; as farmers deepen their understanding of the workings of nature due to the questions posed by the preparations, they become ever better farmers.

Preparation work is very often conducted by a group of farmers. The 'preparation groups' provide a space for beginners to learn about preparation work and for the more advanced to share experiences and questions. The group also provides a social buffer, since it normalises preparation work. At the Truttenhausen farm in Alsace for example, some 40-50 people can be found stuffing cow's horns just alongside a public footpath, meeting an open interest from bypassers, rather than the suspicion an individual doing this work by himself often feels exposed to. Working in a group allows for the sharing of the many tasks associated with the production of the preparations. It often is a challenge for each individual to find their place within the group. One needs to find a balance between giving up responsibility and taking on all responsibility on oneself. Preparation groups require more attention to the social side of preparation work than professional preparation makers or farmers who work on their own. The study shows that each social form of preparation making (group, farmer, business) pose different challenges and opportunities with regards to the three core dimensions that come to play in preparation work: the side of social development, of practical diligence and of inner, esoteric work. An important question in deciding for any social form or focus is the understanding of what preparation quality is. Different preparation makers emphasise the importance of different phases for achieving high-quality preparations. Carlo Noro, who runs a preparation making business in Italy, for example, places a great deal of care into obtaining ingredients of the highest possible quality, considering the ingredients to be key for ensuring high-quality preparations. The group of Zeeland in the Netherlands, focuses on finding locations to bury the assembled organs that correspond to the indications of the Agriculture course and that have a similarity to the qualities of each of the preparations. Andreas Würsch of Switzerland, on his turn, invests most care in the storage phase and aims at transforming the preparations into colloidal 'flawless organisms' while in store.

Within the cases studied, the intention of making preparations according to Steiner's indications is prevalent. Steiner's indications, however, point towards living principles. His recommendations, therefore, can scarcely be followed like mere recipes, but need to come alive in each preparation maker. Through engagement with the preparations, they can be made an individual's own impulse and created anew in each place. The diversity of preparation practice found in the case studies reveals this re-creation out of local environmental conditions, social situations, and personal priorities. Some practices have been recorded that seem outlandish at first, but they receive their meaning and purpose from the wider inner and outer context in which they have developed. This is the case, for example, of a small-scale self-sufficient farm in Sweden where preparations are made with sheep manure and organs.

It was possible to find valid viewpoints even on completely opposite approaches to preparation practice. A clear example of this is the question of finding substitution plants and organs for producing the preparations. Andrea D'Angelo of Brazil explained her understanding that the plant world has a universal character. This means that the European preparation plants can be used all over the world. Devon Strong from California, in turn, said that local plants and animals have a different relationship to the land and to the elemental beings of a place than imported materials. Hence, he defended the use of local ingredients for producing the preparations. Especially the use of buffalo manure and organs seemed important to him for North America.

An important aim of the Section for Agriculture for conducting this study is to promote farmer's engagement with the biodynamic preparations in a way that furthers and strengthens their inner personal relationship with the preparations. A deepening of the relationship and understanding of the preparations is possible when one stays true to oneself with regards to one's questions and insecurities while being open to receive new fructifying impulses from experiences, observations and the exchange with colleagues.

The full scientific report is available at [www.sektion-landwirtschaft.org](http://www.sektion-landwirtschaft.org) for download.

### Map of case study locations





# Biodynamics at the Plant Consciousness Conference 2016

By Jonathan Code

**The notion of Plant Consciousness, and that we humans can communicate with plants, is a proposal that cannot fail to stimulate a wide range of responses. What is meant by plant consciousness? What form might communication with plants take?'**

These questions (and many more) came squarely to the fore for me as I set out to prepare a presentation for the Plant Consciousness conference, held in Regent's University, Regent's Park London on the 1st and 2nd of October 2016<sup>2</sup>.

I was invited to be a keynote speaker at the conference, and I offered to give a talk on yarrow (*Achillea millefolium*) and its use in the biodynamic compost preparations. This offer fostered – for many months prior to the event – a heightened engagement with both yarrow and the life processes of stags.

For biodynamic practitioners, choosing yarrow, a stag's bladder and the rhythms whereby the prep is first hung in the light and air for the summer and is then buried through the winter will, likely, be accepted as part and parcel of BD practice. This acceptance cannot be assumed, however, in audiences unfamiliar with biodynamic methods, and the audience in question represented a vast diversity of perspectives, including ethnobotany, medical herbalism, shamanism, agroecology, and intuitive herbalism. How to bring biodynamics across to such a diverse audience?

A question that has been living in me for many years is the following: what way(s) of knowing stand behind the choice of plant and animal organs that make up the preps... and can these be made transparent for others? Another way to come at this conundrum would be to ask: through what types of communication do the very specific linkages between particular plants and specific animal organs arise? Are these widely accessible or are we limited to accepting them as received (in the form of secondary communications) by (and from) Rudolf Steiner?

I think there are many ways of meeting and developing a relationship to plants. Whereas present at the conference were followers of shamanic practices, proponents of intuitive methods and many other ways of deepening our connection to plants, I shared aspects of the theory and practice of phenomenology, plant alchemy, aromatherapy and imaginative ways of knowing which I have been studying for many years. From these perspectives it is interesting

to note that the essential oil of a plant was known, in the pre-Enlightenment period, as “the seat of the soul of the plant”. When distilling and using yarrow oil we are, from this perspective, in an intimate communion with the plant – we meet ‘soul-to-soul’. Yarrow’s essence is remarkable. It ranges from deep blue to pale yellow, it is described as ‘sharp, woody, herbaceous’ but you really have to sense it yourself to come close to its complexity. Yarrow, in essence, communicates through its very unique ‘scent portrait’ which embodies (or rather en-souls) the plant’s ‘biography’ – where it grew, what type of season it was (wet, dry), what nuances it picked up from the soil etc. – the plant communicates through its scent.

Accompanying yarrow as it grows – through imaginative participation with its unfolding – adds a further dimension to the potential for a communication to arise between plant and prep maker. In time the unique way in which yarrow creates and crowns a ‘spiritual ladder’ (Goethe) links it to practices of divination (the I Ching), to considerations of physiology, to chemistry and to alchemy. Yarrow reveals in its morphological life gesture the unique ability to bridge the polarities of light/dark, warm/cool, drying/staunching that are also encountered in its essential oil and in the qualities and effects of taking an infusion made from the plants’ leaves and flowers.

Communication with Yarrow, in the way I am describing it, is not how everyone who attended the conference would frame the nature of their encounters or dialogues with plants, but these are some of the ‘doorways’ that presented themselves to me as I set out to deepen my understanding of one member of our vast plant community. Communication is, after all, a very complex phenomena and not well understood even when it is between humans!

Readers interested in the talks given at the Plant Consciousness conference 2016 can find them here: <https://www.wisdomhub.tv/teachings>

*Jonathan Code is an educator, researcher, gardener and author. He works with Crossfields Institute International and is co-lead on the postgraduate course Researching Holistic Approaches to Agroecology. Jonathan's book Muck and Mind: Encountering Biodynamic Agriculture is published by Lindisfarne/Floris Books.*

<sup>1</sup> A number of recent articles have taken up this theme and are well worth reading. Although we may not always agree with how the notion of ‘consciousness’ is being used (and, for that matter, how other terms relating to human consciousness are used in the context of the plant world) these articles are raising significant questions about the nature of plant life that goes beyond a purely reductionist, mechanistic (or bio-mechanistic) approach. See for instance; *The Intelligent Plant* article in the New Yorker (<http://www.newyorker.com/magazine/2013/12/23/the-intelligent-plant>), The National Geographic article *There Is Such a Thing as Plant Intelligence* – (<http://news.nationalgeographic.com/2016/02/160221-plant-science-botany-evolution-mabey-ngbooktalk/>) and the Guardian article *Are Plants Intelligent?* (<https://www.theguardian.com/environment/radical-conservation/2015/aug/04/plants-intelligent-sentient-book-brilliant-green-internet>)

<sup>2</sup> see <http://www.plantconsciousness.com/> for more information. see <https://www.wisdomhub.tv/teachings> for recordings of the key note talks from PC 2016

# Biodynamics – dynamic organic

## Improving the vitality of land, food and people

### Fostering

and promoting biodynamic farming and gardening

**Biodynamic Association**

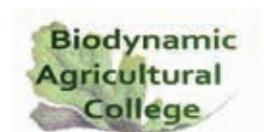
### Assuring

the quality of biodynamic and organic food



### Providing

biodynamic education at home and abroad



The Seed Cooperative present their campaign to supply growers with a secure source of UK grown open pollinated seeds in a debate on the economic drivers behind seeds.

People are not aware that there are only five corporations worldwide, selling 75% of the world's seeds. Many of the seeds sold do not breed "true to type" making the growers dependent on buying more seed every year.

The Seed Cooperative provides a model for a community owned seed company producing seed free of patents and copyrights with genetic material that belongs to everyone and no one.

**The Seed Cooperative is based at Gosberton in Lincolnshire and is selling shares to secure its property and long term future.**

Exhibiting at the Oxford Real Food Festival

# Organics

## Food and society by:

### Securing

land for a living  
working countryside



The Biodynamic Land Trust  
stewarding farmland for a living, working countryside

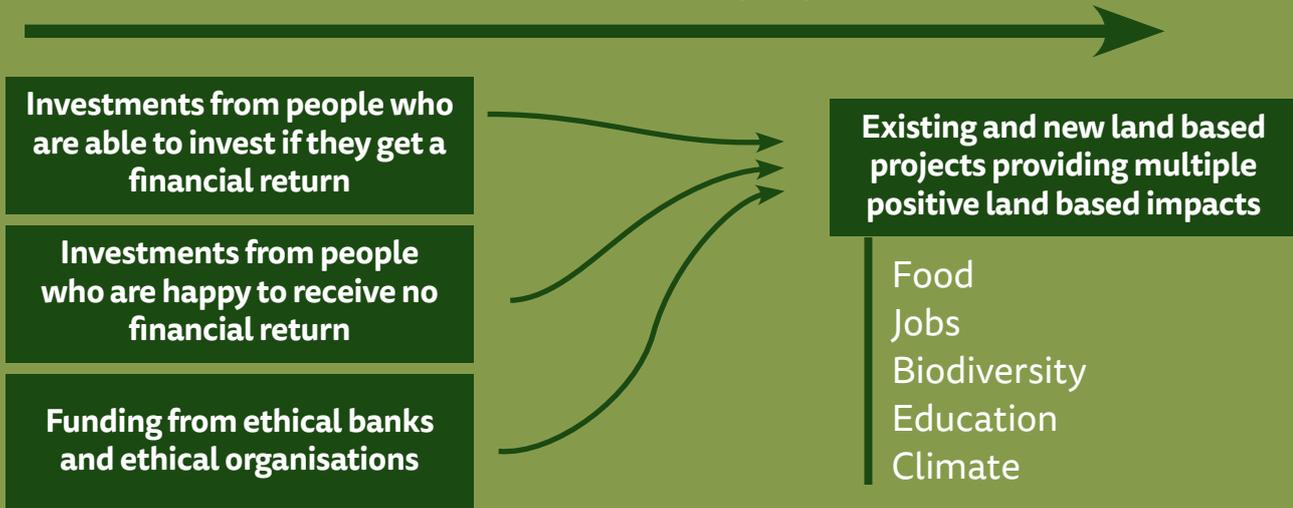
### Growing

The UK's community  
owned seed company



The Biodynamic Land Trust present their flow investment plan  
for building a Community Farm for every Community

The flow of investment — changing the world



The Biodynamic Land Trust manages multiple financing projects to gather investment that flows from one project to another to rapidly resource and facilitate land based change.

# The Biodynamic Movement

farming conference, January 4-5, 2016



## Joining together to create a world we want to live in

*By Gabriel Kaye*

**The Biodynamic Land Trust is building on the success of its first few years to pioneer new ways of working with sustainable land ownership and community funding for agro-ecological community projects and to create a buzz about land for local healthy food all around the country.**

The Land Trust now has enough land acquisition experience to indicate that such community projects are possible and replicable. The Trust has farm ownership models that are suitable for the present and the future. We have been able to work together with local communities to build farms, one by one, using the learning from one to benefit the next.

Such farms can enliven communities, provide healthy local food, a space for children to experience nature and the growing of food. They provide space for wellbeing, as well as creating more rural employment and enterprise. There is nothing as health-giving and satisfying as working in a garden or on a farm with other people.

The development of land bought by the Biodynamic Land Trust for the benefit of the community can take many different paths. It can be from the very simple, as in Brambletye Fields where Tablehurst has been delighted just to be able to continue farming it, to more complex where a whole farm infrastructure needs to be built, involving a whole 'Land Use Plan' and tenant group to be brought together and supported into being.

At Huxhams Cross Farm, Dartington, as a result of the work of the Apricot team, under the skilled direction of Marina O'Connell, the land is beginning to grow green and is turning bit by bit to its new destiny with green manures, orchard trees and soft fruit growing, while beautiful white chickens and a couple of young Shetland heifers grace the fields. Building a farm takes a lot of work, which has been achieved thanks to the dedicated local volunteers getting dug in.

Supporting the development, building, and hours of hard work and goodwill, requires money. A share offer was launched last autumn to raise the funds to obtain expertise, services, build specialised buildings and pay off a short-term loan on the land. The community responded in a very timely fashion with funds that enabled the opening up of access onto the Rattery Road and the creation of a small parking area and hard standing for the barn. Then, just in time, the funds came in to build the barn too. Meanwhile the Apricot Centre team has been fundraising for more apple trees, poly tunnels and equipment.

This is such an exciting project, the local biodynamic group are finding it enthusing and energising to help, as a group, with things such as the application of the biodynamic preparations. A number of them are supplying produce for the Huxhams Cross Farm weekly boxes of locally grown vegetables and the farm's own eggs that are now available to people in the area.

Get involved, donate or invest now to make a difference...

The Land Trust currently has two big funding challenges for Huxhams Cross Farm that you can support:

■ The first is to complete the funding of the land; we are looking to raise £50,000 as quickly as possible to pay off short term loans on the land. Please invest more, or for the first time, so that the land is fully ours!

■ The second challenge is to raise the funds to get electricity and water on site and design and build the processing, training and wellbeing centre so that it looks good, meets the needs and comes in on a tight budget (£65,000 needed).

■ At the Apricot Centre in Essex, Marina experienced the importance of having a centre like this for children, school groups, farm trainees and many others to come together for 'farm to fork' activities, storytelling, wellbeing sessions, professional training, and to do the more technical on-farm processing of juices, jams etc. This is a much needed resource for Huxhams Cross Farm and community.

We are appealing to the community and general public to raise and maintain the enthusiasm and support for this project so that the farm's development can be completed. You can help through PAYE donation schemes, regular gifting, one-off donations or investing in withdrawable shares.

Join in making this happen for Huxhams Cross Farm now, and others to come in the future. Be a part of the change! However much fear and hatred seem to be present in the world at this time of upheaval, there is a call sounding out for more cooperation, more working together, more standing up for the world we want to live in; initiated by us, for us.

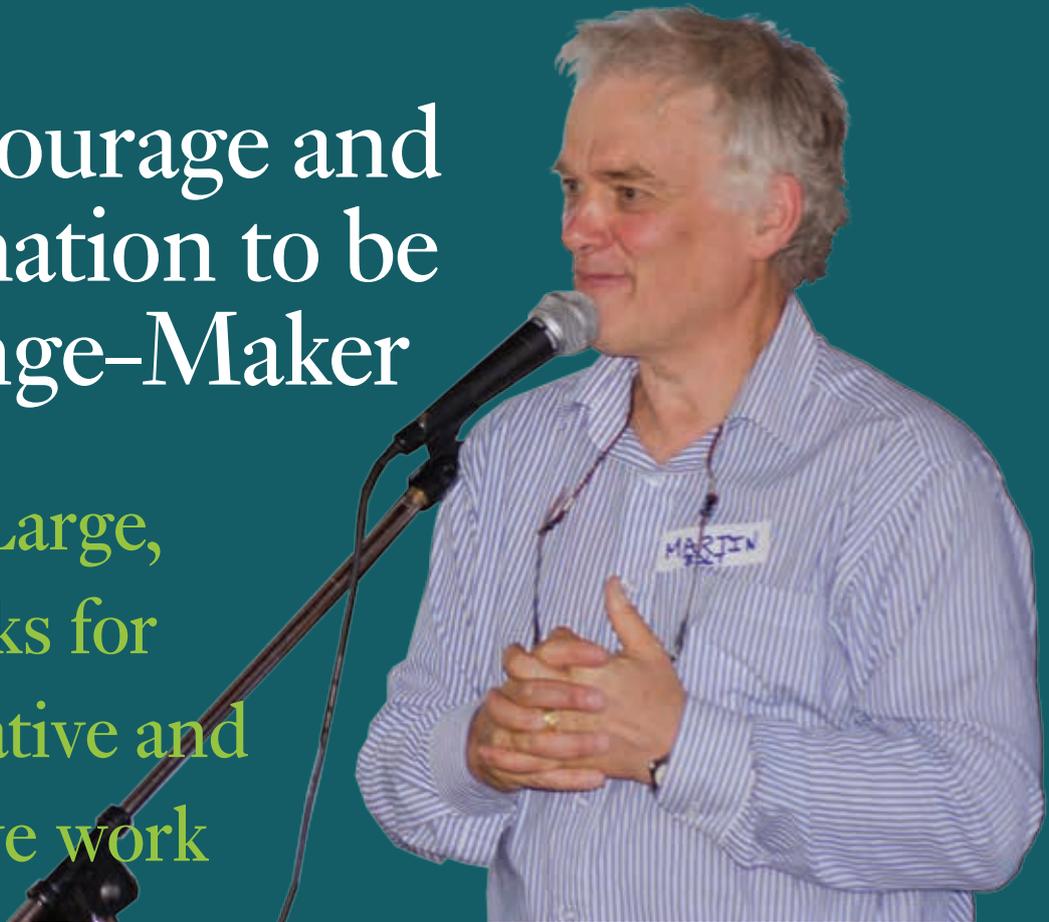
Together we can innovate and initiate our shared future. Community farms are for now and future generations, let us make them a success.

*For further information or to receive the latest Biodynamic Land Trust newsletters go to: [www.biodynamiclandtrust.org.uk](http://www.biodynamiclandtrust.org.uk) or contact: [gabriel@biodynamiclandtrust.org.uk](mailto:gabriel@biodynamiclandtrust.org.uk) T: 01453 367233 Share offer leaflets or a prospectus are accessible via the website or can be sent by email or post.*

# The Courage and Imagination to be a Change-Maker

By Gabriel Kaye

Martin Large,  
our thanks for  
your creative and  
innovative work



**Martin Large dedicates his time and energy to trying to make the world a better place. He has done this for many years with Hawthorn Press, his university lectures and group facilitation and more. So when he was talking to a client about Community Land Trusts, various forms of cooperative and his work with Fordhall Farm and Stroud CSA he was well placed, skilled and well informed enough to see the opportunity offered by a founding donation for a biodynamic land trust. He wanted to check out the details before accepting a large donation for this vision so agreed he would do an action-research feasibility study over a number of months in 2010/11, thus started the work for the Biodynamic Land Trust.**

He pulled together a small team and carefully researched the context and possibilities from a number of perspectives: financial, legal, organisational structures, the need for such an organisation, public awareness of this need and if such an organisation could make a difference. All this proved sufficiently positive to get the go ahead and the funding.

So Martin stepped into the next adventure and challenge in his life, the Biodynamic Land Trust. He took it up with energy, enthusiasm and imagination, creating a path for something new, not done before like this, nor in the UK, but inspired by many others working in similar directions.

He created the necessary legal structures from different contexts to establish a charitable community benefit society, found a team for the board of directors with a wide variety of skills and experience and so got The Biodynamic Land Trust going.

For four intensive years Martin led this work; innovating and creating good procedures with the help of the board; writing and talking his way to people's hearts and

minds around the country; raising funds to complement the seed-funding from the founding donation, working to make old patterns bend for new realities. He built a vision and practice that has led to the Biodynamic Land Trust acquiring land in Sussex for Tablehurst farm, land in Devon that is becoming Huxhams Cross farm, supporting the Parsons family in putting Rush Farm and Stockwood business park into community ownership, saving it for the future. Furthermore, 41 acres of Hammonds farm land was bought for the development of a community farm with access for young farmers in Gloucestershire and 50 acres of fields vital for the development of a biodynamic dairy farm in the Orkneys were saved. He was also key in setting up Ecodynamic CBS to garner wind farm income to support the running costs of the Land Trust.

Thus Martin and the Biodynamic Land Trust has pioneered and shared new thinking about land in the UK. He has developed new patterns and possibilities in land acquisition and land ownership for biodynamic-organic, sustainable farms; for community ownership and supporting local food and jobs.

Martin Large has made the Biodynamic Land Trust a success.

Having thus set the ball of good practice and ethical approach rolling and shown that it can be done, Martin recently retired from the Land Trust but continues to support the vision of more biodynamic land in community ownership. He has just challenged Donald Trump by doing a lecture tour in the USA over the period of presidential election fever, sharing the message that local communities can make a difference and create their own sustainable and local future.

We thank Martin for his vision, for his imagination, courage, creativity, persistence and hard work in founding and forming the Biodynamic Land Trust, a model for the future.

# Noltland Farm and Life in the Outer Isles

By  
*Bernard Jarman*

Pictures ©  
Bernard Jarman

**Known as the ‘Queen of the Isles’, Westray is a beautiful if somewhat bleak island on the north western edge of the Orkney archipelago.** It covers an area of about 18 square miles, has a population of around 600 people and is exposed to the full power of the Atlantic Ocean. Steep cliffs along the island’s southern coast are home to countless sea birds including many rare and occasional visitors and Noup Cliffs, rising 76 meters above sea level at the island’s western most point, is home to Orkney’s largest sea bird colony. The cliff top path running along the entire southern coast makes for a breathtakingly beautiful walk with views over the sea to nearer and more distant islands, the crashing of waves upon the rocks below and the ever changing play of light upon the water. Settled weather rarely stays for long and high winds and storms occur frequently, especially in winter. Sometimes winds are so strong that it is dangerous even to set foot outside. On occasions, wind speeds of 120 mph have been recorded. Such weather conditions are clearly going to be a challenge to anyone wishing to farm the land.

Westray however, in common with most of the other Orkney Islands, has reasonably fertile agricultural land thanks to the underlying old red sandstone rock of the Orcadian basin that extends across much of northeast Scotland. On Westray, the dominant rock is a hard flagstone (widely used for building) and various sand and siltstones of the middle old red sandstone period. The soil formed from these rocks, accumulated glacial deposits and wind-blown sand, is fairly deep in places and capable of growing many different crops. The islanders were once largely self-sufficient in food and back in medieval times a strip cultivation system was practised. In some places remnants of this are still visible. Most farmers were also involved in the kelping industry – a process involving the burning of seaweed to produce kelp (an ash rich in soda and potash) for use in the glass and soap making industries. Relics of numerous stone fire pits used for this purpose can still be found along the shore in many places. Today the mainstay of the agricultural economy is beef and sheep production along with some barley, oats, potatoes and dairy farming.

Most of the sheep kept on the islands are similar to those kept in other parts of the country. On the remote island of North Ronaldsay, however there is a breed of sheep, which is more or less indigenous. DNA tests indicate that sheep of this breed are very similar to those kept by Neolithic communities several thousand years ago. For the last four hundred years, the North Ronaldsay sheep have been exclusively kept on the foreshore. A dry stone wall

encircles the island and the sheep graze upon the seaweed and only come inland for lambing. The seaweed eating habit means that the animals attune themselves to the tides rather than the daily rhythm, feeding while the tide is out and then ruminating and resting at high tide. There is remarkable diversity in the coloration of their fleeces and the wool is used for making the colourful Orkney woollens. The seaweed diet gives North Ronaldsay mutton a unique flavour. The breed used to be widespread across the northern isles but only a few flocks are kept on other islands today.

As elsewhere in the UK there is increasing interest in traditional artisan products including the traditional Orkney biscuits and bere bannocks. These are produced from a local short season barley variety known as ‘bere’. It is an ancient land race that thrives on the acid soils, short summers (it is known as 95 day barley) and long northern daylight hours. It has been grown on the islands since the Vikings arrived and possibly even earlier. Its ancient provenance has also inspired quality whisky distilleries to grow it for their product.

Up on the hill towards the western end of Westray stands the impressive ruin of 16th century Noltland Castle, a former centre of Scottish feudal power. Next to it is Noltland Farm, the only organic dairy farm on the island. It is managed by Jason and Nina Wilson who moved to Orkney four years ago. Originally from South Africa they have farmed in several places across the UK. Jason began his farming career as a biodynamic apprentice on what was then Kolisko Farm in Gloucestershire (now part of Stroud Community Agriculture). They purchased the farmland and buildings with a mortgage and set to work developing a new dairy enterprise at a time when the island’s last remaining dairy farm was closing down. Establishing a herd was quite a challenge to begin with. Obtaining organic stock and ideally horned cattle proved difficult if not impossible since existing organic and biodynamic farmers were unwilling to countenance their animals travelling so far afield. In the end, another solution was found. An agreement was made with the local farmer who had stopped milking his Ayrshire cows. He agreed to give over his milking cows in exchange for the calves they bore. So Jason has the cows served by an Aberdeen Angus bull, gives back the calves to the former owner and then processes all the milk. It is a good arrangement for the time being though not sustainable in the long term. How to raise followers is a major challenge for the future. Artificial insemination is not feasible and keeping an Ayrshire bull demands the building of secure facilities. The Ayrshire breed however seems well suited to local conditions and produces milk of a high quality. The herd is currently made up of 33 milkers.



The farm's 95 acres of land extends along the western side of the island and includes several reasonably flat and fertile fields suitable for cropping as well as some fine permanent pastures. One of the first things Jason did was to reseed the main flat fields with a complex mixture of grass, clover and herbs to provide diverse grazing for his cattle and very importantly to build fertility in the soil. Now two years on, the fields are looking really good and the clover grass leys are well established – the only ones on the island. The mixed herbal ley and especially the chicory with its deep roots, is proving to be of great benefit to both soil and livestock. Because of the ever changing and unpredictable weather on Westray they decided to stop making hay and go for big bale silage instead. Supplementary organic protein feed is bought in for the milkers. In summer, the herd is out grazing. Frost is very rare on the island thanks to the Gulf Stream and so in theory the grass could continue growing throughout the year. The winter in Orkney however lasts almost as long as it does elsewhere in Scotland thanks to the intensity and frequency of winter storms and cold winds. These storm winds carry the salt spray with them and leave behind salt deposits all over the land and on the vegetation. This kills off the tender shoots, makes them wither and turn black and effectively prevents any possibility of winter grazing.

Being a small island community dependent on ferries to export produce, producing fresh milk for sale was not a viable option and so they decided to go into cheese production. The farm is managed by Jason with the help of a few highly committed local farm workers and Nina is responsible for the dairy. The dairy produces a mature and a mild cheese, which has been named 'Wife of Westray' after the ancient figurine discovered close to their land. The cheese is sold in the local island store and in specialist stores across Orkney. A certain amount of yogurt is also produced. The farm is certified by Biodynamic Association Certification as an organic farm.

A lot of investment has gone into and is still going into upgrading the buildings. The old dark stanchions common to traditional farms, have been replaced by cubicle housing and in one of the out buildings, a well equipped new dairy has been created. The next step is to build a new milking parlour. Currently only two cows can be milked at once and this makes milking very time consuming. Further structural developments are planned to improve efficiency, enhance animal wellbeing and possibly keep a dairy bull. Buying, establishing and developing the farm has required and continues to require a lot of capital much of which has had to be raised from the bank. Servicing these loans puts a

huge strain on the business, especially when it includes the repayments on the purchase of land.

The arrival of the Biodynamic Land Trust on the scene was therefore very fortuitous. The Biodynamic Land Trust (BDLT) is a charitable community benefit society established to secure land in perpetuity for healthy and sustainable farming and gardening. The BDLT raised funds and agreed to buy 50 acres of Noltland Farm and lease it back to Jason and Nina on the basis of a secure long-term tenancy. This released much-needed capital for the farm and secured the land. The fifty acres purchased by BDLT includes several large fields and a beautiful, picturesque hillside pasture that rolls down to the foreshore. It is an ancient pasture of great ecological value that also includes an old semi-derelict steading that could one day be developed as accommodation for farm helpers or as a holiday retreat. It is in a beautiful setting and has stunning views out over the bay. Its close proximity to the Noup Cliffs Nature Reserve and Noltland Links archaeological site makes it an ideal site for visitor accommodation. Renovating the old building would be of benefit to the BDLT, the farm and the island community as a whole.

Orkney is a treasure trove of ancient monuments and is known to have been an important centre during Neolithic times. Stone circles, cairns and ancient settlements are to be found on all the islands and there are a number of large and exciting recent archaeological discoveries. One of the more recent finds borders on Noltland Farm at a site known as the 'Links of Noltland'. A Neolithic building was discovered there in the coastal dunes during the 1980s and in 2009 the layout of an extensive ancient village settlement was revealed. Excavations continue day by day and year by year and new discoveries are being made all the time. It was here in 2009 that the 'Wife of Westray' also known as the Orkney Venus – a small 4 cm tall figurine, believed to be the earliest depiction of a human face known in Britain – was found. Many other fascinating discoveries have been made there including the intricate stone pipe work of a Bronze Age water system believed to have been used for heating a sauna. It is thought that this site on Westray could one day become as important and well known as that of Skara Brae on the Orkney Mainland.

What is very striking on all the islands and especially on Westray, is the absence of trees. Everything is open and windswept. This has always been the case according to many archaeologists. But others believe that this may not be entirely true. There is a small area of low growing, open, ancient woodland in Berriedale on the island of Hoy, which



may once have grown throughout the islands. On the very remote northeastern island of North Ronaldsay, we came across an area of small sycamore trees in the grounds of the manor house. They grew to no more than 15 feet high but formed a thick barrier. They were accompanied by some vigorous Fuchsias and Rosa rugosa plants. We found many of these appearing singly all over the islands. These three species in particular seem able to survive the salt-laden winds. Where they grow, they provide shelter for birds and other creatures. A treeless landscape with dry stone walls has been the natural context for farmers on Westray for many generations and any attempt at growing bushes in the lee of walls seems pointless to them since they could never grow much above wall height and would only reduce the area of productive farmland.

The island community has a strong sense of its own identity (more so perhaps than is the case on other islands) and while many islands are gradually losing their population to a better life elsewhere, there is quite a successful drive on Westray to encourage people to come, stay on and keep the farming tradition alive. There is a dawning consciousness regarding the importance of local food, crafts and culture and in Pierowall, the island's only village, two stores stock whatever local produce is available including the cheese from Noltland farm. There is a lot of working together among the farmers and this is very helpful for newcomers. The intention of starting a new dairy farm on the island was therefore met with a great deal of support even though organic farm-

ing is not something generally approved of. Jason and Nina have built up good connections with the local farmers and earned their respect. Nurturing and developing these connections will become increasingly important for everyone as the island community seeks to become more sustainable and self-reliant.

It is amazing to see how much has been achieved on the farm in such a short time and how much time and effort has been invested in it by Nina and Jason. Establishing a sustainable and profitable organic dairy farm is their first priority. But they do need help and support. Perhaps some kind of community round the farm is needed and additional enterprises that tap into the many visitors passing by on their way to the Links of Noltland (accommodation, café etc.). With the involvement of the supporters and shareholders of BDLT and friends of the movement, new and supportive initiatives may arise and enable Noltland Farm to one day become a shining example of biodynamic agriculture on an island far away. Meanwhile the cheese produced by Wilsons of Westray is very tasty and worth seeking out when visiting Orkney. For more information about the farm visit: [www.wilsonsofwestray.co.uk](http://www.wilsonsofwestray.co.uk).

1 Land Use Consultants 1998. Orkney landscape character assessment. Scottish Natural Heritage Review No. 100. <http://www.snh.org.uk/publications/on-line/LCA/orkney.pdf>

2 <http://www.rbst.org.uk/Rare-and-Native-Breeds/Sheep/North-Ronaldsay>



# HOMOEOPATHY for farm animals

By Geoff Johnson MRCVS VetMFHom RSHom



**Homoeopathy is a gentle, holistic system of healing, a complementary therapy that strives to treat 'like with like', resting on the premise that whatever causes symptoms in a well person will cure them when they are sick.**

It has been used on humans for more than 200 years, and now pet owners, farmers, and vets have found that homeopathic remedies are also effective for all types and sizes of animals. Within the farming community, positive trials include the prevention of anal prolapse in pigs, mastitis in cattle, journey recovery time and meat quality in cattle arriving at the slaughter house, scours in calves, fertility in dairy cows, mastitis/metritis/agalactia syndrome in sows, piglet stillbirths and piglet weight gain.

Geoff Johnson is a homeopathic vet practising in Somerset, and a founder member of Homoeopathy at Wellie Level (HAWL), a non-profit making organisation that teaches farmers how to use Homoeopathy effectively as part of their general management strategy.

Geoff believes that the success of the therapy in the treatment of animals lies in the fact that much of their illness can be traced to some form of stress. *'I have treated species as diverse as tortoises, cats, dogs, cows, chickens and farm animals for the effects of grief or bullying,'* he says. *'These stresses lead on to all the diseases we know, from eczema to infertility to cancer. The reason we know that these stresses are what caused the disease is because giving the appropriate remedy for that stress has cured the problem – even in serious cases.'*

Stress can be particularly prevalent in farm animals. *'Think of the number of times that bought-in animals produce major illness a few days after they arrive,'* says Geoff. *'It's not just coincidence. The loss of the familiar, the travelling, the change of environment, of food and of companions – it's all stress, and some animals are more affected than others.'*

Other stresses common to farm animals include weaning, the removal of the calf, mixing groups, bullying, transportation, overfeeding, vaccination, overcrowding, and the weather.

Homoeopathy works firstly by increasing the ability of the animal (or human) to deal with stress and hence avoid becoming ill. Secondly, it stimulates the often poorly functioning innate ability that animals (and humans) have to cure themselves once they become ill.

*'This is different to and therefore complementary to conventional medicine,'* says Geoff. *'Homoeopathy deals with the beast, conventional medicine with the bug.'*

It is relatively easy to administer, either in pill or liquid form, individually or in the trough to treat a herd. And because homeopathic medicines are administered in a highly diluted form, there are no residues passed on to the consumer or the environment. As a result, the therapy is widely supported by organic farmers, as well as conventional farmers wishing to reduce antibiotic use.

But despite all the positive evidence, there is still considerable resistance within the veterinary world. Geoff is one of only 150 vets – that is about 1% of the vets in the country – to have studied the therapy. He says that many of the criticisms are based on a lack of understanding. *'The profession is mostly ignorant of its methodology or use,'* he says. *'It is not taught at veterinary schools and is used much less frequently in animals than in people. Sadly, many vets discredit it despite having absolutely no knowledge of its use in practice.'*

To become a qualified homeopathic practitioner takes 4 years (even for the already qualified doctor or vet) and treating many of the problems which beset modern farming requires considerable expertise.

Through its courses and literature, Homoeopathy at Wellie Level (HAWL) aims to empower the farmer by teaching him or her to understand the treatments. And while Geoff cautions against a casual approach to the therapy, he believes that with a small understanding of homeopathic thought, farmers can improve the overall health of their animals and often prevent the expensive problems.

*'Homoeopathy is a powerful tool in the maintenance of health and treatment of disease,'* he summarises. *'With increasing levels of disease on the farm over the years, despite intensive drug use, the farmer needs another tool to complement his conventional treatment and husbandry.'*

For further information see Geoff's website:

<http://www.vethomeopath.co.uk>,

and see the page entitled *Homoeopathy on the Farm*.

For more information on HAWL and its training courses, please visit [www.hawl.co.uk](http://www.hawl.co.uk).

# Homœopathy – what is it?

**I lecture for hours or a full day as well as on the 3 day HAWL course for farmers to teach it – hence trying to fill you in on Homœopathy in a short article is like trying to teach tractor maintenance in 5 mins. I can give a brief outline and a list of addresses where you can find out more, says Geoff.**

It is a system of medicine that stimulates body to heal itself – you and your stock have an innate ability to stay well and heal yourselves if ill. If you did not we would not be here – we have evolved to do it. Many of us fall sick rarely and if we do get a cold, cough of flu, we get over it in a few days. Most women can bear children without intervention and recover health. Most people can bear physical stresses such as cold, wet, change of diet or overexertion without falling ill. Most of us can get over emotional stresses such as bereavement, bullying, business problems.

However, in some of us and some of our animals this ability to not fall ill, or recover if we do, is damaged. There are a number of reasons for this, the commonest ones being mental stress, inappropriate diet and genetics. These are the people and animals that doctors, vets and you as farmers need to treat. Thus Homœopathy is a medicine that takes into account the individual – i.e. the genetic make-up and environmental circumstances that cause that individual to get ill, and the manner in which that individual expresses their illness.

Consider an outbreak of pneumonia in a group of calves. This can occur when the weather changes from crisp and cold to wet and muggy. Not all the beasts will be affected – only those whose predisposition makes them susceptible. Also some of them will be severely affected while others will have a short cough and recover in a few days. You must have noticed that when a certain disease rears its head e.g. scours, some just require electrolytes, while others die despite every drug you can throw at them.

Because Homœopathy treats the individual it is not as simple to use as conventional medicine. You have to look carefully at the symptoms your animals are showing and give the remedy that covers these symptoms. This means you might not give all the calves in a scour outbreak the same remedy.

Homœopathy kick starts the immune system to work correctly. This is completely different to conventional medicine that does not consider the individual but rather tries to attack the bug that is rampaging through the sick body. Antibiotics have no effect on your cows – they simply try to kill whatever bug it is that has taken advantage of the animal's immune system to breed.

Homœopathy works in other ways than through the immune system. Its effects can be very quick – it can bring down a high fever faster than any drug. It can also change unnatural or undesirable behaviour such as rejection of the calf, or bullying.

## **So how can you use Homœopathy on your farm?**

By treating the physical signs you see in front of you – there are remedies for mastitis in all its different forms, lameness be it loul or digital dermatitis, infertility such as the failure to come bulling or not holding to service. Homœopathy can in fact treat any disease you can think of in yourselves or your animals if you choose the right remedies.

By using nosodes. Nosodes are these bottles of liquid remedies that you put into the troughs to prevent disease or lower cell counts. There are reps selling them frequently. Some call it homeopathic vaccination. In fact this is not true Homœopathy at all and can be quite hit and miss. If you have tried them and they've worked for you...great. If they didn't seem to work then do not judge Homœopathy on their efficacy. One thing about them is that they are very cheap and will do no harm and often good.

By dealing with stress. However good you are as a stockman stress is an inevitable part of being a dairy cow. Changing diet, too rich diet, weather changes, TB and blood tests, the separation of calf from cow, mixing groups, transport, etc. There are homeopathic remedies that can be given to individuals or whole groups before and after these events to lessen the chances of subsequent illness.

By treating individual animals on a deeper level who continually get ill despite apparent recovery after antibiotic use.



### Does it work??

Emphatic yes here. There have been numerous trials done in human medicine that say so. There are fewer vet trials and fewer of them in farm animals. I did a very positive trial in preventing summer mastitis and a colleague of mine in Devon did a similar double blind trial in preventing pneumonia. Although I am a conventional vet with a front line mixed practice and use conventional medicine I will always use Homoeopathy first if circumstances allow because I believe it to be more effective at promoting health. It also has many areas where conventional medicine cannot compete with it especially in the treatment of stress and diseases deriving from stress.

Homoeopathy is extremely cheap. You could treat a case of mastitis or metritis for 50p, or a group of 100 animals before and after a TB test for £5. A nosode against scouring in calves would be about £40 and could treat 100 calves for a year.

There is no such thing as a prescription remedy. You can get many of them from your local chemist or from homeopathic pharmacies by post.

Why is Homoeopathy so cheap? The substances in homeopathic remedies are very, very dilute. The mechanism of how such dilute solutions or pills made from these solutions work is beyond the time I have for this article. You will simply have to accept what I say. This has other significant points other than cheapness. The remedies can do no chemical harm to your animals and hence have no side effects. They also leave no residues so you don't have to worry about milk or meat withdrawal.

Homoeopathy is not Herbalism. It was discovered by a German doctor, Samuel Hahnemann in the 18th century. He discovered there were certain rules for healing sickness which were universal and are still totally applicable today.

### How do you start off??

You can buy a kit of 50 remedies for £100 plus which would treat most things on the farm. Simply getting 10 remedies for accidents and emergencies would enable you to tackle half of your problems.

You can buy the books indicated below, and obtain further info from the pharmacies listed right.

### Warning – Homoeopathy is not taught at veterinary school.

Its mechanism of action is very different and in many ways opposite to conventional drugs. The vast majority of vets know nothing about it, but will say it cannot work because the substances are too dilute to have an action. They are wrong, but understandably so because it goes against what they understand disease to be. I was a total sceptic myself until I saw it working far better than anything I had seen in my 8 years as a purely conventional vet, and curing diseases that I had been taught were incurable.

### Pharmacies

Crossgates will provide the remedies in handy spray bottles, but they are more expensive.

<http://www.crossgatesfarm.co.uk>

Ainsworths:

<http://www.ainsworths.com>

Freemans:

<http://www.freemans.uk.com>

and Helios:

<https://www.helios.co.uk>

can provide you with tablets which are easy to crush between 2 spoons. Beware pills or pillules which are more brittle and will shatter. You can also order liquid remedies – these pharmacies are run by qualified homeopaths who are able to give good advice and help.

### Which potency?

Don't get hung up over this and a 30c will be good for virtually anything. If you get the remedies you would tend to use in acute situations in a 200c or a 1M then that is a good idea e.g. Aconite, Arnica, Belladonna, Ignatia, Hypericum, Staphysagria, Caulophyllum.





### How to use the remedies

Shake your bottle hard every time before use.

To dose individuals 2 mls is enough for a single dose. This can be given onto any moist mucus membrane i.e. the mouth (muzzle), nose or vagina.

To dose groups put one teaspoon/2 ml into a jar or bottle two thirds full of water – bore, spring or bottled is ideal. Shake this hard by banging onto your hand, or onto a book placed on a table. Then use this to dose the troughs, putting a good splash into each e.g. 50-100mls and then stirring with a stick or hand.

### Storing your remedies

Remedies need to be stored in the dark, not near electrical devices or volatile strong smelling substances and where they cannot get below 2 centigrade or above 45 centigrade. You need them to be easy to find and access. If they aren't easy to find and use, a busy farmer won't use them. The easiest way is to keep them in alphabetical order in a drawer or a tin such as a cake tin. Put dividers made of wood or cardboard between the rows, leaving some space at the end of each row so more remedies can be easily added as you acquire them. A fruitcake tin will hold 100 remedies easily in 7 or 8 gram bottles which hold 50 or 60 tablets.

### Making liquid remedies

If you want to use your remedies in liquid form they are easily prepared. Crush a pill and put it into a glass jar, bottle or spray bottle, and fill with still mineral water or bore hole water. Then succuss vigorously, which of course you know means banging the bottle on a book on a table 20 times. You will then have a solution which will last a week, or longer if succussed regularly. Whenever you use a homeopathic remedy be it tablet or liquid always shake vigorously by succussing. This will ensure that they last well, and if dosing an animal over a number of days makes the remedy more effective. Spray bottles are available from the Homeopathic Supply Company. This company also supply useful labels to put on the sides and tops of your bottles.

### Dosing Groups

The easiest way is in the troughs. Make up a liquid remedy as explained above, in this case in a one or two litre bottle, succussing as before. Then put a good splash in all the troughs the animals will be exposed to. This bottle can be topped up each day with a good succuss each time and re-used for a course of treatment. Note that a container will take on the essence of the remedy you have stored in it. Use a different bottle for each remedy, unless the bottle has been through a dishwasher, or been in boiling water. The problem with sheep is that often they won't drink if the grass is full of moisture. Here a solution can be made as before and put into a sprayer of some kind, even a back pack sprayer. Then the animals have to be run through a race or similar to dose them, and you need to consider the effects of stress here... If this is going to be too stressful then remedies can be given on food. Here a larger volume needs to be prepared – maybe in a demi-john, and poured onto their nuts, silage or whatever. Ideally remedies are given without food, but 'needs must' on occasions. Calves can easily be dosed if they are on artificial milk by putting a good splash into the milk.

### Header tanks

This can be an easy way of dosing for e.g. chickens or pigs. However there is a dilution factor and if the header tank is big, put in a couple of litres of solution. Remember you can make up as much solution as you will ever need by succussing, diluting and succussing again. It is quite possible to treat a whole heard of cows using one tablet if this process is followed.

### Where to dose

Any moist mucus membrane will do – so a good spray over the nose, into the vulva or muzzle is fine. Crushed pills can be used in the same way.

### How long to dose

As you know Homoeopathy stimulates the body to begin the process of cure, and as soon as you see changes, then that process has begun. Then stop dosing and watch. Re-start when needed. If the situation is acute, give frequently and expect to see a change relatively soon. If you are dosing a group for e.g. Ringworm, New Forest Eye or Orf, then as above always watch and react, but generally a good regime would be twice daily for two days, and then twice weekly.

### Common homeopathic remedies

In many ways the best Homoeopathy is also the easiest, and just a few remedies can be hugely useful.

**Aconite** for any time there is fear, fright, shock and sudden weather changes especially to cold winds. It is the first remedy to think about in any acute disease but must be given quickly to be effective. Also use routinely in handling operations such as TB testing where it should be given night before, day of and day after.

**Arnica** for any time there is bruising and bashing and over-exertion, however this might occur to your animals, after any physical trauma. Give frequently immediately after bruising has occurred, or is likely to occur. The sooner you start, the more effective it will be.

**Ignatia** for grief, eg, at weaning, give to dam and young. This remedy covers most 'emotional overload' including fear, bullying and homesickness after moving houses/farms.

**Staphysagria** – for any animal who is bullied, or problems arising after AI or caesareans.

**Nux-Vomica** – for any change in diet and whenever too much too rich food occurs.

**Dulcamara** – for sudden change of weather to wet especially in the autumn.

**Thuja** – ALWAYS when you vaccinate any animal – dose as Aconite. This is also the first remedy to think of in warts.

**Hypericum.** Injuries or trauma to nerve rich areas. Use a 200c potency in conjunction with Arnica every hour if any nerve damage has occurred e.g. "done the splits". Also consider for intensely painful injuries after trauma along with your usual interventions, e.g. tail docking, castration, dehorning,



You will find that occasions to use these remedies occur frequently in the space of a week, or even a day. Use these remedies widely. You will do no harm if they aren't needed, but could avert lots of serious disease by using them. It is much easier to give a cow which has fallen hard on her udder a few doses of Arnica even if it adds 10 minutes to your day, rather than deal with a severe mastitis three days later.

### Pre-emptive Strike

You can easily dose the animals before the stress arises. Examples are Arnica and Aconite in the troughs before and after the TB test, Ignatia when mixing groups, Nux Vomica for a food change. Remember that homeopathic principles are the same whatever the animal – including humans. Hence don't worry that your health plan is supposedly for dairy cows. Just use the same principles whichever animals you are dosing.

### The Weather

You all know that this is one of the main causes of disease. Weather changes cause stress, and you know that the biggest cause of disease is stress. There are homeopathic remedies which help animals to cope. Use them by dosing as soon as adverse weather or sudden change occurs – don't wait for the disease to start. If you are really on the ball, (and you believe your forecast!) give them the night before, and for a couple of days afterwards. Obvious 'weather remedies' are Aconite - sudden cold winds, Colchicum - warm days and cold nights, Dulcamara - wet and cold and Belladonna - heat waves. There is even one for melting snows – Calc-Phos.

### Know your own farm's problems

Probably each farm has its own problems which occur often. Go through your records and see when disease occurs. What is happening at this time? Use your remedies to try to prevent this. If you tend to get the same diseases each year, you can try using nosodes, remedies made from the disease, to eradicate or lessen the severity of these diseases. Most nosodes have not had farm trials to demonstrate their effectiveness, so do not rely on them, but again you will do no harm, and maybe much good. There have been some amazing trials showing how effective nosodes can be. One of the biggest trials this century was in practically eradicating Leptospirosis in 2 million Cubans using a Leptospirosis nosode, at a fraction of the cost of vaccination. This is long term Homoeopathy, but over the years you may gain great dividends. Certain remedies are also known to be good at dealing with specific diseases, as Hahnemann found out 220 years ago in preventing scarlet fever in children using Belladonna. Thuja for warts and Orf (combined with Orf nosode) are two examples.

### Treating the individual animal

You know Homoeopathy is about stimulating the individual animal's vital force to get the immune system working as well as it can. You know that you need to look carefully at what is going on to get the best remedy. You are already an expert in observation, and know more about your animals than anyone. Firstly you need to look at the management system in case there are any obstacles to cure that you could

change to make disease less likely. You know that Homoeopathy is not an alternative to good husbandry, but is an additional tool. You need to think what stresses there might have been to cause this – the aetiology. This is an important part in choosing your remedy.

### An Examination

You need to look at the whole animal for all its symptoms, especially any strange or peculiar things that can help your remedy choice. We call this the totality. Before you dive in just stand and observe for a minute. Does the animal look stressed? Is it drinking? Is it with the others? How is it behaving? What does it do as you approach it? Does it make noises or appear to be in pain, and if so when?

When you have had a good look at the whole situation, then a good plan is to start at the head. Look in the eyes, mouth (colour, smell, dry, saliva, tongue appearance) ears (hot/cold), and nose (discharge – colour, smell, thick, thin, acrid so it inflames the skin). Then move down the body feeling and pressing for any painful, hot or cold areas. Check the glands under the chin. Push on the ribs and into the guts. Have a look under the tail for diarrhoea, and note again the colour, consistency and odour. Is the anus inflamed or sore? Check the temperature. We call this the 'head to tail' and this examination may give you very useful symptoms you can use to decide on your remedy choice.

### Modalities

You know these are things which make your animal better or worse, and can include time of day, different weather, bathing, motion or stillness, eating or drinking, company or alone – in fact just about anything. To get modalities you would have to observe for a while – maybe over the course of a day or two. However if you need to give something quickly do not delay. Just continue to observe and maybe you will change your prescription later when the modalities become obvious. In 'real life' often you won't get definite modalities in an animal case. They can't talk! Then just use the symptoms you can get.

*Article written by: Geoff Johnson MRCVS VetMFHom RSHom. Springfield Veterinary Centre, Williton, Somerset, TA4 4QU 01984 632212 <http://www.vethomeopath.co.uk> Books, advice, remedies, consultation, talks*

*With gratitude to Margaret Richardson (homeopath and BDA Certification administrator) for compiling this article from Geoff's writings.*

#### Useful contacts:

British Association Of Homeopathic Veterinary Surgeons. Chinham House, Stanford-in-the-Vale, Nr Faringdon, Oxfordshire, SN78NQ. 01367710324 They will tell you how to find your closest homeopathic veterinary surgeon, or see their website: <http://www.bahvs.com>

Homoeopathy At Wellie Level. <http://www.hawl.co.uk/>

3 day course for farmers and vets taught by homeopathic vets and homeopaths who are farmers

#### Useful books:

Homoeopathy for Beef and Dairy Cattle (also small animals). Must have book by Chris Day (Homeopathic Vet).

Homoeopathy For Cattle (also sheep, pigs, goats, dogs, cats) by George Macleod

# Finding Connection

By Philip Greenwood



**I am currently part of the management committee that holds and runs Sacred Earth Community Benefit Society in Sussex. I would like to start by giving thanks. Practising the art of gratitude benefits my life and allows me to get up every day with a sense of purpose. So I give thanks to the Biodynamic Association on the influence it has had on my journey over the last 7 years, I can also give thanks for all those aspects of nature that support me, my family, our community and our species in the everyday of life's journey.**

A big part of my role today in the Society, in my village, in my region and even in my Nation is to support and guide others back into conscious, regenerative, engagement with connection. There are various mediums that we all can use to connect to ourselves, to each other, to nature and to the world around us, as I am sure many of you are aware of. Today though the world is at war with connection, in many ways there is a culture of disconnection in most arenas of our society, economy and culture, which is a worrying trend; for what does that hold for the future generations? This is having an effect on how we farm, how we educate our children, on our footprint and ecological challenges, even to the point of how we as human beings see ourselves as part of nature. In the case of a dis-connective practice, we are possibly seen as having dominion over nature or even that nature is irrelevant as we go on practising business as usual.

When considering the right question to ask that will invite conscious reflection and ignite powerful action, a flurry of terms must be brought to light. When we are exposed to such terms as nature deficit disorder, sensory deficit disorder, these are umbrella terms that can sound quite negative, yet can be offset with positive terms such as rewilding, interspecies communication, deep ecology, nature connection or deep nature immersion, we are looking at our 21st Century dialogue of the challenges of our times.

So my question would be: How do we create the containers on our farm organisms or within our communities that bring forth attributes of connection? Is it possible these containers can create or help stimulate or unlock our potential genius, within ourselves, from within our children, between each other?

So what do we need to help connection and what is connection? Let us start with the second question.

In my humble opinion, connection is the invisible cord that allows us to feel part of something more than ourselves. It gives us the feeling of being involved with others, of being loved and nurtured, of being heard and witnessed in our individual journeys. It helps support our experience with other beings both human and non-human. It helps us grow into the fullness of our potential, it raises our awareness, it helps heal and re-pattern our woundings, and it gives us a well-rounded experience of all aspects of nature. These are just a few of the many invisible, sometimes daily things that we can do to help ourselves keep connected.

At Sacred Earth we use the beautiful medium of nature, and connection modelling to support people in renewing their own creative path with connection. In today's world we have to actively design for mentoring and connection to take place, whereas perhaps as recently as in our grandparents times much more connection happened naturally due to the ability to wander, to roam more freely, to have much more natural play time as a child, and the engagement with our foods and animals etc. Now over 70% of the population is in urban settings, many children are showing all kinds of learning behaviours and it has now been scientifically proven that this is an outcome of loss of natural relationships, something our ancestors just took for granted. To ensure a healthy future and for the sake of our future generations we need to look closely at how nature connection is a deep and important part of natural growth and for creative and positive human development. Then redesign for connective practices to be part of everyday life with partnership organisations who can



deliver that within our farm and project landscapes.

So how can we help build the containers for connection? Firstly deep nature connection is the foundation of everything, our community leaders can support this by designing in with conscious competence a practice of mentoring in our children, teens, adults and even our elders. This symbiotic relationship creates connection for everyone.

We can do this quite simply, by just practising stuff in your backyard, practising subsistence activities, possibly like cooking on an open fire, intergenerational berry picking, learning the language of the birds, tending the garden, practising our sensory capacities in various ways within natural settings, sharing stories or perhaps take it a bit further by tending the wild with community led earth restoration projects. We also need to find ways to create and develop community process for communication, peace-making, and find places and people that can support stored grief to be expressed safely, building the human to human relationships. It also helps when we exposed each other to transformational leadership, and facilitate creativity as individuals, as communities even as businesses or organisations.

You may recognise some or all of this and say that's ok I have all that, but why is it we are seeing a rise in loneliness in the modern world, why is depression on the rise, why is the destruction of the earth and all the fantastic beings that live on it under threat in so many places. My answer to it is that it comes from a disconnected place and I can honestly say from personal experience when we realign ourselves into connection with deep nature, connect to ourselves, others and the world around us, we realign ourselves with something deeper, something unexplainable, something greater than ourselves.

What appears naturally out of us through these forms of practice is love, empathy, vitality, health and happiness. We become truly helpful and discover the art of deep listening, and ultimately develop the quiet mind and a sense of peace within ourselves. When a person is connected and showing these attributes both in an inner and outer way, there is no way that they can bring themselves to harm another, harm the earth, harm themselves and unknown potential starts to emerge.

Is this not what we want to see in the world, how we would like our children to be nurtured into fullness? How can we as Biodynamic farms and organisms actively design into and within our farm landscapes connective modelling and deep nature connection? For me it is this simple part of the human story "nature connection" that will support the Biodynamic movement to become the beautiful beacon it deserves to be. For it already holds so many aspects of connection, with their communities, their livestock, and the plants and trees that exist within them. It is not a far leap, and it will amplify the connective practices that exist within them already.

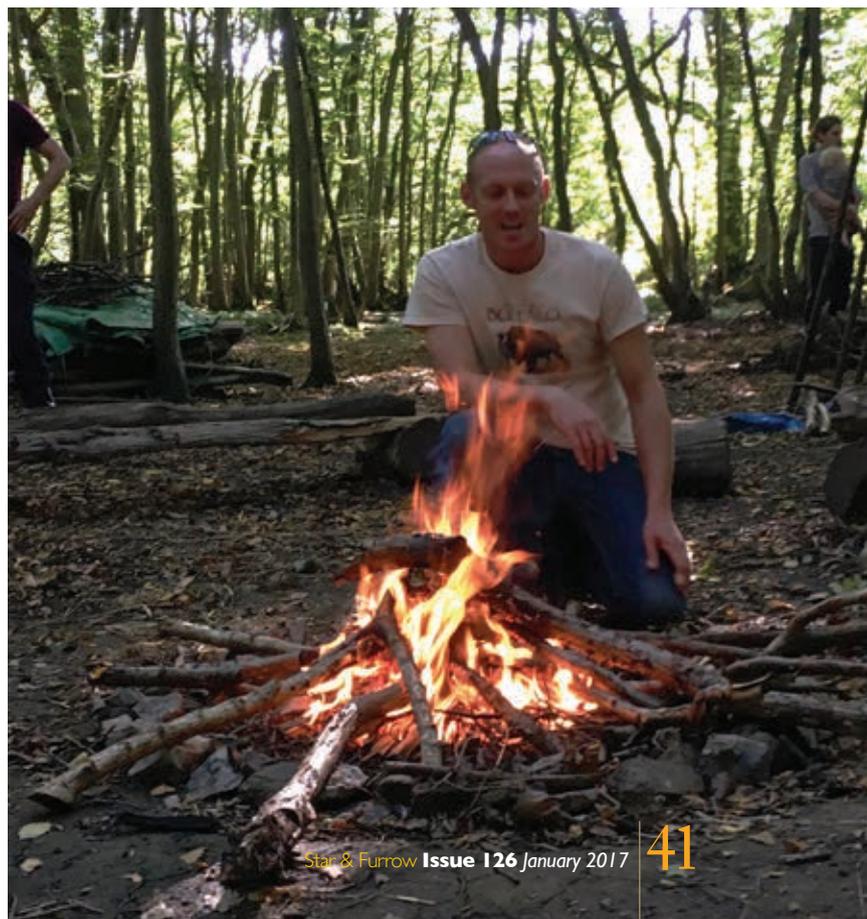
The last thing I would share with you all as readers is; What is nature trying to tell us? Can we listen deeply enough to hear our original instructions? When we seek connection, we are always aiming to connect with the essence, connecting through the form that we are in communication with at the time, with purpose and intent we really can raise all of our awareness as individuals and as a collective and therefore change the world.

## Five tips on gaining a deeper appreciation of your own connection

1. Find yourself a sit spot (a secret place) to watch, listen, reflect, ideally once a day, but at least once a week, follow the seasons within that place.
2. Practice connecting through all your senses. When we engage all five senses at once, our sixth sense starts to perform too. We can awaken our senses into our everyday through keeping our eyes up when we walk, using our periphery vision, using our hearing to listen for the farthest or most subtle sounds, touching everything to experience texture, smelling different things more closely, taking the time to taste.
3. Find new ways to engage with others, maybe create a community potluck once a month, or host regular story nights with powerful stories for human growth and change as part of that.
4. Find ways to anchor ourselves into community with different age groups, who are your elders in the community that you respect and would wish to catch your stories, who are the upcoming generations that you can learn from and share your own experiences.
5. Create new ways with others that rebuild the village container, the community we all wish to be part of, start small (perhaps 2 or 3 like-minded souls) and build to an acorn group (around 8).

*Phil Greenwood offers bespoke training, courses and workshops in village building practices, cultural emergence and deep nature connection. You can contact him directly for upcoming course at either [phil@sacredearthland.co.uk](mailto:phil@sacredearthland.co.uk), [ancestraltrails@yahoo.com](mailto:ancestraltrails@yahoo.com) or call on 01435 812372*

© Pictures from the Sacred Earth Trust's Open Day courtesy of Clare Horrell of Just Growth



# Understanding Global Warming

By Hugh Lovel

**News Flash:** Man-made warming may have begun earlier than we thought.

Gayathri Vaidyanathan,

E&E reporter, ClimateWire: Thursday, August 25, 2016

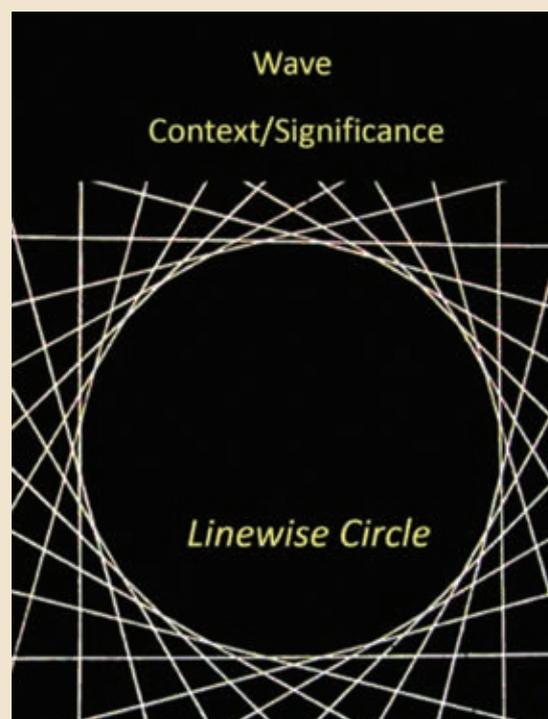
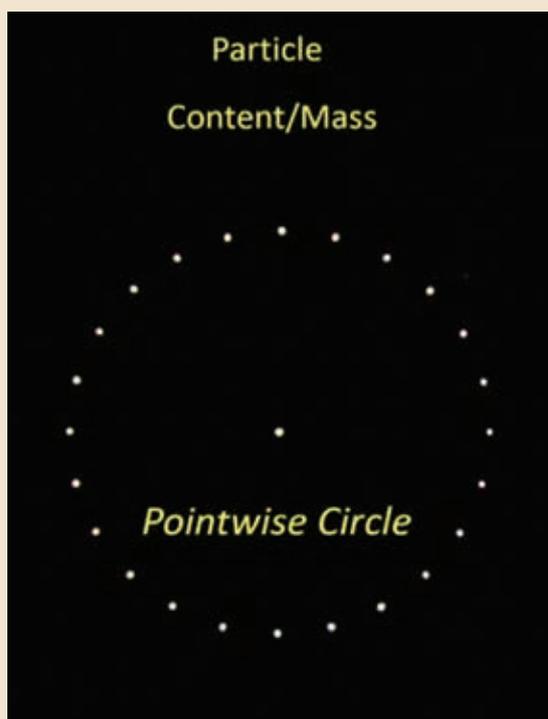
*“Before gasoline-powered cars crowded roads, before even the first coal-fired power plant was built in the United States, humans had begun warming Earth’s climate.”*

**Prior to encountering biodynamics I studied biochemistry, hoping to delve into the mechanics of thought and emotion, which I believed, were central to understanding human life. To my surprise and delight I was an apt science student with a fascination for mathematics, physics, epistemology and ontology. In my third year, it dawned on me that most physicists and chemists studiously avoided any contamination of experiments by life processes. In this view the second law of thermodynamics allowed no exceptions. Even though Erwin Schrödinger’s 1948 biophysics lectures pointed out living organisms were islands of order growing amidst a sea of chaos, there was an aversion to studying anything involving a living condition—too many variables and ‘inconclusive results’. Hello all young researchers, don’t go there. Stick with the study of particles where you get results.**

On the other hand, growing is a process which involves duration, not to be captured by snap shots of momentary phenomena as a Wilson Cloud Chamber. It seemed we needed a different way of thinking and researching nature based on life processes.

To abbreviate a long story I ended up in the mid ‘70s farming biodynamically in the mountains of northern Georgia and struggling to understand the science of biodynamics. There was no question that biodynamics was a science—what a science. I soon realized Rudolf Steiner was by far the pre-eminent biophysicist and biochemist of his time (before the words came into use), as the first paper I read in the biodynamic literature was Olive Whicher’s *The Idea of Counterspace*. Here was a profound understanding of the mathematics of living organisms that dovetailed with Chaos Theory, which acknowledges order arising out of chaos within boundaries. Wow, boundaries, of course.

By studying quantum physics simultaneously with astrophysics I realized astrology was a mathematical method for interpreting the significance of the Sun, Moon, planets



and stars. So the first lecture of Steiner's Agriculture Course resonated as scientific as it touched on how the constellations and solar system influenced life on earth. Obviously this was a comprehensive science of agriculture that embraced the classical dilemma of mass vs significance—how could there be mass without significance or vice versa? Steiner used the terms matter and spirit to affirm we never have matter without spirit or spirit without matter. In his view it made sense that matter was bound spirit and spirit was freed matter. This approach to unified field theory requires a new vocabulary and new concepts.

In talking about formative forces, which I imagined as organizational energies, biodynamics uses terms such as elements, ethers, astrality and egoity. Steiner described the elements of fire, air, water and earth as organized and enlivened by the ethers of warmth, light, chemistry and life.

Steiner identified Saturn as the gateway of warmth. That did not make sense at first since Saturn was so far from the Sun it was quite cold. But, as these terms entered my vocabulary the second law of thermodynamics started to make better sense because the universe had a background of rather evenly dispersed warmth of approximately 2.7 degrees Kelvin. This background warmth was the sea of chaos the universe swam in. From chaos theory, syntropy, the opposite of entropy, occurred when energy flowed toward greater concentration rather than dispersing. Experiments in quantum physics see this as a reversal of time, which the experiments limit to only the most fleeting and infinitesimal events. However, such events occur all around us all the time.

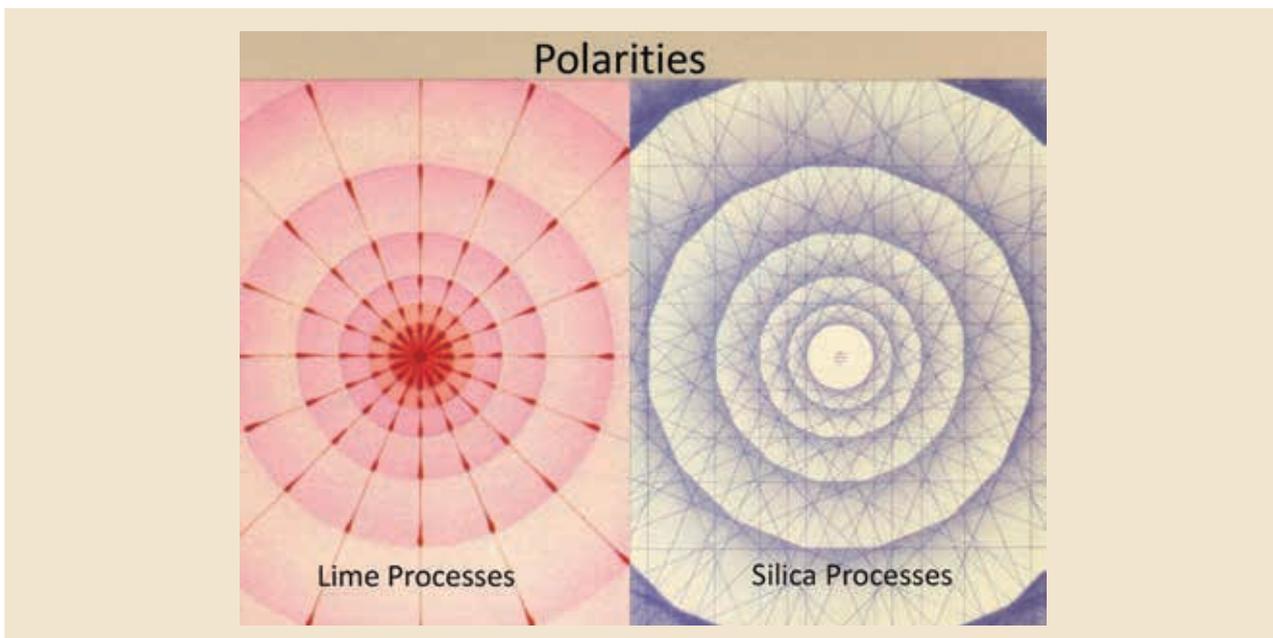
After a while I looked at the Sun as an accumulator of the background warmth of the universe. This was thinking of the solar system as a living being, and it made sense of Saturn as the gateway of warmth flowing inward toward the Sun. Without rigorously calculating the concentration of background warmth inside the vast orbit of Saturn, it was clear that concentrating warmth from a large volume of space into the tiny volume of the Sun could easily compress a few degrees Kelvin into millions of degrees, such as we witness at the sun's photosphere. Thus I began to think of each planet as a being, an accumulator of warmth, a concen-

trator of order, a coalescence and containment of matter in a dynamic but orderly way.

One of my problems as a farmer was weather—too dry, then too wet, back and forth. In the spring it was common to have a fairly dense cloud cover blanketing our region. In an aircraft above the clouds everything was brilliant and the concentration of light was breathtaking. Just coming out of winter we had not warmed up much yet, but the days were getting long and a lot of things—clover, wheat, trees, brassicas, umbellifers, etc.—were blooming as they shot forth from the earth. Thunder would roll through and through the heavy overcast but there would be very little lightning. I was taught that thunder followed lightning, but obviously this wasn't true under the circumstances. Then we would get into late summer when the days got noticeably shorter but the warmth was heavy in the air. Even without clouds we could have spectacular displays of 'heat lightning' in the late afternoons and evenings with little or no thunder. At these times there might be 90% moisture in the atmosphere in our muggy Georgia skies, but hardly any clouds. In May we would have a lot more clouds with only 60 or 70% moisture as compared to 90% moisture in August. Makes one wonder.

It began to dawn on me that warmth was so concentrated in August that it precipitated into lightning flashes without any thunder and no rainfall. Thunder was a feature of the tone ether associated with water, which was why in the Spring when we had an abundance of light we got rolling thunder with no lightning and long, soaking, farmer's rains.

At our biodynamic conferences on my farm Hugh Courtney, leading workshops on making and using the biodynamic preparations, found that spraying all the biodynamic preparations in sequence over a three day period, starting on the first evening and ending on the third morning, broke our late summer droughts and brought us crop saving rains. Biodynamics could enrich the life forces in a farm locality and condense the heavy moisture in our late summer conditions. Nineteenth century fluid dynamics says a microscopic change at a point can result in large scale changes in the medium. Amen.



Three of us experimented with doing this on our farms, and I got rainfall in Georgia, Hugh Courtney got rainfall in Virginia and Harvey Lisle got rainfall in Ohio when elsewhere in our regions there was no rain. Biodynamics seemed capable of ameliorating drought. Perhaps it could also ameliorate flooding.

Since recent studies confirm global warming occurred before our modern age of fossil fuel consumption, I submit this coincided with the clearing, ploughing and mining that fed our industrial development. By clearing vegetation and exhausting soil carbon we degraded the earth's mechanism for sequestering warmth and light. The result was expelling warmth and light into the atmosphere and heating up the earth. While it seems logical fossil fuels have contributed to global warming, let us not forget the huge amount of carbon we sent into the atmosphere as we released warmth and light from vegetation and soils.

Biodynamics informs us that warmth and light, via their harmony with silica (sand and quartz), are flowing from beyond Saturn, through the outer planets, through the depths of the earth and upward into our atmosphere. These, Steiner tells us, could utterly by-pass plants were it not for clay. Given good clay activity, however, the warmth and light carry the influences of chemistry and life from the soil upward into photosynthesis and plant growth. In other words, amino acids and the lime complex (which Steiner says is more than just calcium) are carried upward into the growth of plants by the warmth and light that rise from earth to the sun. This process works because within the sun, warmth and light condense to tone and life, which are the ethers reflected back to the earth via Mercury, Venus and the Moon. These influences of tone and life work downward into the soil at night and especially in winter by the Sun spending its time below the horizon.

It seems obvious that we bury so many of our preparations in winter because that is when all the different phases of the ether—warmth, light, chemistry and life—are at work together, especially in carbon rich topsoil. Horn silica is an exception as it is buried in summer. Likewise horsetail decoction can be made any time without burial in the earth,

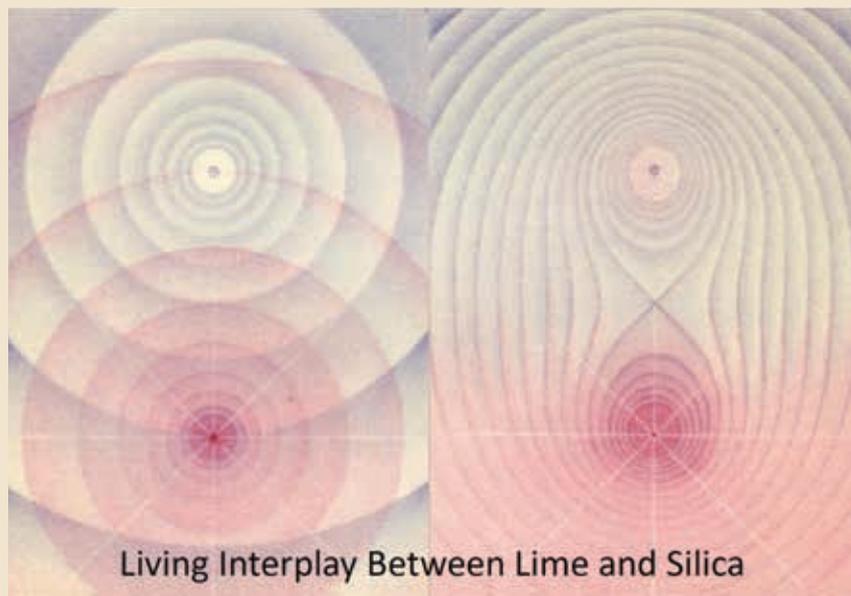
and valerian, which works especially with warmth and light, is not buried at all. Horn clay, which I have made and used to wonderful effect, I bury over both summer and winter.

At the bottom line for old style biodynamics we used our preparations sparingly, one at a time. But consider a musical ensemble where each instrument plays, one at a time. Imagine a symphony where every instrument solos by itself. This may be difficult, but the picture is clear. We must use our preparations in concert, especially in winter when we can spray the entire complex on the soil in one go, perhaps as frequently as every fortnight. Global warming is upon us and we urgently need to re-vegetate the earth, including our deserts. If anyone knows a better way to do this than biodynamics, let me know. Biodynamics is the best method and tool set I know of.

All too often biodynamics is introduced as an unfathomable mystery that cannot be explained, but we can give it a try and see if it does something good. Without an understanding of how it works, it gets a token application or two of horn manure and maybe some barrel compost. Once in a while horn silica is used. The implication in all this is if biodynamics works for you, it will solve all your problems and you will not have to fight weeds, insects, diseases or lack of minerals any more.

Patently this is false, though it is based on one of the most profound statements in Steiner's Agriculture Course, namely that ideally a farm should provide everything it needs from within itself. The caveat to this was any inputs should be viewed as remedies for a farm that has fallen ill. Today, due to ignorance and on-going misinformation, almost all farms are ill, and this ideal can only be approached if the biodynamic method is applied with skill and understanding, not as a lark founded on an unexplained mystery.

*Hugh Lovel is a 40 year plus biodynamic farmer who found biodynamics in a search for food of the highest quality. Educated in classical and quantum physics he struggled to make sense of biodynamics with the present result. His wife, Shabari Bird, widow of Christopher Bird and next door neighbor of Hugh, is the principal organizer of their joint-venture, Quantum Agriculture.*



# Huby Mill

*By Vivian Griffiths*



**We do not have many pilgrimage sites for Biodynamic farming and growing especially in the English-speaking world, maybe we should as something holy happened on the spots where once The Biodynamic Preparations were sprayed and compost heaps inserted and turned. There is of course Koberwitz in Silesia and in America the BD garden that Dr Spock's sister and her friend cultivated and was ruined by compulsory spraying by The US Government and became the touchstone of Rachel Carlson's Book Silent Spring with data from Dr Pfeiffer supplied to the author.**

In the UK, Broome Farm, near Clent, is often cited as a place where 'Biodynamic historians' (who are they?!) go and peer over the duck pond at the Worcestershire farmhouse in its idyllic setting and wonder what would or could have happened if it had been bought by the BD Membership as a show farm and office site in 1986.

Yet one place, which deserves more attention and interest, is Sleights Farm, Huby north of Leeds, which has the accolade as the first Biodynamic farm in the English-speaking world and the place where The Agriculture Course was translated into English in 1930.

To expand the story, we must examine the life of Maurice Wood the son of a well-regarded Leeds house builder who came from a Quaker family. He, as a Quaker and pacifist, served as a stretcher-bearer in The First World War and the traumatic experience led him to think seriously of another path than taking over the family business when the war ended. Perhaps it was the healing power of the land and the wish to farm that led him to purchase Sleights Farm, Huby in 1920 and think hard how to become a proper farmer and make the enterprise pay. Poultry was an experiment, free range before the term was adopted and it is fair to say that Maurice and his family now displaced into the

Yorkshire countryside was finding the new life a challenge however idyllic the setting!

Many people come or even need to come to Rudolf Steiner's teachings and indications through a crisis and Maurice Wood's encounter with Anthroposophy was no exception, battered and bruised as he was by the experience of The First World War.

Therefore, it was that the busy farmer took time off to visit London in 1928 to The International Anthroposophical Conference, organised by Daniel Dunlop from The Anthroposophical Society, to listen to Karl Mirbt the land agent from The Koberwitz Estate. Now a practising Biodynamic Estate from Steiner's visit in 1924 to give The Agriculture Course, Karl's enthusiasm for the Biodynamic Work deeply influenced Wood and he returned to Huby resolved to make his farm biodynamic. The translator for Karl Mirbt at the London talk was George Adams - George Kaufmann - also from The Society and one of the results of The Conference is that The Agriculture Course came to be translated into English.

This happened in the farmhouse at Huby where George spent the morning in the sitting room working on the German text, translating it into English, and then reading it to Maurice in the afternoon, after coming in from the farm (and a good lunch!). He would advise George on how to make this English text understandable and acceptable to the farming and growing community. Thus, we have in the English-speaking world a practical text of The Agriculture Course.

In the summer of 2016 the author, and a local history colleague, visited Huby and discovered by some happy coincidence and by knocking on doors a whole raft of information which surrounded the Farm and the development of Huby Mill as a result of Maurice's interest in Biodynamics. This included the importance of nutrition in the human being following the comment that Rudolf Steiner made about

© Pictures courtesy of Vivian Griffiths



nutrition as a key to proper meditation. Much of this story of the development of the farm comes in a booklet published in later life by Maurice Wood called 'Going Through The Mill'

The story of Huby Mill is one of how Maurice Wood learnt how to mill wheat into stoneground flour at just the right speed so as not to over heat the grain. He was a very keen learner from the local rural community, as well from the miller's experience that the millstone needed to rotate in the same time ratio as a horse could eat oats!

He entered the nutrition debate on the value of naturally grown stoneground wheat versus the roller milled wheat germ taken out white bread with no nutrition worth mentioning. His intense work with The Agricultural Course and local country lore paid dividends with lots of customers far and wide, two collections a day from the mill by the Post Office and lots of visits to the mill with much interest from the locality and the offer to make more mill installations for Biodynamic farms.

He also brought an international flavour to this little Yorkshire village partly through his Quaker peace deliberations after the First World War and partly through his meeting Anthroposophy through attending a conference in Wales at the invitation of a friend in 1926 while he was recovering from shingles. This led subsequently to the London Conference, his interest in biodynamics and his being the first farm to convert in the British Isles in 1929.

Much of this mill and family information we gleaned comes from meeting Ronald Thorpe on our summer visit. His father bought Sleights Farm in 1956 and Ron remembers before that turning the grain on the mill floor prior to

grinding. He also remembers John Brett coming to help the mill operation. He recounts of the family with the daughter's marriage in the 1920s to a German soldier who once he became an SS officer proved impossible for the marriage to continue and the daring journey across Europe just before the outbreak of the second world war of the daughter and children to the relative safety of Yorkshire.

The children then attended a Steiner School in the south. It was related by Ron who seemed to find the whole affair quite exciting with meetings of Biodynamic farmers coming from north and south and the popularity of the wholemeal flour from the mill with many visitors from the health food and anthroposophical community coming to collect from the mill door.

On a wider note the Wood family hadn't lost their Leeds connections and were part of The Christian Community Leeds Congregation situated in a Wood built house in the city and manned as a house church by Rev Adam and Karmia Bittleston with the founding priest in the UK the Rev Alfred Heidenreich.

Ron retired from the farm and lived on the edge of the holding in a small bungalow until his death in 1960.

*Vivian Griffiths is a former BDA Trustee and now a Trustee of Ruskin Mill Trust. He lives in the Lake District.*



## CAN YOU HELP BUILD A STRAW BALE HOME FOR PETER BROWN?

...to thank him for 21 years of devoted work on behalf of community-owned biodynamic and organic farming on Tablehurst Farm



**Many readers of Star & Furrow will know Peter Brown personally, have shared his passions whilst reading one of his copious contributions to the journal or may only know him by name; Peter Brown - Director of the Biodynamic Association.**

Prior to becoming Director of the BDA, Peter had farmed biodynamically for four decades; first on a farm in South Africa for fifteen years, then Germany before moving to Tablehurst Farm in Sussex in 1994.

In 1996, Peter and his late wife, Brigitte, were instrumental in establishing Tablehurst as one of the first CSAs in the country and the farm as it is today would not exist without Peter's dedicated work. Under his stewardship, Tablehurst has become:

- a biodynamic and organic farm, open to all and safeguarded in community ownership
- a place where young farmers and growers want to learn, work and live and which provides employment for 30 people
- a farm which includes a care home that provides fulfilling opportunities for three adults with learning disabilities
- a popular meeting place for young and old to enjoy seasonal community events, education and participation

For twenty one years, Peter gave his all to Tablehurst and to the local and wider biodynamic community but never had the opportunity to build up assets of his own. Now that Peter has retired from the farm, many people would like to thank him for his devoted work by providing him with a home in which he can live for the rest of his days on the farm that he has cared for so well. This will also help to ensure Peter's expertise and experience are retained at Tablehurst and within the wider biodynamic movement for many years to come.

The house will be constructed from straw bales and will be single-storey with two bedrooms, with a lovely view over the Tablehurst millpond. Straw bale construction is an eco-friendly way of building that will provide Peter with a home that is very well insulated, cool in summer and warm in winter. As with all Tablehurst farm buildings, the house will be owned by local charity, St Anthony's Trust, and will eventually be available to accommodate future farming families.

To achieve this, we need to raise **£100,000!**

### HOW YOU CAN HELP?

To build housing from the farm's income is not possible – the money and help needed has to come in other ways. The Tablehurst Housing Appeal was launched in June 2015. The total cost of building the straw bale house is estimated at this stage to be around £80,000 with the remaining £20,000 going towards improving existing housing on the farm for other Tablehurst farmers and their young families. And thanks to the fantastic response from Peter's many well-wishers, the appeal has already raised £70,000! Please give generously so we can finish our fundraising task and thank Peter for all he has done for biodynamic and organic community-owned farming.

Your donation will be channelled through St Anthony's Trust, the registered charity which owns the farm land and buildings and which is able to claim Gift Aid from HMRC. This will, if you are a taxpayer, make a significant addition to your gift, without costing you an extra penny. You can donate online via our website

<http://tablehurst.farm/community/fundraising-appeal>,

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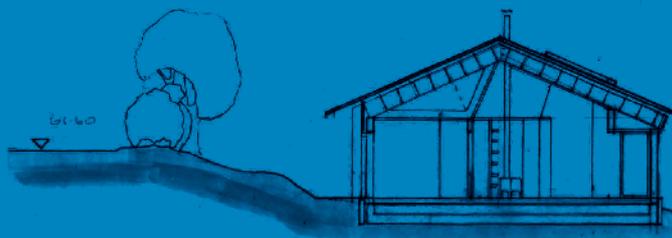
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Cheques should be made payable to St Anthony's Trust.

### Thank YOU

*Rachel Hanney on behalf of Peter Brown & Tablehurst Community Farm*



# UPSIDE DOWN -

## *My apprenticeship in biodynamic agriculture*

Maja Bleckmann

**Some things are only unfolding their true potential slowly with time. Like a seed hibernating in the soil waiting for the right moment to grow into a beautiful plant. I think this is also true for the biodynamic apprenticeship scheme.**

Since 2014 I am holding an internationally-approved certificate stating I am trained in biodynamic agriculture. Although this document proves that I have officially finished the apprenticeship, and you might think this is all what really counts, it is really just secondary. What is really important is the over two years' worth of experience hidden behind this piece of paper.

First of all, and most obviously, you are improving your practical skills. Working outside exposed to the elements all year long makes you more sensitive to your environment with its ever-changing weather and working conditions. This awareness of nature is sadly getting more and more lost in our modern, highly-technological time. So often we forget to take a break from our hectic everyday-life to use all our senses to observe what is going on around you.

While working the land you will very quickly find yourself testing your own physical as well as spiritual boundaries. Working with nature with all its beauty and perfection makes you wonder about your role in the overall farm organism.

Instead of blindly focussing on a single task in front of you, you start to discover the connections between the things around you while exploring your own relationship with the life and work around you. Similar to a mosaic, all your singular impressions slowly start forming a greater picture.

Living and sharing life in the special environment of a Camphill Community during my apprenticeship offered the possibility to fully emerge in a life style following Rudolf Steiner's teachings. It is a very challenging but also very rewarding way of living.

Working and living together with so many different people with all their different personalities, attitudes and

needs makes you more aware of your own personal needs. You have the chance to get to know yourself better through your interactions with other people. This is not always easy but it helps you to develop your own character and find your own space in society.

My first year was very practically-orientated and focussed on getting to know the basics of gardening. I learned the important lessons of learning-by-doing, trial-and-error,

hard work and patience which are essential for any gardener. This knowledge was then expanded and developed further by getting to know the more spiritual aspects of biodynamics in the second year.

In contrast to practical skills which are easily acquired and demonstrated, spiritual knowledge can be very difficult to grasp and understand. Coming from a prestigious German school I was educated to solely trust in the solid facts of natural sciences leaving no room for spiritual influences. Getting to know Anthroposophy was therefore opening up a completely new world to me.

It wasn't always easy to study Rudolf Steiner's works as some of his concepts are very abstract and occasionally contradict common knowledge completely. It's like seeing the world you know upside-down.

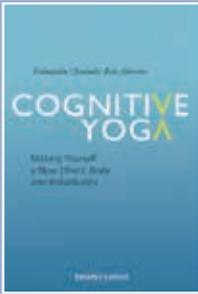
In these cases it takes discipline and open-mindedness to refrain from condemning these ideas as nonsense but to take them in and allowing them to keep working in your head. It is remarkable how knowledge can remain dormant in your mind.

Only now, nearly two years after the end of my apprenticeship, do I really start appreciating how much I have learned during my training. Of course, there were ups and downs, easier and tougher times but that's how life is and there is nothing more satisfying than overcoming the obstacles in your way. Looking back, it has enriched my life in so many ways that I am very grateful that I did the apprenticeship.

*Maja was an apprentice at Loch Arthur Community*



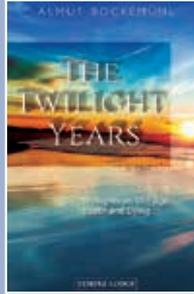
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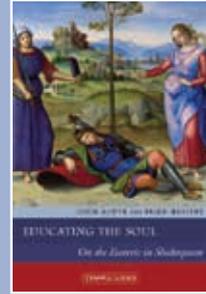
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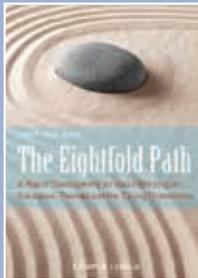
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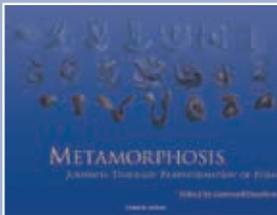
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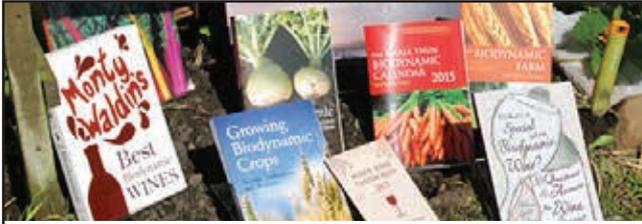
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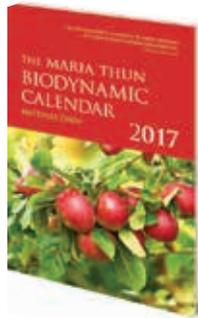


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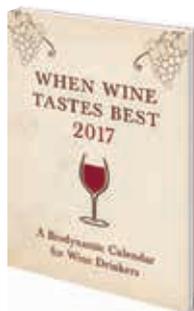
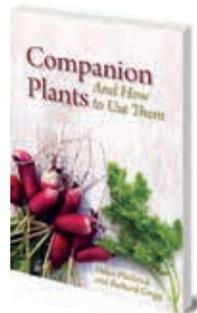
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Following our most recent CQC inspection earlier this year, St. Luke's were rated overall as 'Outstanding'. However, we are looking to develop our way of working. Individual development is actively supported with opportunity to contribute to the ongoing development of a positive and progressive service.



**We are now looking to recruit new members of staff for three new roles:**

### Deputy Manager (Supported Living)

*Full-time, 40 hours per week with shift rota*

The role is to work with individuals in their home, supporting all aspects of their care. In the absence of the manager, to ensure the smooth running of the service, supervising staff and working with the various external authorities. The ideal candidate will hold the relevant qualification to allow for approval as a Registered Manager with the CQC, with significant operational management experience in a care environment working with all levels of staff and external agencies. This role will also have a specific responsibility for ensuring residents have access to meaningful and rewarding activities, coordinating with the proposed Working Activity Manager. Responsible to the Manager and the Trustees

### Working Activity Manager

*Full-time, 40 hours per week, initially a 2 year fixed-term contract*

The role is to propose, develop and implement a daytime working activity program for our ten resident adults with special needs and also for non-resident adults. We envisage regular activities such as gardening, woodworking and crafts. Current facilities will need to be developed and funding organised. The role holder will have overall responsibility for the care and development of the Trust's land working in close consultation with all stakeholders.

This will initially be a two-year post but with the possibility that it could be permanent if successful. Previous experience and success of implementing and leading such activities is essential. Responsible to the Trustees

### Biodynamic Gardener

*Full time, 40 hours per week*

The role is to plan, develop and maintain all areas of the site using a biodynamic approach that can provide work based opportunities for our residents and other adults. Also, to enhance the natural beauty of the site for the enjoyment by all residents, staff and others. To help residents, staff and visitors access and understand a biodynamic approach to care of the land. Previous experience is essential. Responsible to the Working Activity Manager.

**In addition: we anticipate the need for additional:**

### Support/Night Staff Workers

*Full time 40 hours per week or part-time, with shift rota*

Our support Workers need an empathic approach that creates a warm, safe and stimulating environment for our residents. It is desirable for post-holders to have a minimum NVQ Level 2 in Care or equivalent along with work experience in related areas.

- St. Luke's offers an attractive package for all the above roles. Training and development is actively encouraged and supported.
- St. Luke's Trust is committed to safeguarding and promoting the welfare of our residents and visitors; all staff are required to undergo an Enhanced DBS check.

**To apply for any of the above positions St. Luke's Trust require a completed application form.**

Application forms can be downloaded from our web site at <https://stlukestrust.org.uk>

The Trust can also be contacted by e-mail [admin@stlukestrust.org.uk](mailto:admin@stlukestrust.org.uk)

**The closing date for applications is 31st January 2017**

*St. Luke's Trust (Berkshire) is a registered charity number 309076*

# Annual Report

## Patrick Holden Patron

**Some of you may know that about six years ago HRH The Prince of Wales wrote a book entitled *Harmony a new way of looking at our world, in which he set out his philosophy, based on a combination of intuitive observations and his comprehensive knowledge and wisdom derived from decades of engagement and thinking about these issues. Also that all manifestations of the universe at every level, outside us and inside us, and in all spheres of human activity, are governed by universal geometric and mathematical principles. He goes further and suggests that if we re-examine the world in which we find ourselves we can quite literally understand our relationship with our planet and the lives we are living on it in a profoundly different way. As a result, we can find meaning in our existence and connect the microcosm of our own lives to the macrocosm of the universe.***

When I first came across these ideas, although I was extremely interested in them, I did not initially understand what an important new framework of understanding the Prince was introducing, and it is for this reason that I wanted to share these thoughts with members of the Biodynamic Agriculture Association.

I say this because for most of my life, although I have had a very deep interest in these profoundly significant laws and principles, there has been a tendency to separate them from my 'normal life' and to treat them as esoteric, as private and as issues I am interested in in my downtime and personal life, rather than connect them with everything I am doing in relation to the more material dimension of my existence.

This has found expression in my advocacy of organic farming - for

instance, of course I'm interested in the biodynamic philosophy and principles, in fact attending Emerson College was a defining element of my agricultural education, but I have definitely had a tendency to segregate biodynamic thinking from the more easily accessible ideas promoted by the organic movement. In this connection, I believe that Prince Charles' calling is for us to rethink our relationship with the outside world and to realise that the expression of these laws and principles really is everywhere, inside us and around us. Rather than label, categorise and separate the spiritual and the esoteric dimension of our existence from the rest of our lives, we should actually include an exploration of the geometry and maths of existence in our struggle to understand the meaning and purpose of our all too short existence on planet earth.

I am speaking here about insights arising from our understanding of the Fibonacci sequence which expresses itself in plant growth and the golden ratio which inspired the Georgian architects. As well, there is the sacred geometry, which informed the construction of the Gothic cathedrals, the mathematical laws of the musical scale, including the Pythagorean comma, and more intimately, our rapidly unfolding knowledge of the human and soil micro-biomes and the science of epigenetics.

In a sense, a study of these laws is to explore the sacred and miraculous world that exists all around us, even inside us, a world which for so much of the time is hidden from our view because we forgot to look. I may be wrong, but it seems to me that Rudolf Steiner's calling and the impulses he brought into the world, including in his agricultural lectures, are very much connected with the Harmony messages which Prince Charles is bringing to our attention at the present time.

## Peter Brown Director

**Of vital importance, not just to Biodynamic famers and gardeners but for sustainable agriculture in the future, is the need to have the right seed. The Biodynamic Association has been very involved in trying to help meet this need and there have been exciting developments in the Seed Co-operative.**

The Seed Co-operative has at last found a permanent home and acquired Gosberton Bank Nursery in Lincolnshire in February. This is crucial for the seed work and has enabled an agreement with the Camphill Village Trust where Botton will continue to grow Biodynamic seed and do hand sorting of seeds. These will be sold to the Seed Co-operative where the seed processing and selling of seeds, previously done by Stormy Hall Seeds, is now done by the Seed Co-operative at Goseberton. As well as growing, and later breeding, seed at Gosberton we are expanding the number of BD and organic growers across the country who will grow seed. Buying Gosberton was only possible by taking out short term private and bank loans and being given some generous grants, for which we are extremely grateful. We launched a share offer at our BD conference at Ryton Gardens in September and we hope many people will buy shares. We still must raise £350,000 to pay off the short-term loans and ensure we can keep the property and safeguard the work. If you can help please do!

Another important development was the moving of the Land Based Training (apprenticeship) from the BDA to the Biodynamic Agricultural College. This is a separate charity, which includes the BD

online training. The apprentice training has been evolving to make it easier for stretched farmers and gardeners to feel they can take on apprentices and to improve the training. It is encouraging that we now have several BD farms who are coming forward keen to take on apprentices for the first time. The training is a Level 3 Diploma in Biodynamic Farming and Gardening which is now Ofqual accredited and certified by Crossfields Institute. Another development is that Ruskin Mill has also just launched their own special apprenticeship scheme, which specifically caters for apprentices keen to work with the Care of people as well as the land. There is also a new 4-week Online introductory course for anybody interested in learning more about Biodynamics. <http://www.bdacollege.org.uk/>

Last year was the UN year of the soil and we have been involved in a number of events, and last autumn we had the workshop of Vincent Masson from France on the preparations, and in spring Bruno Follador from America on composting and chromatographs, which were a great success. Soil and building its fertility is at the heart of what Biodynamics is about.

We produced a new BD leaflet; and then with Lynda Brown joining us as a Trustee her tremendous energy and enthusiasm enabled a whole new website, as well as the BD Buzz, to materialise. We hope that it gets across better than previously, both attractively and clearly, what biodynamics is and has to offer. A very big thank you to Lynda, Jess, Richard and Sebastian for the hours of work they have put in. The Star & Furrows continue to be outstanding!

# 2016

## Chris Stockdale Chairman of Trustees

**Expressing last year the hope that I would again be able to report on further exciting developments and that the Seed Co-op would find a permanent home, I am glad to say that I can!**

Firstly, our website has had a complete make-over. At [www.biodynamic.org.uk](http://www.biodynamic.org.uk) you will find links to all the parts of the UK BD family and a wealth of information and inspiration.

The Seed Coop purchased a permanent home, which Peter has reported on. For further information on the Seed Co-op, to view the 2017 catalogue, and to shop for seeds please explore their new website [www.seedcooperative.org.uk](http://www.seedcooperative.org.uk). The farm is presently still dependent on a short-term bank loan; membership is growing consistently, but about £350,000 is still required to secure our future at Gosberton Bank Nursery. Please do look at buying a share, or making a donation. Your purchase, donation or membership will be helping one of the foremost future-proofing projects imaginable.

Another Biodynamic initiative needing and deserving of support is Huxhams Cross Farm in Devon. Having visited the farm during our wonderful AGM weekend, I would urge you to help this project, which has so much to bring into the world; you can do so via the BDLT's website at [www.biodynamiclandtrust.org.uk](http://www.biodynamiclandtrust.org.uk), where you will also find details of other projects the BDLT has in motion including Oakbrook Farm near Stroud, and Noltlands Farm in the Orkney.

Timothy Brink steps down as Chair of the BDLT in the New Year; to be replaced by Paul Cody. Best wishes to Tim in retirement after many years of service to the Biodynamic movement, and also to Martin Large, BDLT Founder Director who also stood down this year. Last autumn Sebastian

Parsons stepped into his shoes as the new Executive Lead to whom we wish the best of luck, as also to Paul.

We knew that our current Director, Peter Brown, would at some point need to take time off for a major operation – but not when. We committed to our BD conference earlier than usual – focussing this year on Gardening at Ryton Organic gardens – to see the gardens at their best. Peter, who is now recovering well and resuming work, had by this point departed for said operation and Peter's absence at a critical time was difficult. Jessica once again excelled herself, working ceaselessly for days, to bring about a seamless event, with great speakers, great food, and an inspiring, sociable event. Thanks also to Sebastian, as MC, to Rachel O Kelly and Beatrice Krehl for the many hours put in preparing for the event, and to Richard Swann for technical and general support.

Lynda Brown, co-opted to the Board this year; bringing with her not only a scientific background but a lifetime's experience in food journalism, marketing and promotion, has been assisting Richard and Jess in the Office with our new website (please do look at it, regularly), creating 'BD Buzz' and advising us on how to contract in appropriate support to manage our social media – with excellent results. We thank Lynda for her many hours of work and assistance.

Certification ([www.bdcertification.org.uk](http://www.bdcertification.org.uk)), under Tarry Bolger's management, now Chaired by Richard Thornton-Smith, has continued to grow in numbers and in reach. This year Certification returned a very useful contribution to the running of the Association, and I am extremely grateful to Tarry for his excellent work and his continued and unflinching support for the BDA at the centre of the movement.

BDAC ([www.bdacollege.org.uk](http://www.bdacollege.org.uk)) is developing several new courses including a new online and very affordable 'Introductory Course to Biodynamics'. Nir Halfon joined the board, with Kai Lange ably managing the Work-based Learning Scheme. Big thanks are due to Alysoun Bolger for her tireless input. We also thank BDAC for its annual gift of funds back to the BDA to help us run the core office – a principle which most of our planetary bodies subscribe to.

The Board of Studies, Chaired by Richard Thornton-Smith, oversees and endorses on our behalf (when appropriate), all courses which teach or train biodynamics, by ourselves or others; Richard, Kai, Jonathon Code, Charlotte von Bulow and others have quietly worked on this for years, with little notice let alone praise, not even claiming expenses – a wonderful gift to Biodynamics. Thank you to the above, and to Richard T-S (again) for helping on the development of the Chairs' Conferencing (of the whole Movement).

Growing numbers of Members, & certified Producers and Processors have all helped finances, but Membership, now 1040, has still to reach the '2015' aspirationally suggested in 2015; however, as Ian pointed out at the AGM, we are a Charity, which has been given money to use in the world, not a business, with a requirement to generate a profit. We continue to nurse our Grange Kirkaldy Trust Fund, both as our necessary strategic reserve, and from which some disbursements are made to successful applicants, primarily for educational purposes – details upon request.

Our AGM this year was at the South Devon Steiner School, to whom much thanks is due, as is to Wendy Cook and team who catered brilliantly with beautiful fresh produce from the garden. The hall and the surrounds perfectly reflected our needs and interests.

We visited Velwell Orchard & Huxham's Cross and made BD preps. Combining the AGM's of both the BDA and BDLT, an aspiration for some years, was a successful first, though in future the business meetings would run consecutively so all can attend both should they wish.

In November 2015 we held our first 'BDA Trustees-only' This event, productive and well-attended, was repeated this November, allowing us, without the regular tasks of Council Meeting business, to discover and note for action overlooked corners in our management and time for appraising the year ahead. I am pleased to report that we have a very strong Board, having recently been joined by four excellent new Trustees – Dr. Julia Wright from CAVR, Joel Williams from the world of Soil Science and food, Odilia Kirst from Kings Langley, and Spencer Christy returning to Council after some years focussing on developments on his farm in Essex – a big welcome to all, and a thank you to our other Trustees – Liz Ellis, Sophie Christopher Bowes, John Lister, Beatrice Krehl, Rachel O Kelly, Lynda Brown and Ian Bailey whose wholehearted support is invaluable. We also thank Gareth John, who sadly left the Council in the course of the year due to other commitments.

Huge thanks also to our Staff – Jessica Standing, Tarry Bolger, Richard Swann, Margaret Richardson, Gabriel Kaye, Jo in accounts, Jessie Marcham, the Inspectors and Certification Officers, and our Director Peter Brown who make the organisation tick, often working way beyond remunerated hours.

Finally, a big thank you to our Organisational Members, our Sponsors, and our Patron, Patrick Holden, CBE, for helping us to connect into the wider world beyond our Association's 'farm gate'.





## Tarry Bolger Certification

**2016 has been an inspiring year in the BDA Certification office. At the Demeter International Members Assembly in Finland in June, Demeter UK, together with representatives of Demeter and Biodynamic associations from 23 different countries on five continents voted to adopt a new Vision, Mission, Principles and Values paper for Biodynamic agri-Culture.**

Demeter stands for farming and food systems that help to tackle environmental challenges, respects ecological systems and practices careful use of natural resources. Demeter also fosters cultural change which is why the emphasis in agri-Culture has been highlighted. Cultural change includes a change of mind-sets along with new forms of social and economic cooperation which can lead to a truly sustainable agri-Culture that serves human society. In the UK, we are working on ways in which we can support and encourage this change.

In other areas of our work, we have been developing a new organic logo for those of our licensees that are looking for an additional organic label that we will be registering with the IPO shortly and releasing in early 2017. We continue to develop our database which is an amazing tool and which continues to free up man power that we can then put into development work for our 252 licensees.

Our work in the broader organic sector in groups such as IFOAM UK, English Organic Policy Forum,

the UK Organic Certifiers Group, the Certification Bodies Technical Working Group and of course with the British and Irish governments (Defra and DAFM), ensures that biodynamics is reaching new and broader audiences which is one of our key aims.

Our market development work that I mentioned in last year's report is slowly starting to take shape and the work on this project will be intensified during 2017 and I look forward to reporting our progress on this in more detail and to seeing more biodynamic Demeter certified products in shops around the country.

In personnel news, the Certification Board sadly said goodbye to Charlotte Von Bulow who stepped down as Chair and Board member in April but we welcomed Richard Thornton Smith as our new Chair in September. In the office it's been more stable than previous years – we have welcomed Jessie Marcham as a new Certification and Project Officer.

One other farewell which we haven't made quite yet, is to Timothy Brink who, at the end of this year will cease his inspection work with us. Timothy is the former CEO and Certification Manager of the Biodynamic Association and it will be with a heavy heart that we say goodbye to him after he conducts his last inspection for us. Timothy has been a fantastic colleague, mentor and friend for many of us and his advocacy for biodynamics in the UK have been both exemplary and inspirational. We wish you well Timothy!



## Ian Bailey Finances

**It falls to me to give some account of our finances. In the gospel records Jesus uses many agricultural allegories in speaking to the people and it seems an agricultural analogy or two might not go amiss in my effort now.**

Matthew 13 "See, a sower went forth to sow" goes a long way to illustrating our philosophy with regard to the money passing through the Association. This of course is most poignant when you think of our many years spent nurturing the Biodynamic Seed Work. But in more general terms we should begin with the clear thought that all the money given through, membership, donation, legacy, grants or any other form is given to us to spend on furthering the object of the Association - To develop, promote, and disseminate knowledge of the Biodynamic method. In my picture imagination this is the money we hold in our left arm. I see it simply as 'Love'. In our annual accounts and financial reporting we fall into terms like Profit & Loss, surplus and deficit, but in truth we just gather the harvest of one sowing to make another; and so we go from season to season. Hopefully there comes a little magic to improve our yield from time to time!

I would say we spend our money in three main areas. Three interlocking circles, so no one before the other:

Sharing Information about Biodynamics, launching BD Projects, and representing/furthering Biodynamics in the world. When you interlock three circles a fourth discrete entity emerges at the centre. That's our administrative hub. All the seed is broadcast from there. Harmonious proportions are of course important to us!

Sharing information is about producing our wonderful Star & Furrow magazine, information leaflets, Biodynamic Buzz & Social media

activity. Launching projects in the last year has particularly involved creating the Seed Co-operative as an independent venture and floating off our carrying of the Biodynamic Apprenticeship Training to the Biodynamic Agricultural College. The work of representing & furthering Biodynamics is held partly in the work of Certifying Biodynamic holdings and partly in supporting people to speak about Biodynamics where there is an opening. And also in Research and in the Biodynamic Experimental Circle. Making Preparations for use and selling them together with books also furthers the Biodynamic method we hope.

All this is managed from the administrative hub, and needless to say generates a flood of enquiries and questions coming in and having to be responded to.

This is all what we do with our right arm. Sowing, and imbuing what we do with Hope and Faith.

Our annual accounts represent all this activity going on from year to year in numbers. It should be so simple! But there are just a couple of qualifications that need explaining to help understand what we call the bottom line in the accounts.

We have a Reserves Policy which declares our commitment to holding enough 'seed' in reserve to ensure at least one further sowing should we have a catastrophic crop failure. (there's an agricultural analogy for you!) a large part of that reserve is held in the form of an inherited investment in Charibonds. The value of that investment as many of you will have read on forms of your own may go up or down. So the bottom line only represents the value at a given moment and might be different were it ever to be drawn down into cash. A further interesting thing to be noted is that in the year 15/16 in the cause of raising funds for the newly formed Seed Co-operative we, the BDA, were



given £75,000 to hold in shares in the Seed Co-op, should that venture fold the money would return to the charitable donor and so £75K of our bottom line is only 'nominal'. And that's where accounting can appear to diverge from the reality!

The essential message of our financial report to you is a huge measure of thanks for your generosity shown in such diverse ways. We try to cut our cloth to the measure of those three circles,

but would love to expand and open the circles a bit. To expand a bit by about £20K really. Help welcome! The final parable is of course of having Faith, even as small as a mustard seed ...

	2016	2015
<b>INCOME</b>		
Donations	188,519	56,479
Subscriptions	36,776	28,403
Fundraising	-	-
Investment Income	7,511	8,051
Education and promotion - Training	12,334	72,133
Education and promotion - Publications	25,202	24,705
Certification - Inspections	145,595	126,092
Certification - Manuals and application fees	2,034	6,337
Certification - Defra grant	46,884	28,698
<b>Total Income</b>	<b>464,855</b>	<b>350,898</b>
<b>EDUCATION and PROMOTION</b>		
Training and conference	49,423	52,425
Publications	13,191	11,458
Promotion	84,046	31,134
Book sales	4,911	16,982
Salaries, NIC and Pensions	40,813	40,222
Biodynamic Land Trust and outreach grants	7,000	13,000
Participation and subscriptions	1,641	274
Office expenses	12,844	12,954
Depreciation & impairment	336	336
Other costs	7,997	10,004
<b>Total Education and Promotion</b>	<b>222,202</b>	<b>188,788</b>
<b>CERTIFICATION</b>		
Training	5,841	2,699
Accreditation	11,596	11,491
Admin and meetings	9,149	10,427
Management	8,465	3,897
Processing and certification	1,645	124
International representation	5,612	5,067
Inspections	62,345	54,834
Salaries, NIC and Pensions	69,710	67,666
Other costs	2,504	2,614
<b>Total Certification</b>	<b>176,867</b>	<b>158,819</b>
Governance Costs	3,408	4,194
Gains/losses on investments		7,332
<b>Net Income/(Outgoing) Resources for Year</b>	<b>62,378</b>	<b>6,429</b>



#### Organizational Members

Ruskin Mill Educational Trust and its holdings  
Weleda

#### General donations and support

April 2015 - March 2016

Newton Dee

Dewcross Centre for Moral Technology

Mr Vivian Griffiths

Pamela Jackson

Weleda

Waltham Place

All members who kindly contribute above the annual subscription rate of £35

#### Particular thanks for continued donations

Roger Ross

Lots Rd Auctions

#### Workshops and Events

Bruno Follador

Vincent Masson



Sektion für Landwirtschaft  
Section for Agriculture  
Section d'Agriculture  
Sección de Agricultura

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Annual International Conference  
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