

Biodynamic Research in the UK

Summary

At least in the UK, biodynamic agriculture (BD) lacks the culture of communal research Dr Steiner initiated in June 1924. This is a major barrier to the development and acceptance of biodynamics. The 'experimental circle' is barely active and inherently incomplete. A fuller format is proposed and constructed from the ground up. A real-life example is given of the proposed format working, and a framework is suggested for its future administration and organisation.

Diagnosis

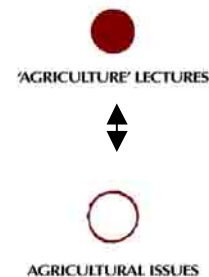
Given the state of the environment and the continuing threats it seems it must endure, one might wonder why all farmers and gardeners have not taken up biodynamic agriculture. However, the briefest contemplation throws up candidates to explain why only a minute fraction of the world is farmed this way. As well as the awkward 'front end' - the unwieldy conceptual and practical basis¹ - I would like to highlight the comparative paucity of robust collegial research² that might persuade an interested farmer to push through the initial difficulties.

These twin obstacles define a challenge for those who feel some responsibility towards BD: to clarify the conceptual basis and to collate the existing research, thus exposing what remains to be done. One could then do this work oneself or encourage and enable it to be done elsewhere. On the basis of this diagnosis of biodynamics I have found an image that represents the existing situation and a possible way forward for both understanding and researching biodynamics. I would like to build up this image step by step.

An evolving image of polarity

Step one is to place biodynamics and farming problems along side each other without any obvious relation between them. This is the current default evaluation of BD in the UK. However, we will postulate that biodynamics has the potential to address the malaise of contemporary agriculture. To do this is to assert that these two factors are complementary poles: in as much as the conceptual foundations given in the 'agriculture course' are sound they enable us to address all the issues that growers face. One can start to represent this potential for relationship as shown in figure 1.

There is an ancient fleshing-out of these bare-bones which represents complementary opposites and how they relate to each other - the familiar Taijitu or yin-yang symbol.

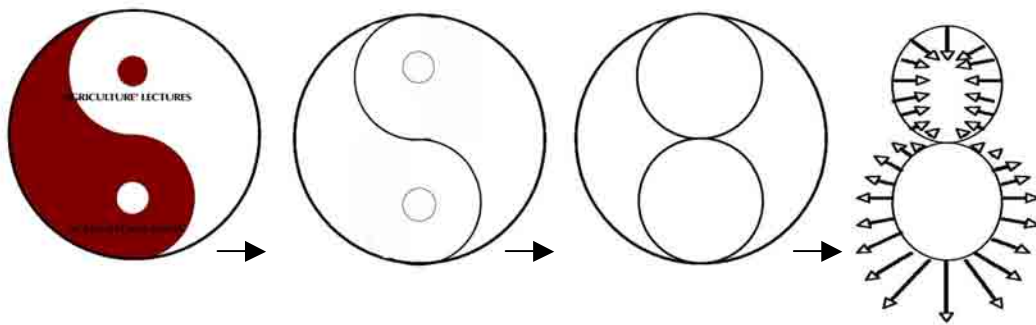


1. The complementary nature of the agriculture lectures and farmers' problems

¹ Conceptual: if anyone who has read the agriculture course is in doubt then please do get in touch with a pithy resume of the difference between Ca and Si in lectures 2 and 6. Practical: ie the different calendars, the horns and bladders, crystallising periods, the holy nights etc. Yet we are called to move over the first shock of meeting biodynamics, into study, and then beyond these essential factors as we move from imitation to creativity.

² Comparative to 'conventional' or even organic agriculture. Perhaps this is particularly true for those who do not have ready access to German publications.

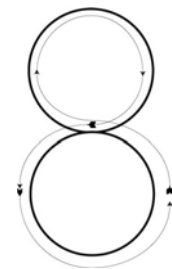
In the anthroposophical world this (two-fold) image of static and complementary opposites has undergone a metamorphosis to emphasise that which is only implicit in the Taijitu, which is that health and harmony occur when there is a continuous balancing of the complementary and polar elements (three-fold). The two original opposing elements and the outer circle of the Taijitu fade away, and the circulation around this now-implicit polarity is completed. This leaves a *lemniscate*, a representation that is now almost an anthroposophical cliché for the dynamic balancing of polarities. The complementary nature of the two defining poles can be shown with arrows to indicate that one of the lobes of the lemniscate is focussed inwards whilst the other is defined by its orientation to the outside, by its expansiveness. I think that the drawing below has the arrows oriented correctly for our example because farmers are looking for things to *do* out on their farms, for products and techniques that will address the issues on their land. On the other hand the seed from which biodynamics has grown – the agriculture course – is a series of lectures based around ideas which are initially received inwardly.



2. The metamorphosis of the yin-yang into the lemniscate

Form into movement

Now that we have redrawn the potential relationship between farmers’ issues and the biodynamic lectures - and always bearing in mind to keep this representation flexible and in motion - we can mentally erase the arrows and leave ourselves with the figure-of-8 or lemniscate. To experience the complementarity of the two lobes I invite you to imagine that you have drawn this ‘8’, large, on the ground. Then walk clockwise along the perimeter of the upper lobe, cross into the lower lobe following around anti-clockwise, back over to the upper lobe and round again and again. In your outstretched right arm is a torch. In the lower lobe the torch is outside the loop and in the upper lobe the light is within. The torch does not change hands but shines within the top lobe, whilst the light shines and guides our attention towards the outside on the other half of the journey. If you then invite some colleagues to walk the path with you it becomes particularly clear that the two original polar elements have been joined by or have created a third element. If you are not to spoil your dynamic meditation with impassioned curses and the smell of singed hair then you have to pay particular attention to this third element which is where and when you cross from one lobe to the next. You regularly cross this point and this is why it is known as the *rhythmic* element or rhythmic system, mediating and regulating the dynamic equilibrium between the two polar elements.



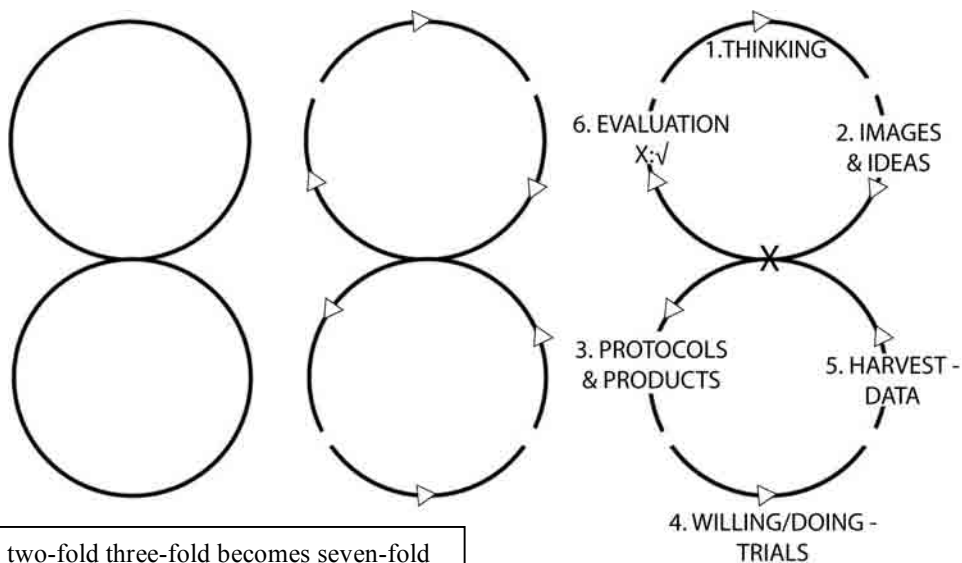
3. Around the lemniscate

Two- three- and seven-fold

Because everything is three-fold from the Trinity to individual micro-organisms, we can develop our form further by dividing each lobe of the lemniscate into three-part paths as below. If we do this we have developed our two-fold Taijtu into a three-fold lemniscate and now into a seven-fold representation – remembering that the cross-over point has its own distinct identity. (Note that none of the drawing’s two-fold and three-fold implications have been lost.)

This is a useful thing to have done because we can now characterise each part of the image. We will do this in connection with our original subject, by relating this journey to the process of researching biodynamics so we can address farmers’ issues with growing confidence. This breaks down an unwieldy project into its essential stages as we label the various arcs on this ‘biodynamic-research lemniscate’.

At the top of the lemniscate is *thinking*, a completely inward activity from which the Koberwitz course originated. The outcome is the course, a set of *ideas or images* that begin to touch upon the issues that originally stimulated the thinking. They are not yet agricultural procedures but they are probing towards practicality. To see if these ideas are actually fruitful on the land we must test them, which means crossing over the central point ‘X’. This arc of the lemniscate prepares for practicality with new tools and ways to use them. Here we create *products and/or protocols* – ideally with controls and enough repetitions to enable us to speak with confidence that any findings are significant – before, at last, we can get on with our completely outward activity: we use the spades, soils, seeds, products and preparations to run a *trial*³ as per the protocol. The product of this outward activity, the harvest, must be enumerated so we can determine if our ideas were fruitful. As we move towards the stage of making sense of what resulted from our activities we need *data*, even in relation to qualities such as taste. The inner realm, to which we now return, needs data in this form to *evaluate* it against the goal we set ourselves. We can then contemplate our triumphs and disappointments with *new thinking* which will guide us, we hope, to be better equipped as we go around the lemniscate again.



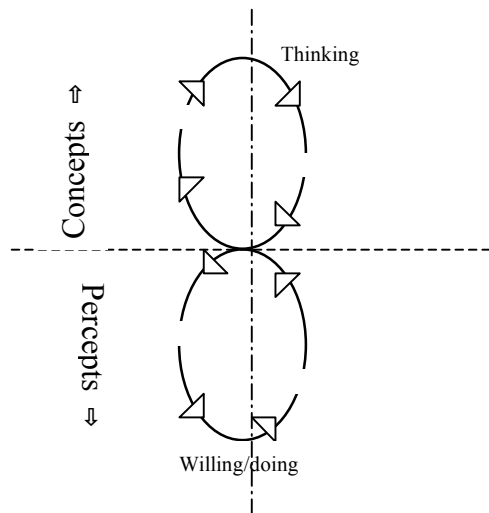
4. The two-fold three-fold becomes seven-fold

³ Some people with whom I have discussed this schema are put off by the idea of running ‘trials’. For some, the word seems too restrictive or to imply a responsibility to undertake only certain activities. However, in the context of this image I mean any experience that can clearly be ascribed to a definite biodynamic activity. See the example in the main text starting on the following page.

We may go around many times and over many seasons until we have a good match between what we think and what occurs, before we have applied our biodynamic thinking in an appropriate way to the problems the land presents. Then we can be confident that we can help others. The process is inherently iterative which means we go around and around, learning each time from experiences and insights, and incorporating what we have learned into subsequent circuits.

Grounding the image in Anthroposophy

We can redraw this lemniscate with some anthroposophical ‘keywords’ in place. We can, for example, look at the vertical line which is defined by the polarity of



5. The lemniscate and anthroposophical keywords

thinking and willing. This begs the question of what characterises the central rhythmical area. I would suggest that the vertical line is the human ‘I’ that must be able to coordinate the three soul faculties so that they work harmoniously for the common project. The upper lobe is conceptual and internal, the lower is available to our senses and is ‘out there’. This gives me confidence that the schema is on the right lines because it guides me through some of Rudolf Steiner’s other fundamental works such as ‘The Philosophy of Freedom’⁴.

One can even find something like this implied within the agricultural lectures and the conversations around them.

Steiner discussed how those who came to the lectures might play their part in developing the new discipline we now know as biodynamics. He talked about the ‘research ring’ or experimental circle that was already being formed by those present and how they would report to Dornach. Steiner envisaged that these two would be like ‘Siamese twins’⁵. I like to think that Dr Steiner’s living image for this may not have been too dissimilar to the one that we have taken pains to build. I feel that our efforts will have been worthwhile if it means that we can ground this image in worldly activity.

Grounding the image in activity: an example

I would like to begin this grounding with an example. The agricultural issue that we wish to tackle with biodynamic insight is potato blight. The original *thinking* stage occurred - not too surprisingly - with the ‘agriculture course’. Dr Steiner offered his ideas in lecture 6 on June 14th 1924, together with a proposed solution. “... we see the forming of mildew, blight, rust, and similar diseases. The over-intense Moon-influence prevents what should work upward from the earth from reaching the necessary level. ... What, then, should we do? We must somehow relieve the earth of

⁴ Sergei Prokofieff uses a very similar drawing in his book, ‘Anthroposophy and the Philosophy of Freedom: Anthroposophy and its Method of Cognition’ Temple Lodge

⁵ “Let us then grow together thus like good Siamese Twins — Dornach and the Circle. It is said of twins that they have a common feeling and a common thinking. Let us then have this common feeling and thinking; then we shall go forward in the best way in our domain.” (http://wn.rsarchive.org/Lectures/Agri1958/Ag1958_address.html)



6. *Equisetum arvense* sporangia

the excessive Moon-force that is in it. ... we now prepare a kind of tea or decoction — a pretty concentrated decoction of equisetum arvense. This we dilute, and sprinkle as liquid manure over the fields, wherever we need it — wherever we want to combat rust or similar plant-diseases. Here again, very small quantities are sufficient — a homoeopathic dose is quite enough.”

Enzo Nastati⁶ made and used this equisetum preparation ‘508’, to limit fungal infestations. However, he expected better results than he obtained and so looked into the life-cycle of the horsetail. In his ‘commentary’⁷ he said: “*We are convinced that the use of the sporangia of horsetail gives a greater chance of success than using the adult plant.*”⁸ Moreover we believe it could be used most effectively as a seed-bath preparation rather than as a spray upon the soil. Probably the most appropriate moment to collect the equisetum is about 9pm, when the most active forces in the etheric body of the Earth are those of water.

To further enhance the action of equisetum we could also make it into a real preparation. As an animal sheath we might consider the hoof of a cow. Indeed, we must take action to counteract the excess of forces that rise from the ground and the hoof is without doubt the part of the animal that is closest to the ground. The cow is also the animal that expresses the most metabolic forces. The hoof could be taken from the back of the animal because those are ones even more related to metabolism. In addition it would be preferable to take the hoof from the left side of the animal as this side is linked to the feminine part - Gabriel.



7. The rear left hooves are identified and separated.

This hollowed-out hoof is stuffed with the sporangia of horsetail, and buried from Christmas to Easter at a depth of 120 cm and in a calcareous soil. Perhaps a more viable alternative might be to prepare a decoction of horsetail in a bottle and fit it in the hoof. The decoction should be prepared for 20 minutes in order to act in metabolic processes.



8. Ready for burying with other experimental preparations.

We could also hypothesise that the decoction could be buried but not in a bovine hoof, but wrapped in hair from a horses tail. The horse’s tail, as well as in name, is reminiscent of the form of the equisetum. Also the forces of the Moon enter the animal through the tail, and the horse is an animal related to Fire (known to oppose Water). At this point, further strengthening of the preparation could be achieved with dynamisation.”

⁶ Former president of Demeter in Italy, before his own original developments necessitated their own ‘homeodynamic’ category.

⁷ ‘Commentary on Dr Rudolf Steiner’s Agriculture Course’. ISBN 978-0-9517890-6-3 (p231)

⁸ The fertile sporangia phase of equisetum is the first to appear in spring and cedes to the taller infertile plants with which we are more familiar and which is normally used to make 508.

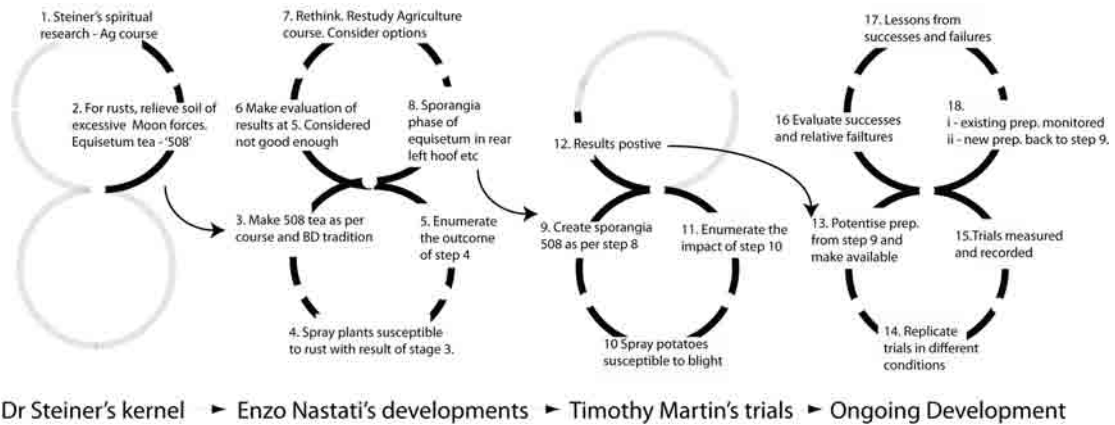


9. The flowering potatoes in Limerick.

The above covers the ‘thinking’ and ‘ideas and images’ stages, and part of the ‘protocols and products’ stage. The latter stage was completed by Timothy Martin⁹ in Eire. He did as Enzo suggested to create the preparation and then sprayed his potatoes. The ‘data’ and ‘evaluation’ stages are tangled but unequivocal: “I sprayed this prep on potatoes after stirring for 20 minutes by hand. I stir all my preps by hand even for an hour. I could never get the flowering process of the potatoes to

work its way up to the stem and give me flowers on top. I always got blight as the flowering worked itself out too early in the lower region. After spraying the prep from the hoof the flowering came right up the stem to the top and gave me flowers as if a light had been turned on. I was so happy I would go to the flowers most days and smell them.¹⁰”

We can put this whole process onto successive lemniscates to show the evolving research and development of this one preparation.



10. A path of development of ‘508’ to address potato blight.

All this is encouraging, but one must go around the lemniscate several more times to see if this anecdote is part of something robust, and that means repeating the application there and on other land. To this end the preparation was potentised and made available to other growers, one of whom tried this *sporangia equisetum* in Yorkshire - and his results were also good! A few more successful circuits and we might be confident enough to suggest that it be used wherever there is blight. As we do so the upper lobe of the lemniscate would begin to fade into the background and the preparation would establish its centre of gravity out in the world.

When I first found biodynamics I assumed that there would be many more examples like this in which anthroposophical reasoning and experimental development would be mutually reinforcing to ground more of the huge potential of the agriculture course in relation to farming issues. However, despite the fact that this research process is well described by anthroposophical cartography, this process does

⁹ An independent researcher.

¹⁰ (<http://considera.org/materiamedicagricultura.html?remtype=3&rem=46>)

not seem to be entrenched in biodynamics. I want it to be instinctively engrained in our circles. On the other hand the process it describes is implicit in all mainstream product development, research, and experimentation. It is a plan of what is obvious in R&D departments all over the world.

Perhaps if Dornach and the experimental circle had thrived over the last 90 years I like to think it would be to biodynamics that the world would turn to deal with CCD, blight, carbon capture, pollution of the water table, development of new plants, slug control, social forms around farms etc. As it is, the promise of BD is barely developed, and it is seen more as a lunatic fringe than the cutting edge.¹¹ If anyone thinks it has fulfilled its potential I think they do not value BD highly enough.

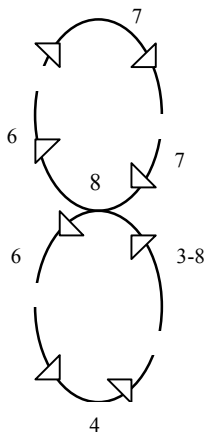
Collaboration and the future

I write this to encourage and not to point the finger, and so that we might all feel that we can get involved. As one can see from the blight example developing the potential of BD is not a task for one person. Every reader of this article has something to offer if they feel a connection to this lemniscate.

Another way to use the lemniscate is to calibrate oneself! Some amongst us are particularly good at the hands-on work of farming but would shudder at the thought of having to comb through Steiner’s works for clues on dealing with blight. They would be happy to be guided but not to devise the programme. Some can do all of it but do not value their experiences sufficiently to bother others with them – to communicate and share them. Others are poor at getting out into the garden except in the fairest of

weathers, especially when the postman has just delivered a set of newly translated lectures with which to grapple.

If I calibrate myself on this, my “BD-development profile” would be a bit like this: I would say I could knock up a reasonable set of *protocols* and although I’d need some advice from a statistician to know how many repetitions to plant, I would understand what the statistician said so I’ll give myself 6 out of 10 there. By temperament and in this stage of my life I’m more egg-head than calloused-palmed so I know there would be better folk to run the *trials*. *Measuring* lots of plants could be a bit of a drag but I think it would be great fun with a team so my 3 could go up to 8 if I got support. *Evaluation* is straight



11. Self-calibration on the lemniscate

forward for me (if the data is clearly presented). Since much of the transition from data to information at the evaluation stage is well done by computers and I am competent there I’ll give myself 6 out of ten. *Thinking* – that’s me, a little in danger of floating off into abstractions but I’ll take a 7. Forming the output of that thinking goes OK if I work hard at it so I’ll give myself another 7. (If this article means nothing to

¹¹ From Peter Selg’s book, ‘The Agriculture Course’ (ISBN 978-1-906999-08-7) it is clear that Rudolf Steiner was keen that his agricultural initiative, unlike so many of the others that he inspired after the first World War, was able to grow to become accessible to the mainstream. ‘Rudolf Steiner expected positive work from this society, an ‘active content’ and engagement with tasks ‘which people outside it can also respect’... ‘Gradually it will have to ... happen that we reach a point where even our opponents recognise that there’s something in what we’re doing, that they develop regard for the study and research accomplished in the Anthroposophical society. (p60-61)

you then you might want to give me a lower score.) And then I've given myself an 8 – ahh, the hubris – in the centre point. We haven't really defined this point but I think it must have some grounding in both the practical and the conceptual realms. To be comfortable here one must be reasonably good at and understand the value of clear communication. One must give oneself permission to be a part of driving and regulating the whole project, to bring and keep it in existence. This point is the heart of the lemniscate. Well, I think this is an important project for our times, so I'm in. Where do you fit in?

A hope

I would like to think that enough people are motivated to give this image the energy to come alive, to be part of the blood that circulates around this lemniscate. Much of the activity it depicts already exists as the farming and gardening BD growers undertake all the time. It is the measuring, evaluation, connection, consideration, organisation and communication that seems to be lacking.

One format for the incarnation of the 'biodynamic-research and development lemniscate' image is a reinvigoration and clarification of the role of the experimental circle. Another would be to use the Considera project which is set up to clarify the existing thinking, bring new thinking to biodynamics, collate the research and make new products available. I would like to think that what is already alive in these two organs can mutually reinforce each other and undertake that coordinating role.

Whether or not either of these existing organisations can really carry this work, clearly this is not a project for one person. It needs a team. This article is an extended plea for such collaboration. The development of BD needs those who are happy to do the work and report on their findings. It needs others to collaborate on evaluation and planning. It could use financiers. It needs those who will hold the whole picture and others who can focus on one or more parts. It needs those who can formulate and communicate relevant ideas. I'm confident that everyone who is motivated to join in will fit in somewhere.

Can we work together to pass on a biodynamics that is more confident and competent to handle the challenges of the coming years?

Mark Moodie. Easter 2011.
mark@considera.org

Mark Moodie runs three enterprises:
www.considera.org to stimulate, undertake, gather and collate biodynamic research, www.considera.co.uk to make potentised preparations available in Europe, and www.moodie.biz to translate and publish books about biodynamics.

