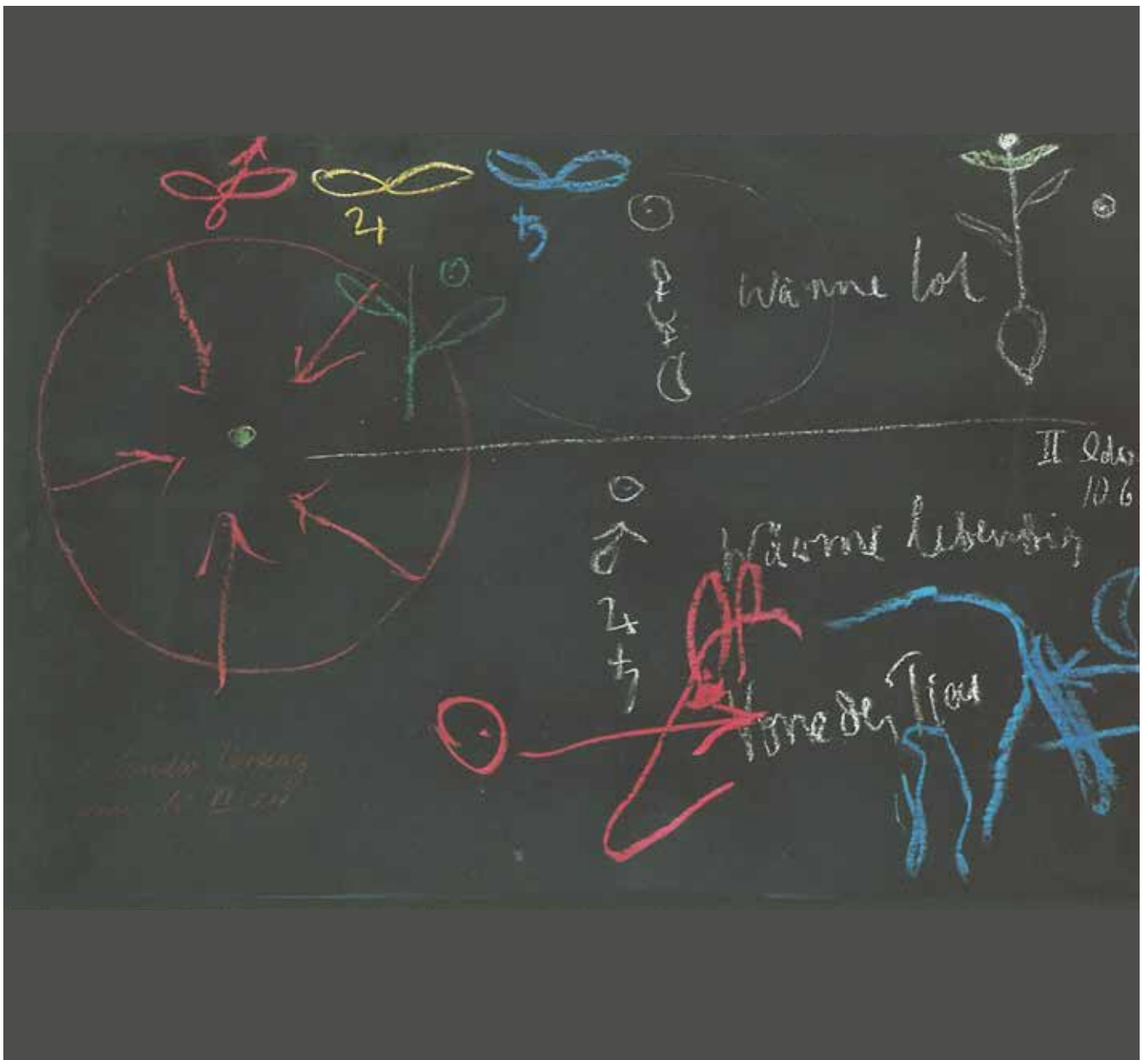




Circular 119

Summer 2021



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Cover: Rudolf Steiner, Blackboard drawing for the lecture given on 10 June 1924, Agriculture Course, GA 327, Rudolf Steiner Press, London.

Dear readers,

An especially important theme of this circular is the "Agriculture Course"; three articles are devoted to it. The reason for this is the fact that the work on the new edition of the "Agriculture Course" as Volume 327 of the Gesamtausgabe or Complete Collection of Rudolf Steiner's Works is far advanced. It is planned to make the new book available from the end of this year. As an editorial group it is a great concern for us to enable as many of you as possible, dear readers, who have a deep, personal connection to the Agriculture Course, to take part in the event of the new publication. The three articles in this circular are meant to mark the start of a conversation among us about the Agriculture Course. Thereby, we shall also begin to focus on the coming 100-year anniversary of the Agriculture Course. The preface to the new edition by Ueli Hurter endeavours to pick out four current key themes of the Agriculture Course as a sketch of the history of its impact. The article "The most important Corrections in the ninth Edition of the Agriculture Course" by Rudolf Isler shows more or less the most important changes that have been made. The article by Martin von Mackensen "Potassium and Fertilising" shows with the help of a theme how, with a deeper occupation with the Agriculture Course, new horizons in our understanding of farming processes can become apparent to us.

Furthermore, in this circular you will find an article on the current theme of the year, a discussion of the Leading Thought which will be worked upon at the next agricultural conference, and several more items.

St. John's is here. In the northern hemisphere it is the summer solstice, in the southern hemisphere the winter solstice. The one earth that carries us always experiences the whole course of the year, all the seasons at the same time. Let us try to be a partner to this earth of ours as a 'you' to 'you', by bringing the highs and lows within us into a dialogue so that we can work on it from out of the calm and strength of our whole humanity.

A handwritten signature in dark ink, appearing to read "Ueli Hurter". The script is cursive and somewhat stylized, with the first name "Ueli" and the last name "Hurter" clearly distinguishable.

Ueli Hurter

# Foreword to the ninth edition of the “Agriculture Course”

Ueli Hurter

The upcoming centenary of the “Agriculture Course” in 2024 provided the motivation for the Section for Agriculture at the Goetheanum to take the initiative for a new edition. The publisher, the Rudolf Steiner Nachlassverwaltung, offered to help, and so this completely revised ninth edition has been created in a joint project. The aim was to provide an edition using the best possible sources. To this end, the previous publishing history was carefully reviewed, the existing shorthand notes retranscribed, recent finds from the archives added, the book’s layout reorganised and the comments section revised and expanded.

Almost 100 years after the Agriculture Course, it may be said that a powerful effect has resulted from those days in Koberwitz (Kobierzyce) from 7 to 16 June 1924 with around 130 participants. The biodynamic movement that arose from this is still experiencing a gratifying development. Holding Volume 327 of the complete edition in your hands, you may ask yourself how this is possible? After all, the body of texts made up of eight lectures, four sets of answers to questions and accompanying texts appears outwardly modest in relation to its ongoing impact. One factor is the content, the other is the characteristic style in which Rudolf Steiner speaks. This is characterised by the fact that wide-ranging viewpoints from anthroposophical spiritual science are closely woven together with practical considerations for the work in field and byre. Steiner described this style in the address to the youth on 17 June as follows:

“I would say that, in this course, I have tried to find the words out of the actual experience. Nowadays there is no other way to find the spirit except by finding the possibility of clothing it in words given by nature: through this the feelings will regain their strength”

Rudolf Steiner did not lecture over people’s heads, but spoke to the hearts and hands of the farmers. It is still possible to experience this when working with the Agriculture Course. In the biodynamic movement, the expression “Koberwitz impulse” has arisen for this. An impulse goes deeper than a course of lectures, it appeals to the will. So from the historical distance of almost 100 years it can

be said that the Agriculture Course represents a *cultural impulse from anthroposophy in the area of agriculture*.

This foreword will first examine the content of the first part of this volume by means of a few examples. Secondly, through the foundation of the Research Group that, in Part Two of this new edition is judged as essentially belonging to the Agriculture Course, attention will be given to the special relationship of research and practice, as it is revealed there. The third aim is to provide a short history of the impact of the Agriculture Course.

## **Substances as bearers of the spirit: nitrogen and silica**

The Agriculture Course contains a unique study of substances. In the very first lecture, there is an introduction to the polarity of silica and calcium. They are the material representatives of the higher and lower forces between which agricultural life takes place. The third lecture then deals essentially with the substances that form protein as the material of life. Rudolf Steiner goes in detail into nitrogen, sulphur, carbon, oxygen and hydrogen and describes their interaction. Rudolf Steiner thus has the attention of his audience who, as educated farmers, were knowledgeable about the agrochemicals of their time. However, he portrays these substances like personalities, with each having its task in the ecosystem, and describes how they interact. For example, nitrogen is characterised as the carrier of life (oxygen) to the workings in the organic realm (carbon). Nitrogen acts from a delicate sensitivity to all the nuances of living processes in the agricultural organism. It is portrayed as a clever, sensitive fellow who knows where which forces are at work in the living processes of the farm. The farmer can come close to nitrogen, learn from it, become receptive to its knowledge of relationships by connecting to his farm meditatively, through inner experience.

In the way in which the substances are portrayed in the third lecture as carriers of the spirit, calcium or limestone appears as the fellow with cravings who wants to seize everything for himself and silica as the noble gentleman who wants nothing for him-

self. The crystalline silica in minerals and rocks is not actually the crucial factor: it is the silica nature that is present everywhere in nature in a fine homoeopathic dispersion. And in this form it is also entirely undemanding. For comparison, Rudolf Steiner takes our sense organs that do not perceive themselves, but are selflessly open to the outside world. "The silica-nature is the universal sense within the earthly realm." From this more descriptive characterisation of silica, at the end of the fourth lecture Steiner moves on to the practical activity with the silica preparation. Following the horn manure preparation, Rudolf Steiner describes very succinctly how to make and apply the silica preparation. With reference to the effect, he merely says: "...how the dung from the cow-horn drives from below upward, while the other draws from above — neither too feebly, nor too intensely."

It is quite remarkable what a key position Rudolf Steiner assigns to silica. Neither before nor after him did agronomy ever attach any relevance whatsoever to silica. However, silica has become very important elsewhere over recent decades, specifically in the semiconductor industry. Besides electricity, computer technology and artificial intelligence in general depend materially in large part on the raw material silica. Insofar as intelligence requires a physical carrier, then silica is well suited to the purpose. Rudolf Steiner discovered this fact in his spiritual scientific research. Silica is not a living substance, but a consciousness substance. That which can be described as outer consciousness or cosmic intelligence in the macrocosm, particularly what emanates from the planets beyond the sun, is mirrored by silica and acts in this way on life, even though it is not involved directly in the biological and physiological processes. This example illustrates something that applies throughout biodynamics: matter and substances are important especially from a spiritual viewpoint, because the spiritual or cosmic forces can only act on the earthly through matter. Matter is the bearer of the forces of life, feelings and consciousness.

### **On the preparations**

The preparations can be described as the heart of biodynamics. Steiner even places them in the middle of the Agriculture Course in the fourth and fifth lectures. They are based on the broad and profound natural history of the first lectures where an

agricultural view of nature is taught from the perspective of, "What is cosmic, what is earthly?" At the same time they are very practical agriculture, they are directly accessible to people who work as gardeners and farmers. Understanding tends to follow doing, rather than preceding it. Rudolf Steiner intentionally did not supply any kind of theoretical approach to the preparations, expressing it as follows: "...we shall draw the practical conclusions, which can only be realised in the immediate application and are only significant when put into practice."

We can live manually, artistically, scientifically and meditatively with the preparations. The manual production of the preparations is no secret: the knowledge is passed on actively through courses. The preparations do not exist unless they are made: they do not occur in nature. They are cultural creations. By working with our own hands we are directly involved in their creation.

An artistic element can come about when applying the preparations if the application time is set with what might be called a musical sensitivity, whether in relation to the development of the plants, to the course of the seasons or to the star constellations. Scientifically, the effectiveness of the preparations can be found by means of simple or more complex comparative trials. Inner work with the preparations can be a path from a view of the earthly materiality to an idea of the faculties that can be awakened through them in the whole living processes of the farm.

Although their importance depends on their direct application, the significance of the preparations must not remain limited to their agricultural benefit. If the preparations are used at a place over many years, it is possible to feel that the farm or garden synchronises more and more with the conditions of the whole earth. Through this experience the question arises as to the significance of the preparations for the development of the whole nature of the earth. Could they not be beneficial for the evolution of the earth as a living being? Elements of an answer to this question can be found in the Michael Letter "What is the Earth in Reality within the Macrocosm?" by Rudolf Steiner (in: Rudolf Steiner: *Anthroposophical Leading Thoughts*, GA 26), a text that he wrote a few months after the Agriculture Course. There it describes how the initially very life-filled macrocosm gradually died, so that

human beings could attain clear thinking and self-consciousness. The earth is now an end product of this development, like a seed. But at the same time it is also the seed of the future. As the seed of the future it has already started to germinate. Rudolf Steiner describes that an excess of germinating forces from the plant kingdom streams out into a future evolution of the cosmos. These germinal forces arising from the plants were formed from excess forces from the animal kingdom and are correctly guided by corresponding excess forces from the mineral kingdom. In this way a new macrocosm is emerging. The human being cannot participate in this with his thinking alone, but must engage his will. This description should be seen as a great future earth imagination in connection with the preparations in the Agriculture Course.

### **Thinking and manuring: on the question of nutrition**

The question of nutrition runs through the whole Agriculture Course. For Rudolf Steiner it was clear that agriculture is carried on in order to produce foodstuffs. As a producer, the farmer is responsible for the quality of the products that he grows. Voicing the concern that product quality was deteriorating was one of the reasons that the Agriculture Course came about. However, nutritional physiology in the traditional sense is not part of the Agriculture Course. The viewpoint from which the issue of nutrition implicitly resounds through all the lectures is more broadly formulated: how should the life and ripening processes on the farm be guided so that the foodstuffs produced can provide the human being who eats them with the basis for his physical and emotional life?

Artificial fertilisers are rejected because “the mineral fertilisers are in fact the ones that contribute significantly to [...] this deterioration of agricultural products.” Accordingly, in the Agriculture Course, Rudolf Steiner develops a different type of fertiliser. After a broad discussion of composting, the fourth lecture culminates with the introduction of the horn manure and silica preparations. This new type of manuring is justified by the quality of the food that it produces. “The important thing is, when these products get to man, that they should be beneficial for his life. You may cultivate some fruit of field or orchard in its appearance absolutely splendid, and yet, when it comes to man it may only fill his stomach without organically fur-

thering his inner life. [...] Nay more, as everywhere in Spiritual Science, here too we take our start above all from man himself. Man is the foundation of all these researches ...”.

The last sentence can also be read from a viewpoint that does not aim directly at nutrition, but makes man the basis for the description and establishment of a biodynamic agriculture. In fact agriculture is discussed as an individuality with an ego-potentiality, in other words with concepts that come from the study of culture rather than the study of science. The eighth lecture describes how the process of digestion incorporates the food absorbed in the stomach into the brain in particular. “The brain mass is simply an intestinal mass, carried to the very end.” Rudolf Steiner is very aware that this sounds bizarre, but for him it is simply a fact. This fact is now being confirmed by current research. The biome in our digestive tract acts formatively and constitutively on the brain and nerve tissue.\* This consequently affects the neurophysiological functions as the basis for our thinking, feeling and willing.

According to Rudolf Steiner the brain is the seat of our ego. You could also say, of our self-consciousness. This is highly developed in human beings. This is possible because there is a material basis for it in the human brain, as everything has been extracted from the food substance. A comparison is then made with the animal. The animal also eats, digests and has a brain. But it has no self-consciousness, at least not to the degree that the human being does. Its ego-potentiality remains in the digestive substance and this becomes manure. The manure as ego-potentiality reaches the plant root, the head pole of the plant. Because in the closed agricultural organism the feed comes from the farm itself and the manure is used again on the farm, there is a recurring meeting with itself every year, and the farm awakens to its ego and can be addressed as an individuality. It is like an outer person that contains all nature. From that point of view “...we take our start above all from man himself”. Food produced in a context like this is the kind suited to modern human beings.

From today’s viewpoint we could say that Rudolf Steiner was not concerned in the least with the

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\* See for example: Thomas Hardtmuth: *Mikrobiom und Mensch. Die Bedeutung der Mikroorganismen und Viren in Medizin, Evolution und Ökologie – Wege zu einer systemischen Perspektive*. Berlin 2021

teaching of hygienics. But the statement that, on the one hand the naturally occurring life forces of the earth are disappearing and, on the other that modern humankind is becoming increasingly individualised, leads to the insight that, “forces must be acquired from the spirit that are totally unknown at present and that do not mean that, for instance, agriculture will be improved a little, but which mean that even the life of human beings – the human being must live from what the earth bears – will be able to continue on the earth, including in a physical sense.”

### **Spiritual research and practice**

The fact that the Agriculture Course has become a powerful impulse is closely connected to the founding of the Agricultural Research Group of anthroposophical farmers in Koberwitz. This foundation was difficult due to disagreements. The documents now published as part two of this edition give an explanation of this. Ernst Stegemann, who had more of an inner esoteric approach, and Graf Carl von Keyserlingk, who tended more to economic rationality, were unable to agree. A third group of younger people (the brothers Hellmuth and Erhard Bartsch, Almar von Wistinghausen, Franz Dreidax and Immanuel Vögele) were principally concerned with acquiring practical information for the day-to-day work. Despite these differences, progress was made and the joint research group founded. This achieved three things. First, everyone was formally united and therefore able to take action as an organisation and budding movement. Second, the practical work was able to start directly following the Agriculture Course. Third, the Research Group represented an independent partner to the School of Spiritual Science at the Goetheanum

This partnership was the subject of the address on 11 June after the founding of the Research Group. As the spokesman for the farmers, Graf Keyserlingk wanted the “stupid peasants” to merely carry out what they were told by the “wise section leaders” of the School in Dornach. Rudolf Steiner did not agree with this at all: “From the beginning, therefore, we shall need most active fellow-workers — no mere executive organs.” Rudolf Steiner then spoke about his admiration for the farmers’ knowledge, because this penetrated deeply into the very real cosmic-earthly relationships that exist at the place where the farmer works. In contrast, science easily runs the risk of generating abstract and dead

knowledge. The emphasis on this type of practical know-how and practical research for fruitful work on the basis of “Spiritual Foundations for a renewal of Agriculture” truly belongs to biodynamic agriculture. It is not a case of simply putting a theory into practice. It is only through the execution in practice, in other words in the existential situation through the course of the year and also in the local economic, social and cultural contexts, that an understanding of what is said in the Agriculture Course can gradually develop. Rudolf Steiner even went so far as to want farmers’ knowledge for Dornach. “We shall have to grow far more together; in Dornach itself, as much as possible of the peasant-farmer must prevail, in spite of our being ‘scientific’. Moreover, the science that shall come from Dornach must be such as will seem good and evident to the most conservative [...] farmer.” If you remove the attitude that is explicitly expressed here from the historical situation, then you can see how progressive it is. The question of how the scientist and practician in agriculture can work together is still relevant. It is often an area of conflict. New knowledge, for example about ecological relationships, is not applied in practice, the farmers do not want to be told what to do and carry on as before. What the practitioners know from their work does not count as “real” knowledge for the scientists. It is not accepted and remains an individual experience. However, to meet the challenges that lie ahead in the farming and food sector, mutual acceptance and support between practice and science are crucial. It can be viewed as a challenge for the biodynamic movement to develop the potential of this combination of practice and research.

### **The history of the impact of the Agriculture Course and a look forwards**

Directly after the Koberwitz course the Research Group started its work, so a network of people and farms was soon created where the information from the Agriculture Course was being used in a practical or advisory way and also in simple comparative trials. There was a lively exchange of views with the Natural Science Section at the Goetheanum. The Section leader, Guenther Wachsmuth, was able to make the Agriculture Course available as a printed book that same year, based on short-hand notes by Kurt Walther. The leaders of the movement came up with the name “biodynamic” as a compromise or combination of two viewpoints

that wished to emphasise the more “biological” or the more “dynamic”.

Only a few years later in 1928, the Demeter trademark was registered as a label for products from biodynamic farms for urban consumers. In the 1930s Erhard Bartsch, who farmed the Marienhöhe in Bad Sarow east of Berlin, became a dominant figure. After the National Socialists seized power in 1933, he and his fellow campaigners even sought to work with those in power in an effort to keep the young biodynamic impulse alive, but in 1941 all biodynamic organisations were finally banned.

In other countries, individual pioneers were also quick to convert the first farms and estates to biodynamic methods. Mention should be made of the farms of Loverendale in the Netherlands (1926), Oswaldhof in Switzerland (1930) and the Wurzerhof in Austria (1926). In some other countries such as Norway, England and the USA, a pioneering biodynamic movement arose in the 1930s as a result of charismatic advisers.

The work had to be re-established after the Second World War. The backbone of this was now formed by rural family farms. In the 1970s in many European countries a generation of farms was established by idealistic young people from the cities. With an urban rather than rural background, good agricultural practice often had to be learned through many mistakes. As a result, the social fetters of traditional agriculture did not affect these farms, and varied new social forms arose in and around the farm communities. In a third wave currently underway, it is mainly highly specialised farms – primarily wine growing, fruit growing and vegetable farming – that are integrating biodynamic methods into their practice. The rapid development in viticulture is driven by quality: biodynamic wines often come out very well in the compulsory tasting. The same applies to the upcoming coffee and tea growing. In the case of other special crops such as vegetables, fruit and particularly bananas at the moment, it is market demand for Demeter products that provides the driving force for conversion. In addition there are also many thousands of micro enterprises, particularly in India, which are encouraged into community projects on biodynamics and so achieve a better quality of life for the whole family. Biodynamic cotton growing in Egypt, India and Tanzania should also be mentioned. This has

succeeded in creating complex value added chains from the seed via cultivation to the finished clothing manufacture. The biodynamic movement is now very international: biodynamic activities take place in all cultural areas and all climatic zones. Every type of farm, whether large or small, poor or rich, mixed or specialised, certified or not, is welcome and contributes to the richness of the global movement. Putting it in rather general terms it can be said that the biodynamic impulse is universal, with the distinction that its central principle is the individualising of the farm.

The movement that arose from the Agriculture Course did not remain restricted to agricultural enterprises, but has given rise to a wide range of scientific, legal and economic initiatives. The Research Institute at the Goetheanum under the leadership of Guenther Wachsmuth and Ehrenfried Pfeiffer can claim to be the first research institute for organic farming. Intensive research activities were also set up in other countries. In the 1970s the first dissertations were written on biodynamic subjects. The DOK study is one example of many research projects. This is a long-term study in Switzerland that compares the three agronomy systems dynamic, organic and conventional. Now after 40 years of research, it is clear that biodynamics lies in first place for sustainability parameters and its carbon footprint.\*

In the legal area new forms of ownership for land and property were developed and introduced, an area where intensive work is carried out with anthroposophical groups involved in social science. The development of the market for organic products that was and continues to be energetically promoted by Demeter groups was also inspired by associative economics as described by Rudolf Steiner. After all, the organic share of the food market in some countries is around ten per cent. The CSA (community supported agriculture) movement, in which the customers create a directly supported agriculture for the farm, also has its roots in the movement that arose from the Agriculture Course in Koberwitz. This also applies to the broad environmental movement that received a major boost from the book *Silent Spring* by Rachel Carson,

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\* Paul Mäder et al.: *Erkenntnisse aus 21 Jahren DOK-Versuch*. FiBL Dossier: *Bio fördert Bodenfruchtbarkeit und Artenvielfalt*, Frick 2000, p. 16  
Skinner et al.: *The impact of long-term organic farming on soil-derived greenhouse gas emissions*. 2019, 9:1702 | <https://doi.org/10.1038/s41598-018-38207-w>



published in the USA in 1962. Carson had received important suggestions from the Agriculture Course via her friend Marjorie Spock, a biodynamic gardener and eurythmist.\* Amongst the wide range of practical areas that are part of the biodynamic impulse are an independent plant breeding programme, a veterinary approach, many types of inclusive socio-pedagogical work, political lobbying, very varied educational initiatives and worldwide networking. This extensive movement is like a confirmation of the comment by Rudolf Steiner in the Agriculture Course, “how intimately the interests of Agriculture are bound up, in all directions, with the widest spheres of life. Indeed there is scarcely a realm of human life which lies outside our subject. From one aspect or another, all interests of human life belong to Agriculture.”

On the morning of 17 July 1924, after the end of the Agriculture Course, in an address to the young people printed in summary in the appendix to this volume, Rudolf Steiner spoke clearly to the hearts of the upcoming generation. He fully supported their longing of wanting to submerge themselves and their profound feelings in nature. But he also said that the earth needs courageous dedication from active people. He spoke imaginatively of Michael’s sword that is to be sought and found under the earth. “Have the strong but modest self-confidence as young people to grasp your task on earth, for your own biography but also for the life of the earth.”

For nearly 100 years, quite a few younger generations have followed this first one. And there is no reason to imagine that today’s younger generation will be the last that will be inspired in the depths of their hearts by the Agriculture Course for a lifelong commitment. Today’s generation could be followed by many others. The power of the Agriculture Course is by no means exhausted, time and again it demands and enables a new approach. Further generations of young people on all continents will be inspired by this source, and will help to develop an agriculture of the future.

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\* see for example: John Paull: *The Rachel Carson Letters and the Making of Silent Spring*. Sage open, July–September 2013, pp. 1–12; or: Dieter Steiner: *Rachel Carson, Pionierin der Ökologiebewegung – eine Biografie*. Munich 2014

# The most important Corrections in the ninth Edition

Rudolf Isler

## New Book Title

The title of the book has been changed and now is called the same way it has always been called in everyday usage:

**LANDWIRTSCHAFTLICHER KURS (Agriculture Course) Geisteswissenschaftliche Grundlagen zum Gedeihen der Landwirtschaft**

## The Editors

The ninth edition has been fundamentally worked over. The editors are Hans-Christian Zehnter, Rudolf Isler, Ueli Hurter, Martin von Mackensen and Albrecht Römer.

## A special bit of luck

It has been possible to render the shorthand transcripts by Lilly Kolisko, who was present during the course at Koberwitz and in Wroclaw, anew in fair copy. This resulted in text variants, corrections and additions. Especially important are fragmentary notes of a discussion of the farmers, probably on 8th June in Wroclaw, in which Carl, Count von Keyserlingk, and Ernst Stegemann had words. Despite this incident a resolution was formed, in which the farmers present founded an experimental circle and a working group. This resolution was read out and commented on on the morning of 11th June by Carl von Keyserlingk. Its wording is included in the newly deciphered shorthand of Lilly Kolisko and appears beside the fragmentary notes on the conversation in the new edition for the first time in print. Steiner's address followed afterwards, which had been already included in the earlier editions of the Agriculture Course. After the address Steiner held the third lecture, in which he referred to what he had just said in the address.

### *Further missing Passages*

In the second question-and-answer session on 13th June until now a longer passage about magnification through a microscope had been missing, which has been passed down in typescript and from Kolisko. Steiner criticises the opinion that things can be evaluated, when they are strongly magnified.

A discussion about corks, which has been handed down in typescript, has also been missing so

far. The botanist, Alfred Usteri, wanted to know whether corks that come from the bark of cork oaks and are easily obtainable could be used for the oak bark preparation. Steiner rejected this suggestion: in fact, he clarified that it must be the bark of the pedunculate oak (*quercus robur*). After the Course, though, there was unclarity about this. In a list of questions it was written that Steiner said *quercus rubra*. This tree, the red oak, is at home in the East of North America, but has been planted in Europe as a tree in parks and also in forests. With Kolisko it is *quercus rubor* (instead of *robur*?).

## No Controlling of tiny living things

Further important changes came about on the basis of the shorthand of Lilly Kolisko, in which the first four lectures are unfortunately still missing. Only fragmentary notes on the first and second lectures and the beginning of the third have become available to us. In lecture 5 up until the eighth edition it was written in the fertiliser the planting and breeding of tiny living things (bacteria etc.) are unimportant, but rather it is about controlling them. With Kolisko, on the contrary, it is recorded that controlling them is not acceptable.

## "Off their own bat like the rain"

Up until the eighth edition it read: the heavens give to the earth silicic acid, lead, mercury and arsenic off their own bat "with the rain". Kolisko noted, on the contrary, "like the rain".

## Erfrischend or auffrischend?

Of the yarrow preparation it says in the text it has an "erfrischend" (refreshing) effect. With Kolisko it runs "auffrischend". This word means 'renewing', 'restorative'.

## Comprehensive footnotes and proof of all text variants

From the first up to the eighth edition the former editors had added a great number of corrections and additions to the text. However, they were only documented to a minor extent. In the new ninth edition all changes vis-à-vis the eighth edition are made visible by square brackets and explained in detail in the references. Thereby and through further references people can follow the changes to the text

right back to the first edition. The reader is thus put in a position to form a judgement themselves about the numerous text variants. There are several familiar passages which we have accepted up to now as they stood, of which, however, we now know on the basis of close scrutiny of the available sources that they are uncertain or even erroneous. On the other hand, there are passages which we might consider dubious up until now, because they are not easy to understand, of which, however, we now have to accept on the basis of the new sources that they have been passed on correctly. There are very many minor corrections to the text, which are not mentioned here, but which are important for close study of the lectures. The footnotes and references on individuals, content and unclear passages have been greatly expanded in the new edition.

### **Cosmic-qualitative or cosmic-quantitative?**

At the end of lecture 2 Steiner explains that in each agricultural individuality how many animals and which species belong to it, which plants they eat and how much manure they produce comes about of its own accord. This he calls a cosmic-qualitative analysis. Thus it is written in the text of the book. However, now notes of Lilly Kolisko have been found, in which she passes on the term “cosmic-quantitative analysis”. Cosmic means that it is a matter of an analysis on the etheric-spiritual level, in the life realm: here it can be a matter of the quality of the feed and the manure. Or else, it is a matter of the number of livestock appropriate to the farm arising through this analysis. Thus, we can consider both versions possible and meaningful.

### **Constellation or sign of the Zodiac?**

In lecture 6 Steiner spoke about the signs of Scorpio and Taurus. However, it is evident from his more precise indications that he did not mean the astrological signs of the zodiac, but the actually visible constellations in the sky. In the third question-and-answer session on the same day, 14<sup>th</sup> June, 1924, he said, “*The constellation of Venus with Scorpio is to be taken in such a way that every constellation with Venus is to be considered, in which Venus is to be seen in the sky and behind it the sign of Scorpio. Venus must be behind the sun*”. He termed this constellation a “*high conjunction of Venus and Scorpio*” and indeed meant thereby the so-called upper conjunction, in which Venus is standing behind the sun.

### **Direct and indirect working of the Planets**

There is a contradiction between lecture 2 and lecture 6, which the editors of the new edition draw attention to, without being able to finally resolve the problems involved. In lecture 2 it is said the moon and the inner planets, Mercury and Venus, work together with the sun directly on the plants above ground, the outer planets, Mars, Jupiter and Saturn, on the other hand, work with the sun in a roundabout way via the earth. In lecture 6 it is exactly the other way around: the outer planets work directly on the plant above ground and the moon works with the inner planets, Mercury and Venus, indirectly in a roundabout way via the soil. Important statements about the effect of the moon and the planets on the plants are not impaired by this contradiction!

### **How do Roots find the right Quantity of Salts?**

In lecture 8 it says, “*Let us look at the root: the root, which as a rule develops inside the earth, which is permeated through the fertiliser with the emerging ego-force; it absorbs the developing ego-force through the whole manner in which it is in the earth, and it is supported in the absorbing of the ego-force, when it can find the right amount of salts in the earth*”. To start with, you might think that here cause and effect are mixed up and that you can correct the meaning, if you replace the word ‘if’ with ‘that’. However, in Lilly Kolisko’s shorthand it is clearly ‘if’. Instead of changing the sentence, we need to consider how the root can find the right amount of salt? It cannot be a matter of the salts having to be put into the soil through mineral fertilisers. We must rather think that, in the sense of lecture 5, the preparations endow the plant with the power to find the substance it needs for itself. Thus, through the close scrutiny of the text we are challenged to understand the statement in a different way than at first assumed.

### **Appendices**

The volume contains colour reproductions of the blackboard drawings, newly discovered notes of Rudolf Steiner, extracts from his address to the youth, which was given on 17<sup>th</sup> June, 1924 in Koberwitz, a detailed, specialist index and a lot more besides.

# Potassium and Fertilising – the Yarrow Preparation in the “Agriculture Course”

Martin von Mackensen

Although the directly visible effects of potassium on the plant are not so obvious as with nitrogen, people have known about the effects of potassium on plants and also the corresponding deficiency symptoms since the middle of the 19<sup>th</sup> century.

Through the burning process of plants, especially through the burning of wood and wood ashes, which is known to have a high potassium content, the way to experiencing and recognising the effect of potassium on plants was straightforward.

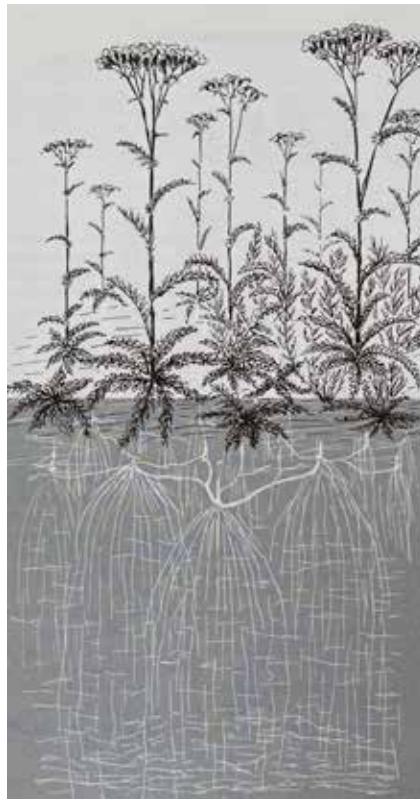
## The Potassium Gesture in the Plant Realm

In lecture 3 of the Agriculture Course Rudolf Steiner develops a concept of substances, which is generally valid: substances are the carriers of forces. There are no substances as such in any living things or conscious creatures. In order to understand life and its processes you have to know about the carrying of various substances.

Now the following questions arise: which forces are connected with potassium? How can we understand potassium as the carrier of the impulse of forces? Which forces does potassium impart?

From an anthroposophical-geological viewpoint with potassium we are faced with a phenomenon of the earthly mineral, of the solid element, which is especially strongly anchored in the physical-material realm. Thus the gesture of potassium’s working in the plant realm may be understood well. It provides for the firmness in the plant, in particular, for the formation of the stem, but also for general firmness vis-à-vis the outside; a good epidermis formation belongs to it.

If the plant is unable to absorb sufficient potassium salts, it cannot retain water well. Its epidermis



Yarrow with roots

function is weakened; it dries out faster. It is more susceptible to micro-organisms that penetrate it and cause the so-called plant diseases. It appears to absorb with the potassium salts something that allows it to grow better into its own nature or to conserve it better.

## The Yarrow preparation

Now in our yarrow preparation we have a kind of model for the plant world with a disposition to deal with the forces carried by potassium. Yarrow is able to shape and organise the potassium processes in a particularly exemplary fashion in the common earth and plant growth. By closer observation, we may realise this in the way yarrow and its roots grow in locations with a potassium deficiency. Moreover, in its root

formation it shows us clearly how it penetrates the soil in this sensory root process in a masterly way (*maybe a drawing here of the yarrow with roots*).

Now for the yarrow preparation the bladder is used as an animal organ. And here too in the process of the excretion of urine through the kidneys and the bladder, potassium plays a central part.

The overall production of the yarrow preparation follows a certain logic: mobilising the forces, carried by potassium in the living realm of the plant (not so much with human beings or with animals, where it is sodium rather), introducing them into the common earth and plant growth via the etheric-astral route and strengthening them.

That can only be achieved through the actions of people. In the natural process most potassium has been precipitated into a dead salt state and has dropped out of the realm of life; for example, in the depth of the salt domes from primordial oceans. When people fertilise with potassium salt in the

present day, they use this source, for example, in Hessen and Thuringia.

### **Before the "Agriculture Course"**

In 1921 and 1922, that is, before the Agriculture Course, Rudolf Steiner made a recommendation to Streicher, a chemist at BASF, with regard to fertilising with potassium. The gist was that in certain special cases people can and must definitely fertilise with potassium/magnesium, though it is necessary to add a strong plant-based poison, *Digitalis Purpurea*, in 10% concentration.

This practice has been picked up later in a biodynamic context. There are also trial results on it.

Then in 1924, in the Agriculture Course there followed the presentation of the yarrow preparation and the other fertiliser preparations. Apart from the etheric and astral processes which need to be precisely taken account of in production, the seasonal aspect is now of great significance. Rudolf Steiner describes in detail quite precisely how this yarrow preparation in particular can enable the cultivated plants through fertilising to absorb potassium or rather to carry out the potassium process properly. With not a word does he mention fertilising with potassium/magnesium. The yarrow preparation has taken their place.

### **The Potassium Process and Clay**

With the well-known three-layer clays, which are essential in all soil processes that contribute to enhancing fertility (clay-humus-complex), potassium plays a critical role once more. After all, it is in this place where potassium is actually stored in the half-alive element of the soil, in that it is bonded with the clay platelets. And our biodynamically bred cultivated plants are able with their root activity to access this potassium, aided by the specific fertiliser. Edwin Scheller researched and portrayed this impressively in the 1990s. This process is particular to the farm to a high degree: a progressively, increasingly, specific interconnection of processes of the locality, cultivated plants and animals that leaves its stamp.

### **The Horn Silica Preparation and the Potassium Process**

Three weeks after the Agriculture Course Rudolf Steiner conveyed through Guenther Wachsmuth in a letter to Count Carl von Kayserlingk a more precise, modified version of the production of the

silica preparation. In this he mentions the orthoclase, feldspar, alongside the silica once more, as he had in the Agriculture Course. He points out that a pea-size piece of the mineral would be sufficient, if, before filling it into the horn, you were to crush it and knead it together with the earth upon which the preparation is to be spread later on.

Evidently, with the silica's carrying of the forces in union with the potassium in particular, Rudolf Steiner is concerned about an impulse which, on a mineral-geological level, is realised and present in orthoclase, feldspar.

When the wonder of the clay-mineral- new formation is accomplished in the enlivened soils, this is just possible through the feldspars, and in them what has been carried by the potassium is at work.

### **Summary and Outcome**

The Agriculture Course will undoubtedly be a source of intuitions for a long time, when it is transformed through our own ego in our actions, feelings and thinking. The connection of the potassium process with the yarrow preparation as well as with a form of the silica preparation that has been adapted to the farm in an individualised way in the direction of orthoclase (potassium feldspar) points in a new direction for our future work.

For me particularly in the case of the major, difficult theme of "the carrying capacity of potassium in the realm of life" the developmental process has become clear which Rudolf Steiner went through himself - up to what he then described in the Agriculture Course.

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# The first Leading Thought in its Connection with the Theme of the Year “The Quality of biodynamic Products and what they mean for the Earth and Human Beings”

Jean-Michel Florin

In the Agriculture Section each year we choose a text by Rudolf Steiner from the Leading Thoughts as a basis for the year's work. The Leading Thoughts stem from the very last period of Rudolf Steiner's creative work, that is, from the years 1924 and 1925. In this timespan the 'Agriculture Course' in Koberwitz near Wroclaw in June 1924 falls as well; the hour of birth for biodynamic agriculture. Over the years these texts have turned into a fundamental, integral part of the Section's work as well as of the agricultural conference in February. This involves us going through the Leading Thoughts chronologically and each year taking the next one. At the last conference "Breathing with the Climate Crisis" we had worked on the last Thought "From Nature to Sub-nature". Now we have decided to start from the beginning with the first Thought, in which the connection with Michael is made explicitly.

In this article I will – after a summary of the text of the Thought – endeavour to show what consequences this content has for modern life, and thereby build a bridge to our theme of the year. This is intended to stimulate people's own work.

In this Thought the development of consciousness from the High Middle Ages to the end of the 19<sup>th</sup> century is described, taking the example of European cultural history. A similar study ought to be made for the other continents. Rudolf Steiner shows how, in the course of the last twelve centuries, people's relationship to thoughts has radically changed.

## The Structure of the Thought

In the first part of the Leading Thought the situation of consciousness before the ninth century is portrayed. Human beings experienced their thoughts as inspirations from an external spiritual world. On the one hand, they perceived the sense world and, on the other, the thoughts were added from the spiritual world. Rudolf Steiner draws our attention to the fact that, if you penetrate the spiritual world, you will always encounter spirit powers. In this case it was an encounter with the being that gives the thoughts of things to human beings. This being was

formerly called Michael and is called the same by Rudolf Steiner too.

He explains how, from the ninth century, human beings gradually developed their thinking individually and thus separated themselves from Michael. Thanks to this separation they were able to absorb intelligence into their individual souls and develop it. Previously the soul was experienced 'only' in communion with the spiritual in the world. A process of internalising and individualising began.

In the second part we are shown how this process of gradual detachment from the spiritual world was continued in the Middle Ages. In the period of the Scholastics two streams among the scholars arose:

- The Nominalists, who strongly felt this new achievement of being able to form thoughts themselves in their own souls and who, at the same time, had lost the spiritual source of the thoughts. For them thoughts became more and more something that has nothing to do with things. Thoughts were reduced to names created by people for things, in other words to something without being.
- The Realists, who tried to retain the memory of the spiritual origin of thoughts through still seeing thoughts as something real.

In the third part of the Thought Rudolf Steiner describes how, in the course of the following centuries, Nominalism became stronger and stronger and influenced the whole intellectual and cultural life. He showed how, at the end of the 19<sup>th</sup> century, a tremendous change took place, which allowed people to have a new relationship to thoughts. The possibility for people to experience thoughts again as something spiritual opened up, but this time not as inspiration from an external spiritual world, but from inside, from within their own hearts, when they willingly opened themselves to them. A highly significant moment of development towards human freedom.

The last paragraph of this part is written differently: Rudolf Steiner paints great imaginative pictures, which people can move within them in order to

understand and feel the new situation with their hearts, not just with their thoughts. A new soul quality is indicated, through which the human being not only feels how thoughts form in their soul, but they “can lift themselves up over their being”. In this context Rudolf Steiner portrays how thoughts are liberated from the head and find their way to the heart. This culminates in the expression, “Hearts begin to have thoughts”. What does this mean? When can we have such experiences? How can we school ourselves for this?

Rudolf Steiner was not the only person to consider this new situation at the turn of the 19<sup>th</sup> and 20<sup>th</sup> centuries. For example, the artist group the “*Blauer Reiter*” (Blue Rider) in Munich felt this change very strongly in the “spiritual air”. The name, *Blauer Reiter*, was chosen deliberately to make the connection to the impulse of St. George transparent, who, according to the legend, put himself in the service of Michael.

### **The current Situation of Consciousness with Regard to the Theme of Quality**

Based on this foundation we intend to try in what follows to connect up our current situation with consciousness with the theme of quality.

Nominalism which arose in the Middle Ages had important consequences:

- Firstly, it gave people the possibility of finding themselves with the total severing of any kind of connection to the spiritual world. Human beings now solely find their support in themselves. The “*Cogito, ergo sum*” of Descartes perhaps describes it best: I think, therefore I am. What a reversal in comparison to Hildegard von Bingen’s state of consciousness, who exactly five centuries before was described as receiving rays directly from heaven (as inspirations of the spiritual world). The human being feels and thinks independently of any kind of higher power.
- Through the development of active, accurate sense perceptions and the processing of them in thought human beings have developed greater accuracy and wakefulness. This gives them great assurance in dealing with the earthly world.
- However, Nominalism has led to thoughts and concepts becoming increasingly lifeless and abstract. They are only intellectual labels or nets that we throw over the reality we experience so as to catch it from the outside – like the fisherman

(or woman) catching living fish in his net and taking them out of their context, the sea, so as to present them prettily, sorted according to species.

As was described in the summer circular 117 on page 17, this was followed by loss of trust in the so-called secondary qualities of sense perceptions. The effect that people reduced objective reality to what is measurable, weighable and countable was thus compounded. This kind of thinking has allowed us to develop our whole technology.

If I live with the conviction that the inner nature of beings is unreachable and that the thoughts I have formed myself can only provide a rough picture of reality and just help me to grasp reality outwardly, every kind of work of dealing with living nature – such as agriculture and the food industry – can only be a constant attempt to channel the processes and the beings from the outside, to contain them and master them. In the illusion of being able to thus control everything from outside! People arrive logically at industrial farming, in which all processes are indeed directed externally. In this manner people come to the ideal of food design or of synthetic meat etc. I combine various ingredients with one another so as to produce a product that has been thought through and planned in advance in the most refined way. This kind of production leads to a particular form of quality control which is currently spreading further and further across all areas of life.

This manner of production and control fits machines and the physical and chemical processes which require external control and surveillance in order to ensure with checklists that people have thought of every smallest step and every part. Of course such checks are highly necessary with, for instance, the preparation of an aeroplane before take-off, because one single missing screw can have catastrophic consequences. Yet, how is it with the living realm?

Let us think perhaps of the battle against epidemics, spread by animals, with the new concept of biosecurity. What we understand by this is that people follow and document every action (the principle of traceability) as well as that they separate livestock from their natural surroundings and keep them in sterile conditions. In order to keep one’s country free from epidemics for economic reasons (at present bird flu’ in the South of France, swine flu’ in East and Central Europe etc.) millions of animals are killed

instead of trying to cure them. Interestingly, in the 1920s Rudolf Steiner developed a remedy against Foot-and-Mouth disease with the vet, Josef Werr, and the doctor, Eugen Kolisko, in order to cure cattle and to avoid mass slaughtering.

And finally, the biosecurity measures that are getting stricter and stricter for mass livestock keeping are leading to free-range husbandry, in particular, being seen as much more dangerous than livestock keeping in sterile halls – where theoretically everything is controlled – and, being, therefore, forbidden, as it is, to some extent, in China (see Leclair Lucile, au nom de la biosécurité. *Le Monde diplomatique*. Nov. 2020)

What an enormous difference from the attitude of farmers who nowadays increasingly ‘communicate’ with their livestock and come to interesting results. The French biodynamic farmer, Didier de la Porte, has just written a book, in which he reports on such concrete experiences. He describes how he watches the behaviour of ‘problematic’ animals closely and opens his heart – and he is amazed himself that he then communicates with the animal (Carole Babin-Chevaye et Didier de la Porte «Cheminer avec le vivant» 31.08.2021) (Ed. Leduc) will appear on 31.08.2021). It is not a matter of returning to unconscious relationships that are just sensed, but rather of a really precise perception as a basis for a question which is put inwardly to the animal.

You can feel a warm quality with him, enthusiasm. Completely different from the thinking that attempts with outer, abstract concepts to capture reality, here it is a matter of understanding and accompanying a creature from within, with the heart, with sympathy. Is this not a kind of quality control?

If you work in agriculture with living nature and with people, accompanying and controlling the processes outwardly is not enough to develop a living quality that is in keeping with the being. In this realm you can perhaps see quality as the possibility that a creature develops its potential best of all thanks to the active cultivating of the human being, and even go so far that thanks to the active working together of the human being with nature something new is created.

Also with the processing of food it is exciting at present how after three to five decades of fast food

and industrialisation of nutrition everywhere new, creative impulses are arising. There are a lot of breeders, farmers and people in processing who now take joy in creatively developing and growing new varieties and bringing about new ways of processing and a new diversity of products. And this is in a completely different way than through food design, more out of creative enthusiasm, out of the joy of creating something new. We can think of the new passion for aromatic and tasty herbal teas or new sorts of bread and cheese or of wine-growers who are looking for new ways of processing. Sometimes it is a way back, but much more often a way forward, to real innovation, which arises out of the concrete work with substance, out of creativity and not out of food design. In the article “The Wine-grower as an Artist” on the wine-grower, Olivier Zind-Humbrecht, from Alsace one can read, “Art and sensitivity mean for Humbrecht a commitment to biodynamic agriculture that goes beyond science”. Science, good agronomy, enables you to produce a faultless wine. However, in order to produce an outstanding wine which awakens emotion, you need art, say more and more wine-growers. The question is, of course, what is meant by art in this context.

However, one thing is certain: in order to create such new things, a different way of thinking, feeling and acting are called for. That is felt by every farmer, processor or cook, who are suffering from more and more outer controls. In nutrition you can easily tell the difference between a meal produced totally by machines and cuisine prepared with enthusiasm. On this level there are obvious differences: the former tastes simply sterile and anonymous, you feel no emotion.

Here ways open up to the future by agriculture and the food industry being accompanied and advanced by a deepened knowledge of living creatures. Do not such developments in these areas need a new kind of checks beside these rigid check lists? This question is being pursued by the Biodynamic Federation Demeter International with farm talks. Lots of exciting, new perspectives open up for the future under this aspect.



# On the Theme of the Year 2021/22 of the Section – Quality for the Human Being, the Earth and Cosmos: perceiving, experiencing, developing

Dr. Jasmin Peschke

*The theme 'quality' has been an essential concern of the biodynamic movement since its inception. A critical question is, what biodynamic quality is and what determines it. And how can we perceive, experience and develop it? With biodynamic quality not only the human being and their development should be served, but also the earth and all living beings. Taking account of cosmic aspects and influences is an integral part of this. The theme of the year of the Section is meant to stimulate people to focus on these questions as themes and thereby to prepare the next conference. For this reason, some things are formulated as rhetorical questions.*

*Here are some thoughts that came up in conversation with the Circle of Representatives of the Section as well as with committed people in the biodynamic movement.*

For **farmers** who accompany the growth and ripening of cultures between the earth and the cosmos year after year it is obvious: quality arises out of the seed (plant species and variety), which develops under special conditions – starting with the soil – as well as with the cultivation by humans and results in ripe fruits, in food. The special process of becoming of the living being between cosmos and earth, which becomes a food, forms quality.

For **consumers** quality describes the suitability of a product vis-à-vis a purpose, in this case to nourish themselves. Is this food suitable for me? Will it support me in my creativity and development? Does it taste good? Does it agree with me, etc.? The point of it, the purpose is given to the produce farmed by the human being.

Thus, besides the current condition of the food, which can be experienced, the past (developmental process in cultivation) and the future (purpose) are part of its quality. The quality arises through the process.

## **Product Quality**

Of course, it is important that products and, particularly, biodynamic products, show quality that goes beyond the presence or absence of certain substances, whether they be constituents, ingredients or even harmful substances. Nonetheless, it must be apparent that farming of abundant harvests, that is,

quantity, is no contradiction to quality – the question is rather one of improving the quality in the quantity.

Let us take a look at product quality from the three perspectives of the stream of development in time:

## **What has developed, the Past (Process of Development)**

With the question of how quality arises in the cultivation of vegetables, for example, the question is raised how the human being in their place of working arrives at the individual quality, which is fitting for the locality and the context. Does not quality arise from the dialogue between people, who have an intention/ a vision, and a landscape, in which cultivated plants are planted or sown, tended to and grow, quality that mirrors the farm individuality as a harmony of human being, earth and cosmos? And how can we foster this quality?

The biodynamic preparations support the interaction of the plants and soil life with the climatic and cosmic forces, the unique location (the position, the *terroir*) becomes perceptible and the identity of the food, its special characteristics, is enhanced. One aim is for the food to become the expression of the farm individuality. This can happen, when the cosmic quality is drawn into the developmental process.

## **Being, the Present (Need)**

How is the overall vision of the biodynamic farm individuality developed and kept for a person's development on the way from the field through the processing and the kitchen right through to the palate, especially when agriculture and processing are organised with the division of labour or are strongly mechanised?

Processing and cooking, that is, preparation, are a continuation of the developmental process, as a cultural deed of the human being. How do we devise the ways of processing food so that a genuine 'refinement' takes place? Which are the most important factors? Do time and rhythms advance the forming of living quality (e.g. with bread, wine, cheese)? What is the effect of technology on quality?

Are there examples of innovations in processing that really add value to it?

How does the product become suitable for the human being, not only for their digestion, but also for their soul-spiritual development?

Here biodynamic product quality for the nourishment, for the health and the possibility of development of the human being is being addressed. It goes beyond constituents, ingredients or external characteristics – which also need to be taken into account. A product mirrors the process of its coming about, its biography through various aspects (vitality, quality of enjoyment, identity, etc.). How can we perceive and experience them? Which methods are suited to investigating this quality? And furthermore, can we extend a culture of sensory experience to all food products so that everybody can ‘see’ the special quality for themselves? Can the steps from perception to internalising and the forming of experience right through to a ‘healthy’ development of the person together with the earth and the cosmos be recognised and discussed?

### **The Senses as the Means to Perceiving Quality**

In order to perceive quality holistically people have to go beyond the analytical investigation, which merely determines the substances, or even harmful substances, from a reductionist angle. Methods are already being successfully applied, with which the vitality of a product can be shown very well.

Each method has its validity; it must only be clear what you are investigating and which level is being taken account of.

### **Various Levels of Quality and their Investigation**

Technological or physical Quality. The product is seen as a material commodity. What is important is its composition (nutrients and energy) and the absence of harmful substances. These are registered quantitatively through material analyses.

The living quality or vitality, which stimulates the human being’s life forces through engagement with the food and overcoming it. The foreign character of food must be completely neutralised; this requires activity and brings about a strengthening of the organism. This aspect can be perceived directly. How do I feel after eating the produce? Strengthened and stimulated, or weakened? This approach is pursued by the empathic food test, which examines the emotions food induces. Moreover, the rising picture

methods and the fluorescence-excitation-spectroscopy show exciting results. There are definitely other interesting approaches.

The quality of enjoyment. The sensory stimulation as well as the soul stimulation through beauty, the use of variety and changing of form, colour and aroma of the food as well as the tasteful decoration of the meal. How rich, aromatic, elegant, etc. is the product? How does the quality of enjoyment touch me, does it create a mood, or bring joy? How does the product stimulate the senses? For this the products need to develop a quality of ripeness, especially colour, aroma, flavour, which are formed with the help of cosmic influences. The activity of the senses forms the basis of the cosmic stream of nourishment.

Identity. Perceiving the identity is a subtler experience, which is on the border to the super-sensible. Through it, the individual character of the farm individuality as well as the plant or animal species expresses itself in the product. How can we develop appropriate organs of perception?

### **Developing the Ability to perceive Quality**

Investigating this ‘inner’, or rather not physically measurable, quality requires schooling the faculty of perception. Every consumer should themselves have the ability and the possibility to ‘investigate’ food, to see how and whether it agrees with her or him. In this context it is interesting to note that the great success of biodynamic wine-growing lies, among other things, in the fact that the specific ‘biodynamic’ quality is directly perceived by the senses\*. The product is convincing in itself! It is the special characteristic of wine-culture that people pay more attention to sense perception than to analysis in order to determine the quality of a wine. The wine-growing scene (producers, merchants and consumers) has schooled itself to return to the sensory experience of the people concerned and to evaluate and further develop the products through their sense-perceptible qualities.

Can we extend these faculties and this culture of sensory experience to all food products so that everyone can ‘convince’ themselves of the special quality? And can we go beyond the usual sense perceptions?

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\* See the article by Jean-Michel Florin, [www.sektion-landwirtschaft.org/ea/die-methode-die-den-wein-veraendert](http://www.sektion-landwirtschaft.org/ea/die-methode-die-den-wein-veraendert)

And finally there is the question whether we can structure meals and the enjoyment of products as celebrations, at which we taste the produce of the earth in just the same way as with wine that, before we swallow, we take time to smell it, to touch it, to taste it?

After we have looked at the past aspect of what has become and the present of actual being, let us look finally in the process of becoming, at the purpose, the purpose of a product.

### **Becoming, Future (Development)**

*“The most important thing is, when things reach the human being that they are most beneficial to his (or her) life. You can pick some fruit that looks shiny, ...but perhaps it is only filling the person’s stomach, not actually supporting their inner being organically”.* (Rudolf Steiner, the end of lecture 4, Agriculture Course, GA 327).

Here a biodynamic product quality for human nutrition is mentioned, which goes beyond the constituents and external factors. It is about the purpose, what is the product meant for and what quality must it have as a consequence so that it is suitable for the consciously determined purpose? Here the whole question of processing plays a role. What kind of processing is suitable for what purpose? If I would like to make herbal teas keep, I would hardly cool them, but rather choose to dry them. If grain is to stimulate the etheric forces to a particular extent, it requires a particular form of processing. What knowledge and insights can we exchange to enable this?

### **Social Quality and Quality of inner Attitude**

Our inner attitude in farming, processing and in trade has an impact on the quality. Quality in this

sense arises, as we have seen, in a developmental process through time, carried out by human beings. The human being enters into this developmental process, which may be imagined as a horizontal one, shaping it creatively, connecting earth and cosmos, forming the vertical. A cross arises.

Elsewhere I have called it the “cross of nutrition” (see Circular 113, Summer 2018).

If we expand our vision, we will see that a reductionist, isolated view will not do justice to life, for we are dealing with organisms. The human being is in relation to the earth, the plants, the animals and to other people and vice versa; all needing each other. When we speak of agriculture, we assume it means working together as partners. How do human beings meet nature? How do they treat their fellow creatures and what do the latter need in order to be able live out their purpose? And how do we nurture the social quality among us humans? How do we create fair relationships and transparency with regard to the processes of production and their context as a basis of trust? Are not the relationships and the inner attitude of the individual what builds quality in the “food system”? Instead of talking about the chain of value creation, maybe we should speak of “inner attitude chains”. Climate change and the Covid-19 pandemic are obvious examples for the consequences of our treatment of nature and our fellow creatures. This is just as much a question of quality as of inner attitude.

Last but not least, it should be mentioned that the whole food culture as a creative deed is a question of quality. An exciting field that will also be addressed at the conference.

# Breathing with the Climate Crisis – ecologically – socially – spiritually

Ueli Hurter

Have we discovered how to breathe at the conference and through the conference? Because this was the hope that we formulated in the title “Breathing in the climate crisis”. And this was also intended as an objective, by looking for this possible breath in three dimension: ecologically, socially and spiritually.

These moments of free breath did indeed arise at this conference. Personally, I felt a deep breath at the moment when Clement Vincent from southern India said: “No, I shall not leave this dry, barren region. Because although I go away, the soil remains, it cannot leave. But we belong together, the soil and I, the earth and we human beings.” Breathing spiritually in the climate crisis means saying yes to my apparently difficult situation, because this situation amounts to the full spirituality. Where am I, who am I, who do I live with, where do I go at the end of my life?

A breath for the future also flowed through the conference – the earth is a living being. For example, the contribution by Hans-Ulrich Schmutz presented tables and figures revealing the breathing of a living being. This being has been breathing for a long time, for millions of years. It has succeeded in creating a CO<sub>2</sub> concentration in the atmosphere that enables a very great variety of forms of life. Let us help this breathing living being to rediscover its planetary breathing rhythm. This task must be achieved and it concerns us all, young people and farmers alike.

We are not alone – the cows help us. In the contribution by Anet Spengler the breath became visible: it ebbs and flows between the plants that breathe carbon in and the animals that breathe it out. This symbiosis supports the climate: no grass without the cow and no cow without grass. The complementary relationship of plants and animals is required to create fully breathing life: only then can we justifiably speak of carbon farming.

We have discovered a generational breath. Young people are in the process of breathing into the earthly conditions, they seek the ground where they can put down their biographical roots. Older farmers need to learn to raise their lowered gaze to come to an atmospheric awareness. A question of courage

for both – but the other person is already in the place where I want to go.

This was a frequent experience at the conference – the other person was already in the place that I am trying to reach. So we move forwards, each for themselves and all together. The conference created a place to breathe and the digital format of the climate conference 2021 enabled a global breathing space with and for many people who would otherwise never have met. We hope that this conference report will convey some of these events.

Lecture March 30th 2021 on the anniversary of Rudolf Steiner's death.

## Rudolf Steiner's commitment to the earth as a living being

Ueli Hurter

Dear listeners and viewers around the world, I would like to welcome us all to this evening of March 30th. An evening of reflection on Rudolf Steiner, who died on this date, March 30th in 1925, now 96 years ago. Let us be together for a short hour, and I hope not with sad hearts, but with grateful minds, with openness of spirit, and with courageous hearts. Many, or indeed each of us, owes much to him, we owe much to him as the Anthroposophical Society, and the world owes much to Rudolf Steiner.

The short lecture, or address, which will now follow is a modest attempt to give our common hour of commemoration a certain content and direction. This is expressed in the title: „Rudolf Steiner's Commitment to the Earth as a Living Being“.

I quote from Rudolf Steiner.

With great suffering our Mother Earth has become solidified.

It is our mission to spiritualize it once again as, through the strength of our hands, we re-shape it into a spirit-filled work of art.

The expression in the title of this lecture, 'The Earth as a Living Being' resonates with many different things in each of us. For, with Rudolf Steiner this theme, 'The Earth as a Living Being' is an important theme of his work. Again and again and from different points of view he has worked on this theme in the different phases of his work. Indeed, one can say it is immanent in his work, it is immanent in anthropology. This can be seen as astonishing, because spirit and earth, spirit and the earthly can also be seen as opposites. Not so with Rudolf Steiner. With him, the concept of spirit encompasses the earth, the earthly. And perhaps I may say, colored by my personal background as a farmer, that the earth as seen, as recognized, as willed in anthroposophy has been a deep inner joy to me for many years. And I owe this view, this dimension to Rudolf Steiner.



Rudolf Steiner, Blackboard drawing for the lecture given on 30 June 1924, "From Sunspots to Strawberries", GA 354, Rudolf Steiner Press, London.

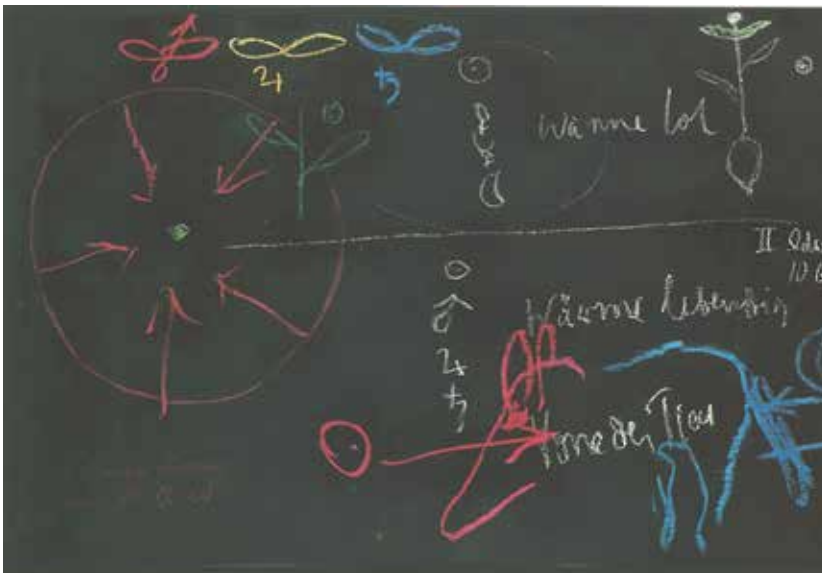
I would like to briefly mention a few aspects of Steiner's knowledge of the earth. And illustrate these aspects with some of his black board drawings.

On the one hand there is the cosmological aspect. Here illustrated in the blackboard drawing of the four stages of incarnation of what we call Earth: Old Saturn, Old Sun, Old Moon and Earth. That means the earth is a living being with a development. There are building up phases and there are decaying phases. There are dying and becoming phases in the course of the earth evolution. It is a different picture than the one of a linear development, expansion after a big bang. Seen as a whole, Steiner describes the evolution of the earth as a process of compression pulsating in breath.

Secondly, I would like to mention the Christological aspect. The Christ being, coming from the sun, connected with an earthy human body, went through earthly death, and, conquering the forces of death, resurrected. Since these events, the resurrection powers are at the disposal of the earth and inscribed in it, because the Christ has not left the earth again, but has remained connected with the earth and its sheaths. We do not speak here of a Christ of the Church or even of any denomination, but of a cosmic Christ being who can be a reality for the whole earth



Rudolf Steiner, Blackboard drawing for the lecture given on 7 October 1923, "The Four Seasons and the Archangels: Experience of the Course of the Year in Four Cosmic Imaginations", GA 229, Rudolf Steiner Press, London.



Rudolf Steiner, Blackboard drawing for the lecture given on 10 June 1924, Agriculture Course, GA 327, Rudolf Steiner Press, London.

and for all people, independent of their denominational home. The earth as a newly shining earth-sun is the spiritual-real image we can learn from Rudolf Steiner and we are asked to look for and find the resurrection forces everywhere.

And here as a third picture a blackboard drawing from the agricultural course of June 1924. Now it becomes real in terms of craftsmanship that we transform the earth „... through the power of our hands into a spirit-filled work of art“. Rudolf Steiner found the strength to condense the great spiritual images of his research in cosmological and Christological terms into the concrete conditions of a small

agricultural organism and here, at the real place of human work on the earth, to compose with the biodynamic preparations evolutionary substances that will continue, perhaps one can even say ‚resurrection‘ preparations, which we can freely apply today on the whole earth.

At this point we have mentioned 3 aspects in the work of Rudolf Steiner, which can resonate in us with the expression „the earth as a living being“.

Now I would like to make the step into the present day. We don't want to leave it at a kind of consideration of Rudolf Steiner's work. That would not be what Rudolf Steiner intended. But, precisely because it is the anniversary of his death, we want to ask ourselves how his work continues to have an effect. How can we stand here today inspired by him and his commitment to the earth as a living being in our time?

How is the earth doing today? We all know that the earth is suffering, that it is losing life forces, indeed that it is actually in a life-threatening situation. And it is not difficult to understand that the Corona pandemic we have now is also partly caused by weaknesses and imbalances in the life balance of the Earth. The biome or virom of the earth is a close expression of the life forces or even life weaknesses in the household of the

earth. And our body is most closely interwoven with the sick or healthy life of the earth. Yes, we can even say that the human body is a piece of earth. And a sick earth and a pandemically sickly human body belong together.

But let us look at the body of the earth. In February of this year the current UNO climate-report came out. It identifies three acute ecological threats to the earth:

1. waste or pollution
2. biodiversity or the loss of biodiversity
3. the climate or rather climate change

I would like to go into these three threats. I think they concern us. I think, as anthroposophists we should not be above being interested and engaged here. Anthroposophy should not make us people who are out of touch with the real world. Rudolf Steiner said that very often. The deepening, spiritual dimension of the world view that anthroposophy gives can lead to a particularly engaged participation in the general challenges of the time in which one lives.

### **Waste and pollution**

We produce waste on a gigantic scale. The earth is our waste garbage can.

First, there is the physical waste, for example, the plastic. Plastic is found everywhere, in the belly of whales, in layers of snow on Antarctica, in the sea there are now gigantic floating islands of plastic.

Secondly, there is chemical waste. The amount of biocides that agriculture puts into the air and water is alarming. In the meantime we know, for example in Switzerland, that a lot of groundwater and also streams and rivers are simply polluted with chemical spraying.

Then there is radioactive waste as a third category. Especially now after the dramatic events in Fukushima ten years ago, we are all aware of it again: We are polluting the fabric of life on earth with radioactivity as waste from our civilization.

What is the matter? Why do we have a civilization that, one could say, almost cannot help but produce waste? If you follow the chain of cause and effect, you come to a point where you realize that material waste arises from a corresponding way of thinking. Substances which cannot be integrated again into the natural balance from which I have isolated them are the material form of my thoughts, which form as abstract thoughts in my head, in my intellect. We produce waste in our thoughts before the waste appears physically and becomes an ecological problem.

Isn't that how it is? We think throwaway thoughts all the time. It just thinks in us, the thought machine rattles continuously - throwaway thoughts. Thought waste. And if we then try to think in a concentrated way, then chains of thoughts and thought constructs come about which, to the extent that they seem clear to us, are, in fact, abstract. That means they are alien to life. And if we then realize them technologically and place them into the world, they stand apart next

to all living relationships and are thus sooner or later waste. We are shocked to realize that we have an intellect that can be toxic.

Plastic and chemistry and radioactivity as waste did not exist so much in Rudolf Steiner's time, but intellectual waste did exist, and he tirelessly pointed it out. Tirelessly he gave suggestions for an enlivening of thinking. Perhaps among us anthroposophists this was too strongly assumed as a private, personal development possibility. Today we realize that this is not for us, but for the earth, for the world.

This became clear to me in a beautiful experience in India. At the foot of the Himalayas we were guests at a meeting called 'Listen to the Farmer'. Biju Negi, a farmer, activist and a disciple of Gandhi welcomed us as foreign practitioners of the Biodynamic movement and anthroposophists after the long journey with the following words: „I am sure, the spirit of Rudolf Steiner must be at greater peace today than it may have been a few days ago. Last evening, as I watched the night sky, I noticed a star shining particularly brightly. Did you too?“ How naturally he, as someone standing in the stream of Gandhi's work, recognized and greeted us as standing in the stream of Steiner's work. What generosity! Can we do the same? In the further course of his speech I learned an important piece of wisdom from Gandhi: „The earth provides for everyone's needs, but not for anyone's greed“!

### **Loss of biodiversity**

I come to the second major dimension of the threat to life on earth, the loss of biodiversity.

What we have all noticed is, for example, the loss of insects. There are simply fewer, and there is less diversity. And so it is with many animal species, right down to the African elephants. They are threatened with extinction. And it's the same with the plants and all living things.

A second dimension of the biodiversity issue is not the loss of individual species, but the collapse of entire habitats. It can be a small wetland, like the one we are concerned about right here at the Goetheanum. It can be a river landscape, or a larger area, such as the Aral Sea in Kazakhstan. An ecosystem can implode, collapse or tip over, and then countless 'subtle, intimate connections of nature' - to use a term of Steiner's from the Agricultural Course - are destroyed.

A further stage is then the spread and colonization of the disrupted ecological spaces with invasive species. The Corona pandemic is just one example. There are hundreds of examples of this kind of exclusion of diversity by mass propagation of a single species.

What is going on? Why do we have a civilization that corners nature, into one-sidedness, into the loss of its diversity, its richness of phenomena? If we follow this up to a point where it no longer manifests itself outwardly, but inwardly, in our feeling, then we encounter a dullness. Our powers of attention, especially in feeling, are weak. Why? Because they are mainly directed at ourselves. We feel mainly ourselves. We are quick to be egoists in feeling. It is about myself. That feeling, sensing, can be perceptive and compassionate is little practiced.

How was it with Rudolf Steiner? I don't think he was too troubled about the loss of biodiversity, but he was very much troubled about the loss of a differentiated perception and respect in the process of recognizing through feelings towards all earth creatures. A relationship to all creatures in accordance with their nature is precisely Steiner's credo. He expressed this particularly clearly in the social dimension. Again and again, from the Philosophy of Freedom to the Constitution of the Anthroposophical Society and to the Karma Lectures, he has given expression to the uniqueness, sovereignty and dignity of the individual human being, which can be experienced in feeling. Always the gesture that is represented by him is that of an inclusiveness and not of an exclusion. If we lose biodiversity today, it is because we have lost or not developed differentiated feelings.

One of the historical figures who stands for love and humility towards creation is St. Francis, Francis of Assisi. There are many legends about him, such as that he tamed the wolf, or that he made the bishop wait because he was busy rescuing a spider, ...in his Canticle of the Sun he gave expression to this active inclusivity of all creation. Fratelli tutti' was St. Francis' address to his brothers in the Order and this ,Fratelli tutti' has become the title of the appeal published by the current Pope ,Francis' in the fall of last year. This text is remarkable, I want to say ,although' it comes from the Pope. Inspired by St. Francis, he tries to create a holistic approach with creation and with other people. The starting point of the letter

is the meeting of the Pope with the Grand Imam Ahmad Al-Tayyib as a high-ranking representative of Islam in February 2019. The text ,Fratelli tutti' deserves attention.

Let us be open also to suggestions that do not come directly from Rudolf Steiner. As was Rudolf Steiner himself. A fraternal, sensitive perception and promotion of the other human being, of the other creature, of the diversity or the richness of the living being earth with its human children is a concern that we share with many.

### **Climate**

The third topic mentioned in the UNO report as a threat to the living being earth is climate change.

Here, too, we can characterize three stages.

The first is the warming of the Earth's atmosphere, in all likelihood caused mainly by an increase in CO<sub>2</sub> in the atmosphere, mainly from the burning of oil and gas that were stored during geological periods and have now been released on a large scale in a few decades.

The second stage is the result of a induced climate change that is more violent than climate fluctuations that have always existed. The earth and its atmospheric envelopes are already in an unstable, vulnerable equilibrium and so the effects are violent.

In the third stage it then comes to a climatic break, to use the expression which Hans Ulrich Schmutz coined. This is more than change. Break means the major equilibria in the seasonal breathing process of the earth break apart.

What is going on here? Actually, we are completely surprised that something is happening ,up there' in the atmosphere. This was already the case with the ozone hole. Everybody on earth has a refrigerator with fluorocarbons as coolants and then there is an ozone hole in the stratosphere. And now again a similar situation occurs: everyone tries hard to keep up with the requirements of everyday life, driving and flying around and before long the breathing of the earth with the cosmos falters, the covering layer of gas closes, and we have warming and climatic change. Each of us is individual in our will; we must be and definitely want to be so, as liberal people. But the earth shows us the limits at the edge of its atmosphere. The periphery reflects it back to us: If



each of us acts on his or her own, this will not work. In our actions the other, the others, the totality, need to be taken into account. In this way, it is a call to us to not be egoistical but rather fraternal in our actions.

We are, I would say, to enter Rudolf Steiner's characterization, at the threshold. And collectively as humanity we have crossed the threshold in recent decades. We didn't quite realize it, we half slept through it. And now the consequences are coming at us from the outside. We should make up for what we have slept through. Out of the classical Enlightenment we are accustomed to looking into and acting in the world from the focus point of the I. Then we have learned to understand the earth as if from the outside from a space capsule of consciousness as a blue planet in the cosmos, an external abstract starting point for our consciousness and our actions, but at least we have the whole planet, the whole living being earth in view. Now we have to learn in a next step, midway between, where earthly things still are and cosmic things already are present, we have to focus our consciousness and our will to act. There, where the deceased are still connected with the earth, and where the unborn, the coming ones, already feel the living being of the earth - there, spatially speaking, in the atmosphere, a contemporary consciousness must awaken. It is no longer a central I-consciousness, it is a peripheral I-consciousness. And from it can spring an action that the living being earth wants to accompany. In this new consciousness, the earth is not outside of me, it is in me, a part of me.

The Dalai Lama describes this very clearly. In 2015 he wrote an appeal for a global ethic, for an ethic of all people. An ethic that can unite us all, and that is stronger than our affiliations to different peoples, cultures, religions. I would like to mention the Dalai Lama as a Buddhist leader here, just as I mentioned Gandhi, and Francis of Assisi, and Ahmad Al-Tayyib. There is something more original than religion,

says the Dalai Lama, something deeper, something more unifying. „More essential than religion is our elemental human spirituality. We must cherish and nurture this common ethical foundation. And in this way we can also work to preserve creation. It is my conviction that human development is based on cooperation, not competition.“ Let's listen to that voice. I think this is something similar to what Rudolf Steiner said in this regard. There is something that connects us all, all human beings, concretely and deeply - and everyone can have access to it. It is not an abstract thing, it can be searched for and experienced deeply by everyone. From this we can act - for our earth. For the earth that sustains us all. This challenge comes towards us through our search in the question of the climate.

I will summarize. We can learn from Rudolf Steiner the knowledge and the love for the earth as a living being, as a soul being, as a spiritual being. With this learning we can try to take seriously in today's situation the ecological challenges of waste, loss of biodiversity and climate change as the consequences of our thinking, feeling and willing. We have led our thinking, feeling and willing to considerable independence for the sake of our freedom and self-determination. And this modern human freedom and independence we must now use for the earth. With this train of thought I wanted to give direction to our commemoration of Rudolf Steiner on the anniversary of his death. Rudolf Steiner's work goes beyond his death on earth; we can place ourselves in the stream of his work. Today. If we want to.

I will read again the saying we heard at the beginning:

With great suffering our Mother Earth has become solidified.

It is our mission to spiritualize it once again as, through the strength of our hands, we re-shape it into a spirit-filled work of art.

# Teaching Gardening – Through doing and feeling to thinking

Text and interview: Stefanie Wolff-Heinze

“The school garden can be truly the centre of a school, because the garden itself has to do with all elements of life”. Peter Lange, who, as a gardening teacher, has introduced countless children and adolescents for over four decades to the “wonders of a garden” is convinced of this. A garden speaks to a person’s head, heart and hands in equal measures and enables them to become active.

“And it is just these people who are able to see and think the interconnections in a wider picture and who want to get engaged in this who are needed by society for its future development!” A conversation about the significance of gardening lessons and their impact on childhood and youth development.

*Herr Lange, Rudolf Steiner introduced gardening lessons shortly after the founding of the first Waldorf school in Stuttgart. What was his intention?*

His concern was for children and adolescents to get a practical relationship to nature. Cultivated plants, like domestic animals and pets, form the basis of human existence and culture. To respect them, to be grateful and to treat them according to their nature is our task. This can be learnt in the school gardening lesson and is gaining a new significance in the current time of crises.

*In comparison to Steiner’s day, most people today live quite out of touch with nature in an information society. How is it to be explained that gardening has kept its place in the curriculum for so long in Steiner schools?*

That amazes me too – after all, gardening lessons have become “something nice to have” at a lot of schools. They have been reduced or else pushed into class 5 to make room for academic subjects that are important for ‘A’ levels.

*Gardening is ecological education; from what age is a child ready for it? And how does the content of the lessons correspond to the pupils’ stages of development?*

Rudolf Steiner envisaged the beginning of gardening lessons in class 6, when causal thinking awakens in children. At this age they have a need to learn something involving expertise in order to connect with the practical world. At the same time, they encounter physics and chemistry. This is an important guideline and it has been confirmed for me time and

again by the enthusiasm of the children for having their own part of the bed to tend and harvest. This is exactly the right moment for teaching this subject. People should definitely go out into the garden or nature with children of all ages – yet it always needs to be appropriate to their age.

Rudolf Steiner has given a second guideline with how long to continue these lessons: up to class 11! At this time the pupils should find out about the “mystery of grafting”. Instead of with the fruit trees we have been doing that with rose bushes. This allows the pupils to experience how cultivated plants are distinguished from wild plants and what significance they have for human culture: without cultivated plants and domestic animals we would have the culture of hunter-gatherers! Between these two guidelines gardening lessons can be very diverse – depending on the climate, the location, the soil, the direction given, etc. In the timespan of the gardening lessons the first stage of the pupils’ individualisation process falls, of the search for who or what each one actually is. This is not an easy stage. With a lot of humour, understanding, patience, tasty produce, guidance and firmness of purpose, but also with the standard of good, proper work this time passes, and something new can be born.

In class 7, class 8 or 9 the young people work principally in groups of two throughout the garden. They are allowed to pick a form of work from what needs doing. The aim is to carry out a task – just like in their later occupations. The school garden offers an incredible number of possibilities! They practise dealing with the living realm, and obviously it is the plants that matter; one’s own personal state, such as inclination or reluctance to do something, is not exactly called for.

*“A gardening teacher needs to be aware that he or she is an educator for the time of puberty”. How would you understand this sentence?*

It follows on from what I have just said. Class 6 pupils bring their childhood with them. I have always been glad of this, but it changes rapidly. After the summer holidays, when they come into class 7, the girls become pretty, the boys stumble around and the teacher is tested. I find it a great time of life.

However, the teacher is strongly challenged! The adolescents have a great need to be recognized for what they actually are. If the teacher succeeds in recognizing what is asking to be developed in a pupil, there are hardly any more problems. As with so any things, the garden offers practical support by its very nature.

After the restlessness of these years the pupils and the teacher meet on a different level. Working in the garden gives way to caring for and responsibility for particular areas such as looking after the flower beds or the greenhouse, etc. Then it is also possible to work scientifically and to research what has simply been done practically in the garden. We do this, for instance, with growth trials in compost soil, sand, garden soil, chemical fertilisers, among other things. Here it is a matter of exact observation, exact measurement and keeping an accurate record. Most interesting of all were the conversations around the analysis, which led us to a lot of ecological questions, but also to key life questions. In class 11 this can be taken further. Here grafting gets a look in and each pupil creates their own rose bush which would not exist without their work and tending. Moreover, for example, trials with decomposition come in, using dead animals, fruit, grass, manure, hamburgers, jelly babies or with food from the school meals. All living things must decompose. These are not necessarily aesthetic processes; however, as a researcher, you can practise objectivity in this way.

Gardening lessons lead through actions and feelings to thinking. The fact that in lots of schools gardening lessons no longer take place at this stage is a regrettable loss.

*What does gardening contribute in your view to the development of a child's personality? What forces in the child are strengthened through working in the school garden?*

Personality development is strongly fostered in Rudolf Steiner's pedagogy. Gardening lessons are just a part of the whole. Rudolf Steiner's indication that the connection to the human being must be present in all the lessons impressed me strongly as a young teacher, and I could experience that it is right. A lot of pupils and adolescents nowadays struggle to find meaning in the subjects taught; that is reflected in their disruptive behaviour. When the teacher manages to always put the human being and their

creative forces in the centre of the lessons, they create nourishment for the development of the forces of personality.

*Through the various activities in the gardening lessons the children leave their mark on the school garden; what mark does the school garden leave on the children? Do they leave noticeably more fulfilled in the educator's eyes than when they entered it?*

Absolutely! This makes it clearly visible to the teacher that the pupils like coming to the lessons! What the individual takes away and what it means for them – for their life's path too – are realms in which we, as teachers rarely have insight.

As I have taught at the same school for many years, time and again I had encounters with former pupils. I have discovered that, above all, they take inner pictures with them and that the knowledge part gets forgotten. What does that mean? The pictures do not get lost and last a lifetime. One of my first pupils told me that for decades she had nothing to do with any garden. Then she came into a situation in which she had to take on a large garden. She felt pretty overwhelmed, but she remembered the school garden, was able to call up the pictures and to orientate herself through them. That means that for me, as a teacher, I have to strive to give the adolescents good pictures to take with them. It means that the garden is beautiful in all seasons. Moreover, the children and adolescents need to experience that it is cultivated and has no unpenetrated areas. The teacher's task is to create a garden learning space in which the children and adolescents find an example to follow, security and understanding. In this way pictures arise and live in the soul – and not in the cognition of the intellect.

*Gardening tends to be viewed as a polar opposite of subjects like mathematics, in which logical, precise thinking is required. Nonetheless, where do you see links to other subjects?*

Mathematics is present everywhere in nature: the minerals, the spiral growth of plants and far more besides. It is up to the teachers of the various subjects to establish these connections. French can be taught, it can be drawn and painted. Biology can also be taught in the garden laboratory, the German teacher can find lyrical poetry on roses and even in history gardens have significance. And where would the discovery of the world be without *sauerkraut* (vitamin C against scurvy) that we can produce

in the school garden as well? I am so glad that, in some schools, teachers are now endeavouring to teach across the disciplines. Gardening has a lot to contribute, because it has something to do with everything.

*Gardening lessons brings children into contact with the earth as well as the world of plants and animals. All these areas have to do with our nutrition. Do the gardening lessons pursue the goal of bringing the importance of dealing with food attentively home to the young generation? How does this happen concretely in the lesson?*

A large and varied garden contains a wealth of sense perceptions, through the eyes, the mouth, the hands, the skin, the nose. A plant can be looked at, touched, it has an aroma, it can be eaten. All these perceptions tell us something about the being that I have in front of me. I myself like to 'graze', when I go through the garden, and I have been encouraging the pupils to do the same. Likewise, we have applied this approach in the growth and decomposition trials with class 10 and 11. We were able to do this by the simplest means – thanks to our 'built-in' instruments of perception such as smelling, tasting, hearing, touching and seeing.

With a pyrolysis cooker we have made seasonal soups. The pupils perceived that vegetables and fruit from a biodynamically nurtured school garden taste much better than bought produce. In principle, we stuck to the rule of not throwing anything away that can be eaten.

*You have been teaching gardening for a long time – what fascinates children most of all from your experience? What do they especially like doing?*

Eating the produce of the garden! They all like doing that! And the boys in class 7 and 8 like digging holes for ponds and want to use and experience their energy and strength. The girls like making posies of flowers and gathering herbs. And sometimes it is the other way around! The pupils of the upper school like discussing too. And when it is not raining or cold just then, it is much nicer in the school garden than in the classroom!

*Why did you yourself become a gardening teacher?*

The working of destiny! Actually I had wanted to be a class teacher, but a gardening teacher was needed. And because I had the necessary requirements, I took on this task. And, if I may be so bold, I must say: it is the nicest subject that can be taught!

*What can children learn from the encounter with bees in particular?*

I was especially concerned to foster the insect world. In a varied garden the most diverse conditions can be created – then the insects come of their own accord and form an individual biotope together with the other living beings of the garden. The bees are an important part of this, because they, as domestic animals, are close to humans and need the bee-keeper who looks after them. The gardener can be glad about it, if he or she has a balance as a result, with few pests or diseases in such a garden individuality.

*You once wrote that the school garden can be the centre of a school, because the garden itself has to do with all elements of life. Is this the reason why gardening lessons will not lose their great significance in future?*

In my estimation gardening lessons will have a different role in the next few years from today. The current crises call upon us to find a new way of working with nature, the cultivated plants and domestic animals. Gardening lessons have the potential for this – especially in co-operation with teachers of different subjects. Together with Benno Otter from the Goetheanum gardens and the Academy for anthroposophical education we have created a gardening teacher training. This is now in its tenth year and is very much in demand. It is interesting that a lot of young people come with the impulse to enable children and adolescents to have an encounter with the garden and nature. They say, "That must be, it is so important!" I hope that they will find places where they can realise their impulses.

Peter Lange, born in 1953, not a former Steiner pupil, who completed a practical-scientific training as a laboratory technician for pest control in the chemical industry in Basel but did not work in the profession a single day, got to know biodynamic agriculture enthusiastically, trained as a class teacher at the Goetheanum and spent two years as a stage technician at the Goetheanum. He started a family of four daughters with Esther Strub, found the school in Wetzikon with the people there, built up the school garden and worked for 40 years as a gardening teacher with an estimated number of 1,000 pupils and now has been given emeritus status in Toggenburg.

# New Publication: Manfred Klett “Von der Agrartechnologie zur Landbaukunst” (From agricultural Technology to the Art of Husbandry”

Ueli Hurter

The new book “Von der Agrartechnologie zur Landbaukunst” may be described as the summary of Manfred Klett’s life work.

Manfred Klett, born in 1933, is the doyen of the biodynamic movement. After he has been travelling world-wide as a speaker, tutor and interlocutor for decades alongside his practical work and responsibilities, you could expect to find him now in quiet retirement. This picture is misleading, for, out of an outwardly quiet life Manfred Klett appears in public again with a comprehensive work of 488 pages. And whoever knows him, suspects immediately what Manfred Klett puts in our hands: the quintessence of his life-long working for agriculture of the future. Retrospectively, the harvest yielded by his life is sifted through and ordered: a structured stocktaking of what agriculture was and is. Looking forward, we are faced with a challenge to subsequent generations in the sense of work orientations to get to grips with the future potential that agriculture bears within it.

The first subtitle “Characteristics of biodynamic Cultivation” may be understood as a summary of the contents. Yes, indeed, it is about biodynamic agriculture, but not in the sense of an inside view, an internal communication of the biodynamic ‘community’ with itself. Well, is it about an outside view? It is not that either, for, from the outside nothing at all is looked at in this work. However, you could say it is a matter of a perspective looking out. A perspective, in which what we call ‘biodynamic’ is explored beyond the movement and how it sees itself in order to find something in its characteristics of what of agriculture is in terms of its purpose. That is a mighty claim, which requires solid backing-up. The book can be read as this backing-up, and I believe it is intended to be read in this way from the author’s position, that is, in terms of the content and the style. The content includes among other things:

- A history of agriculture in its connection to the development of culture and consciousness of humanity in the West.

- A socio-economic study of the relationship between industry and agriculture.
- A theory about the agricultural organism in its three- and four-foldedness.
- An examination of the “agricultural individuality”.
- In the context of the three pillars of cultivation – tilling the soil, crop rotation and fertilising – a detailed portrayal of biodynamic preparations.
- A textbook for biodynamic farmers.
- A textbook for farm communities and associative initiatives around farms.

With the style the evidence or argumentation needs to be called Goethean in the best sense. In other words, it is not abstractly logical and systematic, but rather is orientated towards the phenomenon. The biography of the writer is a life for and with the biodynamic impulse. The concrete work experience and the thought discoveries in principle belong together. The life lived is the interweaving of both, and this book stays true to the language his life speaks. Concrete work experiences – whether they be in the fields, in the cowshed or at the work meeting - and the formulations on archetypal phenomena concerning soils, livestock or working together are closely interwoven. That is intentional. The style can be described as “real-ideal”. And it is the realisation of what Manfred Klett calls “the Art of Husbandry” in the title. The real aspect does not lose itself atomistically in the details of dates and facts and the ideal does not get lost in the abstraction of the general; they seek each other out and fertilise each other to find a higher unity; this art may be called the art of husbandry.



Manfred Klett

**Von der Agrartechnologie zur Landbaukunst** Wesenszüge des biologisch-dynamischen Landbaus (Characteristics of biodynamic Cultivation)  
Agriculture of the Future

Verlag am Goetheanum

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## 2nd International Conference on Biodynamic Research

### Growing beyond resilience

Lin Bautze

Biodynamic agriculture has great potential to react to the challenges of our times, positively, realistically and in a future-orientated way. Challenges, such as climate change, diminishing soil fertility or even loss of biodiversity require a holistic view that includes the environment as well as the social, economic and spiritual dimensions.

Researching these concepts and potential plays an important part. Thus, biodynamic research can help to create a future that is worth living out of the possibilities and opportunities. As the Agriculture Section, we want to create a space which offers those engaged in biodynamic research and also beyond it conversational exchange and networking.

To this end, in September 2018 for the first time the International Biodynamic Research Conference took place. Thus, 180 participants from 24 countries from all continents were able to meet and develop new joint projects.

From 30<sup>th</sup> August until 2<sup>nd</sup> September 2021 the second International Conference on Biodynamic Research will now take place. Altogether ten partners have met to organise a varied, broad programme for the conference. On account of the unrelenting Covid-19 pandemic the event will take place digitally. Thus, still more people from across the world will be able to participate in the varied, multi-layered programme, fitting in with the various global time zones.

At the conference we would like to encourage conversation on the theme "Growing beyond Resilience". We are putting together academic, participative and practice-led research from farming work and the food system. We are inviting people to put critical questions on resilience: what concepts are there at present? How are they being lived out? Are they fostering or hindering further development? What forces are needed to move beyond present conditions?

Overall besides key note presentations by, among others, Patrick Holden (Sustainable Food Trust), Jean-Michel Florin (Agriculture Section) and Saskia von Diest (Ecofluency) there will be more than

60 people giving reports, representatives from 15 countries. Apart from the talks there will be opportunities for conversational exchanges in the form of discussion rounds, or else limbering up exercises in front of the screen. The website of the Agriculture Section will be free to take bookings from 5<sup>th</sup> July 2021.

We are looking forward to fostering biodynamic research with you, to developing it further and thus to meeting the current challenges, such as climate change, constructively.

Bookings and further Information under:  
<https://www.sektion-landwirtschaft.org/en/research/bdrc21>

### Verena Wahl is going a new `Ways

Verena Wahl, the Chief Executive Officer of the Section for Agriculture, is going out into the world. Since the end of 2016 she has been responsible with us for team co-ordination, project management and in the last year also for operational management. Thereby, she was involved in a lot of projects and especially a great variety of innovations. She has built up the team, has developed productive structures for collaboration and has established the funding anew, she has brought the International Research Conference into being and with her communicative manner she has strengthened the networking of the Section with the biodynamic movement world-wide, thereby pointing the way forward.

In July 2021 she will start a new phase in her life. We are most reluctant to let her go, for with her bright personality she has enriched the Section and the movement substantially. We would like to wish Verena all the best on her further life's journey and thank her warmly for her engagement as well as for the important, future-orientated impulses that she has given the Section in these last years.

*The Team of the Agriculture Section*

## Agenda 2021/22

Date	Title	
30 Aug. – 2 Sept.	<b>2<sup>nd</sup> International Conference on Biodynamic Research</b> Growing beyond resilience	Online
6 – 7 Sept.	<b>Pre-Conferences OWC</b> on various topics	in Rennes, France and online
7 – 10 Sept.	<b>Organic World Congress (OWC) 2021</b>	in Rennes, France and online
26 – 30 Okt.	Meeting of the Members of the <b>Circle of Representatives</b> for Biodynamic Agriculture	in Pamhagen, Austria By invitation.
<b>2022</b>		
31 Jan. – 2 Feb.	Meeting of the Members of the <b>Circle of Representatives</b> for Biodynamic Agriculture	Goetheanum, Dornach, Switzerland. By invitation.
2 – 5 Feb.	<b>Agriculture Conference 2022</b> The quality of biodynamic products and what it means for the earth and for human beings	Annual International Conference of the Biodynamic Movement
1 – 4 June	<b>The Goetheanum Adult Education Programme (GAEP) Module 2</b>	Teaching Anthroposophy Today Goetheanum, Dornach, Switzerland
	<b>Nutrition Circle</b> International Working Group of Nutrition Experts	Dates on request – jasmin.peschke@goetheanum.ch

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