



Section for Agriculture
at the Goetheanum

Quality through biodynamics !

perceive
experience
develop

Report from the Agriculture Conference 2022

Contents

Onwards to quality! <i>A. Muse / C. Petrini / M. Ehrlichmann</i>	
Good taste in quality and quantity <i>Jean-Michel Florin and Ueli Hurter</i>	
Michael Letter <i>Jasmin Peschke</i>	
How does quality develop? <i>Joke Bloksma</i>	
How can quality be developed? <i>Olivier Clisson</i>	
How is quality expressed? <i>Agata Glazar</i>	
Health and aesthetics – healing powers from the microbiome <i>Thomas Hardtmuth</i>	
Bread and wine <i>Romana Echensperger and Georg Meissner</i>	
The interdependence of planetary and human health – developing an insight into qualities <i>Craig Holdrege</i>	
Quality and community <i>Antonio Luis Lattuca</i>	
Commitment to ethical cattle rearing and quality <i>Mechthild Knösel</i>	
Theme of the year 2022/23	

Imprint

4	Publisher: School of Spiritual Science – Section for Agriculture at the Goetheanum. www.sektion-landwirtschaft.org
7	Conference Organisation: Vincent Eichholz, Jean-Michel Florin, Jasmin Peschke Editor: Anna Storchenegger
10	Translations: Lynda Hepburn Logo symbol: Rudolf Steiner
13	Photos and diagrams in the text: By the relevant author, if not stated otherwise.
15	Design and layout: Johannes Onneken / Sven Baumann Legal notice: In passing their manuscript on to the publisher authors and patent holder agree to its complete or partial publication. No liability will be accepted for the incorrect designation of a protected title. Reprinting or translation requires permission from both author and editor.
17	
18	Contact address: Section for Agriculture, Hühelweg 59, 4143 Dornach, Schweiz, landwirtschaft@goetheanum.ch and on our website: www.sektion-landwirtschaft.org
22	Copyright: Allgemeine Anthroposophische Gesellschaft, Dornach, Schweiz
	Quotation references: Section for Agriculture (Ed.) (2022): Quality through biodynamics. Perceice, experience, develop. Report from the Agriculture Conference 2022.
24	
26	
27	
28	

Support the Section through donations

EUR-Bank-Account
Allgemeine Anthroposophische Gesellschaft,
Postfach, 4143 Dornach, Schweiz
IBAN: CH71 8080 8001 0200 5131 1
Raiffeisenbank Dornach, 4143 Dornach, Schweiz
SWIFT-BIC: RAIFCH22
Please add: „Donation Section for Agriculture 1150“
and, if possible, with your complete address.

CHF-Bank-Account
Allgemeine Anthroposophische Gesellschaft,
Postfach, 4143 Dornach, Schweiz
IBAN: CH54 8080 8001 1975 4658 2
Raiffeisenbank Dornach, 4143 Dornach, Schweiz
SWIFT-BIC: RAIFCH22
Please add: „Donation Section for Agriculture 1150“
and, if possible, with your complete address.

USD-Bank-Account
Allgemeine Anthroposophische Gesellschaft,
Postfach, 4143 Dornach, Schweiz
IBAN: CH23 8080 8001 7896 7636 5
Raiffeisenbank Dornach, 4143 Dornach, Schweiz
SWIFT-BIC: RAIFCH22
Please add: „Donation Section for Agriculture 1150“
and, if possible, with your complete address.

For donations with tax-effective donation receipt from Germany
Anthroposophische Gesellschaft in Deutschland
IBAN: DE13 4306 0967 0010 0845 10
GLS Gemeinschaftsbank eG, Christstraße 9, DE-44789 Bochum
BIC: GENODEM1GLS
Please add: „Donation Section for Agriculture 1150“
and, if possible, with your complete address.



Impression during the conference

Photo: Philip Wilson

Editorial

If there is one area in which quality plays not merely an important but absolutely vital role, then this is nutrition. Our quality of life is directly dependent upon it. We eat three times a day, so connecting ourselves to the world.

Arizona Muse, Carlo Petrini and Maike Ehrlichmann opened the conference with the call "Onward to quality!" and presented their different points of view.

The topic of quality first means having real authentic experiences and sense perceptions. Food quality is always first experienced through the senses, whether this be the cornstalk in the field, the ripe grain or the bread out of the oven. Several contributions pointed out that we need to hone our senses as these are the primary tool for recognising quality, and then to train and improve them.

And, as demonstrated by Olivier Clisson with the example of grain and bread, the method of processing is often an imitation of the steps in nature but at a higher level, an "intensification".

The subject of quality is often viewed as a polarity with quantity in everyday life. We tend to think that only once everyone has enough to eat should our attention turn to quality. Looked at like this, quality appears to be a kind of luxury. But this division is an illusion. As Ueli Hurter showed, the plant must first produce enough substance (quantity) in order to then refine this qualitatively. This balance in the processes of growth and differentiation is also described very clearly by Joke Bloksma.

What use is quantity if it only fills our stomachs but does not nourish us, in other words, make us healthy? Research on the microbiome shows increasingly that the quality of our diet and surroundings in general have direct effects on our physiological and even mental health.

What value does cheap quantity have if it is made at the cost of ethics? Mechthild Knösel shows how a conscious choice in how we keep animals and their living conditions lead directly to better quality meat.

In the fundamental work on the Michael Letter, Jasmin Peschke shows how the awareness of quality has changed significantly over time. The human being creates quality, it is never there naturally by itself and needs the collaboration of head, heart and hands.

This conference report details a range of important stages on our research journey towards living quality. It becomes apparent how this thread runs through all the stages of the process of producing our food – from soil to plate – and how ultimately "quality is a result of human creative action". Craig Holdrege describes how the human being can develop their relationship to nature so that it is participative, so that nature can be perceived everywhere in its activity and not simply as an object or resource.

For the team of the Section for Agriculture

Jean-Michel Florin and Jasmin Peschke



Arizona Muse during the conference

Photo: Lin Bautze

Onwards to quality!

A. Muse / C. Petrini / M. Ehrlichmann

Three very different activists who all share the aim of expanding biodynamic quality got the 2022 Agriculture Conference off to a good start. While model Arizona Muse examined the issue of quality particularly in the fashion industry, Carlo Petrini, founder of the Slow Food movement, wished for qualitatively superior and fairly produced food. This was also the plea of nutritionist Maike Ehrlichmann, who successfully uses "intuitive nutrition" in dietary consultation. This teaches us to listen to our body's signals, giving us security about what and how much we should eat.

Arizona Muse – the treasures of a century of biodynamic agriculture

Arizona Muse first visited a biodynamic farm in the USA when she was ten, during a trip with her Waldorf school class. Little did she know then that, twenty years later, she would be an ambassador for the biodynamic movement. Her path in life first took her onto the catwalks of the whole world and in front of cameras of famous fashion magazines. During her successful career as a model where one engagement followed close on the heels of the last, she

never asked herself where her clothes came from nor how they were produced – she was too engrossed by events.

However, at some point she realised that she knew far too little about the background to the clothes and brands that she wore and began finding out about them. She discovered that marketing has lost its integrity and that a new social beginning is needed. She decided to commit actively to sustainable clothes manufacturing and to the environment in general. This launched her on a fascinating journey where she not only encountered shocking conditions but also many inspiring people. Amongst these were biodynamic farmers whose knowledge, calm and strength impressed her greatly. She came to see that biodynamics, with its century of experience, had wide-ranging solutions to a variety of problems, both practically in the field of agriculture but also at the social and political levels. She had the potential to become completely integrated in the social, economic and political structures of various countries. The climate crisis is now not only apparent in theory but actually in practice, making biodynamics even more important, as its implementation now appears urgent.

Arizona Muse's first step was to found the non-profit organisation DIRT, Foundation for the Regeneration of the Earth, with the aim of regenerating the earth's soils through biodynamic agriculture and helping fashion brands to make environmentally friendly products. But her vision goes much further. For example, she would like to see hospitals where the patients can enjoy biodynamic food and the beds are made up with sustainably produced sheets. And city dwellers, especially children, would relate more closely to nature once more and would look with greater attentiveness at their environment. In her role as an eco-activist, Arizona Muse would like to reach as many people as possible from different sectors and all corners of the globe, to work together on creating a healthy planet and a happy future for our children.

Carlo Petrini – a plea for tasty and fairly produced food

The topic of food quality has never been as important as it is now in our present century, and for two reasons. First, the quality of food is not based solely on sensory properties but includes all the senses and the environment. This is where the biodynamic movement plays an important role as it views food quality from a holistic angle and takes account not only of the environment but also the spiritual level.

Second, the government and scientists in Italy are trying to restrict biodynamic and organic farming through laws,

while ridiculing biodynamic practices. It is therefore important that we stand by our holistic concepts.

The Slow Food Movement, which has now been in existence for 30 years, has the goal of tasty and environmentally compatible and fairly produced food. Foodstuffs that do not comply with these criteria are simply not good. Social fairness is also important. Foods should be produced without exploiting the producers, counteracting the unfair financial distribution in the agricultural sector. The concepts of biodynamic agriculture make a wonderful contrast to the instances of social unfairness and environmentally damaging production, as biodynamics integrates both the environment and people in its sense of quality. This is more important than ever because today's agricultural system is in a process of transformation. It is a historic moment that must not be missed and needs to be at the top of our consciousness. It is important for the future that both producers and consumers take on responsibility. Consumers must abandon their passive role and become co-producers, in order to create a holistic sense of quality.

Maike Ehrlichmann – we are all our own personal nutrition advisers

In her work as a nutritional advisor, Maike Ehrlichmann meets many patients who ask her what they should eat. Her answer to this is: foods that are fresh, good and honest – preferably cooked at home. Many people have lost their relationship to these kinds of foods because our diet is full of processed foods and flavour enhancers. Despite this we sense the difference between healthy and unhealthy foods. Almost nobody feels good eating fast food. But we feel excited when we taste a flavoursome carrot.

How is a tasty carrot produced? It comes from organic or biodynamic seed, grows in healthy living soil and copes with the various environmental factors by forming substances that strengthen both itself and us: what are known as secondary plant substances such as antioxidants. If we want healthy foods, we find them through our sense of taste, because secondary plant substances are associated with good taste. Good taste can in fact be a pointer in our search for healthy foods and, conversely, food speaks to us through taste.

According to a professor of sensory function, we eat less when the food tastes better. In view of the serious increase in overweight and obesity in our society, it would therefore be sensible to eat what tastes good – and to stop eating when we have enough.

The better we are able to rely on our needs because we have learned to observe them, the more likely we are to get what we need. Our body can regulate our needs well if we let it.

In this way human beings can train their own inner nutritional adviser. The scientific proof is that people who eat intuitively are often slimmer and healthier. Artificial flavour enhancers disrupt our perception of our needs, making it important to eat only fresh, simple and honest foods where possible. This permits the body to have an honest reaction. So what public health measures can be put in place? We need to ensure that food of this kind is available as easily as possible to as many people as possible.



Photo: Philip Wilson



Photo: Charlotte Fischer

Good taste in quality and quantity

Jean-Michel Florin and Ueli Hurter

The right relationship of quality and quantity is a basic issue in the biodynamic movement. The two section leaders, Jean-Michel Florin and Ueli Hurter, explore the topic of quality and quantity from two sides: Jean-Michel Florin from the angle of consumption, degustation and quality and Ueli Hurter from the angle of production and quantity.

The question of quality at the beginning of biodynamic agriculture

Why has quality declined in favour of quantity over the years? During both World Wars, synthetically manufactured chemical nitrogenous salts were produced for warfare, but also found an application in agriculture. The introduction of man-made nitrogen upset the balance in the health of animals, plants and soil. The plants' and animals' physiology was not adapted to these artificial fertilisers, leading to a loss in food quality but an increase in quantity – something of crucial importance to combat the famines following the war years. But what happened to quality? Rudolf Steiner's Agriculture Course offers an answer to this question. It is not a matter of dismissing quantity in favour of a luxurious quality, but about healthy, wholesome food for all.

La saveur de vivre

Jean-Michel Florin: How does quality develop? What is quality, in fact? Is it the taste "le goût" in the narrower or wider sense?

By taste, we do not merely mean the perception of a food in the mouth, but the total experience of it via different senses. In order to better understand what quality is, we first have to explore what eating – in other words feeding ourselves – means to us. Does eating have a purely utilitarian meaning? Do I eat as a means to an end (to build up strength)? If we look at it phenomenologically, it is a great deal more than this. Because through taste that arises via numerous sense impressions, we enjoy life: so eating is "la saveur de vivre" (the taste of life)!

The French philosopher Emmanuel Lévinas expressed it as follows: "We breathe for the sake of breathing, eat and drink for the sake of eating and drinking, we take shelter for the sake of taking shelter, ... we take a walk for the walk. All that's not for the sake of living, it is living. Life is a sincerity." But in order to perceive life and the environment with all its sense impressions ("la saveur") we need to be in the here and now. As Goethe says: "Remember to live." So we are in an active exchange with the environment when we breathe, but also when we eat. What happens when we

eat? Do we eat in order to gain strength for daily life, or do we eat in order to encounter the essence of the food?

If we eat for a purely utilitarian purpose, we have no connection to the food and to the environment, which sooner or later leads to illness – we are not satisfied by our food. However, if we eat with awareness, this can be very satisfying because we remember the special taste and have therefore encountered the essence of the food. We also remember a particular atmosphere. This is how the concept of "nutrition" must be expanded. Food is a meeting with the environment, which can also provide emotional and spiritual impulses. This is the first step in developing the concept of "quality".

Quality develops on the basis of quantity

Ueli Hurter: Quantity also matters. A farmer who has sown wheat and harvests this as ripe corn looks at the threshed grain: the more there is in the trailer, the happier he is! Once the grain is threshed and milled and baked into bread, then quality comes to the fore. A bland tasteless loaf of bread is qualitatively unsatisfactory. However, a tasty loaf of bread is evidence of good quality. But how does this quality come about? Let us follow the development process of the bread backwards. The baker has an influence on the bread through his dough-making process, the miller by milling the grain. But the actual taste of the wheat grain is produced by the farmer, its growth in the field, and ultimately also through the work of the plant breeder who influences the nature of the taste in the wheat grain.

Let us look at the wheat during its phases of growth. From the germinating seed to the three-leaf stage the wheat grain has to acclimatise to its new environment and cope with the soil conditions and weather as well as with its tendencies as a grain of wheat. The plant first grows outwards (tillering phase), secures its place and then shoots vigorously upwards (sprouting phase). The maximum vegetative state is reached while the plant is pushing upwards and producing leaves and stems. The generative phase, the emergence of the ears, forms the transition to the development of the grain. The plant's energy is then converted into visible substance, in other words into grains. The grains from the generative growth produce the quality that we are looking for: a quality of ripeness. If the grain development in short-strawed varieties is accelerated shortly before harvest by high nitrogen inputs, although this produces a grain with a high protein content, there is little taste and therefore lower quality. Vegetative growth thus has a crucial impact on the correct ripening of the corn.

A second product that demonstrates quality in a striking way is milk. When the cow lies and chews the cud, then

good milk is produced in quantities. Farmers like the "greedy cow" that, while lying and ruminating, has a second period of dreamily tasting the feed it has eaten. The horns are warm and reflect the encounter of the digestive gases and the blood. The milk that is produced from good feed and rumination results in cheeses with a full body and raw milk with good keeping properties.

Thanks to the animal's feed which returns to the field in an excreted form as dung and compost, and is ultimately eaten once more, an endless cycle is created where quantity and quality go hand in hand.

Atmospheric quality

Jean-Michel Florin: Do we need a new definition of the concept of quality? Modern food production defines quality using checklists and measurable effects. But is this sufficient for "living foodstuffs"? How are the sensory perceptions of foods to be defined? We need to complement the usual concept of quality with a concept of atmospheric quality.

The atmosphere is a mood which can be perceived and felt but not measured directly. So how can it be grasped? Each of us recognises a balanced harmonious atmosphere and can describe it. In a similar way, when a food is being produced, attention can be repeatedly drawn to the atmosphere. First there is an "atmospheric", in other words invisible, *terroir*. This is an interplay of the elements (earth, water, air, light and warmth) and the actions of the farmer, which condense into substance in the wheat plant (at the end in the wheat grain). The baker who prepares the dough also works with the atmosphere, by combining different elements and condensing them in the bread. When we finally eat the bread, the substance once again dissolves into the atmosphere. Each foodstuff creates a particular mood, or atmosphere. Can good quality be experienced in the atmosphere and is it an experience that everyone can have?

If you take this atmospheric aspect as a criterion for the production of foodstuffs, then it is shocking that many foods are produced in cold, virtually dead halls. Does the atmosphere not have an influence on the processing, as it does on the field? Is there a difference in quality between processing where the human being consciously follows the process and one which is carried out purely mechanically? Let us imagine that we ourselves are a grain of wheat. Is there not a difference in how it is stored, how it is milled, how it is baked?

The problem of world hunger

Ueli Hurter: Is biodynamic quality a matter of privilege? Is it immoral that some people can afford good quality food while others cannot? Globally there are 800 million to a billion



Photo: Charlotte Fischer

people who go hungry and just about the same number who suffer from obesity and similar diseases due to poor quality food. What is more, worldwide 30% of the food produced on agricultural land is thrown away (food waste), something that does nothing to help the world hunger problem. The problem of world hunger is caused by economic, social and cultural factors, not agricultural ones. Agriculture can easily supply the daily requirement of 2000 calories, even in organic quality. It is also well known that more land is available for plant-based foods than for meat production.

We in the biodynamic movement also need to ask ourselves this question about feeding the world. We can meet this challenge by means of the following elements:

- Organic and biodynamic agriculture can feed the world, as long as we eat less meat and reduce food waste.
- The current ecological footprint depends to a large extent on industrial chemical agriculture. If this were to be reflected in the product costs, biodynamic and organic farming would also be able to produce good quality affordable food for the non-privileged. Thanks to our lower ecological footprint, we create both quality and quantity.
- The problem of world hunger is an abstract product of our thinking. There are specific groups of people who are hungry and who must be helped, whether they are refugees or victims of war. But for many, hunger is a structural problem. Biodynamic projects to improve life situations can have impressive results.

Summary

Jean-Michel Florin: We have the opportunity of meeting the world through our food and becoming aware of this meeting three times every day. The problem of world hunger is a structural one, but biodynamic agriculture can achieve an improvement in living conditions and quality of life, making

good quality food something that can be experienced by all. Farming and processing therefore have the task of giving people back good taste "la saveur du monde", because this offers the opportunity to connect to the world through our food. This is especially important nowadays, when we are so often immersed in a virtual world and lose our connection to the real one.

At the dawn of the Michael Age

On the Michael Letter

Jasmin Peschke

The Michael Letters

99 years ago, in the night of New Year's Eve 1922 and 1st January 1923, the first Goetheanum, the centre of anthroposophical esoteric work, was destroyed by arson. A year later during the Christmas Conference 1923/24, Rudolf Steiner founded the General Anthroposophical Society (GAS) with the Foundation Stone Meditation¹. This event transferred responsibility for anthroposophical work and its development to the members of the GAS. This not only represented an act of empowerment of the members, with the meditation as a spiritual endeavour playing a central role, but also decentralisation. Anthroposophical work would henceforth be promoted worldwide and not only established in Dornach.

For those members who could not be present in person, Rudolf Steiner wrote weekly leading thoughts – essential aspects of anthroposophy – to guide and support their work in the various countries. The first was published in the newsletter for members on 17 February 1924. The book "Anthroposophical Leading Thoughts", by Rudolf Steiner (GA 26), contains texts and essays in chronological order according to when they were published. For the first six months these are only leading thoughts and essays or letters for members. In August 1924 followed the first Michael Letter "At the Dawn of the Michael Age". The Michael Letters are essays on the activity and task of the spiritual being Michael who guides our civilization. At the start of the book, the Leading Thoughts and Michael Letters alternate, with unrelated content until, with the publication of *The Way of Michael and what preceded it* on 12 October 1924², the Michael Letters and Leading Thoughts adopt the same content and relate to each other. There are three Leading Thoughts for each Michael Letter. They render it in a concentrated way, as an essence.

On the content of the Michael Letter "At the Dawn of the Michael Age"³

This letter describes the development of the human soul, how before the 9th century AD it had a feeling existence and saw thoughts but did not create them itself. The soul unfolds in the spirit. This was followed by a period in which human beings

themselves have thoughts. Matter and spirit are seen as a duality. For the Realist movement, the spiritual to which they have access through revelation is real. But for the Nominalists there is no essentiality but only names without spirit. The world is explained by numbers, dates, facts, structure and efficiency. Later, in the 19th century, spirit and man came together again. With the help of the spirit of the age, Michael, the human being welcomes the spirit into himself and forms the world in love with a Michaelic attitude.

Mankind in the spirit

Up to the 9th century AD, human beings lived with the awareness that thoughts were revelations of the divine that spoke to human beings out of the things of the senses. It was not man himself who produced these thoughts, but human beings could share in the spiritual content of the world. The thoughts that entered the human being from the supersensible spiritual world and lived in him he felt to be his soul. The thoughts were sent by Michael and mankind "beheld" the thoughts that lived in the things.

Seeing and beholding are two different things. Seeing is an activity that is connected to our sense of sight and that is directed to an object. In beholding, on the other hand, there need not be a physical entity before our eyes, but a vessel is formed that holds the essential element. This means that the human's soul life is stimulated from outside. For instance, we see a colour but we can only behold its effect, in other words perceive through inner experience.

Mankind and spirit

From the 9th century onwards, humans felt that they themselves formed their thoughts. It was in this period that they began to analyse, explain and understand factually, and also to practice controlled methodical procedures. Priority was given to systematising and structuring work processes and creating uniformity to improve efficiency. Inner emotions, and sympathies and antipathies were controlled and objectified. The focus was on thinking and rationality, resulting in the development of different branches of philosophy. The Michael Letter talks about the

1 "The Foundation Stone Meditation", Rudolf Steiner.

2 "Anthroposophical Leading Thoughts" – *The Way of Michael and What Preceded it*, Rudolf Steiner, GA 26.

3 "Anthroposophical Leading Thoughts", Rudolf Steiner GA No. 26.



Photo: Charlotte Fischer

Realists and Nominalists, because they held polar opposite attitudes.

The Realists thought that the human being can study the world through thinking, but knowledge about the essence is limited and can only be perfected by religious revelation.

An example will clarify this. Take the idea "apple" and use this to describe all apples, all fruit that have apple-like characteristics. When you read the word "apple", an inner picture arises. You then all see an apple, but each apple is different. But what we all perceive is the archetype of the apple. And this apple that I can have here in front of me in reality, can observe here in the world of the senses, is an expression of the idea "apple". One apple might be a yellow Glockenapfel, a red-cheeked apple or a yellow and red one: depending on the variety they all look and taste different. They are all apples but each one is different. So we have the idea "apple", the essence, the universal and we have a fact, an object in the real world. The Realists assume that these two things belong together and that the essence is a revelation, something that cannot be gained through our own cognitive activity.

For the Nominalists, who produce their own thoughts, what constitutes the essence "apple" for the Realists – in

other words, the universal idea that includes all apples and that belongs to the sensory phenomenon – is only a label, a name, an empty husk and certainly not any spiritual element. The only real thing for them is the apple that can be physically observed, but there is no essence. This is where the idea and world, spirit and matter fall apart. Due to the fact that they see human beings as the creators of thoughts that are purely subjective and only names that do not represent any aspect of the spirit, they turn away from Michael who points the way to the spirit and creates the bridge to the world of ideas.

The situation is a duality: spirit and matter are separate. Knowledge and action are two separate things. It could also be called making-yourself-independent of the spiritual, ideal content, by concentrating on what is functional and on the domination of nature.

One result of this is that we can become detached from the daily and seasonal rhythms, for example in poultry keeping, if the barn or hen house is artificially lit with no relationship to the time of day. Indoor farming also removes the relationship to the rhythm of the seasons. Sustainability is achieved through technology, for instance geoengineering. Global warming is reduced by reflecting

solar radiation, for example by discharging aerosols of sulphur dioxide into the earth's stratosphere. This may solve the problem but takes no account of what causes it nor the consequences of this measure. The connections are of no interest. The attitude is one of dominance over natural processes with no account taken of the living world. Nature is subordinated to technology, because for the Nominalists it has no essence. There are only names, substances, matter. Even animals are factors of production and food processing is all about efficiency, standardised procedures, usefulness and uniformity. But what kind of quality is produced under these conditions? The future task of human beings is to overcome nominalism – the life without spirit, the cold, heartless calculating thoughts.

The spirit in mankind

In the 19th century human beings understood that they needed to become active and could and should guide perception into the world of spirit. Cognition of the essence is no longer a gift given to the beholder, neither is it divine revelation, but a personal conscious activity, a free individual life of thought inspired by the spirit of the age, Michael. The human being can therefore have a free conscious relationship to the supersensible because he *wills* it.

To unite spirit and man, idea and matter, and carry these into real action, this is the task that human beings can undertake. Knowledge is directed to the will and leads to a rational deed. This can only happen through the heart. If the three qualities of head, heart and hands come together, then good can arise. This is Michaelic action when everything is honest and comes from the heart. Courageous, serious and clear, with love for the world and all things. At the same time, balance is also a Michaelic force. Throughout our life it is a matter of the right balance, of both-the-one-and-the-other. Extremes lead to a dead-end, only the balanced way leads to the future and is appropriate for human beings. The thoughts from the rather cold intellectual head area are led to the heart – and hearts begin to have thoughts. The head comes to the middle and the thoughts become heart-like. The heart is the sun, bearing warmth, it is the balance and the ever-changing equilibrium. The will, the deed, are fired by heart forces. Only the heartfelt deed leads to good, because it unites the spiritual and the physical. This quality is needed for a healthy development of the human being with the earth. It requires devotion, a heartfelt interest in and love for the world. Empathy, the interested and heartfelt attention, creates engagement and encounter as the basis for common ground.

When applying this quality, for example in quality management systems that are actually without spirit but also have their good sides, the important point is to use the system and place it in the service of humanity. It is no longer appropriate to mindlessly follow a set formula because it is effective and efficient. People must be engaged with heartfelt interest and enthusiasm. It is the *how* that leads to quality. Love for the deed is what counts. This leaves human beings with their judgement in control of the processes, because they possess knowledge and ability. The helm is not left to the management system.

The human being creates quality, it is never present as a matter of course. Quality is a result of the creative action of human beings. Human creation gives rise to new products such as cheese and bread which nature cannot bring forth. Neither is a meal a product of nature but results from the art of cooking, the culture of the kitchen and the skilled handling of warmth. Attentiveness and a respectful attitude are evident from the lovingly prepared meal to the table and room decorations and the atmosphere.

Let us take what is said in the Michael Letter seriously, for then our food can have the quality of manifesting the spiritual in the physical. This gives us the precondition that leads knowledge to the rational deed – in the best Michaelic sense.

How does quality develop?

Joke Bloksma

In her lecture, Joke Bloksma, lecturer at the Warmonderhof School for Biodynamic Agriculture in the Netherlands, describes the skill required to achieve inner quality, or vitality.

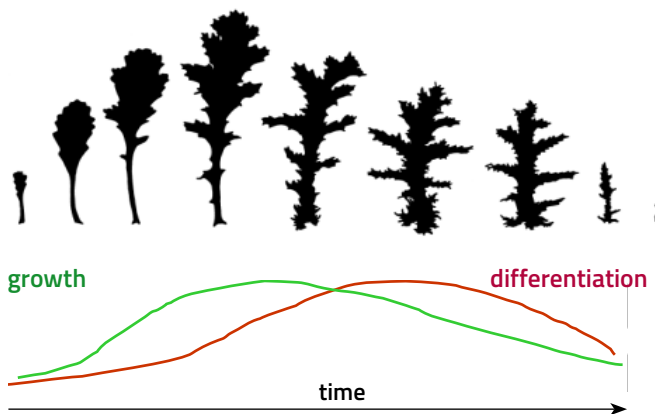
All plants – and also animals and humans – have active formative forces that can be divided into two processes: *growth* and *differentiation*. Both these living processes are always present but in different developmental periods and to differing degrees.

Growth

Growth begins with germination and root formation. When a plant is young it needs to grow in size and volume: starches, amino acids and nitrates are produced and it is characterised by its juiciness and strength. If you want to encourage its growth, it is important to ensure that the plant has enough space and is given enough water and light. The horn manure preparation helps this process.

Differentiation

During differentiation the plant becomes specialised and forms the fruit. Taste, colour and smell become even stronger, clearly distinguishing the plant from other species and its fruits from other fruits. To make sure that de-



velopment and differentiation proceed fully, growth must not get out of hand. A balance needs to be established by regulating the light and warmth and the horn silica preparation can help at this stage. The plant now starts to flower, produces pollen and can be fertilised. The sugar molecules produced during growth change into secondary plant products (phenols, vitamins and antioxidants). These give the plant a particular aroma and protect it from disease, pests, cold, etc. In addition, they not only ensure tasty food but also a healthy diet.

Doctors also talk about growth and differentiation in relation to processes in the cell. For instance, if cell growth takes on uncontrolled proportions, this can result in cancer. As a result, the hypothesis has been proposed that this development can be countered by means of very diverse foods but there is no proof of this as yet. If differentiation becomes too dominant in the cells, this can lead to sclerosis.



Growth = mass building

Crop

- Expansion, big uniform mass, high yield
- Photosynthesis -> sugar as building material
- Filling roots, fruits and seeds
- Germination

Product

- Big, sweet, sour, firm, crispy, juicy
- Sugar, starch, amino acids, nitrate

Cultivation measures

- Plenty of nutrients, water, light, warmth, CO₂
- Space to expand
- Cow manure preparation 500

Hypothesis for human health

- Cell growth, cancer



Differentiation = refining

Crop

- Specialisation
- Refining in form, flavour, colour
- Forming flower buds, pollen.
- Pollination, ripening

Product

- Aromatic, fragrant, bitter, colour, shine
- Phenols, vitamins, antioxidants, wax, dry matter

Cultivation measures

- Restrained growth. Light, dry warmth
- Time to ripen
- Horn-silica preparation 501

Hypothesis for human health

- Cell differentiation, hardening, sclerosis



Vitality as the result of the ideal interplay of growth and differentiation

What is important is the correct relationship between growth and differentiation, be that in plants or animals. For example, if a lettuce grows too big too quickly, it produces too many nitrates and loses the ability to develop fully (differentiation), meaning that it is unable to flower. What is more, it tastes watery. On the other hand, if it grows slowly, it contains few nitrates and tastes strong. If fruit is picked too early and allowed to "ripen" in storage, it will become softer and older, but will not develop more colour or taste. The benefit of a "plumped up" chicken is also questionable. Although this reaches slaughtering weight in six weeks and not the ten weeks usually required by Demeter chickens, it lacks resilience and flavour. The skill therefore lies in knowing when to encourage or hold back the different life processes. The basic rule is: *Vitality in the form of inner quality – in other words plentiful secondary plant substances that both promote the plant's resilience and our health, and develop a good taste and intensive colours – only comes about with a good balance and slow growth.*

Methods for empathetic perception as an instrument to finding the balance

How can we know if we have got the right balance for the specific plant, given the environmental conditions? This is where the seven steps of empathetic perception can be used. To do this, we put ourselves inside the plant and perceive in our own bodies – that is to say, with our own souls – what is going on in the plant. The important point is to be able to decide whether it is really the plant that you feel, or only yourself.

We first make sure that we are connected to the earth and are inwardly calm (1). We let go of any expectations about the observation (2). We look at the plant attentively

and link ourselves to it. This can result in a warm flow between us and the plant (3). By means of this connection, we try to follow the gestures of the plant in our own body (4). How does it feel? Is it in balance? How much energy does it have? Is the plant's movement directed upwards or downwards? (5) After this process we thank the plant and come back to ourselves (6). Finally, we try to find words or pictures to express what is happening in the plant (7).

Let us now use this method on the example of a cabbage (see figures): Cabbage 1 has had too much manure, it grew too tall and then tasted insipid and watery. Cabbage 2 grew in soil that was too hard and its development was limited. It was stringy and had a very strong taste. Cabbage 3, on the other hand, had optimum growth conditions and tasted excellent.

These seven steps of empathetic perception can also be used for the study of copper chloride crystallisation pictures (formative forces method). In this method the plant sap is mixed with copper chloride and the formative forces are reflected in the crystals. If the crystals are observed empathetically, the same perceptions occur as with the empathetic perception in the original plant. *The method of empathetic perception thus provides a means of yourself becoming an instrument for finding the ideal balance.*



How can quality be developed?

Olivier Clisson

As a farmer and baker living in Brittany, Olivier Clisson talks about his experiences of baking bread. He shows how the forces arising from the wheat plant can be processed – or rather, refined – during the bread-making process.

First let us do a little exercise, a meditation on a grain of wheat. We rub one of our palms until it is warm and imagine that we lay a grain of wheat on it. We add water. The grain first grows roots, then leaves. The plant continues to grow upwards, the ear develops and starts to ripen in the sun. Finally the ripe grain falls to the ground and a new cycle can begin.

We will now look in more detail at the process that we have inwardly carried out in our imagination. We observe which elements are important at which stages of growth. The grain of wheat lands in the dark earth and unites with it. In order to grow, it needs another element – water. The grain then develops towards the light. After the two-leaf stage the plant divides into many leaves. And finally the ear rises up slowly on the stalk and in May starts to flower. In the summer's wind and heat (air and fire) the wheat's colour changes from green to golden – the grain becomes harder and drier until the ripening process is complete.

A portion of the grain is kept for sowing the next year, another portion is processed into flour in a mill. Adding salt and water (earth and water elements) produces a dough.

Just like the grain of wheat, the dough needs water in order to grow. Once we start to knead the dough, it changes minute by minute. The life forces multiply. The kneading process adds air to the mix as a third element. This element also includes the mood and atmosphere where the dough is made. So we can ask ourselves how the mood that we perceive while kneading the dough affects the resulting bread. And whether in fact that music that we listen to as we knead has an effect on the quality of the dough?

After kneading we knock and fold the bread. In this way we repeat a gesture of the plant during growth.

Now we let the dough rest. This stage allows flavours and warmth to develop. Even if the ambient temperature is cool, the dough retains a constant temperature. It is like an animal that produces its own heat.

After a few hours the dough is kneaded again and divided into small pieces. This is also a parallel to the ear, because this also divides into small pieces, into grains.

And we can also shape the bread so that it resembles a grain of wheat. Sometimes very strange shapes develop in the dough – you suddenly see something, such as a mother and her child, mother earth, who nourishes us. The dough inspires us ...

Finally we need the element of fire, or wood, in order to bake the bread. The white dough now darkens in colour



like a caterpillar turning into a butterfly. As it crosses the threshold of the oven, it undergoes a small death – and at the same time a new beginning takes place. This is similar to fruit trees in autumn when life withdraws outwardly but inwardly small new shoots are formed for the coming year. How to bake bread can be learned in a few weeks, but the intuition required to gauge the correct oven temperature or to know when to put more wood on the fire only develops later.

In the bread-baking process we repeat the stages of the four elements which the wheat plant passes through in its development, thus reorganising the living organisms or life forces in the bread, in other words the etheric basis. This is a refinement of the wheat. In wine making the word used is "élever", meaning to raise or elevate, in other words to bring something to a higher level. This gives rise to quality.

The first stage, the element of earth, represents what is quantitative and can be measured. For example, we can measure how many vitamins etc. a loaf of bread contains. If we do not have quantity, we cannot feed the world. But in biodynamic food production we want to take this further: in a second stage we look for the etheric quality in order to retain the life force of the plant. This stage is connected to the element of water. In the third stage, the air stage, feeling is added which, as already mentioned, includes the mood and atmosphere of the surroundings. And finally, a fourth stage is reached with the element of fire, the spiritual stage in which we distribute the bread to the consumer. This is where the very important aspect of community, the social level, comes into play.

Are there other perspectives to take into account in relation to quality? One is the morning and evening forces. Christine Sutter, who works at the Institute of Flow Sciences (Institut für Strömungswissenschaften), also speaks of the Pisces-Virgo axis and the healing forces linked to it. Another angle would be to make a sourdough with some salt and honey, two elements that are polarities, because the salt represents the earth element and the honey is connected to warmth or fire. This produces a contrast that can be beneficial for our middle region (trunk). A third perspective relates to working with the planetary constellations.

How is quality expressed?

Agata Glazar

As both a cook and a quality inspector on a number of Demeter farms, Agata Glazar looks into how biodynamic quality is expressed and how we can perceive this.

When Agata Glazar visits a farm she meets it without preconceptions and lets it work on her. Even though all farms are different, she notices something in common: they all radiate a light, something bright and warm. There is a sense of fullness, as though there was more substance there, and at the same time this mood gives her a feeling of lightness.

This light, this peace and fullness that characterise a biodynamic farm are something she already noticed in her childhood in the Province of Ontario in Canada. Despite all the work, her parents always took time for meals – for preparing them, but also for enjoying them in company with others. From then on she studied this quality and gradually came to understand how it comes about and how it is expressed.

For instance, during her time as a cook in various countries she discovered that some ingredients had hardly any taste. However, she also enjoyed the cheerful ambience in farmers' markets, and buying freshly caught fish on a fishing boat and preparing it for her guests. But despite this beauty, something was missing: the above-mentioned light, peace and fullness that can emanate from a farm. All this can also be felt in the presence of an ingredient that was produced on a farm like this. It is the sum of many different factors that combine to create quality: the seed, the soil, the soil preparation, manuring, the holistic nature of a farm, the ripeness of the harvest, the storage and finally human labour from seed to preparation in the kitchen. How does the attitude and mood of the people affect the quality of the food? When we cook, if we do not want to make a connection with the foodstuffs but just want to get the job done, this gives rise to a different quality than when we cook with our full awareness. And finally, the atmosphere where the food is eaten also plays a part. If all these aspects are taken into account then, according to Rudolf Steiner, a food can become "spiritual nourishment". This means that a food is not simply there to satisfy our hunger, but has a consistent nourishing power for body and spirit: it can feed us holistically and give us health.



Photo: Charlotte Fischer

Agata Glazar studied the outer and inner properties of thousands of carrots on the Dottenfelderhof in Germany run by Dietrich Bauer. She first made field observations on the physical growth and detailed appearance of the carrots, from the green shoots to the length of the root. She also studied the carrots by tasting them, so she could observe the effect the carrots had on her. What significance did eating these carrots have at a spiritual level?

Last but not least, Agata Glazar is able to observe the expression of quality at breakfast each day when she makes a zabaglione using eggs from her own hens. She whips up the egg yolk with raw sugar and then adds milk and hot coffee, producing a creamy mixture that she is unable to achieve with other eggs. Could this be due to the way that her hens are kept and the respect she shows them? And what part is played by the indirect interactions with the group soul of the hens?

From all her observations and perceptions on the quality of foodstuffs, she has finally concluded that awareness and respect are key elements. Only when these two aspects are present during the production of foodstuffs – from field to plate – is quality expressed.

Health and aesthetics – healing powers from the microbiome

Thomas Hardtmuth

The human being, like a kind of integral, combines all the developments and laws of nature that have arisen in the course of evolution and as a result exists in constant interaction with his environment. The effects of our surroundings and our experiences are revealed in the microbiome: the more diverse this is, the healthier we are – and vice versa. The study of microorganisms can therefore help us to achieve a proper understanding of life and demonstrate how our health is connected to aesthetics.

The human being as an integral of nature

The human being is a kind of integral of the whole of nature, because he has internalised all the formative principles and laws that were outwardly active in the course of evolution. A practical example illustrates this very important point.

You can view the image of the embryo in its amniotic sac as an analogy to the earth. It then develops from this sac through a process of inversion. The embryo is at first surrounded by the metabolic forces but these gradually move into its organism and become preserved in its organs.

The book by Thomas Bosch entitled "Der Mensch als Holobiont" (the human being as a holobiont) describes at a purely biological level how the human being is ultimately a compendium, an integral of the original primeval microbial biosphere which contained only bacteria and viruses. The placenta is a primeval biosphere of this purely microbial life which has become an organ.

Everything that the human being is, is ultimately taken from the earth, and not only in a material sense. In this respect we speak about the higher or peripheral I, or also about the earth I.

The wisdom of the earth enters the human being where it becomes established i.e. individualised.

The polarity between head and limbs

This elementary human process can be illustrated using the polar form of head and limbs. On the one hand there is the centrifugal formative gesture of the limbs, connecting with sympathy to the world, where the peripheral I is at work to a certain extent. On the other hand there is a closing off from the world through the head in the form of

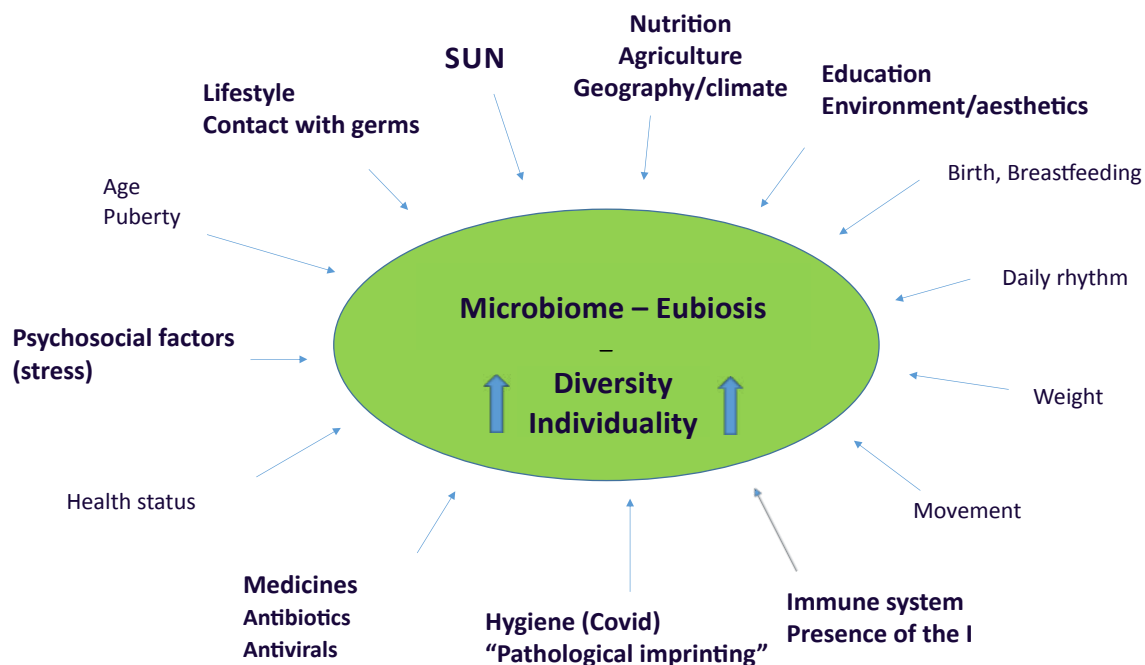
antipathy, where the centric I is active, the brain-bound I that lives in ideas and is not active in the world.

The human brain is the organ which is most disconnected from outer nature. It not only rests in the solid bony shell of the skull as though in a grave, it also has three cerebral membranes of which the outermost, the dura mater, is as tough as leather. This isolation of the brain is brought about functionally by the blood-brain-barrier. Through the hermetic sealing off of the brain's nerve cells from the metabolism, this ensures that we can think completely independently of the outside world. So we have the brain as a concentrate of nerve tissue. The further we go into the periphery, in other words into our limbs, the more dispersed the nerve structures become. We open up to the world through our sense organs, particularly the skin.

The surface of the intestine can be viewed as an internalised surface of the earth with its flora. In the microbiome, it is as though the outer processes of nature merge with the human physiology. The microbiome, which is nowadays seen as a human organ, can be considered to be a reminder of the earliest phases of evolution – a kind of primeval biosphere that has survived inside us.

In this microbiome, the nerves encounter the etheric forces. They are not aware of individual bacteria or metabolic processes, but the life forces that are in us. We have a kind of stream of forces that arise from the lower human being but that we only usually notice when they are absent, for example in depression.

How can we picture the connection between the microbial processes and those of our feelings? I would like to explain this using the example of inversion, as Rudolf Steiner often described. If you invert a circle the infinite outer surface becomes a point at the centre. You can imagine the relationship of macrocosm and microcosm and that of the periphery and the human I in the same way. We talk nowadays about the gut-brain axis. Let us imagine the brain as an inverted gut. The gut has the liquid inside, meaning that life in the gut is inside in the form of the microbiome. There is nowhere else in nature that is so swarming with active microorganisms as our intestines. In the brain the fluid is outside. In contrast to the liquid in the gut, the cerebral fluid is the clearest liquid in the whole of nature. This cerebral fluid reflects another



form of life, as it were: thoughts, mental images and inner pictures – everything that is connected to experience. The two concepts, life and experience, are also linked to each other via a process of inversion. And this purely etheric life in the upper human being is an inverted microbial life, in a certain sense. The microbial life in the gut has an inner activity, while the activity in our brain cells is triggered from outside, by our perceptions and our thinking. The amorphous, unformed, highly mouldable and plastic, very young life of the microorganisms is available to us through the brain as the "substance" from which we produce our thoughts.

But as human beings we cannot permit the microorganisms in our gut to develop further. Because if the viruses and bacteria behave too much according to the outer laws of nature, this produces biofilms, the purulent inflammatory coatings in a very wide range of infections – tonsillitis, bronchitis, etc. In such situations the human being is no longer in proper control of the microbial life.

If we think healthily and realistically, we remove this development potential from the microbiome. That which develops into plants outside in nature becomes mental pictures in the human being – we remove the thoughts from the gut flora, in a manner of speaking.

So how does this microbiome affect the life of our soul and spirit and our thinking: what in fact is the gut-brain-axis?

When we think, we have to do this according to laws which are also at work in nature, otherwise our thoughts are not healthy. The microbiome is an organ that is very close to our etheric body: it is more or less a condensate of

the life ether. The etheric body is full of bright consistent thoughts, it is the great healer in our body that repeatedly provides the stable equilibrium state. If we travel to a far-off country where there are different eating habits, then our microbiome immediately adjusts and adapts to the new conditions.

Thinking is basically also a healing process. We take in things from the world which we do not initially understand, we then process them at a higher level and end up with knowledge. If we do not really understand and digest our experiences, then the influences from the outside world carry on a life of their own inside us. These are diseases, in the broadest sense. We need a healthy microbiome in order to have healthy thoughts. One of the most common double diagnoses in medicine is the simultaneous occurrence of digestive disorders and mental health problems such as anxiety, depression and ADHD. If the etheric body is constantly occupied in balancing all these dysbioses – this is the name given to the diseased composition of the gut microbiota – that are primarily caused by poor nutrition and stress, then it is not fully available to us for thinking. We need a healthy microbiome in order to experience something as being correct based on a "gut feeling".

The microbiome could also be called the living part of memory. Just as our etheric body, which is also known as the time body, is the bearer of memory, so the microbiome absorbs every tiny influence from our body, processes these and stores them.

Everything that we do and experience manifests in the microbiome. Our microbiome is modulated and regulated by the immune system via countless factors. The import-

Biodynamically farmed soils

Higher diversity, "individual character"

Lower susceptibility to parasites

Decontamination

Lower dispersion (= spread of pollutants)

Metabolic activity:

Up to 84% more microbial biomass
nitrogen and carbon

Higher enzyme activity, more humus

Ureases, proteases, dehydrogenases

Lower greenhouse gas emissions

(up to 40% less nitrous oxide)

Effects on plant microbiome

(secondary plant substances, nutritional quality)

Nutrition

Healthy gut microbiome

Higher diversity and individuality

Defence against infection, colonisation resistance

Decontamination

Medicines, environmental pollutants

Metabolic activity:

Larger repertoire and flexibility

Improved digestion

Fewer food intolerances

Less irritable bowel syndrome

Fewer allergies, metabolic disorders, autoimmune
diseases, mental health problems, etc.

ant point here is that the activity and responsiveness of our immune system is a direct expression of the presence of our I, our attentiveness and connectedness to the world. The microbiome and immune system behave in a semi-complementary way. The greater the variety of germs that children are exposed to in their surroundings, the more robust does their immune system become. A farm is the best place for the child's immune system to develop. But psychosocial stress has a considerable influence: exclusion, humiliation, social isolation and loneliness have an extremely detrimental effect on the microbiome. If we wish our children to develop aesthetic sensitivity, then we need to create aesthetic surroundings for them. This acts via the microbiome and the etheric body all the way to the formation of the organs.

It is similar in agriculture in that every farm – like our body – is also an organism with a very individual microbiome whose composition depends on countless factors. Thomas Hardtmuth even ventures the opinion, although he cannot prove it, that the basic emotional and spiritual attitude of the people who work on a farm has an influence on the farm's microbiome.

We now know a little about the way in which biodynamic agriculture affects the microbiome of the soil. It increases microbial diversity, so reducing the tendency to uniform parasite-infested monocultures. It promotes decontamination and reduces the dispersion (spread), e.g. of pollutants.

The same applies to a healthy gut microbiome with the appropriate diet.

We talk of colonisation resistance, if nothing foreign can develop due to the individual signature of the microbiome.

Soils in organic farming are not only richer in species of microbes: they also contain more microbial biomass carbon (32-84%) and more microbial biomass nitrogen than conventional systems. Put simply, these soils are more alive, healthier and more profitable in the long-term.

This healthy effect is transmitted in a certain sense to our gut microbiome via our food.

But in terms of quality, there are naturally many other factors involved.

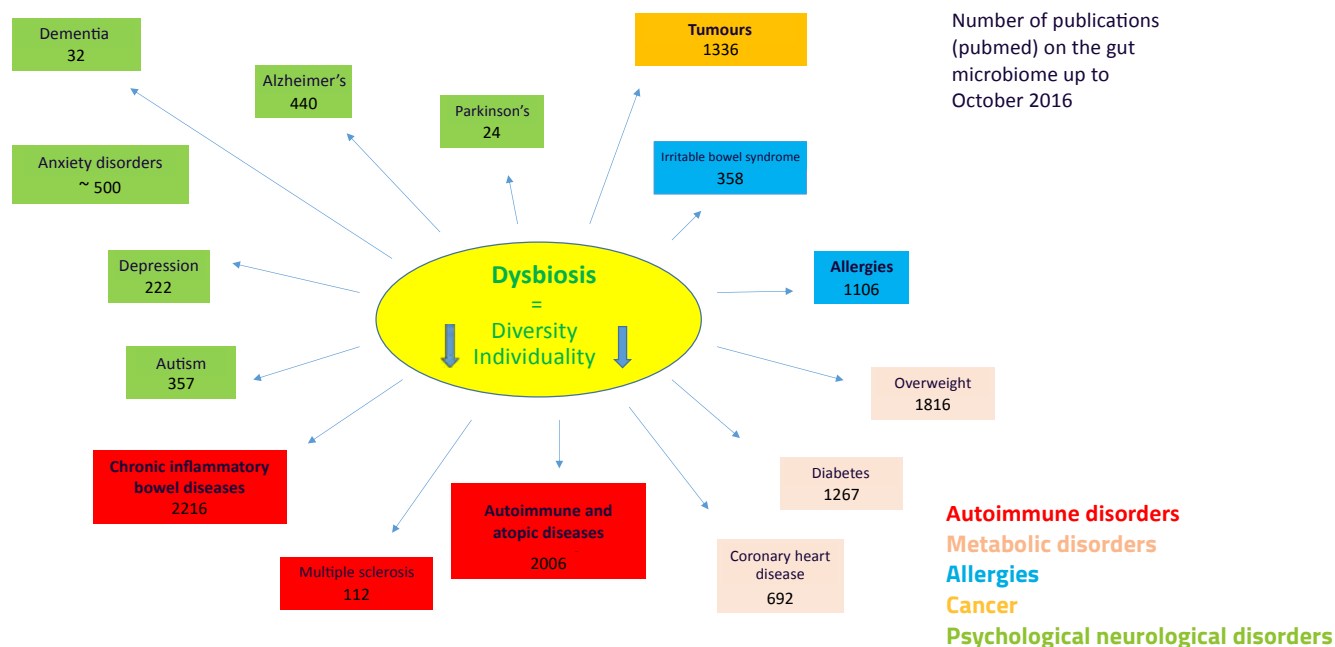
A loss of diversity is linked to the risk of infectious diseases, for example, and therefore the spread of epidemics.

We need to grasp an important basic rule: almost all chronic diseases are linked to the loss of diversity and individuality of the microbiome. Recent studies show that individualisation of the microbiome is the best health protection (Wilmanski 2021). It is the diseases of modern civilization in particular, such as cancer, allergies, autoimmune diseases, and mental and neurodegenerative illnesses, that show a tendency towards the loss of individualisation of the microbiome i.e. to uniformity.

The second basic rule for health follows on from this: we need to take in the right things – spiritually, emotionally and via our food – and digest them properly, assimilate them in our own individual way.

Aesthetics and the microbiome

On the one hand, from a purely biological and organic angle, the microbiome teaches us to overcome the old biomechanical causal thinking and move on to the world of the purely living, where pure dynamics prevail. On the other hand, on the spiritual scientific side, it is the concept of the etheric that needs to connect to science.



Just as we combine the entire metabolic wisdom and etheric forces from the whole world, so the beauty of nature and the cosmos re-emerge in the human being and reappear in the aesthetic sensibilities and in art.

Aesthetics is not something that human beings have invented, it has been assimilated from nature and the cosmos and continues to develop through its need for refinement and through art.

Beauty always arises from an appropriate relationship between the individual and the whole. This is the case in nature, in art and also for health and the microbiome – an individual balance with its own character or, as Rudolf Steiner put it: something complete within itself, that already contains an entire world in a certain sense. This also applies to a farm.

When looking for the sources of beauty, we actually encounter the light: not in a physical sense, but as the quality that allows everything to manifest – in the truest sense of the word.

The beings that shun the light and live in the darkness are mostly unattractive. In places where the light of the sun penetrates, beautifying and healing processes immediately occur. Flowering and healing plants show us this directly.

It is not only light and warmth that emanate from the sun, but also a creative renewing power that acts particularly on microorganisms. Viruses in the atmosphere are really formed by sunlight: their genes are repeatedly dispersed and rearranged, recreated, so that they become initiators, fructifying biological development and therefore driving evolution forward and ensuring the entire biodiversity.

To summarise, we can say that this microbiome, rather like the etheric body, can be seen as a kind of linking

member between the body and soul. It shows us now we are the direct creator of this plastic organ, through our behaviour towards plants, animals and our fellow humans, and that we are therefore directly involved with the sources of health.

Everything young, fresh, pure and healthy comes from the etheric world and the light ether is the source of all beauty. Microorganisms are more influenced by the life ether and do not appear visibly. The almost inexhaustible metabolic wisdom of the living acts through them so that they form the biological organic basis for the forces of renewal in nature.



Bread and wine

Romana Echensperger and Georg Meissner

In their lecture, Romana Echensperger, sommelier and master of wine, and Dr. Georg Meissner, researcher and winegrower, look into the question of how the world of quality and taste in biodynamic wines can contribute to the world of wine and to an awareness of quality.

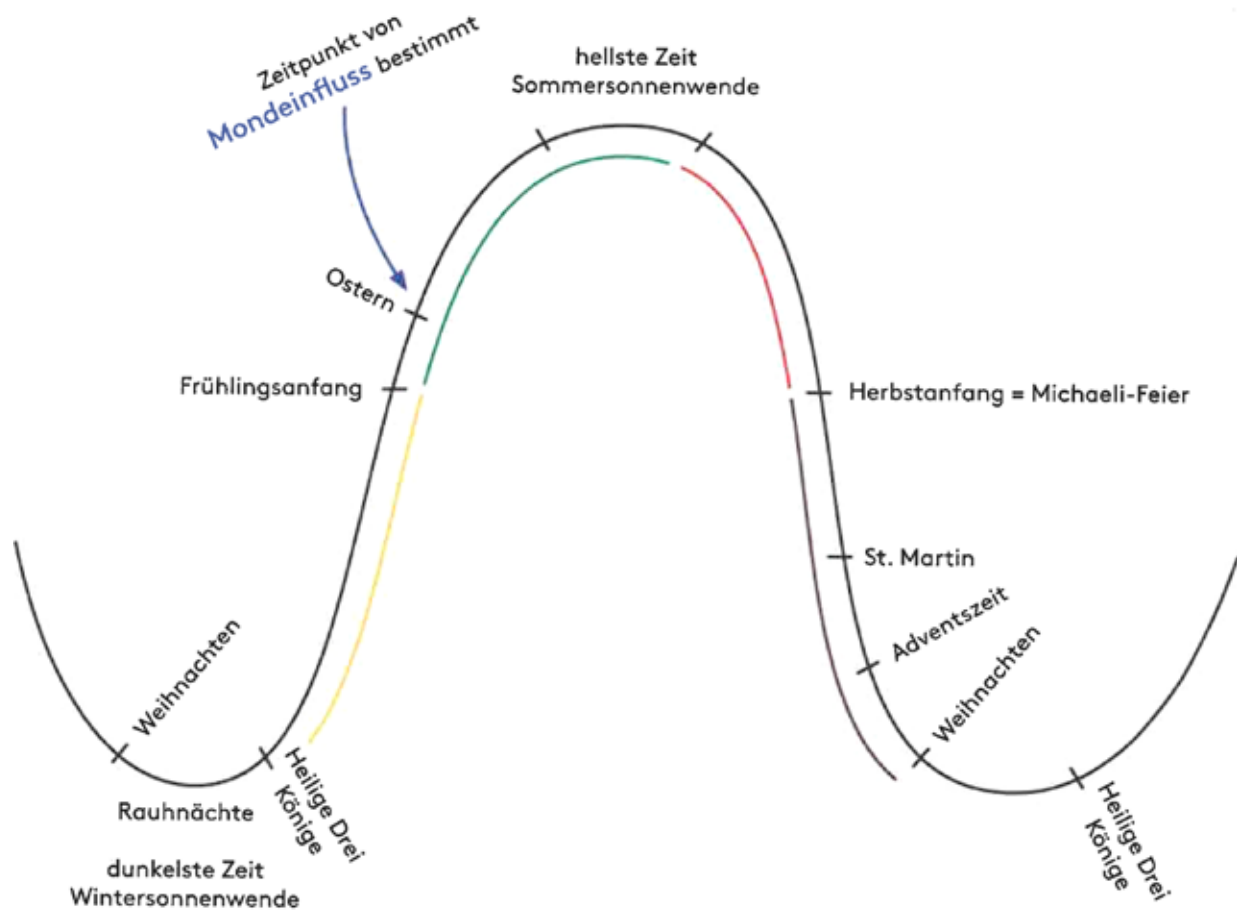
Romana Echensberger

Wine is a special drink. When people drink wine, their gaze is transfigured. It turns upwards and perhaps becomes receptive to the spiritual. There is an expansion in consciousness. The grape is the only plant whose source – like cheese – can still be detected in the end product. The environment and the soil (the terroir) are reflected in the wine. Wine has accompanied the cultural history of mankind and religion. It is used in rituals, festivals and special events, but should nevertheless be enjoyed in moderation so that we never lose the ground under our feet.

Industrial farming has also found its way into winegrowing. Wine can be "designed". Due to poor soil quality, quantity becomes more important. However, the appellations of the wine-growing regions and the flavour profiles of the wines existed before this. Biodynamics, with its

range of tastes and its rich wealth of almost 100 years of experience, can make an important contribution to wine quality. Romana Echensperger sees biodynamics as a craft that can lead people closer to the taste of the wine and to nature. These wines touch our feelings and remind us of the mysteries of life.

Romana Echensperger's new book, "Von der Freiheit, den richtigen Wein zu machen" (The freedom to make the right wine) describes 12 winegrowers. Industrial farming has made producers dependent on specific products and services (artificial fertiliser, pesticides, etc.), so they now need to find a way to free themselves of these ties. This requires knowledge, including unconventional knowledge, some of which has been lost – and therefore a degree of independence. If knowledge is lacking, then the soils lose their fertility and the animals their dignity. So it is very important for a winegrower to have freedom to make their own decisions out of knowledge of the terroir and their own vines. Biodynamics is an important tool for this.



Georg Meissner

We can try to see with the eyes of the grapevine. This poses the question as to how we as human beings (producers) can support the vine.

The grapevine is a creeper and has to cover many metres until it finds a suitable spot for itself. It grows into the space. It has to put down deep roots in order to push upwards into the heights. But what is the vine?

Human beings turn the vine into a crop plant, tend to it from the seed onwards, shape it through and through in the various training systems, plant it in the light and on poor soils. This is the total opposite of the wild vine, which can still be found in moist riverside meadows and woodlands.

From February the vine starts to slowly build up pressure and to grow upwards. At Whitsun it experiences the force of the light and grows vegetatively. After Whitsun and St. John's it grows an enormous leaf area. This cycle continues via fruit formation and ripening all the way to the harvest and to the dormant period at Christmas.

Whitsun is very important for the vine. The Whitsun motif, that of community, is the basis from which the vine continues to develop to the flower. In the Whitsun phase the past meets the present and the future. The present reveals what has developed in the past year, while the buds point to the future.

According to Rudolf Steiner, the atmosphere of the vine has a stimulating effect on the human I, similar to that of the walnut and lime. The vine has an enlivening effect on the I and opens higher areas of consciousness to the human being.

In the wine-making process, the question at the end is: what is the essence of the wine that I taste? The entire vigour of the vine ultimately pours into the grape that is harvested. The grape is taken from the light down into the cellar, into the earth. Here, from a single fruit along with many fruits and under the action of yeasts, first chaos develops, then a coexistence and finally a space arises during the fermentation. The result is the wine.

When planting the vine, we talk of a training system that the human imposes on the vine. But also a type of cultivation. In France and Italy, for example, observations of the vine have led to new vine-adapted pruning. For instance, on each vine one older spur is left and the other shoots are "trained". The quality related to the nature of the vine is perceived. This enables us to cultivate the spiritual, take action in the social realm and harvest in the economic realm. Quality and quantity are thus intertwined.

The interdependence of planetary and human health – developing an insight into qualities

Craig Holdrege

Ever since the emergence of modern science in the 16th century, we have viewed the world primarily as an object, with the result that our connection to it has been lost. What can we do to find this again? And how would we see and inhabit the world if we were to become involved in its qualities? These questions are addressed in the presentation by Craig Holdrege, researcher at the Nature Institute in New York.

As an introduction to the topic, Craig Holdrege mentions four ways of experiencing his morning walk to the Nature Institute:

- He is mainly busy with his own thoughts, thinking of everything he needs to do.
- He notices external facts: the thermometer shows -10° . It is cold. He notices the cold air when he breathes, the ground under his feet and formulates these in concepts.
- He sees the little ice crystals, feels the cold wind and the warmth of the sun. He sees footprints of a deer in the snow and can follow where it went. He takes time for this and so can connect more closely with his surroundings.
- He feels the snow under his feet and remembers that a month ago it was still wet. He starts to consider the changes in the weather and wonders what it will be like in two months' time. So he is really involved in a contemplative manner in this place.

In the first two ways he remains outside the place, at a distance, while the third and fourth ways unite him with his surroundings and with the world.

In everyday life we usually have little connection to the world. This is a result of modern science which was founded by Bacon and Galileo Galilei in the 16th century and led to viewing all sense perceptions as human productions, not as reality. "... I think that tastes, odours, colours, and so on are no more than mere names so far as the object in which we place them is concerned, and that they reside only in the consciousness. Hence if the living creature were removed, all these qualities would be wiped away and annihilated." (Galileo: The Assayer, 1623, in Drake, p. 274)

Just recently a large book was published by Kai Kupferschmidt about the colour blue. In it the author explains that the colour blue does not really exist: "Blue light is not really blue. Light is merely electromagnetic radiation –

photons with specific wavelengths. It only becomes blue through a dance with the eye, the brain and our common understanding of the world." (Daniel Ackermann on the book "Blue. In Search of Nature's Rarest Color" by Kai Kupferschmidt, in Science, Vol. 372, p. 1034, 4 June 2021)

Given this viewpoint, we lose all trust in our own experience. The result is that we have more trust in the opinions of experts than in our own experience.

Over the past 400 years we have felt separated from the world and our faculties of qualitative experience of the world have been totally neglected. How can we encourage them in order to connect actively with the world? How would we see and inhabit the world if we could refine our faculties and engage with a world of qualities?

Experience as an event

We can practise not simply registering facts and describing the world but also slowing down our processes and being in the world by, for instance, asking ourselves the following questions: what is the green of the grass like, how do the pigs walk? What does the earth in my hand feel like?

In this way we experience the world as an event and not merely as a collection of facts.

We can start now and try to practice at least five minutes of attentiveness each day: we want to invite the world to come to us. That means, that we feel the cold air, the way in which the light is shining right now, etc. If we look at the world like this it seems fresh and new – a first step away from a world of facts and a first step towards a world full of events. We are now part of these events and no longer separated from the world. At the end of the day we can ask ourselves: where did an encounter really happen today? Where were we touched by a quality of the world? And what does the world's resonance feel like in us?

The world as a process, as a transformation

Let us now practise this on the plant. How can we encounter the living qualities of the plant? Most of the time we dream our way through the qualities in the world. Now we can try to follow the development process consciously. We start with the seed: it germinates and grows; the plant changes. We participate imaginatively in this process. In so doing, we notice that the plant cannot live by itself. So

we are also aware of the plant's environment. But this is not outside the plant, but inside it. So we can say:

- The plant develops out of the seed in the environment or
- The world develops through the seed into a plant.

The plant's potential lies in the seed and in the environment. Both belong together.

The world as a gesture

Are we able to read in the book of nature? This means, can we see how one part belongs in the whole, just as a letter belongs in a word?

All mammals have longer hind legs than front legs except the giraffe. How can this fact be changed into a qualitative experience? We need to look at the whole giraffe, its spine, its upright stance and its very long neck. By doing this the giraffe as a whole starts to become a gesture. We think imaginatively. In other words, we think with feeling and willing when we try to put ourselves inside the giraffe. In this way the phenomena of the world start to have meaning, which depends on the context and is not a fixed quantity. This is how we can be involved in the world. But what can result from this kind of qualitative experience of the world?

The world as an actor

If we look at a cow we can notice another aspect. We may be surprised that the animals we see walking around are potential sources of food. We observe how they eat: one bite per second, 7 to 8 hours a day. This entire volume ends up in their rumen that contains the world of their microbiome which has an unbelievable inner activity. The grass disappears and the cow produces itself: this results in a glass of grass becoming a glass of milk, so to speak.

A cow is a working creature, an actor. The cow enables us to dive into a world of interweaving, intertwining activities and of work. We call this "naturalising nature". The world is a whole that connects us. This attitude gives me a different relationship to the world. A path of human attentiveness and knowledge has been outlined: from the event to the process, then to the gesture and finally to the actor, to the active being.

As human beings we are actors and have the ability to choose how we want to act and work – in many directions and in different ways. This makes us unique but also problematic beings on the earth. We usually ignore the naturalising nature and remain encapsulated in our thinking. "We cannot change it" we often think. For example, cows are often viewed nowadays as methane producers. In

order to solve this problem, we try to change the cows or the maize genetically.

But if we perceive differently, if we choose the path of qualitative experience, the world becomes richer. We experience naturalising nature. We are connected, once we perceive nature as an activity and overcome the separation from the world. If we can find the basis for our thinking, feeling and willing in the experience of naturalising nature, then we get a more living sense of the potential of the world that is full of wisdom. The question then arises as to whether it is important for this potential to be recognised by human beings? How does the world experience the fact that we do not acknowledge or recognise it? Maybe it wants to rebel, to withdraw. Craig Holdrege has the impression that this potential is eagerly awaiting to be invited to join our human experience. And this can form the basis for a completely new relationship of humanity with our planet

Quality and community

Antonio Luis Lattuca

Antonio Luis Lattuca has been a biodynamic adviser in Argentina for 30 years. He developed an urban agriculture project involving unemployed people in the city of Rosario, which addressed the question of what is needed to achieve biodynamic quality and what part community plays in this. His project is a resounding success, not only because it gives meaning to many people's lives but because it has received several awards, including from the World Resource Institute for Urban Food.

Antonio Luis Lattuca points out how important it is to create an awareness of agricultural processes in Argentinian cities and so encourage care for the earth. As Rudolf Steiner said in the Agriculture Course: cities in actual fact have plenty space to carry out agriculture. In the course of urban expansion it is important that nature should not be forgotten.

Rosario is an economic centre while its surroundings are given over to farming, particularly soya growing. It has a prosperous centre but this is surrounded by poor districts, something typical of many Argentinian cities. The aim was to green these districts with areas of agriculture in order to raise the quality of life. Some residents who originated in rural areas really blossomed thanks to this project. They were reminded of their origins and the vision of the indigenous people who had a harmonious relationship to nature. So they accepted the challenge and really managed to cultivate the soils of these suburbs, creating small natural paradises in the city. This process of transformation took around ten years of intensive work.

It has given rise to new social dimensions and public areas which are now host to a range of activities. These are located on pieces of land that were previously uninhabitable, for instance close to railway tracks. These places started to be considered when the idea of city vegetable gardens came up in 2002. All the sites that used to be rubbish dumps are now productive gardens. These spaces had been forgotten, but now belong to the city again. The really important thing is that the earth belongs to the farmers once more. In addition, the barrier between the rich city centre and the poor suburbs has been removed to a certain extent.



In the past people living in the poor districts considered those in the city centre as egoists, while city centre inhabitants looked on people in the outskirts as lazy. In 2017 the agri-environmental centre was built as a place to meet and exchange ideas. This was followed three years later by the biodynamic centre in cooperation with Demeter. This centre has a garden with medicinal plants and flower borders that attracts a large number of visitors.

The project has enabled a cultural change in the City of Rosario, a fact backed up by official figures. What is more, the project has won numerous prizes. But the most important thing is that it is a homage to agriculture. Antonio Lattuca closed his talk with the words: "The earth calls upon us to cultivate and care for it!"

Commitment to ethical cattle rearing and quality

Mechthild Knösel

Mechthild Knösel is responsible for looking after the cattle on the Rengolshausen farm and is dedicated to ensuring that the herd of around 50 animals grow up in a good environment with a high standard of animal welfare. She treats the animals with respect and is sensitive to their needs.

The centrepiece of Mechthild Knösel's cattle herd is the milking cows, Original Swiss Browns, that enable the combination of meat and milk production, as was always the case in the past. The farm practises mother-bonded calf rearing, where the calves continue to drink from the mother but the mother remains part of the herd. The mother and calf obviously benefit from this, in particular the calf stays healthier, so reducing veterinary costs. All the followers stay on the farm. The females are integrated in the herd, the males grow up naturally and later are either used for breeding or slaughtered on the farm.

They are fed entirely on grass, fresh in summer and dried in winter. The animals graze outside for over eight months of the year. This is ideal, because there are no losses incurred when the feed is eaten directly and there is no need to use arable areas for growing feed.

Gaining the trust of the animals

In her work, Mechthild Knösel gives her full attention to the animals. She works quietly, without disturbing them. If the animals learn something in relaxed surroundings, they never forget it. So Mechthild Knösel teaches the young cows to go into the milking parlour nine months before they calve. When it is really time for the milking parlour, they go in without any stress because they have already become accustomed to it. This example illustrates how important it is to understand the animal and to gain its trust. This is essential for a cooperative working relationship.

Ethical slaughter

For a year now, Mechthild Knösel has been allowed to slaughter the animals at home on the farm. The meat is then processed by the butcher and marketed directly from the farm. This has fulfilled one of her greatest wishes, which is to slaughter the animals without fear or stress. A study by the FiBL (Swiss Research Institute of Organic Agriculture), in which Mechthild Knösel took part, examined the stress hormone cortisol in the blood of slaughtered cattle. The results showed that cortisol levels are significantly lower in animals slaughtered on the farm than in those

taken to the slaughterhouse. This also has a beneficial effect on meat quality, proving that an ethical approach also produces higher quality.



Foto: Mechthild Knösel

Evolving agriculture – 100 years of biodynamics: looking back to look forwards

Reviewing 99 years of the "Koberwitz impulse"

In 2024 we will be able to look back over 100 years since the Agricultural Course was held as the founding moment of the biodynamic impulse. In the centenary year 2024, the Agriculture Conference will focus fully on the material of this Course, on the great and profound images that inspire us. The working title is "The human being becomes the foundation". But there also needs to be a review, so this is planned for the 2023 conference, as well as a preview of the future for the 2025 conference. This gives us a trilogy of themes for the years and the conferences around the 100-year jubilee: a review in 2023, the current impulse in 2024 and the future outlook in 2025.

We therefore want to look backwards with the theme of the year 2022/23 and the 2023 conference in order to gather strength for the forces of renewal. The most straightforward way to do this is to ask: where do I come from? How did I find my way to agriculture? What experience in my biography sparked my interest in biodynamics? Was there someone whose words influenced me to feel called to work on the earth? And who was it who inspired this person? Perhaps by following this thread we can even find a direct link to those who were present at the Agriculture Course.

This type of review can also be done for each country. How did the impulse arrive in my country, how has it developed? How far back does the history of the association in which I am involved go, and how far that of the regional working group? Who founded Demeter? Who were the people involved with Rudolf Steiner in developing associative economics? What about research? Did it develop from the course, or did it have earlier roots? Who do we encounter when reviewing the topic of nutrition? What phases have we passed through in terms of impact on the public?

And all this can bring us to the question: how has the spiritual source of biodynamics remained alive in the countless people who have achieved all this? What approaches to these sources have they fostered? And finally, how can I be inspired by this? What is my way of approaching the source of biodynamics and how do I cultivate this? What do I feel to be my personal contribution to the further development of the biodynamic impulse?

A review of the cultural development of agriculture

Of course agriculture did not start with the Agriculture Course. It is very much older, so it is worth putting the biodynamic impulse into the context of the whole situation. How has agriculture developed over the centuries or even millennia? History teaches us that, on the one hand, it has been hard work in the struggle with the rigours of nature and in servitude to the authorities. But, on the other hand, we learn that farming cultivates nature through domesticating animals, breeding plants and producing fertile soil; that it creates cultural landscapes in regions of similar climate. We can feel addressed in the depths of our being when we connect to the diversity of agricultural impulses throughout the ages. For example, with the indigenous practices of an intimate relationship with nature; with the behaviour towards holy cows in India; with the cultivation of wheat seed over many generations originating in the Middle East; or the development of the milpa cultivation system – maize, beans and squash – by the advanced civilizations of South America right up to the present day. We learn that, in this development, agriculture has had repeated phases of self-determination, social involvement or even patronage for cultural progress. The phases of healthy agricultural development were always culturally inspired, and cultural development was in turn inspired and supported by agriculture.

So, in the sometimes extremely exciting history of agriculture, we gradually come to recognise the basic question: what is the relationship between man and the earth? In the different periods of history, what is the significance of our relationship to the earth for our human existence and development? This historical consciousness viewpoint of the evolution of agriculture can ultimately reveal a sense of and ideas about the stage we have now reached, in fact the stage I have personally reached. It can also point to which evolutionary tasks we – as a whole movement – are charged with, now and in the immediate future.

Rudolf Steiner: The Condition of the Human Soul before the Dawn of the Michael Age. Leading Thoughts 85-87.

(In: Anthroposophical Leading Thoughts, GA 26).





OIKOPOLIS
Groupe
Luxembourg



fair &
associative

OIKOPOLIS nutzt **Logo**
für **Assoziatives Wirtschaften**

- ✓ *Biologische und biodynamische Lebensmittel: kooperativ angebaut, verarbeitet und gehandelt*
- ✓ *Markt- und Rundtischgespräche seit 1994*

JASMIN PESCHKE

VOM ACKER AUF DEN TELLER

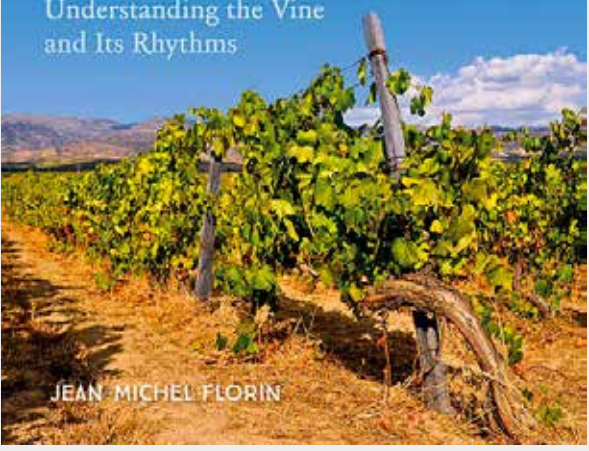
WAS LEBENSMITTEL
WIRKLICH GESUND MACHT

atVERLAG

ISBN: 978-3-03902-111-6

BIODYNAMIC WINE GROWING

Understanding the Vine
and Its Rhythms



JEAN MICHEL FLORIN

ISBN: 978-3-7235-1583-9


Rudolf Isler | Ueli Hurter

Assoziatives Wirtschaften Was verstand Rudolf Steiner unter einer wirtschaftlichen Assoziation?

edition
freie hochschule
sektion für
landwirtschaft

VERLAG AM GOETHEANUM


ISBN: 978-3-7235-1618-8



CHAMPAGNE
FLEURY

En biodynamie depuis 1989

«L'art d'être naturel»



www.champagne-fleury.fr



M. CHAPOUTIER
FAC ET SPERA

Le vin naît du ciel et de la terre...
de l'amour qu'on lui porte.

Wine is born from the earth, the sky...
and the love one carries for it.



chapoutier.com





ginepro, 07/22

L'ABUS D'ALCOOL EST DANGEREUX POUR LA SANTÉ. À CONSOMMER AVEC MODÉRATION.
DRINK RESPONSIBLY.



VITAL
BIODYNAMICS

CONSCIOUS AGRICULTURE



www.idainature.com

idainature®
— A ROVENSA COMPANY —

demeter

Voelkel

VITALES GEMÜSE AUS GESUNDEN STRUKTUREN

Für eine enkeltaugliche Landwirtschaft setzen wir bei unseren Demeter-Gemüsesäften zu 100 % auf samenfeste Sorten und unterstützen – Hand in Hand mit unseren Anbaupartnern – die unabhängige Saatgutforschung. Denn die Entwicklung samenfester, zukunftsfähiger Sorten ist eine Gemeinschaftsaufgabe, die von der gesamten Wertschöpfungskette getragen werden muss.

Öko-Kontrollstelle:
DE-ÖKO-007



Jetzt lieferbar!

Das Standardwerk des biologisch-dynamischen Landbaus
vollständig überarbeitet und erweitert

Rudolf Steiner Landwirtschaftlicher Kurs

Geisteswissenschaftliche
Grundlagen zum Gedeihen
der Landwirtschaft
Hrsg. H.-Chr. Zehnter,
in Zusammenarb. mit R. Isler,
U. Hurter, M. von Mackensen,
A. Römer
GA Band 327

9., vollst. überarb. Neuauflage
488 Seiten, mit über 70 Abb.,
10 farbige Wandtafelzeichnungen
in separater Druckbeilage,
gebunden
€ 59,- / CHF 68.-
ISBN 978-3-7274-3271-2



RUDOLF STEINER VERLAG

Sonett recycelt selbst!

Die ersten
Sonett Recycling-
Flaschen
Leichte Schlieren und
kleine Verfärbungen sind
ein Qualitätsmerkmal
der neuen Sonett
Recycling-Flaschen.



Weil wir nur dann wissen, was in den Flaschen drin war

Weil Recycling-PE aus dem gelben Sack immer Rückstände von synthetischen Duftstoffen, Schwermetallen, Pestiziden etc. enthalten kann

Weil PE-Recyclat deshalb für Lebensmittel nicht zugelassen ist

Weil Recycling-PE ein wertvoller Rohstoff ist, der nahezu unbegrenzt im Kreislauf geführt werden kann

Sonett – so gut. | www.sonett.eu



sonett

ÖKOLOGISCH KONSEQUENT

Erhältlich in Naturkostfachhandel und im Sonett Online-Shop.



A black and white photograph of Thomas Greim, the founder of Dennree, standing in a vineyard. He is a man with long, light-colored hair, wearing a light-colored polo shirt. He is smiling slightly and looking towards the camera. Behind him are rows of grapevines with clusters of grapes. The photo is the background of the entire page.

DENNREE - BIODYNAMIC SINCE 1974

Dennree Founder Thomas Greim visits the Graci family's biodynamically farmed vineyard in Italy in 1983.



BIO-MÜHLE SEIT 1969
Bauck HOF

Wir sind natürlich klimaneutral

Wir bei Bauck arbeiten komplett klimaneutral. Das gelingt uns mit einem effektiven Mix aus Reduktion und nachhaltiger Kompensation von CO₂-Emissionen. Und das tun wir gerne, denn so leisten wir einen wichtigen Beitrag im Kampf gegen den Klimawandel.

KLIMA 100% NEUTRAL

Hier mehr erfahren!



Bauck GmbH · Duhenweitz 4 · 29571 Rosche · DE-ÖKO-007
Tel. 05803-98730 · info@bauckhof.de · www.bauckhof.de



WIR. sind das Netzwerk, das Bio weiterbringt.

Erhältlich in Bioläden über:

BODAN
Großhandel für Naturkost GmbH

www.wir-bodensee.bio



WIR.

Bio Power Bodensee





demeter

Genuss in Demeter-Qualität

Hirseflocken eignen sich ideal für Müeslis mit Joghurt und / oder Früchten und auch hervorragend zum Backen. Neu sind die Vanadis Leinsamen auch aus Schweizer Anbau erhältlich. Angebaut werden die braunen Leinsamen nach den Demeter Richtlinien.



VANADIS

BIOLOGISCH-DYNAMISCH SEIT 1959

SPIELBERGER Mühle



Handwerk ist der andere Weg

Die Natur hat so viel mehr zu bieten als geklontes Einheitsgetreide. All ihre Vielfalt und Lebenskraft nehmen wir Müller:innen in die Hand – denn nur so werden aus unterschiedlichsten Getreidesorten wertvolle Lebensmittel: Kauf anders. Iss anders. Und Du veränderst die Welt.

   spielberger.de

Die Lebenskraft im Korn

**ERDMANN
HAUSER**
...aus gutem Grund!

ErdmannHAUSER arbeitet mit über 80 Bauern partnerschaftlich eng verbunden zusammen, die seit Jahren auf ihren Höfen biologisch-dynamisch wirtschaften und damit die Voraussetzung für eine zukunftsweisende Lebensmittelverarbeitung schaffen.

Der Impuls für eine gute, ausgewogene und kräftigende Ernährung steht im Mittelpunkt der ErdmannHAUSER Arbeit. Im Getreidekorn ruhen die Lebenskräfte des Keimens und Wachsens in höchster Konzentration. Durch die Behandlung des ganzen Korns mit den Elementen Wasser und Wärme lassen sich diese Kräfte weitgehend aktivieren. Der natürliche Reifeprozess des Getreides wird weitergeführt und die wertvollen Inhalte werden für den Menschen aufgeschlossen, verfügbar und damit bekömmlicher gemacht.

So zeichnen sich die ErdmannHAUSER Aufschlussprodukte TAU, Bulgur, Grieß und Kornfix nicht nur durch die besonders intensiven Aromen sondern auch durch ihre Bekömmlichkeit aus.

Herkunft bis
zum Bauern
dokumentiert



ErdmannHAUSER verwendet zwei unterschiedliche Aufschlussverfahren:



Hydrothermisches Verfahren
mit Wasser und Wärme



Rein thermisches Ver-
fahren nur mit Wärme

Durch den Aufschluss wird das Getreide bekömmlicher und ist leichter zu ver-
dauen.

ErdmannHAUSER Getreideprodukte GmbH
Robert-Bosch-Straße 17 · DE-71729 Erdmannhausen
Telefon: 07144/89640 · Telefax: 07144/896428
www.erdmannhauser.de · info@erdmannhauser.de

ErdmannHAUSER Saatgutkampagne

In dem Preis, zu dem Sie dieses Produkt gekauft haben, ist auch die Unterstützung agrarökonomischer, für den Erhalt der Ernährungsqualität, unserer Getreidepflanzen tätiger Getreidezüchter berücksichtigt. Wir danken!

www.erdmannhauser.de



Film zum TAU-
Aufschluss





demeter

Louis Rivoire
Ferme Saint Blaise, France

EAT MORE
VITALITY



you will grow

www.you-will-grow.net
www.demeter.net

Agriculture Conference 2023

Evolving agriculture – 100 years of biodynamics: looking back to look forwards

1st to 4th February 2023 –
at the Goetheanum Dornach, Switzerland

Save the date

www.agriculture-conference.org/en

Sponsors and supporters

