The wording of this article is drastic, because about one billion people already suffer from hunger, millions of children are mentally dulled due to malnutrition and many of them die. Drought, floods, famine, war, escape from climate changes have one major cause: soil destruction. According to the UN Millennium Ecosystem Report between 1950 and 1990 alone a third (!) of the world’s agricultural soil has been severely degraded or destroyed. This, despite the fact that there are excellent, but largely ignored, methods of improving soils and achieving much higher yields through small agricultural units, food-
bearing trees (Moringa, chestnut) and animal-friendly herds with rotational grazing. It’s all there, but it still needs many more alert people to join in. According to the 5 levels of healing, the mental plane influences the physical, above which is the transpersonal realm. Reading this article acts as a stimulant at these levels – great changes are underway. Even more can be achieved by reflecting and acting accordingly; this will lead to expansion of the field. It is possible to transform the world back to a global paradise, a paradise with many billions of healthy and conscious people. A world with bees and the earthworms that are so absolutely vital for our lives.

During a conversation with Dr. Dietrich Klinghardt, he told me that this soil healing work is much more important than his own activities. I would reject that statement vehemently: only if we can free ourselves of the psychological traumas and entanglements, become closer to our true selves instead of being directed by parasites, and if we can find the contact to our souls, will society have a chance of attaining a good future for the soils and hence for the whole biosphere.

**Agrochemistry destroys livelihoods**

Healing work, in a comprehensive sense, must involve the entire ecosystem – of which we are a fully-dependent part. The societies of this world – increasingly dominated by a greed for money and power – demonstrate a psychopathic behaviour; they saw off their own leg and celebrate it as economic growth. The good news is that more and more people are waking up and we can ultimately simply put the saw away. Reckless sociopaths have set the tone for long enough. Healing also means no longer nourishing the structures of the parasitic elements of the world of finance and economy, not even by hatred. There are hard-working people everywhere, and their hearts are usually in the right place.

One of the worst parasitic industries, apart from the finance “industry”, is agrochemistry, which sells completely unnecessary and often highly dangerous products. This industry is destroying our livelihoods and making humanity sick. Almost all publicly-funded agricultural research and teaching has become part of this marketing strategy instead of refusing to participate in the destruction of extensive parts of the biosphere. As early as in the 1950s, Prof. Hans-Peter Rusch had already shown that equally good yields can be achieved with a biologically-based agriculture and improvement of traditional approaches. At the same time, the humus content of the soil can be improved and maintained over the long term. The economic advantage of agrochemistry for farmers is, and was, built upon a gigantic destruction of jobs. In a war of extermination in many parts of the world, everything it can support is being squeezed out of the soil. A violation
of nature, which ultimately leads to desertification. Most of the contributors to this increasingly perverted agriculture have become – to a large extent – dependent on this system. An ever increasing number of farmers have qualms with this development and are trying to make it better. More and more soils are losing vitality and, after decades of agrochemistry, showing diminishing yields. I advised an African rice farmer who, like many others, despite consistent treatment of his fields has seen his yields decline year for year. His statement that 25 years ago there were earthworms in the soil, but today no longer, still brings tears to my eyes. His group of farmers feeds approximately one-third of Senegal with their staple diet, rice. Agrochemistry agriculture is a dangerous dead end that generates massive profits for sociopaths and their shareholders. Poisoners of wells, killers of soil and enhancers of global morbidity. Instead of legal constraints, this madness is often promoted; the industry supplying these products is an essential part of the power economy and very close to politics. Even in Germany, the threat of death is a tool used by educated men in suits and even university staff are not spared from this intimidation. Despite all the propaganda, even in the short-term there are productivity advantages if organic farming is done well. This has been demonstrated by, among others, the Rodale Institute in the United States where a “fifty-fifty” farm has been managed for decades. The ecological part of the farm does not poison groundwater, creates more work, consumes less energy and earns more. But highly efficient organic farms could produce significantly more. In addition, ecological agriculture farming is far superior, on a human scale, socially as well as in the quality of the food produced.

Soil destruction and contamination of groundwater by pesticides must end as soon as possible; that we all now have glyphosate in our urine is an incredible disaster. This world’s best selling total herbicide has just been classified by the WHO as “probably carcinogenic”; the media coverage in Germany of this sensational world news was close to zero. Only the TAZ [die Tageszeitung, Berlin daily newspaper] and Top Agrar (the latter has placated) reported it immediately. It is known from a Swiss study that glyphosate in the body can interfere with detoxification. The Klinghardt School is one of the few that has long since recognised what has been happening. In this magazine there have been excellent articles (H&J 2-13 and 1-15) on glyphosate, which have shown, among other things that it acts as a chelating agent and thus removes many of the plant’s trace elements. Who still wants to eat such food? In addition, there is the madness of genetic engineering, for which we have a false sense of security. But hardly anyone can explain these relationships in a simple way?! Purchasing genuine organic products (EU organic alone is not enough!) from good farming associations is compulsory, otherwise we will make ourselves and our soils sick. Most of the current ad-driven media are working – consciously or unconsciously – for the power economy. Fortunately, there are
still courageous stories of dedicated people, but far too few. Political opinion is obviously considerably influenced by media opinion. It’s time to wake up – we can do it better! Those responsible are unfortunately only rarely consistent: career opportunities and belonging to the group are often priorities. Absurd overregulation of trivia has often been created as an obstacle for small farms in favour of the power economy, ignoring the true situation. Every year, with phosphate fertilizers, another 700 tons of uranium are distributed over the fields in Germany alone. The Austrians are cleverer and purchase only “clean” products. In addition, increasing amounts of neurotoxic cadmium – which can make people stupid – are being distributed (a total of ten thousands of tons); this is a serious crime against humanity! Awareness, personal development and recognition of one’s own soul path open a positive field that is currently growing stronger. Science should turn towards working more for a good future for everyone and away from the parasitic parts of the economy. In future the question asked will be: but you surely must have known about it?!

**Research results are largely ignored ...**

... if they do not generate billions. If they make billion-scale markets superfluous, they are often opposed and that has been happening for at least a hundred years. The displacement of the greatly superior biological regulation therapy by Prof. Dr. Enderlein and others since the 1920s is a sad example. In fact scientific research is creating a vast amount of knowledge important for our future! We “know” that about half of all agricultural soils in the world have a zinc deficiency. On the basis of this knowledge, a functioning society would start a program to supplement the soil with appropriate rock dust. With this treatment the plants are able to dissolve many of the other deficient trace elements in the quantities needed. We now know that about 70 elements are fundamentally important, only about 20 of which are regularly present. Our society allows this to happen in just the same way as uranium poisoning: the plants suffer from zinc deficiency and become sick. Pesticide use continues to rise. Zinc deficiency in humans is therefore also prevalent; their immune systems no longer function properly. Dangerous drugs that can make us chronically ill are given for suppression of the symptoms and open water and drinking water are becoming increasingly contaminated with them. This is another reason why we should only buy good organic produce (as far as possible from local producers where the farming techniques, soil quality and origin of the composts are known).

Management of soil quality can be achieved through a better understanding of biology. Hans-Peter Rusch (rather for specialists: Soil fertility, OLV), the co-founder of Bioland,
referred in his research work in the 1950s to the spectacular findings of Prof. Günther Enderlein published since the 1920s. An extremely informative medical history was written by Dr. med. Elke Krämer in her dissertation: Life and work of Prof. Dr. Günther Enderlein (2006). The first half of the publication actually discusses pleomorphic microbiology; the second half is a historically interesting contribution to the detection and processing of several incredibly serious social traumas. These include the continued failure to render assistance to millions of people in favour of the often poorly effective suppression of symptoms. A review article by Elke Krämer “Immunobiologically effective remedies from moulds – regulation of essential life processes” appeared in Hier und Jetzt [Here & Now] 1-13. I find it inconceivable that the high level of biological regulatory medicine present at that time has been largely ignored to date. Enderlein wrote in 1923, mutatis mutandis: It’s not about knowledge, but about influential circles investing millions in pharmaceutical companies and hospitals. Biological regulation can provide good fundamental cures: some of Enderlein's products are still available (Sanpharma, Sanum) today – but knowledge of the mechanisms is an essential part. That is just how we need to understand and treat the soil – with organic regulation. There are interactions due to the significant influence of soil quality, the overall environment and the health of humus on the quality of our food. It is absurd, however, that due to the wrong historical developments in sewage systems we wash away the soil nutrition produced and thereby cause water pollution. Toilets must become part of the production of soil substrates. My institute has made a significant contribution in many parts of the world, where there are now pilot projects for separation of the water and food cycle. With Terra Preta Sanitation (see YouTube), we have developed a very cost-effective system that turns the people nourished from the ground to soil feeders, as far possible in the non-food sector. Just as over thousands of years in the Amazon region the indigenous people have created the best soils in the world without causing water pollution or dissemination of cholera. This involves adding fine charcoal, obtained from woody residues in wood gas stoves. The biological processes Enderlein discovered are gradually being revived; Prof. Rusch and other researchers showed us the direction to follow decades ago.

**Feeding humus leads to multiple returns**

A productive, humus-rich soil is like a herd of animals with a tremendous appetite. When it is not fed with good organic nutrients, the humus layer decreases. Let’s look at what can be achieved: over decades Herwig Pommeresche in Norway has developed a soil nutrition system based on the Prof. Rusch methods. He crushes good fresh nutrients (green waste, kitchen waste) for the soil and works in the solid parts (consisting of small pieces of a few millimetres in length) about once a month a few centimetres into the soil
between the crops. The liquid parts are given directly to the plants. The soil is then covered again with mulch; incidental plants are also an industrious part of the mulch. The aim is to achieve a humus content of 65% (!) in the topsoil. For many years the permaculture researcher Pommeresche has achieved yields of 18 kg onions per m², whereas normal organic or agrochemical crops of a maximum of 3 kg can be achieved. Dense planting makes cultivation much more efficient. Jochen Koller has uploaded an interesting video about the method in YouTube. With my own soil feeding in a garden surrounded by other allotments without vegetables, I have lured all the blackbirds around because there are always so many more earthworms. The number of worms is the best indicator of fertile soil: there should be several hundred. The average number in Germany is now around 18 – a distressing and alarming symptom. Humans can not survive without earthworms. PLOS ONE, a very renowned scientific journal online (free access, no control by associations) has published studies under the menu “Turning the Table” that demonstrate absorption of living microorganisms in the plant. Why should the plant laboriously assemble grains of sand (mineral theory = fertilizer marketing) when it can build its house from larger blocks (macromolecules and bacteria from biowaste etc.). This sensational finding has also been largely ignored. Because this agent is so important in the Klinghardt system – just an aside: PLOS One has also published a pioneering study on artemisine (see www.biopure.eu and for the tropics www.anamed.net): administration of plant material derived from Artemisia annua leaves leads to approximately 40 times higher active substance levels in experimental animals than the extracted substance in the currently best malaria agent. In addition, many more potent medicinal substances were available in the plant material that can cure malaria and other diseases, even without the isolated artemisia.

Tree crops, Moringa and holistic planned grazing

In the northeast of Corsica, with “normal” agriculture, as elsewhere, the land would have become eroded. A long time ago a very forward-looking prince gave a small reward to children who planted chestnuts. After a few decades huge forests developed, which, in addition to the timber, also provided high-quality, gluten-free food in great abundance. Later, in times when Europe was hit by a terrible famine, the people in this region could live very well. As early as 1923, Russel Smith showed the way in which millions of hectares could have been saved from erosion. Smith specified a great variety of trees, but the Moringa tree escaped him. In a world where Moringa trees can grow (tropical/subtropical), there should simply be no hunger and no erosion; how crazy are we? The multitalented genius Nikolaus Foidl in Graz, Austria, has grown Moringa on a large scale and established a world record for production of dry matter. Realistically, one
can produce about 80 tons of best-quality food per hectare and year! Information on the medicinal properties of Moringa and generally on herbal medicine in the tropics is available at ANAMED. Based on decades of practical experience, the ecologist Allan Savory from Zimbabwe has developed the “Holistic planned grazing”. The consequence for people with political courage must be: phasing out of caged housing for herd animals. For health reasons, animals should live only from grass, hay and tree food. Instead of cruelty to animals and lakes of manure, animals are able to build up massive quantities of humus in weak soils. We need a lot more animals, but in the right place and with contented lives. Maybe we can do that better if more people also discover the good life?

**Good life in the countryside: a New Village in the Garden Ring**

According to the UN, by 2050 an expected 66% of all people will live in cities; it seems sensible to make a critical assessment of this development. Urbanization is the consequence of a global extreme division of labour in society, which sees people largely as consumers and workers. Urbanization creates dependencies on systems that can easily collapse and, above all, allows acceptable living conditions only for a small minority on a global scale. With the question “what makes your heart sing?” seemingly highly successful people break down; the good life is often only a superficial illusion. There is a lack of social vision for a future with diverse and meaningful lifestyles for many. Our prosperity must be decoupled from those global industrial processes that are based on disregard for basic human rights and exploitation of our livelihoods. Seemingly robust economies can be quickly overturned – even in hitherto privileged regions of Europe. We have seen this happen, for example in Greece and Spain, where many active people are now leaving for the countryside in order to produce crops for themselves. The former life-saving family urban-rural networks are dissolving with every farm that is abandoned. Agrochemical agriculture is a dead end that has led to humus destruction, desertification and thus to climate change at an ever increasing number of locations. Cities need an urban hinterland with an ecological market gardening culture and preservation of fertile soil solely to retain water, food and a good local climate. The currently popular urban gardens are beautiful, but, even with many roof gardens, can only be a small part of a locally sustainable city – they can deteriorate to a fig leaf so easily. Humans need diverse perspectives on life that are based on real added value. Given the great importance of local food safety (organic with all the trace elements!), a stable water supply (only after decades of organic cultivation – maybe someday – without pesticides) and a balanced local climate, a strategy is needed that creates an attractive alternative to city life. It is becoming increasingly clear that fertile land with a stable humus layer can be maintained
only by a great many people with smaller farms. In this way millions of jobs in agriculture lost to industrialization can be recovered in a sustainable and far more attractive way.

The term “village” is one of great ambivalence; there are often associations with “rural paradise”, “no jobs” and “nothing going on”. Aging, migration and the loss of essential infrastructure such as schools and shops are now very common. How can you make villages of the future attractive? The ecovillage movement has created some wonderful settlements, but so far has remained a small niche (www.gen.org). After studying historical approaches and many discussions in cities and villages, I imagine the social framework for Garden Ring villages as follows: a New Village should have an exciting social environment for all age-groups; the population could be between about 150 to 300 people. If there are more people, neighbouring villages could be established. A population of less than 150 people leads to a narrowing of social opportunities. With more than 300 people, the overview and safety (an essential health element!) are lost because one does not even recognise the other inhabitants. If there are many villages, a kind of Garden ring can be established at a favourable distance to a large city that can be supplied with food and many other products. Conversely, an attractive city makes life for the villagers interesting. The area taken up by the New Villages should be sufficient for productive forest gardens, many agricultural gardens and free-range livestock on pastures with sufficient diversely productive trees such as chestnuts. As far as the land area is concerned, the New Village is more of a farm, which instead of supporting one family by producing cereal with heavy agricultural machinery, supports about a hundred permaculture farms on the same area, for example, each with green-roofed houses and surrounding gardens. The village centre then corresponds to what are otherwise the farm buildings. When existing farms are transformed these buildings can be converted accordingly. The unfortunately still very technical schematic diagram – Figure 1 – is intended to illustrate the idea.
In 2014 Jean-Martin Fortier published his book “The Market Gardener” (basically: the direct marketing nursery) in Canada. This foundational work on ecological micro farms is essentially important for the realization of Garden Ring villages and demonstrates that it can be achieved. In addition, it shows a starting point with the least possible risk. Severine von Tscharner Fleming writes in the preface of her amazement at the first visit to the micro-farm “La Grelinette” in Quebec: “There is about as much recreational equipment as farm equipment.” The aspect of the good life is evident here. We work hard for nine months of the year on this micro-farm, with two employees or interns, and that leaves three months for travel and other activities. But even during the season there is plenty of free time, precisely because of the limits set by a relatively small area. Fortier: “Our work is pleasant, adequate and allows a healthy lifestyle. Most of the time we can
enjoy the birdsong here rather than having to endure engine noise”. He also describes how hard it was for him to write his book – spending so many whole days on the computer. For this reason, diversification of tasks should be made possible in the New Village. I had previously learned from the professional vegetable grower Jean-Philippe Genetier from PALS in Steyerberg that it is better to optimize the area under cultivation rather than to maximize it. Genetier had, in full-time work with occasional helpers, reduced the area from initially 8000 m² to about 4000 m², which is an area difficult enough to manage. With the first projects of the Garden Ring villages, together with interested people, young and old, we want to create exciting prospects for life – in my view essential for the health of our wonderful earth and ourselves. Jean-Martin Fortier did not originally come from the countryside; he says the long time spent outside “has nourished my soul”.

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About the author:

Univ. Prof. Dr.-Ing. Ralf Otterpohl is the Director of the Institute of Wastewater Management and Water Protection at Hamburg University of Technology (TUHH). He has taught “Rural Development” to international students for about 15 years and developed the concept of the “New Village” in order to combine the advantages of urban and rural areas for water and food safety and to improve the soil. He is also trained in geomancy, has participated in PK-seminars for many years and practices in the private sphere.

Model Africa Project: Active participation from 3 months on-site for self-payers and donations (tax-deductible) for our student-staffed “Slope Farming” project (productive erosion control) of the TUHH in Arba Minch, Ethiopia are welcome. Master theses and dissertations are possible. Media contacts and information on suitable attractive locations with at least 100 hectares of land would be gratefully received.

Links recommended by Prof. Ralf Otterpohl:
Towards Restauration Engineering for and with People

Highly interesting restoration Projects that rebuild local economy:

Miracle Water Village, India : 13 min  https://youtu.be/9hmkgn0n8gk
Meanwhile there are around 60 such villages in the region, still not millions...

Loess Plateau, China  30 min

Geoff Lawton, Permaculture Australia / Jordan: 6min
https://youtu.be/keQUqRg2qZ0

Savory, Allan: Holistic Planned Grazing, TED TALK 20min
www.youtube.com/watch?feature=player_embedded&v=vpTHi7O66pl
Literature in www.savoryinstitute.com
Search also for contributions on soil restauration by rotational grazing by Polyface Farm, Joel Salatin

Ray Archuleta from US DA: https://youtu.be/9uMPuF5oCPA 25 min
No till, green manure, direct seeding
USA seems to be first in switching to better practice on a large scale due to chemically depleted soils and super weeds

Terra Preta Sanitation:  https://youtu.be/w_R09cYq6ys  plus Woodgas-Stoves
www.tuhh.de/aww  www.terra-preta-sanitation.net