

Equisetum and Fungus

**A study of what Dr Steiner's medical lectures
say about Equisetum and Kidney function
in regard to the Agriculture Lectures**

by Glen Atkinson

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Introduction

The question of fungal problems within Biodynamic management remains an unresolved issue in most enterprises. The grape industry still relies on Sulphur sprays, the apple industry on Lime Sulphur, while Biodynamic stone fruit are non-existent in many parts of the world.

The universal 'hope' for BD fungal control is Equisetum, however very mixed results are reported. Some people say it works well and others say it has no effect. It is used for ALL fungus, rots as well as powdery mildew and rusts, without any discrimination of the very different causes of these problems.

There is very little Biodynamic literature, of depth, on Equisetum, and I have seen none that has taken up Dr Steiner's indication to look at how Equisetum works on the human kidney for the answer. So I went looking. In RS's medical lectures there were several comments on Equisetum and the kidneys, indeed one gets the impression it was one of his favorite examples of illness. Interestingly though, his comments were always different from one time to the next, always coming from a different direction. The medical community have put some effort into understanding his comments, and they have a fairly coherent understanding of Equisetum's role with the kidneys. However they have not taken the next step of applying it to horticultural disease.

There are many strings to pull together in this story, and rather than have you wade through the diverse quotes by RS, I will tell the story as I understand it, and place most of the quotes as an appendix, so you can read them afterwards. Firstly, though I will present the existing references from the Agriculture Course to establish our starting point.

Note: All RS quotes, in my text, are in italics. I minimally edit his quotes to make them clearer, and these additions are in a normal typeface.

What do we have?

While talking about the preparations in the Agriculture lectures, RS made the following comment in Lecture 5

"Healing is not based on the microscopic changes in tissues and cells, but on a knowledge of the larger connections; this must also be our attitude to the plant nature. And since plant nature is in this respect simpler than that of the animal or man, so its healing is a more general process and when sick it can be healed with a kind of "cure-all" remedy. If this were not so, we should often be in a fix with regard to plants, as we are with animals, though not with human beings. For a man can tell us where he feels pain. Animals and plants cannot; and it is fortunate that here the curative process is almost the same for all plants. A large number of plant diseases (although not all of them) can really be arrested as soon as they are noticed by a rational management of our manuring - namely in the following way:

We must then add calcium to the soil by means of the manure. But it will be of no use if the calcium is not applied in a living condition. If it is to have a healing effect it must remain within the realm of the living. Ordinary lime or the like is of no use here. Now we have a plant which is very rich in calcium - seventy-seven per cent, of its substances is calcium albeit in very fine distribution. This is the oak and more especially its bark. In the bark we have something which is at an intermediate stage between plant and living earth. You will remember what I said to you about the kinship between bark and live earth. For calcium as required in this connection the calcium structure in the bark of the oak is almost ideal. Calcium in a living state (not dead, though even then it has an effect) has the property which I have already described to you: it restores order where the etheric body is working too strongly so that the astral element is prevented from reaching the organic substances. Calcium kills (damps down) the forces of the etheric body and so sets free those of the astral body. This is characteristic of all limestone. But if it is necessary for an over-powerful etheric element to be damped down and contracted in a regular way - not suddenly nor jerkily so that

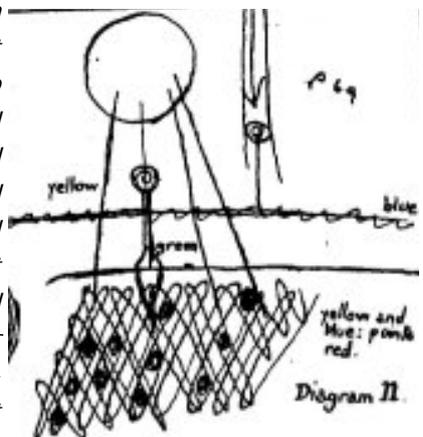
shocks are produced - but in a steady and orderly fashion, we should use calcium in the particular form in which it is to be found in the bark of the oak tree."

In lecture 6 he says

"There remains for us one more subject to consider: the so-called plant diseases. Actually this is not the right word to use. The abnormal processes in plants to which it refers are not "diseases" in the same sense as are those illnesses which afflict animals. When we come later on to discuss the animal kingdom, we shall see this difference more clearly. Above all, there are not processes such as take place in a sick human being. For actual disease is not possible without the presence of an astral body. In man and animals, the astral body is connected with the physical body through the etheric body and a certain connection is the normal state. Sometimes, however, the connection between the astral body and the physical body (or one of the physical organs) is closer than would normally be the case; so if the etheric body does not form a proper "cushion" between them, the astral intrudes itself too strongly into the physical body. It is from this that most diseases arise.

Now the plant does not actually possess an astral body of its own. It does not therefore suffer from the specific forms of disease that occur in men and animals. This is the first point. The next point is to ascertain what actually causes the plant to be diseased. Now, from everything I have said on this subject, you will have gathered that the soil immediately surrounding a plant has a definite life of its own. These life forces are there and with them all kinds of forces of growth and tender forces of propagation not strong enough to produce the plant form itself, but still waiting with a certain intensity; and in addition all the forces working in the soil under the influence of the Moon and mediated through water. Thus certain important connections emerge, in the first place you have the earth, the earth saturated with water. Then you have the moon. The moon beams, as they stream into the earth, awaken it to a certain degree of life, they arouse "waves" and weavings in the earth's etheric element. The moon can do this more easily when the earth is permeated with water, less easily when the earth is dry. Thus the water acts only as a mediator. What has to be quickened is the Earth itself, the solid mineral element. Water, too, is something mineral. There is no sharp boundary, of course. In any case, we must have lunar influences at work in the earth. Now these lunar influences can become too strong. Indeed this may happen in

a very simple manner. Consider what happens, when a very wet spring follows upon a very wet winter. The lunar force enters too strongly into the earth, which thus becomes too much alive. I will indicate this by red dot's. (See Diagram No. 11). Thus if the red dots were not here, i.e. if the earth were not too strongly vitalised by the moon, the plants growing upon it would follow the normal development from seed to 'fruit; there would be just the right amount of lunar force distributed in the earth to work upwards and produce the requisite fruit seed. But let us suppose that the lunar influence is too strong - that the earth is too powerfully vitalised - then the forces working upwards become too strong, and what should happen in the seed formation occurs earlier. Through their very intensity the forces do not proceed far enough to reach the higher parts of the plant, but become active earlier and at a lower level. The lunar influence has the result that there is not sufficient strength for seed formation. The seed receives a certain portion of the decaying life, and this decaying life forms another level above the soil level. This new level is not soil, but the same influences are at work there. The result is that the seed of the plant, the upper part of the plant becomes a kind of soil for other organisms; parasites and fungaloid formations appear in it. It is in this way that blights and similar ills make their appearance in the plant. It is through a too strong working of the moon that forces working upward from the earth are prevented from reaching their proper height. The powers of fertilisation and fructification depend entirely upon a normal amount of lunar influence. It is a curious fact that abnormal developments should be caused not by a weakening but by an increase of lunar forces. Speculation might well lead to the opposite conclusion. Looking at it in the right way shows that the matter is as I have presented it. What, then, have we to do? We have to relieve the earth of the excess of lunar forces in it. It is possible to relieve the earth



in this way. We shall have to discover something which will rob the water of its power as a mediator and restore to the earth more of its earthiness, so that it does not take up an excess of lunar forces from the water. This is done by making fairly concentrated brew (or tea) of equisetum arvense (horse-tail), diluting it and using it as a liquid manure on the fields for the purpose of fighting blight and similar plant diseases. Here again only small quantities are required; a homeopathic dose is generally sufficient. As you will have realised, this is precisely where one sees how one department of life affects another. If, without indulging in undue speculation, we realise the noteworthy effects produced by equisetum arvense upon the human organism by affecting the function of the kidneys, we shall have, as it were, a standard by which to estimate what this plant can achieve when it has been transformed into liquid manure, and we shall realise how extensive its effects may be when even quite a small quantity is sprinkled about without the help of any special instrument. We shall realise that equisetum is a first-rate remedy. Not literally a remedy, since plants cannot really be ill. It is not so much a healing process as a process exactly opposite to that described above.

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It is fair to say, both these passages are talking of fungal problems that arise from too strong an etheric activity coming from the Earth and moving upwards, which suggests predominately fungal rot disease.

A few questions arise from his comments on fungal attack.

A) How can excess vitality lead to fungal attack

B) What is the effect of equisetum upon the kidney

C) How is equisetum the opposite of the excess vitality process RS described.

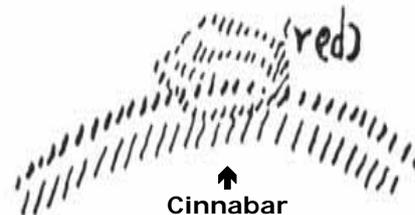
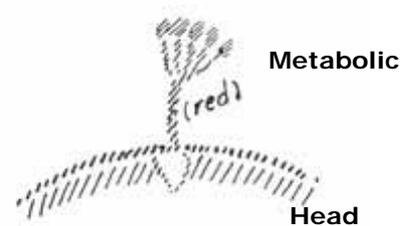
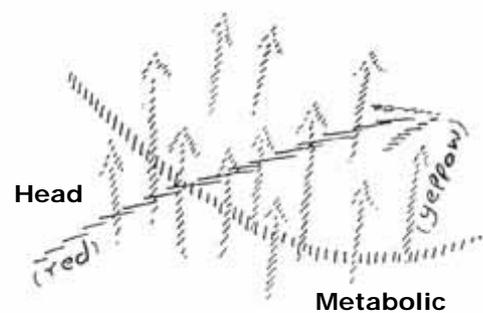
We can answer (A) by acknowledging, ‘excess vitality’, means excessive life and growth forces which come about from an overly active Etheric activity, carried in the excessive water, coming initially from the soil, but supported by a moist atmosphere.

Before we look at the other two questions, we need a broader overview, as Dr Steiner’s medical view of life’s organisation is more ‘sophisticated’ than is commonly used within Biodynamics.

RS made another comment about plant disease in lecture 1 of his 1921 medical lectures, that needs considering. There he said — Fungal attacks, can occur from the opposite direction. Human ‘phenomena such as diphtheria are especially able to teach us about certain subtleties in the plant organism. Such diseases should be studied more precisely, if only for the sake of discovering remedies.

In another context I have indicated that the child’s acquisition of speech is accompanied by various organic processes. While he is learning to speak, and therefore while something special is taking place in his breathing organism, something also occurs polarically in his circulatory organism, which also receives into itself the metabolic processes. I also pointed out, how what at puberty appears in a reciprocal relationship of the human being to the outer world, takes place inwardly in learning to speak. Thus this push of the astral body, which at puberty takes place from within the human being outward,

takes place from below upward in the capacity for acquiring speech. (from the metabolic towards the nerve sense) So here we have an astralizing process, and we will be able to see clearly that an interaction occurs where the respiratory and circulatory systems meet (see drawing). The astralizing process working from below upward (yellow) encounters the developing organs of speech working from above downwards (red). In this encounter the organs of speech become stronger in their capacity for speech. It is what is taking place simultaneously below in the metabolism, that especially interests us here: this tends to work upward. The whole process is one from below upward (yellow arrows). Now, if the astrality presses upward too strongly while the child is learning to speak, we have a predisposition to diphtheric conditions. It is certainly important to pay proper attention to this.



Let us now consider the outer earthly process, we see with plants, that has a certain selective affinity for the process I have just described. Let this be the surface of the earth. In a plant that behaves appropriately in relation to the cosmos, the earth plays a part in the nerve sense formation of its roots. With growth the influence of the earth diminishes and the extra-terrestrial influence becomes stronger and stronger, unfolding especially in the blossoms (see drawing, red). What develops here is a kind of external astralizing of the blossom, which then leads to the formation of fruit. If this process, which ought to occur in the normal course of the world processes, takes place below, it can only insert itself into the water, and we have what I have just called "dysentery of the earth."

But we can also have another situation: What takes place when a plant develops properly — the blossom unfolding always a little above the earth's surface — can develop right on the earth's surface (see drawing below, red). Then fungi arise; this is the basis for fungus formation.

And now you will begin to guess that, if fungi arise from such a special astralizing process, the same process must take place from below upward when, as in human diphtheria, this remarkable astralization occurs in the human head. This is actually the case. Hence you find in diphtheria the tendency to fungoid formations. It is most important to consider this tendency to fungoid formations in diphtheria, and it will also show you that a truly occult process is taking place there. Everything external is really only a sign that irregular astral currents, from the metabolism towards the head, are prevailing within the human being.

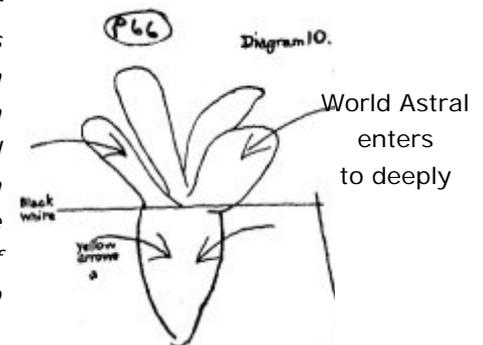
But when, as here, the processes work so deeply into the organism, much more will naturally be achieved by trying to find the specific remedy with which to oppose the particular process at work. One should try intermediate potencies of cinnabar. In cinnabar we will find effects that counteract all the phenomena I have mentioned. Cinnabar expresses this even in its outer appearance. If we acquire a sound understanding of such things we will recognize that cinnabar through its vermilion color is something that in a certain way brings to expression this activity opposed to the fungoid process. That which is approaching the colorless can become fungoid. While too strong an astralization of the earth's surface plays a part in the formation of fungi, in cinnabar there is a counter-reaction to this astralization and thus this reddening. Wherever a reddening appears in natural processes, we find a powerful counter-effect to the astralization process. You could express this in a moral formula: "The rose in blushing works against astralization." These domains of pathological-therapeutic study are really interconnected in a certain way. They guide us into this peculiar relationship of the ego and astral body to the other organs, to their laying hold of organs, to

their emancipation from organs, or to manifestations of the excessive working of the astral from below upward in the human, which for the plant is from above downwards. (4)

Here we see fungal problems being described from a different direction. Not as a result of too strong an Etheric activity, but coming from too strong an astral activity. The solution is also different. Not equisetum by Cinnabar — Mercury Sulphate. This story reminds me of another from lecture 6 in the Agriculture course.

Now I am going to tread on very thin ice and take an example very near home. I am going to talk about the nematode of the beetroot. The outer signs of this disease are a swelling of root fibers and limpness of the leaves in the morning. Now we must clearly realise the following facts: The leaves, the middle part of the plant which undergo these changes, absorb cosmic influences that come from the surrounding air, whereas the roots absorb the forces which have entered into the earth and are reflected upwards into the plant. What, then, takes place when the nematode occurs? It is this: The process of absorption which should actually reside in the region of the leaves has been pressed downwards and embraces the roots.

Thus if this (Diagram No. 10) represents the earth level, and this the plant, then in the plant infested with the nematode the forces which should be active above the horizontal line are actually at work below it. What happens is that certain cosmic forces slide down to a deeper level; hence the change in the external appearance of the plant. But this also makes it possible for the parasite to obtain under the soil (which is its proper habitat) those cosmic forces which it must have to sustain it (the nematode is a wire-like worm). Otherwise it would be forced to seek for these forces in the region of the leaves; this, however, it cannot do as the soil is its proper environment. Some, indeed all, living beings can only live within certain limits of existence. Just try to live in an atmosphere 70 degrees above or 70 degrees below zero and you will see what will happen. You are constituted to live in a certain temperature, neither above nor below it. The nematode is in the same position. It cannot live without earth and without the presence of certain cosmic forces brought down into it. Without these two conditions it would die out.



Every living being is subject to quite definite conditions. And for the particular beings with which we are dealing, it is important that cosmic forces should enter the earth, forces which would ordinarily display themselves only in the atmosphere around the earth. Actually the workings of these forces have a four-year rhythm. Now in the case of the nematode, we have something very abnormal. If one enquires into these forces, one finds that they are the same as those at work on the cockchafer grubs; and as those, too, which bestow on the earth the faculty of bringing the seed potato to development. Cockchafer grubs as well as seed potatoes are bred by the same forces, and these forces recur every four years. This four yearly cycle is what must be taken into account not with regard to the nematode but with regard to the steps we take to combat it.

In both these cases we have an overly active World Astral activity causing two different manifestations. On one hand fungus, but what type, and on the other pest attacks, again what type and where? In the case of the pests RS did not provide the solution. In the Agriculture Course he went on to talk of peppering. However this does not provide a solution to this problem. Peppering does not alter the environmental energetic activities. It cuts off a specific reproductive stream to a specific part of a specific species. Experience shows, you might rid yourself of one pest via peppering, but another of the same natural niche will replace it. His suggestion for altering the environment to fend off pests is achieved by other means, such as specific BD preps and specific chemical elements. Nevertheless he has given us this very important image about the energetic background to some pest attacks, and that they have fungal relations.

The first three passages on fungus, all present different images and different solutions, for this subject.

Equisetum and the Kidneys

So let's start with the big hurdle - ***“we realise the noteworthy effects produced by equisetum arvense upon the human organism by affecting the function of the kidneys..... It is not so much a healing process as a process exactly opposite to that described above.”***

What is RS view of the role of the kidney, and how does Equisetum do its job. Then how is all this opposite to the processes of excess vitality rising up from the soil.

The RS medical community has much to offer us. As a precise' of this we have this from the present co-leader of the Anthroposophical Medical Section, Matthias Girke. On page 873 of his book, 'Internal Medicine' (note: Anabolic = expansive, upbuilding, Catabolic = contractive, breaking down)

“Rudolf Steiner mentions Common horsetail in different instances as a medical plant for kidney diseases. Its purpose is to support the anabolic forces of the kidney organisation. Equisetum relieves the astral body of the disease process, allowing it to focus on the healthy kidney function.

*Equisetum is characterized in terms of its substance by the polarity of sulfur and silicon. Silicon is absorbed by means of the strong flow of liquid that is extracted from the locations on fields and near trails. This is deposited in epidermal cells at the top of the main shoot and the silicon content increases with the age of the plant. In connection with this silicon process, lens-like bulges can develop that direct the light `onto the chlorophyll that is arranged in rows: In comparison to this, sulfur appears to occur `in a mineral- like dissolved form'. Equisetum thus encompasses a substance polarity that is related to the neurosensory system via the silicon and to the system of metabolism and limbs via the sulfur. These qualities can also be discovered in the threefold organization of the nephron in the form of the glomerulus, which is responsible for excretion processes, and the tubular system of the kidneys, which carries out the anabolic resorption processes. **Equisetum thus directs the light-like qualities of the neurosensory pole into the anabolic etheric area.** Similar to the way in which sunlight is absorbed via the sensory organization in children and directed into the formation of the body and into their osseous metabolism, Equisetum **appears to guide the Ego and astral entities into the anabolic life processes.** This therapeutic gesture becomes immediately visible due to the formative processes of this medicinal plant that combine with the silicon and are carried into its life processes that are carried by the fluid substances. Equisetum is used specially for sclerotizing kidney diseases.*

In these cases, the astral organization orients itself too much towards the neuro-sensory pole and needs to be `repatriated: This can occur via the relieving therapeutic principle since the special nature of this plant, which exhibits a solidification in its silicic- mineral structure, allows it to take over the concordant disease process in the kidney. By means of the sulfur process, it reconnects the astral and Ego entities with the organism again. Rudolf Steiner mentions both this relieving principle and the efficacy of Equisetum in supporting the anabolic processes.”

This passage provides the insight that Equisetum *“reconnects the Astral and Ego entities with the organism again” “Equisetum appears to guide the Ego and astral entities into the anabolic life processes”, “Equisetum thus directs the light-like qualities of the neuro-sensory pole into the anabolic etheric area.”*

This passage broadens our perspective somewhat, and when investigated further challenges the simplistic BD threefold view of the world to go a couple of steps further. The 'modern BD' image of Astral Above and Etheric Below, would interpret this passage to mean— Equisetum will draw the

Astral from above more strongly, into the overly exuberant Etheric coming from below.

It may indeed be this simple, however the medical view presents a more complicated story than this. A closer reading of this passage shows all the energetic activities described are taking place within the metabolic region, with the astral and etheric balancing being within the kidney itself, and not primarily between the Head and the Belly. Also the end result of Equisetum is to stimulate the expansive Etheric activity, and it is the strong Etheric in the metabolism that would push off any nerve sense intrusion from the head. So would not strengthening the Etheric make the fungal problem worse? So questions arise.

The primary question also remains - What disturbed the metabolic astrals natural function, within the kidneys, in the first place?

To grasp the answer to this question, we need to gain an image of RS's overall worldview, and the specific context within which kidney disease occurs. To do so we need to expand 'modern Biodynamics' frame of reference somewhat.

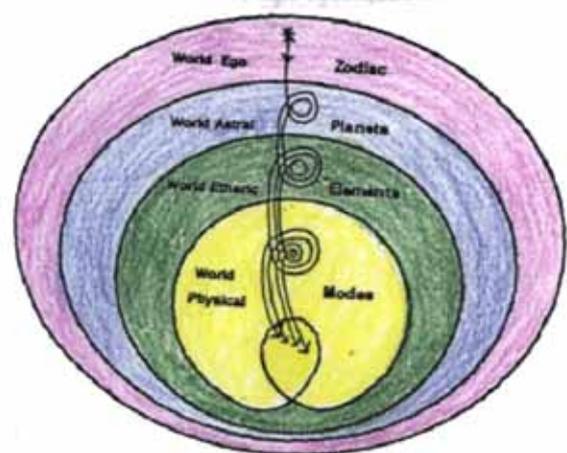
The Field of Play

RS descriptions are based upon his view of how creation occurs, and how it then organises within living forms. So first we need to do a quick run through of 'the field of play', upon which we can see what he says.

The basis of RS thesis is 'As Above, So Below' . Whatever manifests as Life on Earth is an expression of the realities that exist within the cosmos above us. So to see life in its most honest sense we have to honour the truths of Astronomy.

The essential features we can identify is that we exist within an enormous Galaxy, within which there is a minute Solar System, within which there is one of nine planets –the Earth, upon which we exist. But most remarkably, surrounding the Earth is an atmosphere, whose unique 18% oxygen density, has been formed from the living process of the Earth itself. Hence we have four great astronomical spheres. This view only describes the substances we see. All of these substances organise within these organisations because of the electronic nature of these moving bodies. Electronics organise according to laws of polarity, which cause attraction and repulsion amongst everything created within these spheres of activity.

The Earth, while having its own energetic activities, also acts as a receiving organism for ALL of the electronic forces coming from above. RS called this complex, of galactic, solar system and atmospheric activities, **the Cosmic Ether**.

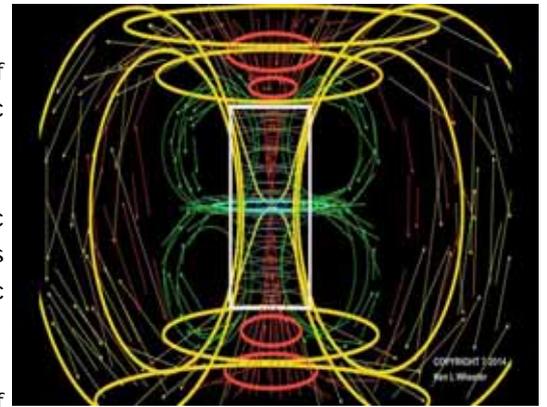


The Cosmic Ether

Astronomy tells us many things about the reality of these 'above' activities. The Galaxy is made up of trillions of stars. Our Sun is a star, and like our Sun all these other stars are beaming immense forces in every direction, for billions of years. The Solar System exists around the activity of this star. The Sun draws in forces and substance into itself before beaming out both of these things, out into the 'body of the solar system', along the horizontal plane. Due to the electronic organisation of the solar system, most of the substance in the solar system is vibrated to the middle of the horizontal plane of the sphere, where it begins to accumulate. Due to the spinning movement of this substance, and the Sun's Electronic field these accumulations of cosmic dust collect into what we now identify as planets. They are really glorified compost

heaps. Nevertheless, we need to identify that there are nine of these planets, all in their designated places within the electronic onion that is the Solar system.

The Earth itself is spinning and has created its own electronic field, which extends out to the edge of the Ionosphere. Within this sphere there are bands of 'onion' like electro-magnetic organisation we identify as the Stratosphere, Troposphere etc.



Given everything is electronic and actively energetic, all of these spheres interact with each other. As the stars are the most energetically active, their forces become dominant. They ray out in every direction, so when we look out from the Earth, we receive forces coming from stars, which reach us after journeying through and picking up the activities of the solar system onion. These combined forces then move through and pick up the forces from the atmosphere's energetic onion, which are then received and absorbed by the Earth.

RS called these four cosmic spheres specific names. The Galaxy star forces he called Spirit, Solar System forces are Astral, Atmospheric forces are Etheric and Earth forces are Physical. These are the 'Above' so these are THE four players of our game. It is these four players we have to always keep in mind as they are standing behind everything else we talk about. When we look into the inner relationships between the parts of any one of these groups, it is these four activities we identify.

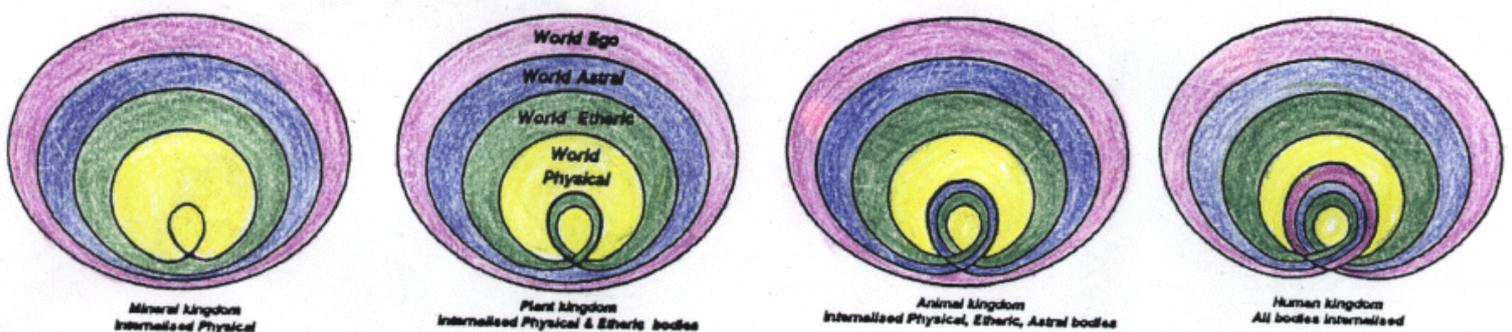
This complex of activities coming from above (called the Cosmic Ether) should not be confused with the 'personal and world' Etheric activities described throughout this discussion. The World Etheric, existing within the Atmosphere only makes up one part of the Cosmic Etheric. The Cosmic Etheric also includes the World Astral and Spirit activities as well. It is a shame RS called this 'all from above' the Cosmic Ether, as it has confused many people for a long time. But he did and so we need to live with it.

We need to picture a 'layer cake'. On the outside are these World activities, which then become reflected within the layers of manifest life. Within each kingdom of nature similar activities are at play, although the way they are organised are somewhat different. The Plants for example incarnate the Physical and Etheric however they do not incarnate the Astral and Spirit activities as such. As 'bodies' they work from the outside as World activities, however they do work through the various inner activities of Etheric and Physical bodies, as we will see.

For us, Humans we have the four activities inside us, so their interactions are easier to understand.

The Stars / World Spirit are the boss, albeit the Architect. They hold the 'prime intention' of any species. Inside this is the World Astral activity, carried within the activities of the various planets. These modify the forces of the Stars and provide the movement necessary within the lower layers. Inside this again is the World Etheric ' Atmosphere', were we have the Ethers and Elements as their carriers, and within that again is the Physical body. Here we have the Physical Formative Forces and the 'activity organisms'. RS outlines this interactive association in 1920 in the following. (Pg 226 17 dec 1920)

"We have within us our etheric body; it works and is active by giving rise to thoughts in our fluid organism.



But what may be called the Chemical Ether continually streams in and out of our fluid organism. Thus we have an etheric organism complete in itself, consisting of Chemical Ether, Warmth-Ether, Light-Ether, Life-Ether, and in addition we find in it, in a very special sense, the Chemical Ether which streams in and out by way of the fluid organism.

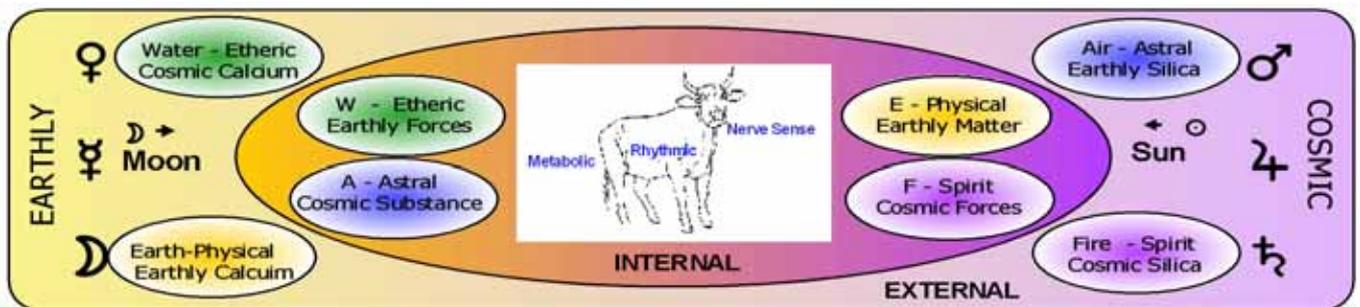
The astral body which comes to expression in feeling operates through the air organism. But still another kind of Ether by which the air is permeated is connected especially with the air organism. It is the Light-Ether. Earlier conceptions of the world always emphasized this affinity of the outspreading physical air with the Light-Ether which pervades it. This Light-Ether that is borne, as it were, by the air and is related to the air even more intimately than tone, also penetrates into our air organism, and it underlies what there passes into and out of it. Thus we have our astral body which is the bearer of feeling, is especially active in the air organism, and is in constant contact there with the Light-Ether.

And now we come to the Ego. This human Ego, (internalised Spirit) which by way of the will is active in the warmth-organism, is again connected with the outer warmth, with the instreaming and outstreaming Warmth-Ether."

Ego	Will	Warmth-organism	Warmth Ether	Cosmic Forces.
Astral body	Feeling	Air organism	Light Ether.	Cosmic Matter
Etheric body	Thinking	Fluid organism	Chemical Ether	Earthly Forces
Physical Body	Manifest	Earth organism	Life Ether	Earthly Matter

If this image is expanded to take in more references the following chart arises. The four main players Spirit, Astral, Etheric and Physical activities manifest at every layer of existence, however for clarity sake RS gives the specific activities their own name. Being able to follow these associations is one of the 'tricks' of being his student.

Galaxy	Solar System	Atmosphere	Earth	Spheres
Spirit	Astral	Etheric	Physical	Bodies
Will	Psychology	Immunity	Body	Human
Nerve Sense	Respiratory	Circulation	Metabolic	Body Systems
Warmth	Light	Chemical	Life	Ethers
Fire	Air	Water	Earth	Elements
Hydrogen	Nitrogen	Oxygen	Carbon	Biochemistry
Cos. Forces	Cos Substance	Ter Forces	Ter. Substance	Phy. Form. Forces
Cos. Silica	Ter. Silica	Cos. Calcium	Ter. Calcium	Ca & Si
Clay	Sand	Humus	Lime	Soil
Fruit & Seed	Flower	Leaf	Root	Plant
Roundness	Pointed	Wavey	Square	Forms
Stalk	Skin	Mass	Tissues	Plant Growth
Seed	Ripeness	Size	Quality	Fruit
Germ	Seed Coat	Cotyledons	Viability	Seed
Nucleus	Mitochondria	Cytoplasm	Cell Tissues	Cell
G	A	T	C	DNA
North	West	East	South	Magnetic



To clarify, manifest existence is an expression of External, World and Cosmic activities

working onto Internalised activities.

The Internal Physical Organisation

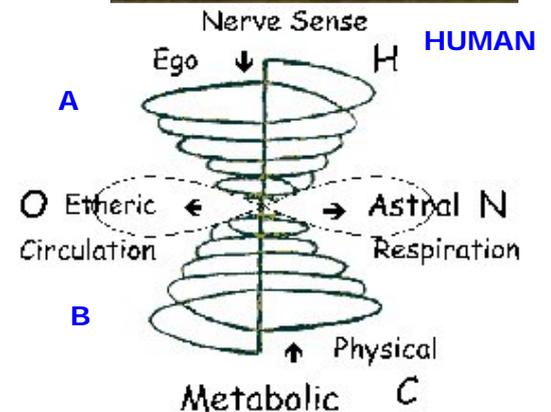
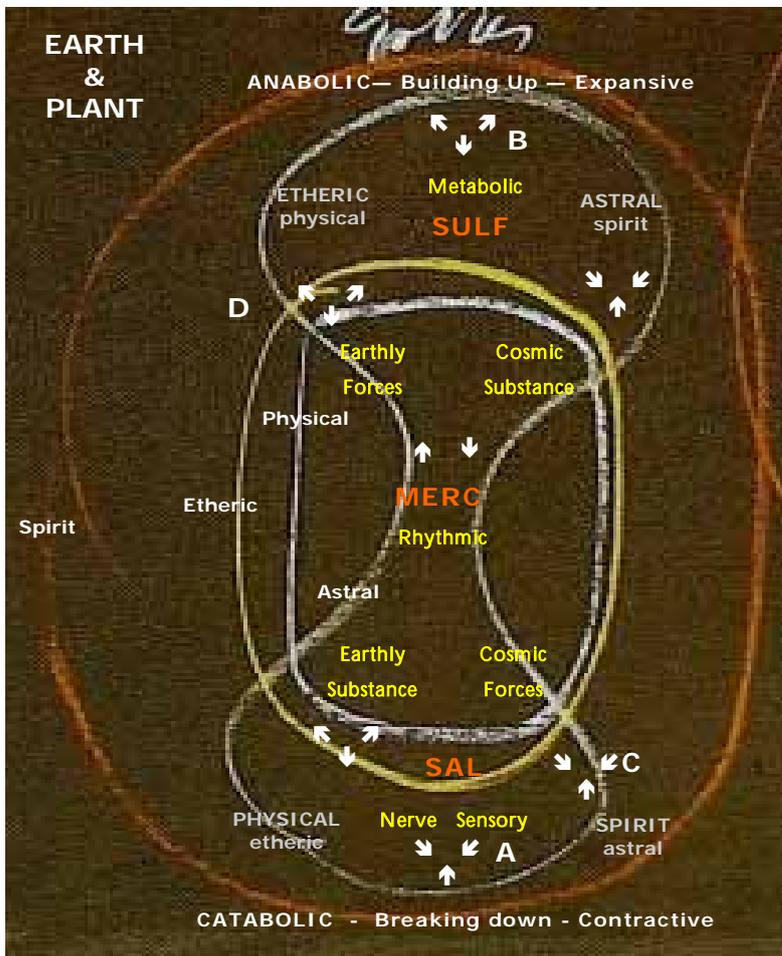
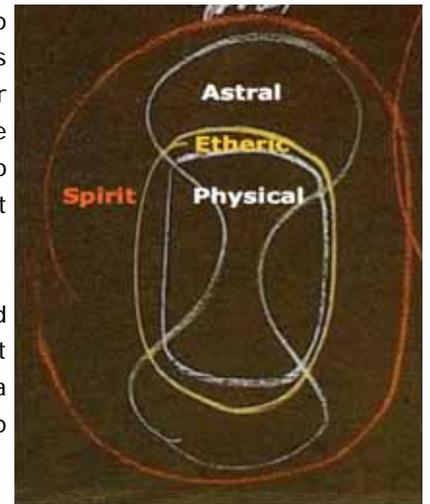
The physical organism is held together through the interaction of the four activities. The Spirit holds the 'plans', the Astral body puts the plans into action, guiding the Etheric workers, who move around the physical substances. In 1924 (Pastoral Medicine) RS provided this image to show their healthy relationship. The Physical is the white square in the middle, The Etheric is yellow outside this. The Astral is the wavy line, while the Spirit is the Red outside line.

When we come to the physical body itself RS gives more detail.

Firstly RS identifies the Physical body as organising between two poles. One, that spins centripetally / catabolic, in our head region. This is where the Spirit and Astrality predominately reside (A). The other spins centrifugally / anabolic from our metabolic zone, where the physical and Etheric activities predominately reside. (B) These two processes push against each other so that in the middle in our chest region they meet and help create our breathing and circulation systems.

They do not just push against each other, they interact and intertwine with each other. The Head / nerve sense activities work right down into the metabolism, and provide the metabolism with a centripetal catabolic process, (C) while the metabolism works right up into the head to provide it with a centrifugal / anabolic process. (D)

In the medical lectures RS often talks of these interactions in the language of the predominate activities, so within the



head he talks of Spirit and Physical processes working together, while in the metabolism he talks of the Astral and Etheric working together. In the Agriculture lectures he used the terms of the Physical Formative Forces. In the root zone there is the Spirit = Cosmic Forces and Physical = Earthly Substance. While in the top of the plant there is the Astral = Cosmic Substance, and the Etheric = Earthly Forces. This is clearly outlined in the 8th lecture, however once seen he talks of these activities throughout the whole course.

Healthy brain function is therefore an interplay between the contractive Spirit processes balancing the expansive physical / metabolic processes, coming from below. While healthy

metabolic processes are maintained by the healthy interactions of the contractive Astral forces from the head interacting with the Etheric processes of the metabolic zone.

The middle Rhythmic processes depend upon both these poles to be working properly for them to then interact positively in the blood and breathing systems.

Sub Plot 1 - 4x3

If only it was this simple. There are a few sub plots.

Here is the game from 'Spiritual Science and the Art of Healing, 24 July 1924'

*"In order to understand such conditions, we must be able to look into the nature of the human being. I said that it is possible to divide the whole organisation of man into three systems: (1) the nerves-and-senses; (2) the rhythmic system (which includes all rhythmical processes); (3) metabolic-limb system. I also said that the metabolic-limb system is the polar antithesis of the system of nerves-and-senses, while the rhythmic system is the mediator between the two: **Each of these three systems is permeated by the four members of man's being — physical body, ether body, astral body and Ego-organisation.**"*

While RS talks of the predominately Spirit activities in the Head, the Astral activity is also there, but as a secondary function. So what he calls Cosmic Forces is predominately Spirit activity with a secondary 'helper' of the Astrality. Similarly, the predominately Physical activity in the head, has the Etheric as a secondary function. This 'double act' he called Earthly Substance. In the Belly region the predominately Astral activity, has the Spirit as secondary, and he called this Cosmic Substance, while the Etheric activity in the metabolism has the Physical activity as a secondary process and he called this combination Earthly Forces.

He did this because the overall plant energetic make up does not have an incarnated Spirit and Astral activity, Hence it is confusing to start talking about the activity of the Spirit working in the root zone of the plant. There is a second image in lecture 8 that shows how the Spirit and Astrality (dominant activities) sit outside the actual physical / etheric body of the plant. So talking of them directly as 'internal processes', would be incorrect. Nevertheless the 'big' energies are active within plant processes. He uses these terms throughout the whole of the course, when talking of soil and plants, as well as when talking of animals. These four activities are the Physical Formative Forces. They have a very specific polaric relationship to each other, which is quite different to the way the Ethers work with each other.



RS generally describes the Ethers within their 'primary polarities' of Warmth and Light working from Above, with the Life and Chemical Ethers working from below upwards. The PFF work within their 'secondary polarities' (see BD Decoded) where manifestation occurs through opposites interacting, and they are THE reference most used throughout the Agriculture course, apart from the energetic bodies.

Sub plot 2 - The Poles

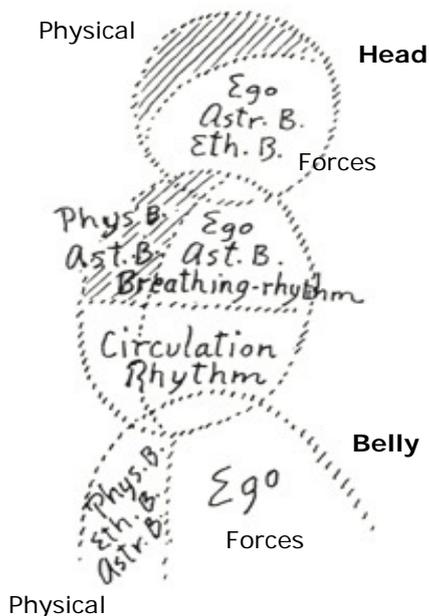
RS emphasis' that within the physical organism, the Head and the Belly regions act in a polarised manner to each other.

In the first lecture of the 1921 medical lectures he outlines how these two main polarities organise the four activities in opposite qualities. He talks of how in the Head the Physical body is 'active' , which means it acts physically, while the Etheric, Astral and Spirit activities function as 'imprints' which for our purposes we can say works as Forces. In the metabolic system the

Spirit acts as an imprint force, while the Physical, Etheric and Astral are 'active' and thus more physical in its workings.

This means the Astral activity in the Head is of a different quality to that working within the Belly. So if the Head Astral activity is so strong that it pushes down into the Belly, it will upset the 'normal' Astral activity that should be working there. It is as if they are two different shades of blue. The Head Astral is dark blue, and the Metabolic Astral is light blue. The dark blue does not fulfill the need for light blue, its too much. This is the same for all the other activities as well. Metabolic Etheric is not the same thing as Nerve Sense Etheric. If these activities become active in the wrong place , illness arises.

This organisation of all 4 activities being active in both regions, all the time, is essential for RS's description of Equisetums activity with the Kidneys.



Sub Plot 3—External and Internal

This internal organisation, 4 bodies within 3 systems , sits within the external World environment, of four activities. These two realms interact with each other. External activities can enter into the internalised organism, so the World activity can replace an internal one, and it then tries to do the internal activity's job, but can not. Just as the nerve sense Astrality can not do the metabolic astrals job, neither can the World Astral or the general Astral body do the job of the internal Astral

One example of this is where physical poisonings occur. Where any chemical element becomes stronger than our body can digest, it brings with it 'unprocessed' outside forces. Eg Arsenic enhances the ways the Astrality works with regard to the Etheric body. In small doses, that can be digested, and is used to stimulate the growth of chickens, because the Astral is always needed to motivate the Etheric. However in larger doses its contractive powers takeover and it causes emotional agitation, right through to mummification, where the Etheric becomes paralysed. It is the outside excess 'World' forces doing this.

What are the Kidneys for the Human?

Karl Konig in 'Earth and Man' gives a very good overview of this. He starts by outlining the formative processes of the Kidneys during embryo development. The main features of this story are that the kidneys did not develop out of the metabolism, like the lungs and liver for example, they begin their journey from near the ears. Indeed they are the remnants of the gills in fish. An area that takes the living oxygen out of the water. "By way of their gill-breathing, the fish listen into the whole life existence, and etheric power of the surrounding water". The primordial kidneys listened to the formative influences present in the primordial atmosphere. "The music of the spheres sounded throughout all this and the kidneys heard it". Over time, the kidneys development migrated downwards into the metabolic system. A journey that still exists within embryo development.

What this means is that a 'nerve sense' activity , supported by the astral body, has found its way into the 'earthly' metabolic system. This sensory role of the kidneys carries on with their role of sensing the many balances needed within the body. As the blood moves through the kidneys, it senses the fluid and chemical needs of the body. It either strips out excesses or retains substances back into the blood flow. It does this for Urea content, water, minerals, salts and pH. It is continually 'tasting and smelling the waters' of the body. Here we see the kidneys are the organ of where the sensory astrality enters the physical body. Its proper function is dependant upon the right placement, and quality of the internal astrality.

One of the features of the relationship between the Astral and Etheric is that the active qualities of the Astral - coming from the moving planets - are needed to motivate the naturally stagnant tendencies of the 'watery' Etheric. For there to be an expansive metabolic Etheric based activity, it must be stimulated by the internalised astrality in the metabolic system. Without the metabolic Astral, and its companion the Spirit, the digestion becomes sluggish, or the Etheric can go its own way, and all manner of inflammation diseases arise.

For a healthy kidney function, this Astrally sensitive organ, must have a healthy relationship with the Etheric within the metabolic system.

What disturbs the kidneys?

There are two main kidney ailments RS discusses, an enlarged kidney, which is an inflammatory process, and the shrunken kidney. With Equisetum it is only the Shrunken Kidney, we are concerned with. Here the Internal Astral activity is suppressed or displaced from its normal relationship with the Internal Etheric, due to a few causes. Generally it is said to be the 'External Astrality', that's enters too deeply into the Kidney, so that the internal Astral activity is displaced. This breaks its relationship with the Internal Etheric within the kidney, leading to the Etheric 'becoming stagnant', and the kidney shrinking. This "External Astrality" however can take several forms.

One often mentioned source of imbalance, is brought about by an overly strong Nerve Sense system pushing into the Metabolism. This can be either or both, the Nerve Sense Internal Spirit or Astrality. This is often due to over work or over thinking everything.

RS clarifies in the latter 1921 lectures, that because of the differences in the quality of Head and Metabolic activities of the 'same player', when the internal Head Astral and Spirit work down into the Belly too strongly, they are experienced by the metabolic Astral, in the same way as if it was experiencing 'outside' World Astral and Spirit forces. Either way the result is the same.

Other passages show, that if the general Astral body enters an organ, it is also experienced as 'External'. Referencing the diagram at the top of page 10, the Astral body is identified as a 'wavey sheath', within the energetic onion. The physical systems have this basic energy specialised, internalised and refined into organs. They have differentiated this basic energy. So even the general astral sheath is too 'gross', for the internal etheric.

Another passage has the metabolic Spirit acting too strongly and also being seen as a 'World Astral' experience.

In short, the kidney has a specific relationship between the internal astral and etheric and if they are not working together properly, problems occur.

The ways the kidney Astral can be disturbed are

- A) World Astral enters too deeply
- B) The general Astral body can enter into the kidney
- C) Nerve sense activities — Spirit, Astral and Etheric can enter too deeply
- D) Metabolic Spirit either enters too deeply or not deeply enough
- E) Metabolic Physical and Etheric do not accept the metabolic Astral

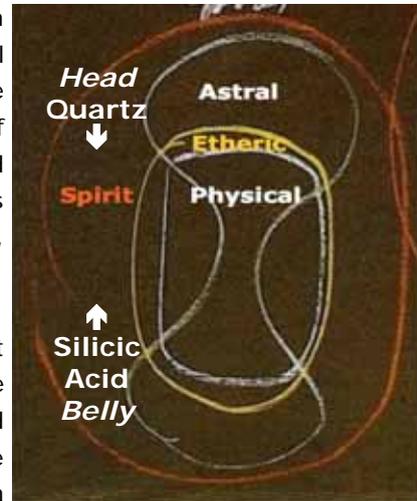
Quartz and Silicic acid.

The activities we have discussed so far have physical carriers. Each primary activity has several chemical agents they can work through. (see Glenological Chemistry). In the agriculture course RS mentions how the Astral and Spirit activities are carried and enhanced by

Silica, while the Physical and Etheric activities are carried on the Calcium elements. We have seen how the kidneys have a particular relationship to the workings of the Astrality and so this function will depend upon the working of Silica. There are however two distinct forms of Silica. We have mineral quartz Silica often taking the form of a crystal, and then we have Silica interacting with life, through its relationship with the Etheric carrying water, in the form of Silicic acid. H_4SiO_4 . This suggests that one atom of Silica can hold two molecules of water to itself. In doing so the Silica forces become more available to life processes.

These two forms of Silica make a polarity of activity with each other. It is clear in the medical lectures that mineral Quartz in the form of a crystal, is the foundation of the nerve sense system, and using it as a remedy has the effect of pulling the Spirit and Astrality strongly inwards, from the Head downwards. It also has the effect, when used in low potencies of drawing infections to the surface, so that draining can occur, often through a 'boil bursting'.

Silicic acid, H_4SiO_4 , occurs, in many places in nature, most notably though in the oceans. In this form it is found within the living processes of plants. It is drawn from the soil, and laid down mostly in the top areas of a plant, during the transpiration process. It has a more internal working action than Quartz. When used as a remedy for infection, it will stimulate the body to digest the infection from within. In this way it works with the metabolic processes rather than the N/S.



Why Equisetum is appropriate

Its phenomological cornerstones are - Equisetum is a very early plant, and its ancestors were one of the three primary plant types. Grohmann places it as the middle stem formation between the 'leafy' ferns and the 'fruiting' clubroots, emphasising its 'blending' qualities. With these other two it formed the basis of many coal deposits. The main points to concern us are that it formed before the separation of the physical systems (nerve, rhythmic and metabolic) took place with the plant kingdom. This separation occurred with the flowering plants. Therefore Equisetum has the ability to harmonise the workings of the three systems together. Equisetum is essentially a stem. It has no leaves. It reproduces through spores, often from a cone like formation at the top of the shoot, however the common horsetail (Eq Arvense) forms separate shoots for producing its spores, in spring. This is then followed by the 'leaf stalks' that grow through the summer. It was the first plant to develop a vascular system, due to being forced to protect itself from drying out. Most of the plant (9/10) is below the ground and this helps to drain the soil around it. 28% of the ash is Silica, with 65% of this is silicic acid, in an opal form. Equisetum Arvense is the highest Sulphur content (4.2% of the ash) of any equisetum.

The double nature of Eq. Arvense — spring and summer shoots — offers some useful insights and actions. The spring shoots are the reproductive shoots. These are the part most filled with Sulphur, while the summer shoot is more Silica rich. F. Husemann (Equisetum, the Kidney and the Planet Venus 1993) presents a significant essay with many interesting images of this dual nature of Equisetum Arvense. The silica level in the summer shoots increases to 3 times the strength during the mid summer period, while the Sulphur levels decrease to half during this period. He outlines the various form differences between the spring and summer shoots and how they effect the astral body and concludes " We may call the tubule –related summer shoot the 'morning form', since the astral body incarnates in the limb related radiant forms. The spring shoot on the other hand, may be seen as an 'evening form' as the astral body is released through the spherical form" " The process of the spring shoot are eliminatory, as spores are

released. The long lasting, radiant summer shoot...is its prime mover". A key image he gave is that 'The diseased kidney is too awake, as it were; Equisetum lets it sleep, so it may wake up revitalised". The Sulphur content allows the 'plant to sleep'.

Spores	Stems
Sulphur	Silica
Astral excarinating	Astral incarnating
night	morning
spring	summer

From this there are clear suggestions the spring 'evening shoot' is highest in Sulphur and causes the astrality to move outwards, while the summer "morning shoots' help the astrality incarnate. Given we have two forms of fungal problems one from too much astrality and the other from too little, we have a hint the Sulphur rich spring shoots will be good for dry hot fungus, while the summer shoots will be useful for the lecture 6 , high moisture fungal rots.

The Sulphur content of Equisetum is a key element in why Equisetum is so useful. Sulphur leads the Silica, which easily stays in nerve sense processes, into the metabolic system. Sulphur has a particular function. *"Sulphur proves to be a substance which plays an essential part in the reception of proteins into the domain of the human etheric body. We see that Sulphur does not penetrate into the astral body and the ego organisation,. It unfolds its activity in the realm of the physical and etheric body."* (Fundamentals of Therapy, pg 60) Too much Sulphur causes giddiness and reduction in consciousness, indicting it pushes the Astral and Spirit out, it does not combine with them. The silica presence is shown in its feel, but also in the radiating spray of 'stalks' from each node, and the hexagonal scales found in the fronds.

Page 62 says *" The silicic acid has a dual function. Within, it sets a boundary to the mere processes of growth, nutrition etc, Outwardly, it closes off the mere activities of the external nature from the interior organism , so that the organism within its own domain is not obliged to continue the workings of external nature, but enabled to unfold its own activities. "*

In Equisetum, Silica is turned from a 'substance' where it works in the nerve sense realms, into a 'process', and due to the Sulphur content has a penchance to bind with the etheric body in the metabolic system. The internal astral activities are stimulated and directed to combine with the etheric and anabolic processes within the kidneys are restored.

In the 'Healing Process' — lecture 5, 15 Nov 1923 (Part 2) RS says

"Let's sample the results of a cognitive overview that considers the human being first and then the wider world. In the method I depicted, we shift our attention from the human being to the nonhuman natural world, where we study the particular character of Equisetum arvense. We are more concerned with the process that is active in it than with the individual substances it contains. Because materialistically oriented thinking is now omnipresent, organic matter is usually described in terms of its content of protein, fat, carbohydrates, and so on. We focus on the individual components that superficial chemistry can tell us about. But the field of chemistry has changed in recent times, so now we focus on the so-called elements. The elements in an organic entity, however, are not very significant for what I have in mind. The most interesting thing to note about Equisetum is the high proportion of silica that is left behind when we analyze the plant, that is, when we separate its functions. Silica is so strongly present that it predominates and expresses its function in the Equisetum plant. Analysis reveals not so much the substance itself as its significance. Its significance is what we must recognize.

Equisetum is a plant, so we find no astral body in it; we do find a physical body and an etheric body, however. When we study Equisetum arvense, we find that silica plays a major role in it-although of course there are other plants that contain silica-while certain sulfates play a supporting role. The most important components of Equisetum, in terms of asserting their own character in the plant, are silica -not the "substance," but the silica function- and the activity of

sulphur. Then we make a very strange discovery. When we apply spiritually developed forces to understanding what is going on in the vicinity of the sulfates that are associated with silica, SiO₂, we discover a process or a nexus of functions that we can then introduce into the human organism, either internally or, if the situation requires a different method of administration, through baths or injections. I will discuss the significance of these different methods later. Actually, it is better not to use *Equisetum* as such-although the effects are visibly present in the plant itself, they are not very permanent. In our methods of preparing remedies, we first study the functional connection between silica and sulfur, for example, and then imitate it in a medicinal preparation. We need to convert the *Equisetum* model into a more or less inorganic preparation that has stronger effects on the human organism than if we simply used the plant itself in the form of a tea or the like. This is the essential element in the production of our remedies.

When this functional connection between sulfur and silica is incorporated into the human organism in the right way, **it relieves the general astral body in the kidney of the process it had to carry out during the illness.** That is, when sulfur and silica as they function in *Equisetum arvense* are introduced into the kidney, the human astral body is relieved of functions it would otherwise have to perform in the deformed kidney -"de-formed" in the broadest possible sense. For the moment, the disease process is carried out by a substitute, by a remedy that has been introduced into the body.

This is the beginning of any healing process. We must be familiar with the disease process in question, and our theory of pathological conditions must be rational. We must recognize the disease process and look for places in nature where it is copied exactly. We must not simply assume that a disease process must always be combated. Instead, we need to neutralize the process, to counterbalance it with a dynamic we recognize, such as the dynamic between sulfur and silica in *Equisetum*, in order **to free up the general astral body**, relieving it of functions it formerly had to perform in the diseased kidney. **We must then take care to strengthen the patient internally, through diet and so on, so that his or her inner astral forces can be applied more energetically than usual to the entire astral body.** Once we have substituted an external function for the general astral body's excessively strong activity in the organ in question, the internal astral body, now fully normal and healthy, is able to eliminate the disease.

This example demonstrates how we arrive at a rational concept of healing. As a general rule, healing involves substituting a process derived from the external world for the human disease process and then energizing an internal force to overcome the disease, which cannot be overcome as long as the external astral body is forced to apply its activity onesidedly in an abnormal kidney, for example. What I have just described is or may be the case in any disease process that is due to irregularities in organs that work internally but centrifugally, if I may put it that way. Although the kidney is an organ of elimination, it initially excretes internally. If you grasp the principle I have described, you will understand that **this pathological kidney process is healed by stimulating a Etheric centrifugal or outwardly radiating process in the kidney by administering *Equisetum arvense*, which activates the Internal Astral activity to combine with and stimulate the Internal Etheric into action."**

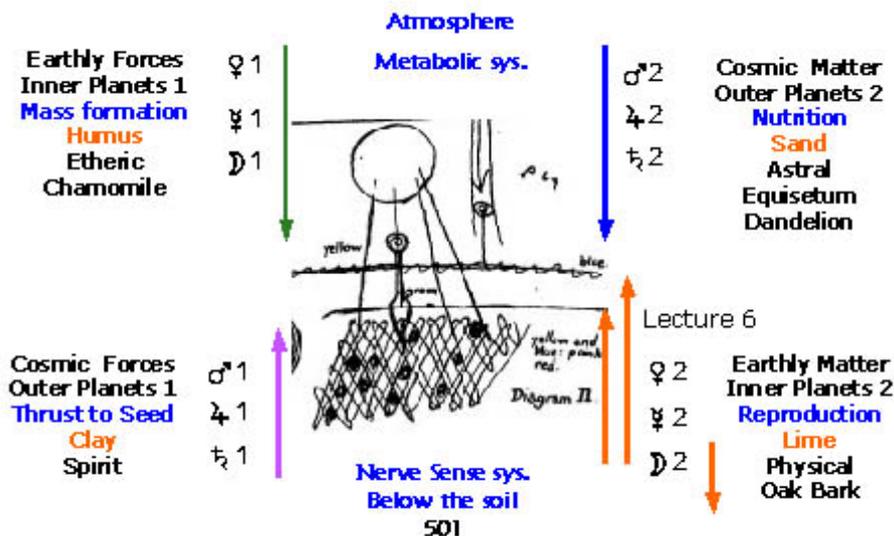
How does this translate to Biodynamic language.

Because plants do not have an incarnated Astrality, there is no internal Astrality to be disrupted by the 'external' stimuli. Hence RS statement that plants can not become sick in the normal manner. In plants, the role and function of the internal Astrality is played out within the Etheric sphere, by the Light Ether, and within the PFF sphere by the Cosmic Substance. This is the silica process active within the metabolic processes of the plant. Its relationship and interaction with the Earthly Forces process is akin to the Etheric processes described for a healthy kidney. For a similar story of the Astral and Etheric interacting in the metabolism, look in lecture 4 where RS

talks of what manure is, and the role of cowhorns.

In RS medical examples, the 'World Astral' of some kind, causes the disturbance. This means in the case of it being the World Astral proper, the cause of fungal problems would be the third example from the medical lectures, where heat and light comes from above, somewhat similar to a pest attack.

In the case of the lecture 6 example, where RS has Equisetum providing the 'opposite process' to what he describe, he describes something very different. Yes it is a N/S soil /head invasion of the metabolic, however it is an overly active Etheric / Earthly Substance process arising from the Nerve Sense / Root, pushing upwards too strongly. Not a too strong N/S Astral push. This 'Etheric push' pushes off the 'above' processes, allowing the soil fungal processes to take residence in the leaf and fruit regions of the plant. We also need to consider how this would in turn activate the metabolic Etheric / Earthly Forces, above, which then helps to overpower the 'Internal Astral' / Cosmic Substance further. All of this suggest fungal rotting.



When this circumstance occurs in a Human — Etheric dominance, within the N/S - we would have a tendency to Hydrocephalus. If it pushed right through into the kidneys, then we would have enlarged kidneys, rather than the shrunken Kidney's given in most of RS examples.

So these are two quite different situations. Yes it is a N/S invasion of the metabolism, but from the Etheric side rather than the Astral. RS is happy though that the Equisetum will ultimately push back the Etheric N/S processes from the metabolism. This suggestion mirrors his suggesting mineral quartz for achieving the pushing of the overly active metabolic Etheric from the Head, as in the case of migraines.

He is suggesting 'summer' Equisetum as an internal strengthener of the Cosmic Substance process, which would do two things. It would push against the upward moving Earthly Substance processes directly, and it would also encourage the Cosmic Substance to work again with the Earthly Forces, to direct its energy back into sizing things up. When controlled, the Earthly Forces would also help to regulate the Earthly Substance, it sister in the Earthly / Ca cycle.

In the lecture 6 example, not only is the Cosmic Substance processes being 'pushed off', but the upwards moving Cosmic Forces / Silica processes — described in lecture 2 — as being supported by Clay, are being suppressed, as well. This is why overly strong vitality causes fungal problems. The upward silica process, which normally carries the Calcium processes upwards with it, and through to the seed maturity, is 'swamped' by the 'vitality' inherent in the Earthly Substance / Etheric processes. This suggests that part of the solution to this problem is to also strengthen the clay process, to push upwards beyond 'the raised lake' of Earthly Substance. Homeopathic clay (D6) can be used. Clay can also be physically added to an overly sandy or

peaty soil. A 20cm wide ball of clay, crumbed, per 10 square meters per year will show a marked improvement.

Let us also remember the suggestions from lecture 5 that we can also use the Oak Bark preparation (D26) to pull the overly strong Etheric activity back to the soil.

To go one step further we can reflect upon the last 2/3 of lecture 2 where RS tells of how the PFF work and what their carriers are. The Cosmic Substance is drawn in towards the Earth through Silica sand. D24 could also be used.

501 can also be used in this case as it will stimulate the light processes from above. Some care is needed not to force the plant to seed.

Hence I suggest for plant rot diseases — 501, Oak Bark, Equisetum, Clay and Sand as the basis for balancing overly strong Earthly processes.

Hot Dry

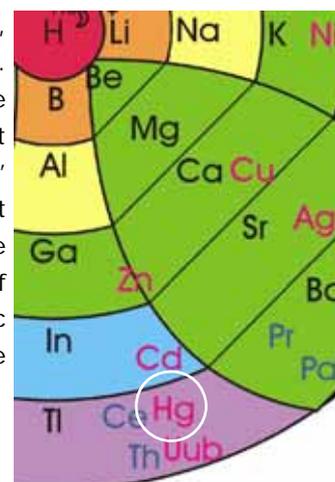
If the 'external' stimuli comes from the World Astrality, which can again be chemical toxicities, or the physical realities of too much Light and Heat, and too little water, then we have a different situation. This is the circumstance for Powdery Mildew type fungus, especially the varieties we find on Grapes. There are Powdery Mildews that appear under the 'moist' circumstances, and respond to the first remedy, cucurbits and the like, however the grapes have something else going on, that Equisetum appears to be only partially effective on

How would Equisetum be effective in this situation.

From the earlier section it is apparent that the spring shoots are more appropriate for this type of fungus. The extra Sulphur content of these shoots work to stimulate the inner light processes, and to combine with the Etheric processes, expressed by the Earthly Forces. This combined activity in the metabolism, will push off the too strong World processes, coming from any direction. If however, Horsetail does not connect with the Earthly Forces, due to the summer form being used as a tea, it could easily cause too much astral activity in general, and make matters worse. Here we are wanting 'the spring 'evening shoot', highest in Sulphur, to cause the astrality to move outwards'.

Hugh Courtney outlines the benefits of Lili Kolisko's suggestion that Equisetum be brewed and then fermented for a few days, until the 'rotten egg' - Hydrogen Sulphide - smell develops. The increased Sulphur activity is then utilised by applying it to the soil, rather than sprayed over the plant, to push back the upward moving Earthly Substance activity. Remember though, the Summer stems have less Sulphur than the Spring shoots, so fermenting could be a must when using them for this task. The spring shoots may not need fermenting to be effective. While fermenting them may well increase their effectiveness further.

In the example from the medical lectures, RS suggested Cinnabar, Mercury Sulphate - $HgSO_4$, was the remedy, for too much World Astral. How would $HgSO_4$ work. Hg in classical knowledge, (as apart from its role as a 'middle' alchemical principle) is an Etheric element. In small doses it will stimulate the Etheric body into action, and in large doses it will 'kill' the Etheric body. In my chemistry it is Zinc's big sister, and an element of the 6th ring of the Cosmic Spirit; on the Mercury 1 Arm, while on the boundary of the World Physical and the Internal Etheric. This is the arm of life's beginning. This is where algae would appear, when the Etheric internalises and picks up the first matter. Certainly an element of the Earthly Substance.



As a Cosmic Spirit ring element, it is providing guidance for how the Internal Etheric will bind into the physical organism, in the appropriate way. This will be experienced by the plant as an upwards push, from below, by the Earthly Substance, wanting the Etheric to work properly throughout all the plants growth cycle.

Sulphur is 'oily fellow', and it facilitates other elements to interact. I use it as something to make things move, especially when you want them to go to the leaf or the top areas of the plant. Oxygen of course is an Etheric stimulant and there are 4 atoms of it here.

Just as RS was pushing the 'too active soil' back into itself, in lecture 6, so here too he is pushing from the opposite direction, pushing the too strong World light and warmth, back out, by the Etheric from below.

Clay — Aluminium Silicate

A missing link in any biodynamic discussion of fungus is the role played by clay. Lecture 2 has three direct statements about how clay allows for the Silica processes of the soil, consolidated through the winter, by sand, to be released to move upwards to the top of the plant, fulfilling the plants impulse to produce seed for the next generation. Clay achieves this mobilisation of Silica through the 'liquidifying' effect of Aluminium. Aluminium's brother Boron is combined with Fluorine in glass making, to 'melt' the Silica so it can be formed into glass. Aluminium has a similar effect on Silica in nature. Boron is also used as a mineral supplement to help the sap flow run up the plant throughout the whole day. Mid day wilting is a sign of its deficiency.

This upward Silica process is what we see in springtime, coming out of the Earth as the burst of growth. This upward stream however can 'run out', or be over powered by (a) a too strong Earthly Substance activity, as described in lecture 6, and leading to a weak upward Silica stream—too little clay, or (b) from a too strong downward activity coming from too much sand in the soil or too strong inward moving external astrality due to environment conditions of dryness or excess light and heat. When the clay process is too weak, plants will grow well initially, with good leaf growth, but as soon as the plant moves off to flower fungal problems will arise, fruit will not size up and ripening is slow. The two Silica processes need to combine. The upward surge for seed maturity has to combine with the downward urge for nutritional maturity, for the Silica cycle to be complete. These naturally must also combine with the Calcium cycle. The upward Silica cycle must be strong enough to carry along the Earthly Substance and its physical nutrients with it, to provide good tissue formation. The Humus processes, both in the soil and in the metabolic processes, are needed to bring the Etheric into play. When sucked below by humus in the soil it brings life processes into the soil. But when it is above in the 'atmospheric calcium' / air moisture, it will fatten and enlarge the fruit. These four processes are needed to be working together, for large nutritious fruit, to manifest.

500 and 501

These are very interesting preparations due to the manner in which RS has 'polarised' their activity. With the cow manure preparation we see from RS descriptions in lecture 4, that cow manure is a metabolic product, of the most metabolic animal. Specifically he talks of how the etheric and astral work together in the metabolism to anchor nitrogen properly to make the best manure. The cows horn is described as a thing that reflects back these metabolic processes, when they move towards the head. These reflected back forces go to compound the strength of the metabolism we find in the cow.

Horns are NOT Antenna, as Dennis Klocek is suggesting. He needs to clearly address this passage in lecture 4 - *“At these points an area is formed from which the organic formative forces (etheric and astral from the metabolism and working forwards) are reflected inwards in a particularly powerful way. There is no communication with the outside as in the case of the skin or hair; the horny substance blocks the way for these forces to the outside. This is why the growth of horns and claws has such a bearing upon the whole form of the animal.*

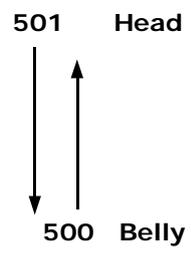
Things are quite different in the case of antlers. Here the streams of forces are not led back into the organism, but certain of them are guided for a short distance out of the organism;”

Not only is cow manure a product of the digestion, but it is a product of a supercharged digestion. So we can expect it to stimulate digestive processes. However RS chooses to place it in the soil, during the winter time—when the soil is most alive. By doing this RS is focusing this digestive ability into the soil, rather than into the top of the plant , where it might provide for good fruit sizing. Here a ‘above ground’ process is being bought into the Earth.

With Horn Silica we see a reverse process. Silica is the element of the Earth and the ‘Head’ region. It sits below all other substances and with Carbon , its brother, forms the structural basis for all life processes to develop upon. RS places this in a cowhorn , as a concentrating ‘organ’, and into the soil during the summertime.

From RS works such as ‘The Four Seasons and the Archangels’ we gain some insight to his intentions. He sees the summer as the ‘cosmic metabolic’ time for the Earth. The centre of focus of the Earth is drawn out into ‘the above ground region’ and it becomes light filled, during summer. By putting this ‘below ground element’ in the soil during the summer, he is drawing the normal nerve sense silica process into the metabolic region of the plant.

This is why he could say “the cow manure was pressing up from below, the other drawing up from above”. Horn Manure is stimulating the digestive processes in the soil, enhancing the Calcium processes working upwards, while the Horn Silica has stimulated the light ‘sensing’ processes in the metabolism. This contracting process creates a vacuum like space, for the ground Silica processes to be drawn into. Its contracting processes are seen to be working from above. The question arises as to what would happen if we made a Winter 501 and a Summer 500, and how might we use them?



Equisetum and 501

How are they different? There is a piece given on 11 April 1921 that provides some indication. The whole lecture is well worth reading.

“To be able to gain insight into the different gradations of the ego’s influence in the human being, you must realize that the ego, when it wishes to act through the limbs and metabolism, is chiefly assisted by what is contained in the silica-forming process regarded as force, and that in the silica-forming process in the human head the action as substance is strongest. Thus its action as force in the head must assist the ego with diminished intensity. Now if we focus on the relationship of the human ego to the metabolic-limb system, we find the origin of human egoism in this relationship. The sexual system is indeed a part of this system of human egoism. And the ego primarily penetrates the human being with egoism indirectly through the sexual



YELLOW
Head
Substance
Silica / 501
Differentiation
 ↓
 ↑
Blending
Silicic Acid / Eq
Force
Metabolism
RED

system. If you understand this, you will be able to see that there is a kind of contrast between the way the ego uses silica to work on the human being from the limb system and the way the ego works from the human head by means of silica. One could say that in the head it works without egoism. When this is studied by spiritual scientific investigation, it is possible to see this differentiation.

*If I were to represent this remarkable activity schematically, I would have to say the following: Considering the ego as a real element of man's organization, what it does from the limb system by means of silica (see **drawing**, red) is essentially to encompass the human being, blending everything present in the human being in the fluids into an undifferentiated unity, so that it forms an undifferentiated, uniform whole. Then, in what is really the same process but now regarded in its activity as a force, we find the least intensive silica-forming tendency, and this works in the opposite way (yellow); it differentiates and radiates outward. From below upward the human being is held together and undifferentiated by means of silica. From above downward he is differentiated into separate components. This means that in relation to the human being the forces working organically in the head become differentiated for their work on the individual organs. In a sense they are stimulated by the silica-process belonging exclusively to the head organism to work in the appropriate way in the various organs — heart, liver, and so on. There we encounter the process which, when acting from below upward, mixes everything together in the human being, whereas when it works from above downward its action works to mold separate organs, regulating the organization through the individual organs.*

We need to gain a clear conception of the results of these two tendencies in the human being — the blending tendency on the one hand and the tendency to differentiate the various organs on the other (the synthesizing-organizing activity in contrast to the differentiating-organizing activity). If we gain a clear conception of the way these two can act irregularly in a particular person, we will gradually learn to treat a person on the basis of this when something is the matter with him. “

This piece emphasis' the role Silica plays in working with the Spirit. The Spirit holds the plan that the Astral carries out, so where we have Silica being referred to as an Astral element, we must remember the Spirit is holding its hand and guiding it to action.

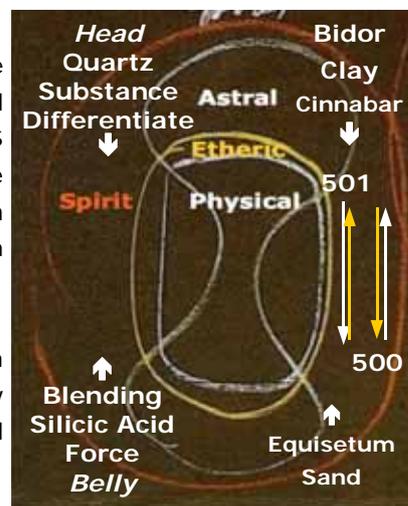
Here we have Silica working from the Head downwards, as Substance. Within the Metabolism Silica works as a blending Force. This provides an image for us to look at 501 and Equisetum. 501 is the Substance, albeit raised up, that brings differentiates, and Equisetum is a form of Silicic Acid - a naturally etherised Silica - that acts as a stimulator of 'inner light' within the metabolic system. It is the Force, that stimulates the Cosmic Substance and Light Ether into action, while 'blending it with the Earthly Forces. It wants things to harmonise into their natural functions for everything to run smoothly.

Horn Silica is a Nerve Sense element, however it is not simple mineral quartz. It has been matured within a metabolic period of the year, the summer. It has also been processed, so as to be more Silicic acid like. Firstly it is ground into as fine a powder as possible, and then a salt spoon full is diluted in a reasonably large quantity of water and spread over one acre of land. Especially in combination with water and stirred for an hour, how much colloidal H_4SiO_4 is formed?

We can see it as 'moving towards' Equisetum, but not quite making it. We can see its much harsher action in the more upright growth, tendency to harden and segregate leaves, sending things to seed, that it carries the differentiating activity strongly. The Etheric has not got hold of it to the same extent as it has Equisetum. Its 'substance' upward silica strengthening role is still intact. However it also has a downward moving compressing action, that enhances nutritive and keeping quality. Here we see an enhanced metabolism, which suggests 501 has been lifted 'towards Force'. Given its role of intensifying light processes around the plant, being sprayed

into the atmosphere around the plant, and being closer to the mineral, the plant would receive it as an element of the World Astral, more than the internal astral role of Equisetum. RS preparation of it has moved it closer to Equisetum, than would be normal for straight quartz, but it is not there as it has not been taken up by a plant 'living' Etheric body, as the Si in Equisetum has.

So while the Equisetum provides a downward push, it is from the inside of the plant, utilising the Cosmic Substance and Earthly Forces interaction, rather than using the 'normal' plant World Astral activity, which is used by Horn Silica , 501.



Equisetum and Bidor

In some of the examples when RS is talking of Equisetum , he takes a divergence, and talks about his Bidor remedy, and its solving of Migraines and general inflammation. This is a mineral copy of the Si, Fe and S formation of Equisetum. One easily gets the impression that Bidor is just a stronger Equisetum, but it is not. Equisetum is clearly a metabolic herb. Bidor is ground quartz combined with Iron Sulphate. It is cooked to a high temperature and ground again and taken as a 1% powder. So this is a very mineral preparation. When we look at the migraine stories, the story is of a disturbance of the metabolic zone. The Etheric has lost its connection to the Spirit and is developing too many anabolic forces. Too much uncontrolled expansion from the metabolic pushing up into the Head. The grey matter of the Head takes on too strong a digestive function and we have swelling and migraine. The solution is to use Quartz to stimulate the Astral and Spirit in the Head, into action so that it will push downwards, pushing the metabolism back into its zone. This can be achieved just with Silica D6. RS shows how the S is used to settle the metabolism, and then for Fe to act as a mediating harmonising element to help the two systems work together again. So while he may have taken his lead from Equisetum, he has used its fundamental action, and changed it from the Silicic acid pole to the Quartz pole by making it from minerals, to effect the opposite outcome. He is pushing from the Head into the Belly, not the Belly to the Head. This is similar to the primary action of 501, only achieved by combining Silica with Sulphur rather than putting Silica in a horn through the summer.

Weleda considers this remedy to be one of the 'odoron' remedies, whose main aim as a remedy 'type', is to achieve healing by balancing all the systems. So they emphasis all three minerals activity, however the lecture descriptions place an emphasis on the Silica activity being dominant.

I have not done any plant trials with Bidor yet, but combined with Cinnabar and Spring Equisetum we may have something very special in the 'fight' against hot dry fungal problems and various insect pests. My trials with cinnabar on Grapes have shown encouraging results.

Potency Choice

We have a hint in lecture 6 of the 1921 lectures about the choice of potencies. *"you can conclude that the system most similar to outer nature is the metabolic-limb system. If something is lacking there, you must use the lowest potencies (1-10). As soon as you have to deal with the middle system, you need intermediate potencies (11-20). When you have to work with the head, when something has to do with the spiritual in the head, you have to work with the highest potencies (21-30)."*

Equisetum's Planetary Ruler

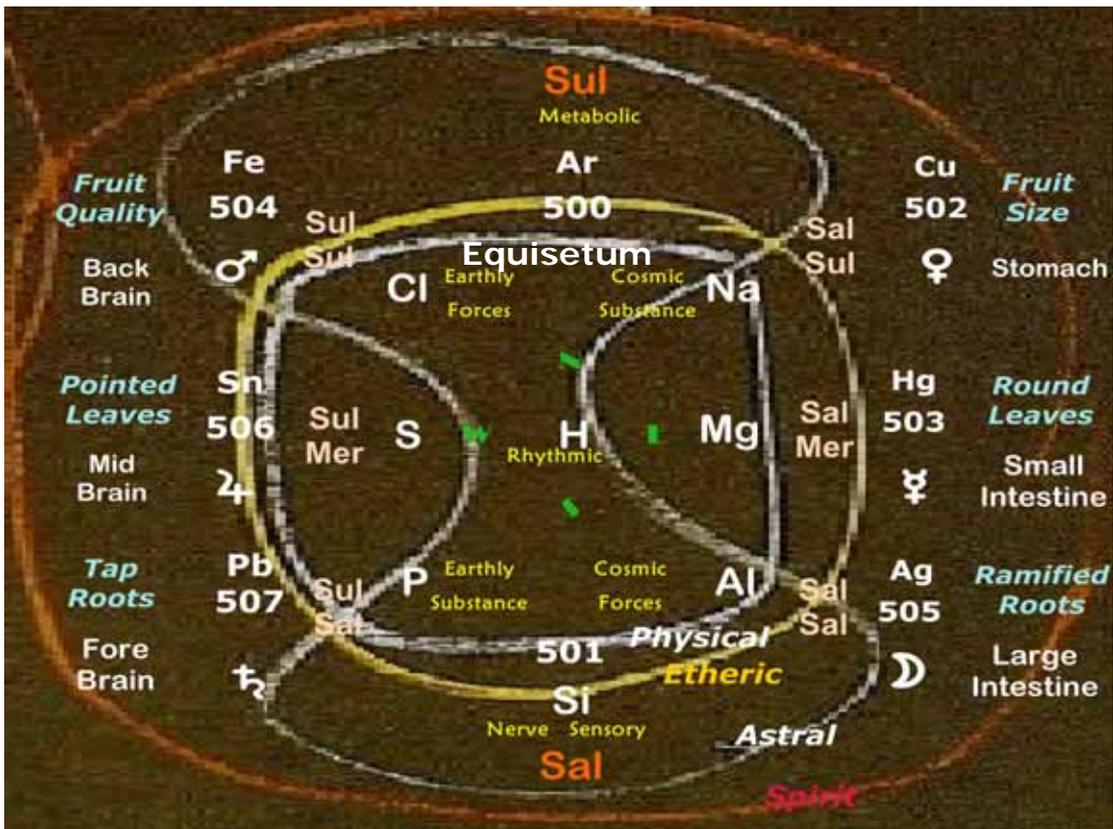
In Part 2 of this article, I will look further into this topic, as there are suggestions that Equisetum is ruled by either Saturn or the Comets. The basis of these suggestions need to be addressed and this is not the place to do that.

As a summary of what is presented here the indications that stand out indicating a planetary association is (a) Eq is predominantly a stem > Rhythmic processes , which work towards harmonising above and below (b) being from the Old Moon period before plant differentiation > a harmonising ability of all the activities (c) Working via the Silicic Acid pole of the metabolism > a metabolic strengthener (e) Having a strong Sulphur activity > an element that works predominantly with the Etheric, while helping other elements work into life processes (f) Harmonising the Internal Astral with the Internal Etheric > which occurs in the metabolism (g) works on the kidneys, who perform a 'sensing' harmonising function > which are ruled by Venus and Libra.

Within Biodynamics we have three planetary organisations we can reference.

	A	
	♄ Saturn	Spirit
Cosmic Silica	♃ Jupiter	Astral
	♂ Mars	Equisetum
	♀ Venus	Etheric
Earthy Calcium	☿ Mercury	
	☾ Moon	Physical

The first is the order outlined in the first lecture of the Agriculture Course, where we have the Cosmic Outer Planets sitting in opposition to the Earthly Inner Planets. The Silica processes carry the Spirit and Astral into manifestation, while the Inner Planets carry the Physical and Etheric into manifestation. From the text we see the Silica processes active in Equisetum, however they are bound by life processes, and work to harmonise the Internal Astral with the Internal Etheric activity in the Kidney. The Sulphur influence further connects it to the Etheric sphere. There is a polarity image here, where Quartz and Phosphorus work with incarnating the Spirit into matter, while Silicic Acid and Sulphur, help to incarnate the Astral into the Etheric. Hence Equisetum sits in between the Mars and Venus activities.



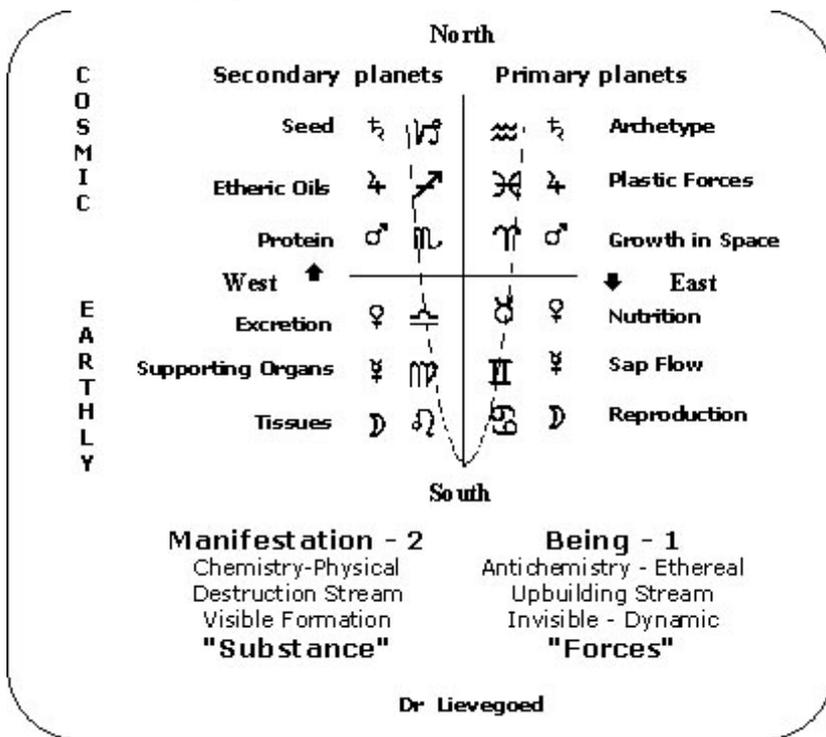
The second planetary reference available to us, as a development of the first, when it is combined with the more complex image of RS understanding of how the four activities work in the three physical organisations, as shown at the bottom of page 11. In lecture 7 & 8 in the 1921 medical lectures RS talks of the planetary activities and the metals. When placing these upon the page 11 diagram and in relationship to the alchemical processes

he had described in the earlier lectures, one was challenged to ask the question - 'How can the three alchemical processes become the six planetary activities. In short how do we threefold the threefold?' This is an exciting process that is described in my 'Alchemical Chemistry' article. Ultimately though all of these indications can be summarised by this diagram. Following on from the thoughts of the previous references. Equisetum is working to combine the Earthly Forces and Cosmic Substances within the metabolism. Again as an interplay of the Mars and Venus activities that predominantly supports the metabolism, to work inwardly against an overly strong nerve sense pole coming from the Soil.

This diagram also provides an image of how all the other Biodynamic preparations sit with regards this overall form.

This basic planetary ordering is taken one step further when we see Lecture 2 and Lecture 6's indication of how the planets work into the building and manifesting processes of creation. Dr Lievegoed alerts us to this ordering in his 1951 lecture / booklet. This has the planets as a double process, with one side being the incarnation processes, or coming into being side of the planets, While the second side is the ex-carnating, or manifesting, processes of the planets. This is a more complex reference, however it does make sense of RS planetary indications in the course.

Staying with the theme developed above, we have Equisetum being a plant of the Mars Venus interaction.



In the double planetary order each planet has two function, one as a process of pulling things together so something can manifest and the second being a physical activity of an organ or biochemical process. While Lievegoed's language is somewhat difficult, his intentions can be seen and experienced. The incarnating process begins with Saturn 1, where the Spiritual impulse of a species is taken up, at Jupiter 1 this archetypal plan is adapted to the reality at hand eg a particular environmental condition. At Mars 1 the Astral forces are accumulated so that the primary intention is moved forward. At Venus 1 the Etheric environment is prepared, by the necessary living

resources needed for life, be drawn together. Mercury 1 strengthens the Etheric living processes and implementing the plan into the prototype stage of development. Moon 1 brings together the physical resources needed for the 'item' to become manifest, with 'pre marketing testing' being carried out. Moon 2 is the 'birth' or germination of all this accumulated activity. This is the new plant growing through the cotyledons or the newborn child, through until they walk. Then Mercury 2, the leaves and stems are extending in prolific growth and the nutrition of the plant becomes self sustaining, just as the intestines now 'feed' the body. The product is 'shopped around' for its market. Venus 2, sees the plant readying itself for 'reproduction' by coming into flower. The human is able to discern what is good for itself and what is not, through the kidney function, while the project finds its supporters and friends. With Mars 2, the Astrality enters and proteins are formed as pollen and fertilisation is achieved. The Gall Bladder produces bile and proteins can be digested,

while projects start to achieve their own momentum. Jupiter 2 sees the Spirit work with the Astrality to have more complex oils and tannins form, while the fruit now swells. Here the liver function drives blood purification and nutrition, while providing other gastric juices for the digestion of fats. Projects experience success. Saturn 2 is where the Seed reaches maturity, and consolidates the new archetype into the seed ready for the next crop. The Spleen as the Saturn organ regulates how the rhythms of our inner selves with those of the outside world. It looks for foreign things in our blood and removes them. It stands us in relationship to the World. For a project this is its completion. It has achieved its goal and now the 'what next' has to be contemplated.

Lievegoed emphasis' how these individual activities can be seen to work with their polarity. So Saturn 1 and Moon 2 have a relationship. Jupiter 2 will work with Mercury 1 and so on.

With Equisetum we can see that it is helping the Astrality find its place within the life processes, indicating Mars 1, with the ultimate outcome being that the normal Kidney function is restored Venus 2. So within this more complex reference we can say Equisetum is a herb that supports the Mars 1 / Venus 2 dynamic.

Epilogue

This essay is as much an exercise in 'finding Equisetum' as it is an example of what Dr Steiner's medical work has to offer to Biodynamic Agriculture. Firstly it provides a much larger, stronger and more reliable knowledge platform for Biodynamic Agriculture to answer its questions from. Secondly it provides a treasure trove of remedies we could utilise for the many problems we face. A few medical doctors have helped us in the past. Drs Konig and Lievegoed come to mind, and no doubt there could be many more.

Modern Biodynamics needs to make a shift from its simplistic 'Threefold and Ethers' story, to the more 'adult' medical approach, where all our activities are found in the three physical systems. The existing storyline does not lead to significant problem solving, or understanding of the Agriculture Lectures. The course will never make sense in this 'context'. Too many apparent contradictions remain. The medical lectures provide the Agriculture lectures with the right context for them to be understood and applied.

There are week long International Professional Medical Trainings (IPMT) being offered annually, in many parts of the world, by the Anthroposophical Medical Group from Switzerland. They are willing to accept serious Biodynamic students to attend. Dr Steiner's medical work offers Biodynamics a pathway out of the terrible malaise it finds itself in, where 'Any Old Story Will Do', and 'organics plus the preps' seems our only horizon looking forward. We are better than that. We have enormous potential to bring conscious spiritual science into a practical maintenance of nature. Rather than be 'the salt and pepper for organics' we could be its innovators, direction givers and problem solvers, as Dr Steiner was.

Appendix 1

Spiritual Science and the Art of Healing

lecture 1 - 17th July 1924

Spiritual Science and the Art of Healing provided at the RS archive , is a different translation of the same lectures that appear in the book 'The Healing Process' from which these passages are from.

Degeneration and Regeneration

Thus we learn to see that the human being as a whole exists in a polarity of opposites. In any organism where generation and regeneration take place, degeneration must also be present. Degeneration and regeneration are in constant flux in any organ we look at, whether liver, lungs, or heart. Isn't it a strange figure of speech, for example, when we say "The Rhine is flowing there"~ What is the Rhine? When we look at it, we usually have the flowing water in mind, not the riverbed. But the flowing water is never the same from one moment to the next, although the Rhine has been there for hundreds and thousands of years. What is the same at any given moment? The changing flow! Similarly, everything inside us is in a constant state of flux between degeneration and regeneration. Degeneration / centripetal provides a vehicle for the spiritual element. In every normal human life, centripetal degeneration and centrifugal regeneration are in balance, and our real soul-spiritual capacities develop in this state of balance. The balance can be disturbed, however, when an organ grows rampantly because it fails to counter its unique degree of regeneration with enough degeneration. Or the opposite can occur: an organ fails to counter a normal degree of degeneration with enough regeneration. A physiological phenomenon becomes pathological, and the organ atrophies and dries up.

We need to comprehend this state of balance in order to understand how it is disturbed by excessive degeneration or regeneration. Having understood such disturbances, however, we can widen our view to include the whole wide world and discover the external natural process that can counteract disturbed degeneration or regeneration. For example, if we consider first a human organ that is disturbed as a result of excessive degeneration and then turn our attention, sharpened by spiritual scientific insight, to a plant as it appears in nature, we can recognize the regenerative process in that particular plant. It becomes evident that certain species of plants always contain regenerative forces that correspond exactly to the regenerative forces in human organs. According to the general law I have just explained, we can discover that regenerative forces are always present in the human kidneys.

*Let's assume that these forces are too weak and are overwhelmed by degenerative forces. Looking around in the plant world, we perceive that the common scouring rush, **Equisetum arvense**, contains regenerative forces that correspond exactly to those in our own kidneys. **We prepare a remedy from Equisetum; in the appropriate way, through the circulation and through digestion, we bring it into contact with the organ it is intended to affect. This remedy strengthens the kidney's weakened regenerative forces. Similar remedies can be developed for other organs. Once we have acquired the basic insight, we can use forces we find in the world outside ourselves to reestablish the balance between degeneration and regeneration in human organs. Whenever we discern regenerative forces that are too strong and degenerative forces that are too weak, whether in the kidneys or in other organs, we must strengthen the regenerative process with remedies derived from primitive fernlike plants."***

The trick of this passage is that regeneration comes from the Etheric, yet Equisetum is an astral

stimulant. The connection of it to pushing out the 'outside force' and the moving onto stimulating the internal Etheric activity, is not clarified.

Spiritual Science and the Art of Healing, lecture 2 - 21 July 1924

Getting back to our diagnosis of reduced sensory capacity in the kidneys, we need to introduce the appropriate silica process. I described how one aspect of respiration combines oxygen with silicon and distributes it throughout the body. We must make this activity move more strongly in the direction of the kidneys. To do so, we must know how to come to the aid of an organism that cannot produce enough silica for the kidneys. Somewhere in the external natural world, we must recognize the process corresponding to what is lacking in the organs in question—in this case, the kidneys. How do we find ways and means of guiding the silica process into the kidneys in particular?

We discover that kidney function, especially inasmuch as it is also a sensory function, depends on the human astral body, which is the basis for the specific degenerative processes we call elimination. Therefore, we must introduce silica from outside and stimulate the internal astral body to guide it into the kidneys. We need a remedy that stimulates the silica process in the kidney in particular. When we look for such a remedy in the plant world, we discover Equisetum arvense, the field scouring rush. One characteristic of this plant is that it contains a great deal of silica. If we were to administer pure silica, it would not get to the kidneys. Equisetum also contains sulfates, however, which affect the rhythmic system and the organs of elimination, especially the kidneys. When sulfates are as closely associated with silica as they are in Equisetum arvense, they smooth the way for silica to reach the kidneys.

This individual example demonstrates the actual pathological activity in kidney disease. Our method of formulating the appropriate remedy was very precise; we looked for a substance to replace the missing process in the kidney. Step by clearly understandable step, we bridged the gap between diagnosis and treatment.

Course for Young Doctors — lecture 1

2 Jan 1924

Ego too strong in the Kidneys

You can only get a conception of the possibility of illness when you know that what constitutes illness when it takes place in the liver, may be healthy when it takes place in the heart and so on. For if the human organism, working from out of the I organization, could not bring forth the warmth that must be present in the region of the heart, the organism would, for example, be unable to think or to feel. But if these same forces were to invade the liver or kidneys it becomes necessary to drive them out again, to put them back, as it were, within their original boundaries. Now, in external nature there are substances and activities of substances which can take over, in the case of every organ, the activity of the etheric body, of the astral body, of the I-organization. Suppose the I organization is taking too strong a hold of the kidneys. By giving equisetum arvense in a certain way, you enable the kidneys to do what the I-organization is doing in this abnormal, pathological condition. In this pathological condition, the I-organization is taking hold of the kidneys but in the way that ought only to happen in the heart, not in the kidneys. Something is going on in the kidneys, which ought not to be there, but which is there because the I-organization is pouring in its activity too intensely. We only get rid of this condition if we introduce artificially into the kidneys an astral activity which is an equivalent of this activity of the I-organization. That is what you can introduce into the kidneys if you really succeed in making equisetum arvense active in the kidneys. The kidneys have a great affinity with equisetum arvense. The activity of this substance throws itself into the kidneys, and the I-organization is sent out. And when the I-organization is given back to its own tasks it has a curative influence upon the

diseased organ. You can call up the higher bodies, so-called, into health-giving activity when you drive them out of the diseased organ and set them again at their own proper tasks. "then, through a reactionary force which arises, these higher bodies can actually work curatively upon the diseased organ.

Spiritual Science and the Art of Healing

lecture 5 15 Nov 1923 (Part 1)

Physical and Etheric resisting the Astral

"Just as latent warmth is released and transformed into real warmth that is expressed in physical effects, the ether body, astral body, and I are expressed in the physical human being. We understand the human being only by looking at how these four members interact.

To gain an idea of this interaction, let's consider a specific detail, such as the human kidneys and their function. In every limb and organ of the human being, the four members of our human constitution work together to a greater or lesser extent. What we see when we study the kidneys by examining a corpse or making other physical observations is only the sum total of physical effects. These physical effects, however, are pervaded and energized by what I called the etheric body--specifically, by the part of the ether body that includes the vital functions of the kidneys. The ether body, in turn, is pervaded by the astral body. Only the interaction between these members enables us to understand the makeup of the human being, even in a single organ or organ system.

Let's take a case of irregular kidney function. Since you are all experts, I do not need to go into detail. When we understand the entire issue from the perspective of anthroposophical research, we realize that the irregularity (too strong nerve sense activity) causes the kidney's physical and etheric functioning to resist the astral kidney function in some way. This is a typical case. Astral kidney function, which we can perceive only when we have emptied our consciousness, is resisted by the physical and etheric organization of the kidneys. When such resistance occurs in any living organ, its astral organization (External Astrality) must intervene much more thoroughly and energetically than it normally would, or otherwise the organ would atrophy. The result at least in specific cases, and the cases I describe are always concrete—is an intensification of the part of the External astral organization that corresponds to the kidney and its activity. In other words, astral kidney function becomes much stronger than it ought to be, and the kidney places much greater demands on the astral body than it ought to in the overall constitution of the human being. From the perspective of anthroposophical research, the astral body performs this work in the kidney by withdrawing activity from the rest of the human body. The external astral process in the kidney actually should not be there. Excessive demands are being placed on the astral kidney because of specific abnormal developments in the physical and etheric kidney.

At this point in the diagnostic process, we must know that the External astral portion of the kidney is active in a way that is not necessary when the organism is functioning normally. In the kidney's present pathological condition, the physical or etheric kidney places extra demands on the External astral component, which responds with activity that is not needed in a healthy kidney. Here we have the first element in understanding the nature of the patient's illness. To a thinking person, disease processes should be a great riddle, because they are actually natural processes. But normal processes are also natural processes. How do the abnormal processes of disease get mixed up with normal ones. As long as we see the human being as an arbitrary network of physical substances and functions, we have no basis for distinguishing physiological phenomena from pathological ones. We can make this distinction, however, when we know that the kidney can metamorphose when physical processes develop in it that do not occur in a normal kidney whose physical, etheric, and astral components are in harmony. This is our first insight.

Now the question is, how can we combat this disease process, which is simply due to excessive demands being placed on a supersensible portion of the human constitution? How can we make the Internal astral being function normally again? I want to keep my explanations concrete and detailed. I will not discuss serious kidney disease because the same principles are evident in milder illnesses. But simply in order to suggest how to treat such a kidney, I would like to take a specific example as my starting point. We know, to begin with, that we must **relieve the external astral body of its work in a kidney** that has been "de-formed" in the broadest possible sense. In this kidney, the human astral body is doing something it should not be doing. We must remove the External astral body from this abnormal kidney process.

reference needed

Internal Astral working into the Internal Etheric

If diagnosis reveals what is going on in a diseased kidney, the process that must be applied therapeutically is the same, but on a different level. For example, the disease process may be counterbalanced by giving the patient a combination of sulfur and silica as a substitute for the particular pathological process I have recognized. A cure is accomplished through a treatment, implemented by the astral body, that imitates the disease process on a different level. For example, if I introduce the equisetum function into the human organism, it stays in the ether body, and the external astral body is relieved of its work in the diseased kidney.

Thus diagnosis and treatment, which exist in parallel today and can come together only on a purely empirical basis, become a unity. In recognizing the nature of a disease process in this way, we discover, for example, that Equisetum arvense imitates a specific kidney process.

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*In this same way you can also see how the silica I mentioned yesterday works in Equisetum. I told you that Equisetum incorporates silica in a particular way that influences kidney function. Modern anatomical and physiological studies fail to consider that the sensory-nervous system can be separated from the circulatory and metabolic systems only on an abstract level. In a certain sense, all organs are sense organs. The kidney is a particularly important abdominal organ in this respect. **Using silica as it occurs in Equisetum in the way I indicated yesterday increases the kidney's sensitivity** and positively affects processes in the human organism that stem from a deadening of the kidney's inner sensing ability, caused by a weak internal astral activity.*

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Silica acts in the same way that the human kidney does. If I give the silica which is in equisetum to a patient I build up the phantom of a kidney in his renal region. The phantom then replaces the internal astral activity at this place. This presses out old kidney substances and permits some new kidney substances to form from what is in flux, just as it forms there in any case after seven to eight years. However, one accelerates the process by producing this phantom. One should realize that an organ and the activity which forms it are always present together, and that this activity always rigidifies into the organ. This is where you encounter the fluidic human being.

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Upon what does healing depend? It depends upon knowing which substances, which forces must be applied to the human being in order that the process of disease may pass over into the healthy process. Such knowledge is transmitted, for instance, by the fact that one knows: Equisetum, within the human organism, takes over the activity of the kidneys. When, therefore, the activity of the kidneys is not sufficiently cared for by the internal astral body, I shall see that they are cared for by equisetum. I give support to the astral body by means of equisetum arvense. Here for the first time is the answer to what is really happening. The same process in the external world which leads to equisetum also takes its course in the human kidneys. The equisetum process must be studied in connection with the kidneys. This leads us to the domain of healing.

Equisetum and Migraine

The Healing Process

2.Sep.23

Here again, my concern was to discover parallels between the process summed up in the symptoms of migraine and an activity in outer nature. On the one hand, we have the migraine syndrome and on the other an opposite process that we see in the activation of silica by sulfates in Equisetum arvense.' As you may know, Equisetum arvense contains approximately 90 percent silica. Tomorrow we will speak about silica's very significant functions with regard to the sensory-nervous system and everything related to it. In Equisetum arvense, however, silica interacts with sulfates, forming a loose combination that can be recreated in manufacturing by using a resinous binder.

Simply call to mind an image of Equisetum arvense. See how stiffly it develops, how the formative process of silica is allowed to predominate throughout, how the plant holds back its growth so that it does not flower (flowering occurs in connection with normal metabolic processes). A true inner view of both processes-the one that is expressed in migraine symptoms and the wonderful process that takes place between silica and sulfates in Equisetum arvense-immediately suggests that these are polar opposites.

This does not mean that direct use of Equisetum arvense is helpful against migraine. At this juncture we become clearly aware of a peculiar circumstance-that, although certain vegetative processes in the human organism are similar to plant processes in some respects, they are radically different in others. The point, therefore, is not simply to take the activity that occurs in Equisetum arvense and incorporate it into the human organism, but rather to "animalize" it first, so to speak.

This animalization can be accomplished in the laboratory by imitating the plant process in an inwardly active way, using silica on the one hand and sulfur on the other. Sulfur is the actual active ingredient in Equisetum arvense and can be used as is. Using binders that play subordinate roles, the sulfur is combined with silica by introducing the iron process into the production of the remedy, animalizing the entire Equisetum process. The result is a preparation whose efficacy is based on how it is produced. How this therapeutic preparation is manufactured makes it clear that it represents a process involving silica, iron, and sulfur. The resulting preparation-or rather the activity that has simply been brought to rest in the preparation-is reactivated and set in motion when it is introduced into the human digestive system and used in treating migraines. As I said before, our doctors call it Biodoron. Almost without exception, this migraine remedy has proved to be extremely effective.

Spiritual Science and the Art of Healing

lecture 3 24 July 1924

Migraine

Now let's contemplate an example that shows how therapeutic insight results from understanding the pathological workings of the human organism. Before we discuss this example, however, a few preliminary comments are in order. A remedy of sorts, a remedy that we all need, is always present in the human body itself. I am not using the term "remedy" very precisely here, but you will immediately understand what I mean. In human beings, the I-being and the astral body always tend to descend too deeply into the physical body and ether body. We would prefer to perceive the outer world dimly rather than clearly, to rest rather than to be active. Our natural preference for rest is a constant illness that must be cured. We are healthy only when our bodies are continually healed by the iron in our blood, which is present for that purpose. This metal prevents the astral body and I from uniting too strongly with the physical body and ether body. Iron therapy is an ongoing internal cure. Whenever there is too little iron in our blood, we become listless and want to rest, and whenever there is an excess of iron, we experience involuntary activity and restlessness. Iron regulates the relationship between the physical and etheric bodies, on the one hand, and the astral body and I, on the other. When this relationship is disturbed in any way, increasing or reducing the body's iron content will restore the correct proportion.

Now let's consider a form of illness that is not held in great esteem by the medical establishment, and understandably so. This illness is confusing because the contributing factors are not readily apparent, and a plethora of remedies are available. It seems that every drug manufacturer has developed a remedy. This illness, which does not elicit a great deal of respect from the medical establishment, but is very unpleasant for the people who suffer from it, is migraine. Migraine seems confusing because it really is a very complicated illness.

In studying the human head, we are struck by the central location and wonderful network of the extensions of the sensory nerves. The design of the internal portions of the sensory nerves, located toward the middle of the brain in the human head, is really quite miraculous. This nerve structure is the most highly perfected part of our physical form, because it is where the effect of the human I on the physical body is most pronounced. In the way our sensory nerves make their way into the body, interconnect, and bring about an inner division of sorts in the entire body, the organization of the human body transcends that of animals to a very great extent. This structure is a wonder. The human I-being, the highest member of our human constitution, has to intervene to regulate this miraculous structure, and it is very easy for the I to fail from time to time, leaving our physical constitution to its own devices. The I often may not be strong enough to pervade and organize the so-called white matter of the brain thoroughly. When the physical and etheric bodies slip out of the I, something resembling a foreign structure is incorporated into the human body.

The white matter of the brain, as you know, is surrounded by gray matter, which is much less finely structured. Ordinary physiology sees the brain's gray matter as more significant than the white. This view is inaccurate, because gray matter is much more closely associated with the process of nourishing the brain, of accumulating substances, while white matter, which is located in the brain's center, is supported by the spiritual element to a much greater extent. All parts of the human body are related, however, and each member affects every other member. As soon as the I begins to withdraw from the brain's central white matter, its gray matter succumbs to disorder. The astral and ether bodies are no longer able to take hold of the gray matter correctly, and irregularities develop throughout the interior of the head. The I-being tends to withdraw from the central part of the brain and the astral body from the brain's periphery. The entire functioning of the human head shifts. The central part of the brain begins to serve conceptual activity to a lesser extent, becoming more similar to gray matter and developing digestive activity of a sort that should not occur, while the gray matter itself becomes more of a digestive organ than it is meant to be and secretes too actively. Throughout the brain, foreign bodies are incorporated, and excessive secretions accumulate. All of this reorganization in the head, however, works back on the more

subtle respiratory processes and especially on the rhythmic activity of blood circulation. The entire human body is in a significant, although not very profound, state of disorder.

At this point, it is important to ask how we can reincorporate the I into the nervous system, specifically into the extensions of nerves toward the interior. How do we force the I back into the central portion, of the brain that it has abandoned? We achieve this by administering, silica, a substance whose mode of action I described in the first two lectures. If we use pure silica, however, the I is driven back into the central area of the head's sensory-nervous system, but the surrounding gray matter remains unchanged. To regulate the digestive process in the gray matter simultaneously, so that it does not overflow and is rhythmically incorporated into the entire normal context of our human constitution, we must also administer iron, whose ongoing role in the human body is to regulate the connection between the rhythmic system and the entire spiritual system.'

We immediately notice that the cerebrum, in particular, tends to develop irregularities in its digestive processes. Nothing happens anywhere in the human body, however, without affecting other parts. Consequently, subtle disorders develop in the entire digestive system. If we again study the connection between an outer substance and the human body, we find that sulfur and its compounds regulate digestive processes throughout the body.

We have now mentioned three perspectives that need to be considered when dealing with migraine: using sulfur to regulate digestive processes whose irregularities become most apparent in the cerebrum, using silica to induce the I to control sensory-nervous activity, and using iron to adjust disturbances in the rhythms of the circulatory system. These three perspectives result in true insight into the human body and clarify the entire migraine process, which-as I said-conventional medicine tends to disdain. The body itself seems to be telling us to manufacture a remedy composed of silica, sulfur, and iron. The result is the migraine remedy, based on anthroposophical research, that is now being distributed worldwide. This remedy is extraordinarily effective in regulating the I-being so that it intervenes in the body in the right way, in counteracting disturbed rhythms of blood circulation, and in promoting appropriate digestive activity that radiates throughout the human body.

Those who understand the human organism know that migraine is ultimately only a symptom of the fact that the ether body, astral body, and I are not working within the physical body in the right way. This same phenomenon can cause other disturbances in the organism. It is not surprising, therefore, that our migraine remedy is suited to regulating the interactions of the I, astral body, ether body, and physical organization on a more general level. Whenever these members are not working together properly, our migraine remedy-which is more than just a migraine remedy-will offer relief. We call it a migraine remedy simply because it works on a phenomenon whose most radical symptoms appear in migraine. I have used this particular remedy to clarify how we study the nature of an illness according to anthroposophical principles and how we produce the remedy once we know the effects of substances on individual members of the human constitution.

The Healing Process

16.11.23

The illness I'm talking about is migraine. To understand it, we need to know that it is caused by an activity that does not belong in the head, a hypertrophied version of the subtle metabolic activity that normally occurs in the head. We need to relieve the head of metabolic activity that does not belong there. How is this done~ First of all, we must administer a substance that will take over and perform this metabolic process. After what I said earlier, you will see that this substance is silica. Silica must permeate the sensory system that is irritated in migraine, where it relieves the

head of the pathological migraine process. But first we must make sure that silica's activity reaches the head. If we want the preparation to be taken orally, we must make sure that it gets to where it is going and does not become stuck somewhere in the digestive system along the way.

To accomplish this, we must make the astral body as active as possible, so that it carries the silica upward in ascending waves through the digestive process into the head. We can promote the upward flow of silica only by making the astral body as effective as possible. This means that all factors hindering the vital working of the astral body must be eliminated from the circulatory system, which mediates between the abdomen and the head. Sulfur does this, so our remedy must contain both silica and sulfur, suitably processed. The remedy, however, is delivered via the rhythmic system, which must work both upward and downward in the human body. As you know, we can follow the upward and downward rhythms of respiration and circulation. These rhythms are best supported by the inherent activity of iron. If we intend something to flow upward but do not want it to get trapped, or if we want it to remain there without making demands on the entire body, we need to produce a preparation containing iron, sulfur, and silica, prepared in a specific way. The resulting remedy, Biodoron, relieves the head of the migraine and then reincorporates that activity into the total human body in the right way.

Hayfever the opposite of the Equisetum function Reference needed

Other disease processes demonstrate the polar opposite of what I have just described. Once again, I will not use the example of a serious illness to introduce the general principle, but rather one that, although it is extremely unpleasant for the patient, attracts relatively little attention compared with deeper-seated illnesses. This disease is hay fever, or allergic rhinitis. In attempting to combat hay fever, we must realize that we are dealing with a fundamental constitutional disorder based on a peripheral reduction in the forces of the third, inwardly mobile human being, the astral body. The origin of hay fever can be traced back to childhood, when generalized and generally disregarded disorders appear that then become specialized, appearing later in life as hay fever. If we know that **hay fever involves a decline in certain astral functions that prevent the astral body from reaching the physical and etheric bodies**, our first concern must be to energize the astral body internally and redirect it to what it should be doing.

In a pathological condition such as hay fever, more externally directed centrifugal effects are apparent and must be actively counteracted. In kidney disease, we counterbalanced or offset the illness; we saw that the astral body simply needed to be freed from its abnormal work in the diseased kidney and then energized and strengthened in order to work in the direction of health. This is not true of processes such as hay fever. In such cases, we cannot begin by offsetting the disease process. Instead, it must be counteracted by a comparable process working in the opposite direction. We have found that the activity an astral body has stopped performing because it no longer has access to the physical and etheric bodies can be restored by using the juices of certain fruits. The fruit must have rinds, and centripetal effects must be evident within the fruit itself. A preparation made from the juices of such fruits is administered in ointment form in milder cases or as injections in more severe cases. We have already experienced considerable success with this treatment, which drives the astral body back into the physical and etheric bodies. Dr. Wegman has successfully treated many patients with our injectable hay fever remedy.

Our way of thinking does indeed yield ways of energizing a sluggish astral body. Depending on the specific fruit that is chosen, the processes these injections stimulate have an affinity for particular organs. We need to investigate which organs are affected and what tendencies reveal the affinities. The injection-induced processes demonstrate that physical symptoms due to a sluggish astral body can indeed be corrected by offsetting the astral body itself. In the previous example, we

neutralized the disease process, but in this case we counterbalance a process in the area we hope to affect. In choosing a treatment, we must distinguish between centrifugal therapeutic processes, such those I described for the kidneys, and centripetal processes, as in our hay fever remedy, for example.

On first consideration, such remedies may seem to have been dreamed up out of nothing, and in fact that is what most of our contemporaries will believe. Consequently, I have placed great emphasis not only on the need to produce such remedies but also on the need to implement our own school of medical thought in our institutes. Confirming the efficacy of our remedies, however, is not the same as testing remedies developed through empirical methods applied on the physical level. In the latter case, we depend heavily on statistics, which tell us whether the remedy is helpful in a high proportion of cases. If we begin by applying a method such as the one I have discussed here, however, our clear understanding of a specific disease process reveals the cure, so diagnosis and treatment become one and the same thing. The situation is this: If diagnosis reveals what is going on in a diseased kidney, the process that must be applied therapeutically is the same, but on a different level. For example, the disease process may be counterbalanced by giving the patient a combination of sulfur and silica as a substitute for the particular pathological process I have recognized. A cure is accomplished through a treatment, implemented by the astral body, that imitates the disease process on a different level. For example, if I introduce the Equisetum function into the human organism, it stays in the ether body, and the astral body is relieved of its work in the diseased kidney.

Thus diagnosis and treatment, which exist in parallel today and can come together only on a purely empirical basis, become a unity. In recognizing the nature of a disease process in this way, we discover, for example, that Equisetum Arvense imitates a specific kidney process. If we recognize that the inner character of gall excretion in certain illnesses is the same as the process we find in Cichorium intybus, the plant process shows us how to relieve the astral body of the gall-excreting function it would otherwise have to perform in the liver. We make advances in healing when diagnosis is no different from treatment, while treatment becomes a truly rational science.

Part 2 - Is Equisetum ruled by the Comets or Saturn? see www.garudabd.org