

Cowhorns are NOT Astral Antenna

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In what looks like a challenge to the long accepted understandings of the reflective function of the Cowhorns, a growing group of BD practitioners are promoting a belief that cowhorns are World Astral antenna, beaming forces in from the front of the cow.

In the 1990s we had this idea promoted by Peter Proctor, and now Dennis Klocek is heading this assault. (4) Dennis suggests that Cowhorns, due to their structure **draw in forces, or light, from the periphery** and act as astral antenna, attracting 'a trickle of electrical forces' through the horns, into the manure, used for preparation 500, thus charging the Horn Manure with super Astral forces.

This is a radical concept amongst BD commentators, as most other respected sources state that: **it is the forces active in the metabolism of the cow, moving forwards, which are ultimately condensed and rayed back from the horn, into the digestion.** These metabolic forces make the manure so enlivened, it stands apart from other manures when it comes to soil digestion and fertility.

For the Klocekians belief to be taken seriously, there are some paragraphs in the fourth lecture of "Agriculture" and several statements of earlier BD writers, that need to be explained away.

This first passage is from a early version of the 1938 issuance of the Ag course. (A somewhat different 1938 version is present at the RS Archive) . I like this version as it gives a better overall image of the energetic bodies actions. The words in Italics, and Maiandra are my 'clarifications'.

My suggestion is that it helps to read this description as an expression of the lecture 8 diagrams of the internal organisation of the animal, rather than the lecture 2 images. (see pg 6) The energetic cousins need to be replaced. Spirit plays into Cosmic Forces in the Physical body , While Astral works into Cosmic Substance, the Etheric into Earthly Forces, and the Physical into the Earthly Substance. Notice the similarity of conversation . Same energies working at different layers of life.



RS's manner of talking about the role of the Astral and Etheric within the digestive processes, mirrors the stories of their Physical FF cousins, the Cosmic Substance and the Earthly Forces in the Ag course and the medical lectures. The Astral Etheric interaction in the metabolism conversation forms the basis of several of RS descriptions of illness, especially his comments on the working of

Equisetum in remedying kidney problems, which relates to his fungal solutions. (3) I wish he had told this story here in the language of the PFF.

Rudolf Steiner's 'horn story' starts with the previous conversation, where he talks of the need to contain etheric and astral forces within compost heaps. He then says **"Now following this trend"**, of containing forces within the organism.....

"Every living being always has an inner and an outer side. The inner side is inside some kind of skin, the outer side is outside that skin. Let us begin with the inner side.

The inner side of every living thing has not only streams of force which go outwards in the direction shown by these lines (see Diagram 8) but it also has streams of force which go inwards from the skin, which are pressed back. Now an organism is surrounded on the outside by streams of all kinds of forces. There is something which expresses very exactly although in a "personal" way the relationship which must be established by the organism between its inner and outer side. All the forces working inside the skin, all that stimulates and maintains life, must - pardon the phrase - inwardly smell, must have an inward stench. Taken as a whole, life itself consists in



this that what is generally diffused as a scent is instead held together so that the scent is kept inside and does not stream outwards too strongly. An organism must therefore allow as little as possible of its scent producing life to escape outwards through its skin. Indeed one might say that the healthier an organism, the more it will smell inwardly and the less it will smell outwardly. A living organism and particularly the plant organism (apart from the flower) is designed not to give out scent but to take, it in. And if we consider the beneficial influences on a meadow full of fragrant aromatic flowers, we shall begin to notice how living things mutually support one another in Nature. This fragrance of flowers which is diffused, and which is something different from the odour of mere life, issues from sources of which we shall become aware later, and it acts on the plants from outside. One must enter into a personal, living relation to all these things; only then are we really one with Nature.

Now the main thing to understand is that manuring and the like must consist not only in conveying a certain degree of aliveness to the soil, but also in enabling the nitrogen to spread through it, in such a way that with its help the life is carried along certain lines of force as I showed yesterday. (*Lecture 3, Ag Course*) In manuring therefore we must bring sufficient nitrogen into the soil to enable the life to be borne into the organic structure of the soil which is to bear the plant. This is the task, but it must be carried out exactly and properly.

Now here is a very significant hint: when purely mineral matter is used for manure, it never reaches the earth element, but at best only the water element in the soil. You can produce with mineral manures an effect in the watery part of the earth, but you will not achieve a vivification of the earth element itself. Plants, therefore, which are under the influence of any sort of mineral manure will exhibit a type of growth which betrays that it comes from water which has been activated, not from the solid element which has been vivified. The best way to approach these things will be to take the most unassuming and often despised kind of manure, viz. compost. Here we have a means of vivifying the soil. We include in compost all kinds of neglected refuse from farm or garden, mown grass, fallen leaves, and the like, nay, even to the remains of dead beasts, etc. These things should by no means be despised, for they retain something not only of the etheric but even of the astral elements. And that is important. In a compost heap, all contained in it is actually pervaded not only by living and etheric but also by astral elements. These are present to a lesser degree in solid or liquid animal manure, but they are more stable, more settled - especially the astral element only we must make use of this stable or settled character in the right way. The action of the astral element upon nitrogen is hindered wherever the etheric element is too ebullient.

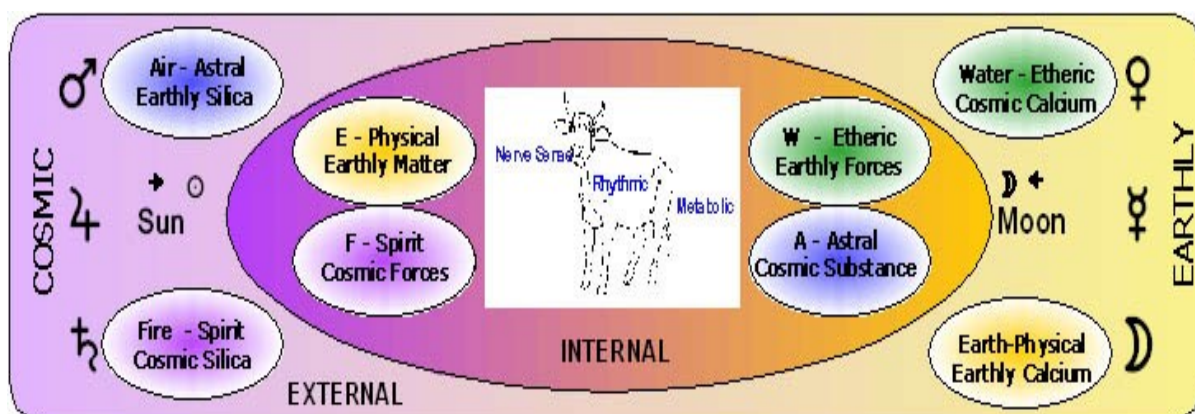
A too powerful sprouting of the etheric life hampers the astral element in the compost heap from doing its work. Now there is in Nature a substance which I have already mentioned from varied

angles which is extremely useful in this respect, and that is the chalky or limestone element. If, therefore, some of this - preferably in the form of quicklime - is introduced into the compost heap, we get the following special result: without causing the astral element to "volatilise" as it were too much, the etheric element is taken up by the quick-lime and the oxygen is absorbed as well; In this way, the astral element is brought to a wonderful activity. This leads to a very definite result: In manuring the soil with compost, we are giving over to it something which has the tendency to carry the astral element directly into the solid element without the detour through the etheric element. In this way, therefore, the earthly element is thoroughly "astralised" and thereby becomes penetrated with nitrogen. This result, indeed, very much resembles a certain process in the human organism - a plant-like process - so plant like in fact that it does not proceed to fruit formation, but stops at the stage of leaf and stem formation. What we give over to the soil in the compost has its parallel in that process which brings about in the food we eat that "mobility" of which I spoke before (see para 7 & 8 of lecture 3). We bring about a similar activity in the soil when we treat it in the manner described. Soil prepared in this way will be especially suitable for producing plants which, when they are eaten by animals, will continue to bring about a similar activity in their organisms. In other words, we shall do well to manure our meadows and pasture lands with this compost, and if we carry through the process carefully, with strict regard for the other proceedings and ingredients, we shall succeed in obtaining good fodder, which, when mown and dried, preserves its quality. I should like to remind you that to take the right steps, one must look into the nature of the whole process, and finding the right thing to do in any particular case will of course, depend to a great extent upon having the right feeling. This feeling, however, develops, when we look into the whole nature of this compost process. For instance, if the compost heap is left alone the astral element in it will begin to spread in all directions. It will then be a question of developing the right personal relation to the heap in order to find out how it can be made to retain its smell within it. This can easily be done by putting down a thin layer of the compost material and covering it with peat moss, then adding another layer and so on.

In this way we hold together that which would otherwise volatilise" itself as smell. Nitrogen, indeed, is a substance which in all its modifications is eager to spread out into all directions. And now it is held back, by this I wish to indicate how necessary it is to treat the whole "agricultural-individuality" in the light of the conviction that etheric life and even the astral principle must everywhere be poured out over it to make our work effective.

Now following this trend, we can take a further step. Have you ever wondered why it is that cows have horns, while certain other animals have antlers? It is a very important question. Yet what science has to say about it (*i.e. Dennis's explanation*) is quite one-sided and based on externals. Let us consider why cows have horns. I said that the forces within a living organism need not always be directed outwards but can also be directed inwards. Now imagine an organic entity possessing these two sets of forces, but which is unformed and lumpish in build. The result would be an irregular, ungainly being. We should have curious looking cows if this were the case. They would all be lumpish and unformed, with rudimentary limbs as at an early embryonic stage. But this is not how a cow is constructed.

A cow has horns and hoofs. Now what happens at the points where horns and hoofs grow? At these points an area is formed from which the organic formative forces 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

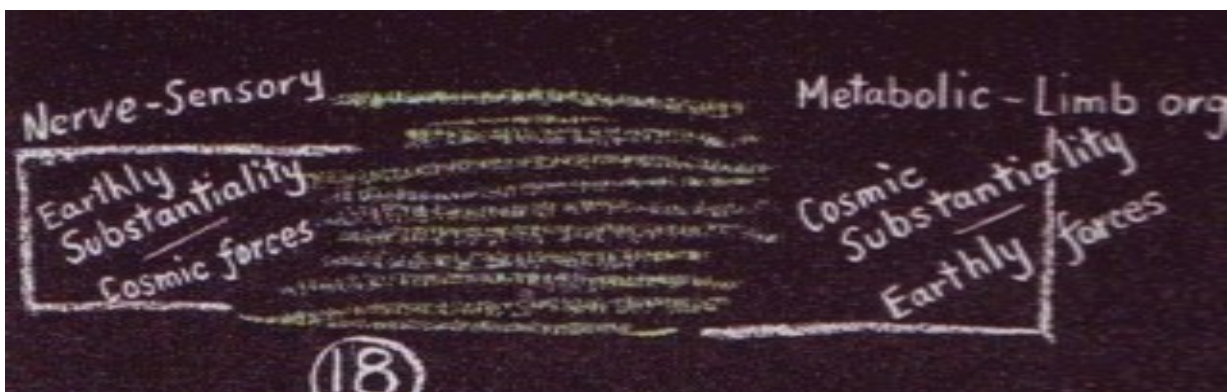


horns and claws has such a bearing upon the whole form of the animal.

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; there must be valves, as it were, through which the streams localised in the antlers (we can speak of streams of 'force', just as we can speak of streams of air or liquid) can be discharged. A stag is beautiful because it stands in intense communication with its environment by reason of its sending outwards streams of certain of its forces; by this it lives within its environment and takes up from it everything which works organically in its nerves and senses. Hence the nervous nature of the stag. In a certain respect all animals which have antlers are suffused with a gentle nervousness. This is clearly to be seen in their eyes.

The cow has horns in order to reflect inwards the astral and etheric formative forces, which then penetrate right into the metabolic system so that increased activity in the digestive organism arises by reason of this radiation from horns and hoofs. If one wants to understand foot-and-mouth disease, i.e. the retroaction from the periphery to the digestive tract, one must know of this connection. Our remedy for Foot-and-mouth disease is based on the recognition of this. In the horn, therefore, we have something which by its inherent nature is fitted to reflect the living etheric and astral streams into the inner life organs. The horn is something which radiates etheric life and even the astral element. Indeed, if you were able to enter into the cow's belly, you would smell the current of etheric-astral life which streams inwards from the horns: and the same thing is true of the hoofs.

Now this gives us a hint as to the measures we may recommend for increasing the effectiveness of ordinary stable manure. What is ordinary stable manure really? It is foodstuff which the animal has taken in and which up to a certain point has been assimilated by its organism, thereby stirring into activity certain dynamic forces in the organism. Its main use has not been to increase the amount of substance in the organism, for after having had its effect, it is excreted. It has become permeated with astral and etheric elements. The astral element has filled it with nitrogen-bearing forces and the etheric element with oxygen-bearing forces. The substance which emerges as dung is permeated with these forces. Imagine now: we take this substance and pass it into the soil in some form or other (the details will be dealt with later). Thus we add to the soil an etheric-astral element whose proper place is in the belly of the animal, where it produces forces of a plant-like nature. For the forces which we produce in our digestive tract are of a plant-like nature. We should be extremely thankful that we get such a residue as dung, for it carries etheric and astral forces from the interior of the organism out into the open. These forces remain with it, and it is for us to keep them there. In this way the dung will act in a life-giving and also astralising way on the soil, not only on the water element in it, but especially on the solid) element. It has the power to overcome what is inorganic in the earthly element. Now what is passed over to the soil will necessarily, of course, lose the form it originally had when taken in as food, for it has to go through an inner organic process in the metabolic system. There it enters upon a phase of decomposition and dissolution. But it is at its best just at the point where it begins to dissolve through the workings of its own astral and etheric elements. It is then that the parasites, the micro-organisms make their appearance. They find a good feeding-ground in which to develop. This is why the theory arose that these parasites are themselves responsible for the virtues in the manure. But they are only indications of the condition of the manure. If we think that by inoculating the manure with these bacteria we shall radically improve its quality, we are making a complete mistake. Externally there may seem at first to be an improvement, but in reality there is none. I shall deal with this point later. For the moment, let us



continue with the matter in hand.

Let us put manure just as it comes to hand into a cow-horn, pressing it full, and bury it at a certain depth - say 1 to 2 feet deep according to the soil which should not be too sandy or clayey. We can choose any spot where the soil is in good heart. Now by thus burying it with its filling of manure, we preserve in the horn that function which it would normally exercise in the cow's body, that is the reflecting of the life-giving and astral elements. Through the fact of its being surrounded with earth, all the currents of etheric and astral forces stream into its interior. These forces attract all the astral and etheric elements from the surrounding soil, and the manure contained in the horn becomes inwardly quickened with these forces in the course of the winter season when the earth itself is most alive. For the earth is most inwardly alive during the winter. All these living forces are preserved in the manure and thus there is a highly concentrated, life-giving manuring force in the contents of the horn. Then (in spring) the horn can be dug up and its contents removed, those of you who were present at Dornach when last we made this experiment will remember that you were able to convince yourselves of the fact that when the manure was removed it was completely odourless. It was quite striking. The manure no longer smelt at all, though naturally it began to do so a little when it was mixed with water. This shows that all its odour had been concentrated and worked up within it. You have here a tremendous astral and etheric power which you can utilise by taking the content of the cowhorn after its period of hibernation and diluting it with water which perhaps should be slightly warmed."

To understand this process more fully we can look at the nutrition processes given in lecture 8.

"Since we are dealing with feeding, let us start from the animal. In the animal the threefold organism is not so sharply defined as it is in man. The animal has a system of nerve and senses and a metabolic and limb system. These are clearly divided, the one from the other. But in many animals the limits of intermediate rhythmic system are indefinite; both nerves and senses system and metabolic system trespass upon the limits of the rhythmic system. We should therefore choose other terms when we speak of animals. In man one is quite right in speaking of a three-fold organism: but in the case of animals one ought to speak of the nerve and senses system as being localised primarily in the head, and of the metabolic and limb system as being in the hind quarters and limbs but at the same time diffused throughout the whole body. In the middle of the body the metabolism becomes more rhythmical as does also the nervous system, and there both flow into one another. The rhythmic system has a less independent existence in the animal. Rather the opposite poles become indistinct as they merge into one another. (Drawing 18.) We should therefore speak of the animal organism as being twofold, the extremes interpenetrating at the middle. In this way the animal organization arises.

Now all the substances contained in the head system - I am speaking of animals, but the same is True of man - are of earthly matter. Even in the embryo, earthly matter is led into the head system. The embryo must be so organised that its head receives its matter from the earth. In the head, therefore, we have earthly matter. But the substances which we bear in the metabolic and limb organisation, those which permeate our intestines, our limbs, our muscles and bones, etc., these substances do not come from the earth but from what has been absorbed from the air and warmth above the Earth.- It is cosmic substantiality. (*Astral*) This is important. When you see an animal's claw, you must not think of it as having been formed by the food which the animal has eaten and which has gone to the claw and been deposited there. This is not the case. It is cosmic matter taken up through the senses and the breathing. What the animal eats serves only to stimulate its *Earthly Force* powers of movement so that the cosmic matter can be driven into the metabolic and limb organisation, *and* can be driven into the claw and similarly distributed throughout the whole organism.

With forces (as opposed to substances) it is the other way round. Because the senses are centered in the head and take in impressions from the cosmos, the forces in the head are cosmic in nature. To understand what happens in the metabolic and limb organisation, you need only think of walking, which means that the limbs are permeated with earthly gravity: the forces are earthly ones. Thus the limb system contains *Astral* cosmic substances permeated by *Etheric* earthly forces." Lec 8 Ag Course

A little more context may help here. This story is generally called the **Cosmic and Earthly nutrition streams** and is best begun with the intake of food. This food enters the stomach and

the hydrochloric acid there burns or 'ashes' a certain portion of the food. This ash finds its way to the head to form the material basis of the brain. (The Apop doctors tell a tale of how this actually happens). This brain substance acts as a 'satellite dish' receiving the Cosmic Forces that are constantly flowing past it, from the Cosmos and the energetic field in which we exist.. Together the Cosmic Forces and the Earthly substance leads to the development of the senses, which receives the World Astral forces, coming from the planets, via the front of the cow. The skin, hair and senses are the astral receivers. This World Astral activity becomes Internal Astral forces due to entering inside the cow and moves as Cosmic Substance to the metabolism, where it meets and interacts with the Internal Etheric based Earthly Forces, which have been released from the food we eat, but stayed in the metabolism. These forces provide the strength for movement. Together the Internal Astral and Internal Etheric activity work within the Physical body to sustain the metabolic system. These are the 'Organic Formative Forces' that naturally move forwards towards the head, to interact with the Internal Spirit based Cosmic Forces and Internal Physical based Earthly Substance, which together sustain the nerve sense system. These forces naturally move towards the metabolism. In Humans the Rhythmic system, comprising the blood and breathing systems, plays a large role in moderating both the Nerve sense and Metabolic forces when they meet in the middle.

The metabolic forces can move beyond the head, as talked of with the deer and its antlers, providing a 'feeling it in my gut' sensitivity, however with horns these metabolic forces are reflected back into the metabolism, to sustain the super digestion we find in the cow. It is these super digestive forces we want in the cow manure preparation. The following quotes also must be considered

Eugen Kolisko in " ZOOLOGY FOR EVERYBODY 3 - Mammals" says

"In ruminants, the digestion is very intensive, not only in the metabolic system, but already in the upper part of the organism. These animals are exclusively vegetarians. Their legs are straight, and they have hooves; ruminants have two hooves; they are cloven-hoofed."

"The cow needs to eat an enormous amount of food every day; because of the great quantity of food, the intestines are very long. The activity of the senses is subdued. The eye is not alert; the gaze of the cow is directed more to the inside; the animal is quiet, phlegmatic, because it is so heavily burdened with the metabolism of its body."

"Then horns are produced, a rather peculiar process. The consequence for the animal is that it is less open to outside forces. The metabolism is reflected back into the organism, through the horn formation. Animals with horns have a dulled-down sense activity. Their nervous activity is subdued because the stream of metabolism is reflected back into their inner organism. They produce horns on their heads and hooves on their feet, and thus concentrate the forces of their metabolism into the interior. The horn and the hoof, on the periphery of the body, act as reflectors, directing the metabolism back into the interior. Therefore the cow is not very sensitive to the outside. It is wrong to imagine that an animal is limited within the boundary of the skin. The sensitivity of many animals reaches much further than that of the cow, and other horned animals. Cats, for example, notice through their whiskers when something is happening in their surroundings. Animals show a similar phenomenon to that found in certain mediums. If we prick with a needle into the air surrounding a sensitive medium, we produce a sensation of pain in the medium whose sensitivity radiates into the periphery. The body is asleep, but the medium is sensitive in the area around the body, and will cry out in pain, if we move about with a needle. The sphere of sensitivity has been dislocated from the body into the periphery. This phenomenon is more obvious, in certain small animals, than it is in mediums. But we do not find it in the cow; there the sensitivity has withdrawn into the interior, into the metabolism. The cow digests with enormous sensitivity; its whole interest is centered within its organism. With the same intensity, with which other animals occupy themselves in the outside world,

the cow devotes itself to its inner life processes. Its whole interest is centered upon its inner organism. The horned animals are unresponsive to occurrences around them, thus strengthening their metabolism."

Manfred Klett in his 'The Foundations and Principles of the BD Preparations' on pg 15 says

"The four physical states of solid, liquid, gas and warmth are concentrated within the pulsating life of the horn, and these form a kind of sense organ for perceiving the internal rather than the external world – a sense organ that serves to hold back and intensify. What has been streaming out in the bloodstream towards the head is directed back into the cow's metabolism by the horn's dense and strong forming casing. The cow needs this reflecting back function of the horns so that the network of forces within the metabolism can instill the proper fertilising power in the manure."

B Lievegoed presents a different view following on from RS image of world forces entering from the front and the back of the cow, as shown in lecture 2. It lacks the complexity of the 'nutrition story', however is a good explanation for those who like this lecture 2 image, as the basis for the Astral Antenna thesis,.

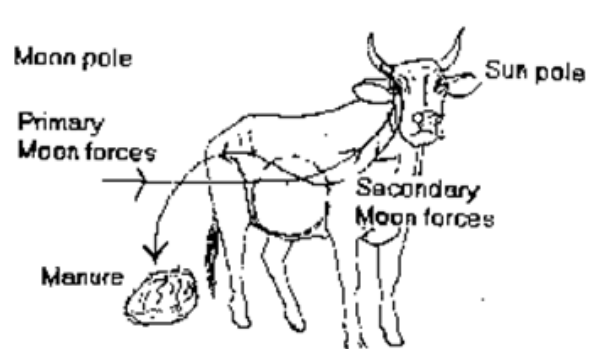
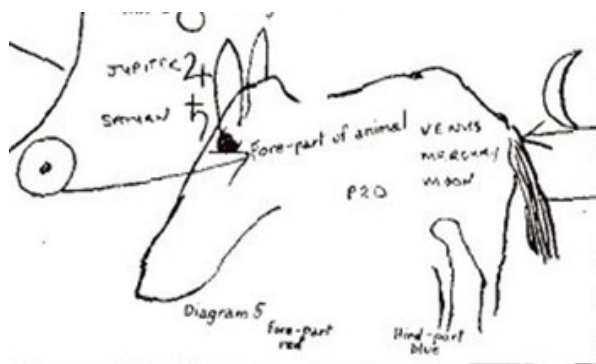
On Page 33 of his Agricultural work (1) he says " the horn is a densification, a thickening of the uppermost layer of the skin. In the horn of the skin, the Primary Moon forces come to rest. The regenerative (primary) Moon forces radiate from within outwards as far as the horn mirror of the skin, where they are reflected and transformed into the secondary Moon forces."

On page 34 (1) Lievegoed points out that in the second lecture (2)" RS speaks of the planetary effects upon the animal embryo, into which stream from the front via the mouth, direct Sun forces, (aided by the outer planetary forces).... He goes on to say these Sun forces reach as far as the heart in the adult animal.

" from the behind via the anus Sun forces reflected by the moon " He goes on to say " From behind, the Moon forces (reflecting) are supported by Mercury and Venus. We must look therefore in the digestive tract for the workings of the planets nearer than the Sun". ...

These inner planetary forces carry the fertility impulses of the metabolic system in the animal, showing in the plant as germination and sap flow. The Sun - outer planet forces , coming from the front of the cow are more forming in nature relating to the development and support of the nerve sense system. (In Plants the silica pole, creates the nutritive quality and oil and seed formation. All hardening processes.)

Later on the same page.... " There exists a connection between these digestive forces and the skin, which we can now understand. It is rather remarkable that in the horned cattle precisely those points where the forces from within want to radiate outwards are covered with a horn cap. Thus it happens that the forces which work from within (Near planets) are first led towards these formations reaching out from the body (Horns and Hooves) but are reflected inwards. This near planetary force is thus enhanced in its potency during digestion."



" The horn reflects the near planetary forces from the digestive tract back into the manure", thus enlivening it with intensified fertility forces.

Therefore for Lievegoed these digestive forces began by streaming from the near planets (through the world ether into the digestion, through the rear end of the cow. They work through the digestion, - creating and sustaining its function - to become organic formative forces (not world formative forces), radiating to the horns and hooves, whereby they are sent back to the digestion and then to the manure. This makes it the super charged etheric bundle that it is.

This is how leading exponents of Bio-Dynamics including Steiner have presented the understanding of horns and 500s activity.

The story RS tells in the Agriculture course, when entered into fully, does make sense. It takes one into studying the many medical lectures he left us, to provide a very thorough image of how the four main energetic activities manifest throughout life, within the 3 physical organisations.

The cornerstone image is that these four 'cosmic' activities are always present as the motivating influences at every level. There are thousands of Steiner medical practitioners throughout the world, who all agree on the basic worldview. Within this greater and acknowledged framework, the Agriculture course and its unique language makes perfect sense.

Somewhere the Biodynamic movement has 'missed the memo' and collectively wandered off into some odd paradigm of their own, stuck at the polarity stage of manifestation, focusing upon the Ethers as their energetic reference. This is like looking at a building site and believing that the workers have organised and designed the whole project. They have lost sight of the role the architect - The Spirit - and the head contractor - the Astral - have played in setting the stage for the workers - the Etheric - to do their thing. RS specifically told Biodynamics to talk to the doctors to get the whole story, but it seems they did not take this advice.

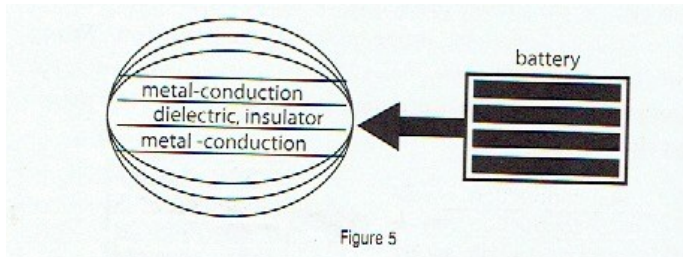
Dennis' story (4) from Pages 211 - 229 Sacred Agriculture

"There is a common myth in biodynamics—that a cow horn is made of silica. It is not silica but the protein substance keratin. Nevertheless, it is associated with silica and, to understand its relationship to silica, we need to distinguish between silica as a substance and silica as a process. Silica as a substance refers to the thing itself, which I can hold in my hand. If we take it to a lab and analyze it, we would say it is made of silica, or silicon dioxide (SiO₂). It is a mineral. If we take a cow horn to a chemist to analyze it, the chemist would tell you it is made of keratin, a protein substance similar to hair or skin. The reason that we use cow horns is because they represent an intense silica process. Their substance is a crystalline protein, but they act the way silica does in the mineral realm of the earth body; **cow horns draw in forces, or light, from the periphery.** Their particular form causes this action." (pg 211)

Then follows 12 pages of interesting discussion on electro statics and so on pg 223

"Now we can return to the cow horn. There is a principle in electrostatics. Metal plates conduct charges, so I obtain two metal plates and hook the to a battery, a source of stored charges. Once the plates are hooked up to the battery, the stored charge flows from the battery to the metal plates and cites a charge on the metal plates. As long as I keep the battery connected to the metal plates, the charge will flow from the battery to the plates. The plates absorb and conduct the charge until they are charged, or saturated, so to speak, with the charge. Once they are charged, the plates create a field, or potential, between them. That field will register the amount of charge from the battery that the plates are able to hold. However, if I were to take the wire off the battery, the charge would flow

back off the plates trying to go back to the battery. The plates will hold a charge while I have a constant power source going into them. This is what we do when we charge a battery in a car or tractor. When I take the charge away, however, the power wants to flow back out. To understand this, visualize blowing up a balloon. If you blow up a balloon, you get a charge, a potential or a force in the balloon out when you you open the end runs back out useful picture for capacitance.

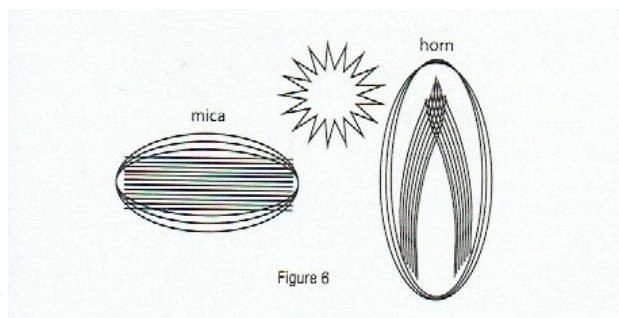


that wants to flow back stop blowing into it. If of the balloon the charge into the room. This is a understanding

Now, if I put something between the two plates to resist that flow, it is called a dielectric. Silica is a good dielectric. Then, when I put a charge into the capacitor again, the dielectric allows a greater charge to build between the plates (this happens for technical reasons that do not concern us here. The resistance of the dielectric has changed the capacity of the two plates to hold a charge. Now when I take the battery off of the capacitor, the charge will start to come off the plates, but the dielectric has caused a field to grow between the two plates that stores a greater charge. Therefore, if I take a plate and dielectric, multiply them, and pile them together, I get a device called a capacitor. A capacitor allows me to put a certain amount of current into it, but it'll hold a larger amount of current. If I make a capacitor with very thin plates of metal and very thin insulators, I can stack them uh get a strong potential field.

The thinner I make the plates, the more capacity the capacitor will have to hold a charge after I shut off the battery. It forms a capacity to store charge. A battery is fairly weak, but if I connect it to a capacitor, the battery creates in the capacitor a much higher capacity to develop power. The key here is that a capacitor is made of inner surfaces layered to accept and repel, accept and repel charges entering from the outside. Thus it builds up stronger charges from weak charges.

As an analog we can structure of a cow horn. to silica, which is a layers in the horn very weak charges from there are metals within that strengthen the cow walks out to pasture horn acts, in effect, as a building fields of energies body.



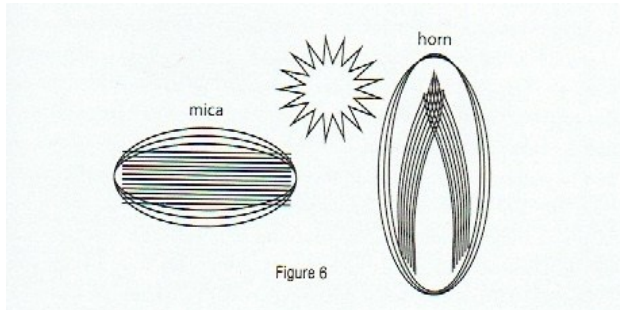
consider the protein It has structure similar dielectric. The protein continually receive the sunlight. Moreover, the protein structure capacitance. When the in the sunlight, her capacitor on her head, that flow into her

This may seem farfetched, but the principle of the how all these charges are formed and built into our devices is also active in the organic world. Again, we get back to surfaces. In figure 6, we have a

diagram of mineral mica. Mica is structured so that it is composed of silica plates with very fine metals dissolved in them. Mica, a natural capacitor, is composed of huge amounts of inner surfaces; dielectrics and conductors are sandwiched together in a pile. If I take that pile of surfaces and place it in sunlight, the light creates charges in the mica. When the light and warmth hit the rock face, a change takes place in the way the charges operate in that substance.

In a piece of mica, the actual energy is not in the device but in a field around it. That is where the capacitor stores the extra charge that is created.

This is the principle behind used in the world today. In the people did not know how to capacitors for radio parts, they capacitor. They needed ways regulating electrical flows, and mica to do that.....



many devices beginning, when manufacture used mica as a of controlling and they turned to

..... Figure 6 shows a mica capacitor made of layers of mineral (potassium, iron, and silica) receiving light from the Sun, reacting, and creating a field around it. Now we come back to the cow horn which forms as a result of skin processes in the cow that form sheaths of keratin as proteinaceous substance. The substance of keratin is similar to hair and fingernails. It gets compressed around a bony core, making layer upon layer after of proteinaceous crystalline structure that resembles the helical structure of a silicate. It has a very smooth round form, and the good ones take the form of a helix, or vortex.

The horn's form uses materials from the periphery, the tip of the horn, and moves them toward the animal. The form itself is an amplifier and a capacitor (see field properties of the cow horn on the right in figure 6) This means that charges can be built up within the layered structure of the horn. However, the form of the horn directs the charges one way, toward the cow. In terms of electricity, such an arrangement would be called a diode, which allows a charge to pass in one direction but not in the opposite direction. Such a device is used in a trickle charger, which can charge a car battery might without allowing the charge leak back out. The device that does this is called a diode. A diode is a very special kind of capacitor. It allows the charge to flow in only one direction.

Returning to the cow, her antenna is made of keratin, which is a helical siliceous-like material that receives sunlight and transmits it into the skin of the cow. The energy moves into layer after layer of tissues and is transmitted through the organism down toward the sea of blood in the digestive area. If we look at the structure of the intestines, we see they are layers of skin inside skin. The digestive apparatus of a cow is a big, organic capacitor that receives a "trickle charge" from the cosmos and streams it into the mass of organic, enzymatic food moving through the layers of the cow's digestive capacitor.

What happens to the cattle whose horns have been cut off? Here we can talk about fevers and infections. Typically, cows do not have the calcium forces that they need in their bodies. Those forces are used up in the formation of a fetus; we can see this in the rings around the horn. When cows lack horns, the forces they need to regenerate tissues are not available. In such a case, when the muscles of the uterus expand, the calcium that cows need to give birth is compromised in her immune system. Then the cow can get an infection and die when she starts to give milk to her calf. This was rare in the past, but now you call a veterinarian, who gives the cow a calcium injection.

There are great mysteries here. As I understand it, the cow's horns are not for fighting but for sustaining life energies. Their purpose is to induce and transmit life and light into the mass of the cow

through the membranes of the inner skin, down into the endodermal area so that the blood can receive light. Basically, cow stomachs are tremendous capacitors, constantly fed by forces from the periphery.

At the other end of the cow, you have another set of capacitors in the hoofs, **which lock the energy of the cow in at that end.** Between these two, you have a thermal nuclear chamber called a cow stomach, which is a fountain of life. A cow takes in grass, by volume some of the least nutritious food on Earth, runs it through the mill, and charges it with life. The microorganisms living in the cow's gut bathe in those life forces, and proliferate on the fermenting grass. The microorganisms change the fodder and permeate it with their own life forces. Then the cow siphons off those microorganisms, which are a rich source of protein for building the cow's body. Basically, the digestive juice of a cow is like the plankton that whales feed on. Cows do not take the forces of life from the manure, because the so much life that they give to their food. We take that sacred cow patty and put it into the capacitor, the cow horn, and we do what alchemy would call a spagyric process. The joining of alpha and omega. That horn capacitor still works because it has the correct form. It is tuned to that product because together they are part of the whole process of the blood sandwiched between the digestive system and the nerve- sensory system. Manure is permeated with life. Then we put it back into the very organ that drew in life from the periphery. That is synergy, and that is then preparation 500."

Quite a different story. It appears Dennis' 'scientific rationalism' is a good description of the functioning of skin and hair, but not the function of the horn. RS clearly states these have two separate functions and is clearly stated by several BD authorities.

The key quote that Dennis needs to address is - **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.**

I note Dennis is saying the hooves **"lock the energy of the cow in at that end"** however horns do not? I imagine his image here is that hooves too trickle some electricity into the cow, thus creating an opposite flow, rather than the hooves being **' the horny substance blocks the way for these forces to the outside'**

His book talks exclusively in the language of the Ethers, while using quotes usually ascribed to the Physical Formative Forces (PFF) in a manner that suggests he did not know of their existence or relevance to Dr Steiner's story. This was confirmed in a conversation with his son Ben, when I presented him with the PFF stories. Subsequently, Ben and Dennis appear to have accepted the PFF story, and had a Apop doctor tell this tale at their 2024 seminar. This lecture is available at their website.

I can only hope Dennis will revise his horns story in the light of this information, and its relationship to the Cosmic and Earthly nutrition streams, outlined in lecture 8. Otherwise another 100 years of chaotic Biodynamic stories is ahead of us.

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