

The Double Planetary activity and the Constellations

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As an adjunct to all that has been said about the double Cosmic and Earthly activities, we can deepen this discussion by an investigation of the double planetary activities, which were only touched upon in the previous lectures.

(20) Organisms manifest *physically* in a threefold way; for the plant, the root, leaf, and flower correspond to the head, chest and limbs in animals. *The* Etheric processes demonstrate four types, corresponding to the four states of matter, *Warmth, Light, Moisture and Substance*. An organism does not come into being merely through etheric processes, but only where *the spiritual archetype directs the astral principal to form the etheric activities, that mould the physical*. The *spiritual* archetype induces the threefoldness based upon an opposing polarity, with a middle rhythmically linking the poles. Non-living things may have polarity, such as a magnet, but they lack the threefold organization, *we had described earlier*.

The astral principle is carried as a moving, dynamic activity based on a sevenfold archetypal pattern. These seven working principles influence the formation of specific organs in the animal, from which their influence permeates the whole creature. *Spiritual archetypal* principles are archetypically arranged by twelve principles *that are sourced from the zodiac*. These principles are responsible for the specific individuality (Ego), that which makes a plant be a rose and not, say, sage. The seed is the carrier, or point of attachment, for the spiritual forces that define the species.

The seed only unfolds when surrounded by the physical, etheric and astral elements in such a way that these forces can all stream freely into one another. This is what fertile soil provides. Think of a super-saturated salt solution; just a small crystal is enough to induce the whole solution to crystallize. Similarly, a truly fertile soil "longs" to be a plant and is just waiting for the contact of a seed to give it an archetypal "instruction set". It's our job to make the "pre-plant" condition.

We do that with compost *and remineralisation*. Compost is formed from decaying plant and animal substance, so it still has something of their physical, etheric and astral forces. But these forces are dispersing and the spiritual forces have already withdrawn. We try to capture the dispersing forces and bring them into cooperation once again so that new spiritual archetypes can be received. The remnants of the old organs (leaves, etc) are to be destroyed but their etheric and astral

principles are to remain united in the compost. Imagine a caterpillar in its cocoon; it must go through a period of chaos before the new body of a butterfly can form. Likewise the compost goes through chaotisation, in order to be at the disposal of the seed. But there is an essential difference - in the animal, astral forces work from within, concentrated in the organs. While in the plant, astral works from outside, streaming through the plant. To conduct the chaotising harmoniously, we implant something like planetary organs in the compost pile.

We do this by inserting the biodynamic preparations. Six of the preparations represent specific planetary forces. The seventh is the balancing force of the sun, represented by the horn manure/horn clay preparations. The farmer should be conscious of these underlying processes and not just operating mechanically or dogmatically. The place to learn about such physiological processes is from the doctor. In fact, the farmer can learn much by considering how the physician treats the human body. And the doctor can enrich his knowledge from the observations of biodynamics.

The reader should be familiar with the sequence of the planets. Their "nearness" to earth is based on which planets can eclipse or come in front of other planets.

Notice that the sequence can be resolved into three opposing polarities shown by the arrows, with the sun as the harmonizing middle.

First polarity: Saturn - Moon, Sun as middle
Second polarity: Jupiter - Mercury, Sun as middle
Third polarity: Mars - Venus, with Sun as middle

Saturn -- Moon

Saturn is the most distant planet, just as the Moon is the closest. Saturn is like a gateway toward the spiritually active stars. The Moon leads to the ether spheres that are close to the Earth, where the Spirit wants to impress its seal into the world of substance. Thus, Saturn/Moon bestow the direction and strength for beings to incarnate. It is important during embryonic development and for the first thirty years of a person's life. In man, the Saturn process enters the hair vortex at the back of the head and radiates into the body, making Man into a picture of his individual Ego. This process terminates in the skeleton, where it becomes a lifeless image of the Ego. If Saturn were to work by itself, in thirty years man's body would have calcified and turned into a stalactite!

Saturn works as a differentiating force within warmth, the most spiritual ether. Where Saturn rarefies warmth, crystallized substance (bone) comes into place. Where it densifies, warmth's carrier blood (bone marrow) is formed. Blood cells are formed in the centre of the physical, almost lifeless skeleton. After about three weeks, blood cells are absorbed by the spleen. So the spleen is the consummation of the Saturn process.

We can see two Saturn processes:

1. Incarnating: leading to a hard, lifeless image in physical space.
2. Resurrecting: the Ego, in the form of the blood, permits karma to play out over time.

Saturn is both death and resurrection. The image of the Ego occurs twice, once as the physical in the skeleton, and once, through the blood, as the being living in time. Lievegoed summarizes these two processes with symbols, ^ or v. Saturn leads the spiritual to the physical world, but in so doing, it brings dead rigidity. But Saturn leads the spiritual out of the physical in the course of one fulfilling one's life (karma), a form of resurrection. In the plant world, we usually meet with only the first process. As Saturn influence is coming in from the far outside, it can be effective only where working comprehensively from all sides, not in working from a centre. Saturn is active in the Valerian preparation, which envelops the whole outside of the compost pile. Such compost bestows full expression of the seed's species.

The two constellations ruled by Saturn are Aquarius and Capricorn. Aquarius character is defined by it being 'Fixed Air', thus its natives have strong opinions and are often philosophers and social renewal activators. Capricorn is defined as 'Cardinal Earth' and its natives are the corporate entrepreneur who build empires through sheer hard work and determination.

In this first paragraph we see Saturn as the spiritual archetype. The seed thought by which all else can form around. This can be easily associated with the image of Aquarius. Its Fixed Air nature provides an image of a strongly held thought. An ideal that manifestation forms around.

This primary Saturn process works right into the formation of the skeleton and if not checked would turn us into stalactites. Once Aquarius fixes on an idea they are not known for letting go or willingly adapting that vision. They are right and often end up 'grumpy old men' when their perfect ideal is unable to adapt to the needs

of the time and thus fails to gain support of the community they crave.

The skeleton is often related to Capricorn, due to their focus on physical structure. However in this case, Capricorn's ability to build appropriate forms up over a long period of time, links it more closely to the secondary function of Saturn. The Cardinal aspect of Capricorn, provides the adaptability to life, inherent in the secondary function. This is the sign of the individual appearing to live out their karma, through their commitment to their task, regardless of many other aspects of their lives. They are driven individuals with a purpose. Clawing their way to the top of their mountain.

In this last paragraph we have an image of the preparation Valerian and the telling statement that we see it enacting the first / primary process of Saturn most. However when sprayed on plants Valerian encourages them to flower and seed more profusely.

Now consider the Moon - it stands opposite to Saturn and manifests continuity of qualities through a sequence of generations. Moon processes are active in propagation and heredity, in the sense of cellular reproduction. In this case, we observe cell rising from cell, linked in steady growth. The Moon is associated with recurring repetition of the same. She is concerned with the sequence of generations streaming horizontally across the Earth and continuing over time. Moon forces are active in swelling growth, in cell division and in propagation. If Moon forces alone were active in Man, he would become a soft sphere of albumen and would grow forever. But the Moon finds a limit in the skin; it is not effective outside the boundary.

Moon forces enter in front, in the region of the bladder, radiate into the reproductive organs and eventually permeate the whole organism as far as the skin. While Saturn is the bearer of individuality to the skeleton, Moon is the bearer of the type and becomes evident in the skin. Humans with strong Moon forces have beautiful skin (note how we associate the beautiful skin of movie stars with a strong sexual attraction.) The skin as "Moon skeleton" gives an image of Man's heredity.

Moon processes are also differentiated. During embryonic development, the nervous system forms out of an invaginated strip of skin, placed within like a little island. This "inner skin" becomes the bearer of a second process -- that of the external world reflected through the nerve/sense system until it reaches the human's consciousness. Thus, the brain becomes where the Moon forces come to a rest. Physiologically, the force now holds back mere cell division and the brain tissue becomes the most differentiated in the body. Such tissue also suffers the

most loss of connection with etheric life forces. Ironically, in giving us the ability of creative thought, the brain tissue becomes the least "alive", the least able to heal itself or reproduce. This end result of differentiation is called intensification.

So the Moon also shows two aspects:

1. Growth promotion: streaming in time, eternal repetition of the same type.
2. Repressing life: mirror-like reflection, life-forces bounce away, but the image of the outer world is preserved. (Note how the Moon shines by reflecting the Sun's light and that silver is used to make a mirror.

In the plant world, we see Moon effects in cell growth. Calcium acts with the watery element as mediator of this growth. The Oak Bark preparation, containing high calcium, is prepared in the animal skull (as if a brain) and held under water. Steiner said this preparation would counteract plant diseases by suppressing an overly rampant etheric element. One could also say, by setting a limit (a skin) to the Moon forces.

As we look as these processes weaving into one another, we see Saturn as the image of the Ego individuality, placed in space but becoming another opportunity in time. Meanwhile Moon places into the stream of time a sort of type-heredity that is not individualized. The human overcomes the sequence of generations by repressing blind growth and, in reflecting the external world, the mind awakens.

When it comes to the Moon, the constellational references are somewhat easier to find. The primary processes of the Moon are describes as endless cell division that would go on forever. In Eugene Kolisko's booklet on the "The Twelve Groups of Animals" he described Cancer as ruling the Protozoa. This is the 'original family' of single celled life forms from which all else developed. Cancer is traditionally ruled by the Moon and is considered the constellation of the nurturing mother, through to the tribe, that supports the families survival, and thus it is the basis of life and its development. It is therefore not difficult to find Cancer as the constellation of the Primary Moon forces.

The secondary process is not as clear an association, however we could allot Leo to Moon 2, due to the clear association of Cancer to Moon 1, and therefore Leo has to be Moon 2.

However in the secondary process the endless process of undifferentiated cell division is 'matured' and directed into forming specific tissue. It reaches its

extreme in the brain. So extreme, and complete, that the etheric forces the moon so strongly carries, are nearly completely consumed to the point that nerve cells do not readily regenerate.

The brain reaches its pinnacle of evolution in the mammals. Kolisko identifies Leo as the ruling constellation of the mammals. Leos 'lower' qualities, as imaged in the tropical, Aries > Pisces zodiac, are reflected in its rulership of the fifth house, the house of creativity and artistic endeavor. Art can be said to be an attempt to reflect an image of something, that can not be said in any other way. It is a non verbal "reflection of an image of the outer world preserved." Thus fitting the image of the Moon's secondary process.

Jupiter - Mercury

Jupiter is the moulder of the world. While Saturn creates a bare image in the skeleton, Jupiter moulds the rest of the body around the skeleton in fullness and flowing beauty. Jupiter works down from above, rounding and recreating the celestial sphere in rounded (plastic) forms. All the internal organs are rounded, sometimes with hollows where another organ's roundness presses in. Jupiter forces radiated from the rounded brow, moulding the brain, and later the thoughts, especially those concerned with bringing order and universal connections. From there, these forces work deeply into the body, forming organs and muscles. At the same time, Jupiter strives for super-human gestures. If Jupiter worked all alone, at about fourteen years old, we would all be like beautiful Greek statues, with soulful bearing and gesture but completely rigid.

From this rigidity, the Ego individuality frees itself in movement and gesture. The alternating play of muscles contracting is deeply connected with the liver. Muscle movement is due to chemical changes in the tissue, but these chemicals must be controlled and balanced by the liver. This organ is the most fluid and life-filled, that is, it is the organ least permeated by Jupiter processes so that it can have the role of controlling those forces.

In the plant world, we see Jupiter forces creating the rounded moulded forms and secondarily in chemical changes, where Jupiter and Mercury work together in the flowing sap. Jupiter is represented by the Dandelion preparation. Moulding forces are handed into the plant through silica, the mineral associated with forces from beyond the Sun. Rudolf Steiner described dandelion as the mediator between the cosmic silica forces and those surrounding the plant, bringing health and stability.

With Jupiter we have two principles identified, which can be summarised as 1) Plastic forces which mould around the Saturnian 1 archetypes, and 2) the

Pharmacology of living forms.

The two constellations ruled by Jupiter are the Water / Mutable Pisces, and the Fire / Mutable Sagittarius.

Pisces, the mutable watery constellation, is seen as the constellation that easily moulds and adapts around the rules of the game, to find the most appropriate solution to a circumstance. Its reality and response continually changes according to its environment it is in. Due to its relationship with Neptune it is considered the chameleon or shape changer of the zodiac.

Sagittarius, with its fiery concern for universal truth, that associates it often with the image of the alchemist, suggests it is the principle with the energy to fuel the warmth processes necessary for "Pharmacology" to occur.

In this regard there is an interesting set of correspondences worth considering. Dr Steiner says (21) ' In pursuance of these phenomena, we find we must study on the whole these two polarities throughout the organism, these radiations and that which opposes them and dams them up. There is need to keep this distinction in mind, for all that tends to form albumen, in the manner described above, is associated with the damming up action, and all of a metallic nature introduced into our bodies, has to do with the radiating forces.' and a little later " We must attribute much of the result achieved to two substances, which receive far too little attention in their effects within the human organism: these are fluorine and magnesium. In the — so to speak — rarefied form in which they occur within us, both fluorine and magnesium play prominent parts, especially in the process of shape formation in the child, up to the change of teeth. The forming and fitting of the solid framework in the human organism takes place through continuous interaction between the forces of magnesium and fluorine respectively; in this interplay, the forces of fluorine act plastically, mould as a sculptor moulds, fill out contours and bar the way to the forces of radiation, whilst magnesium acts as a radiating force and constitutes the fibers of tissue, etc., into and along which the substance arranges itself. It is not a senseless phrase, but wholly in accord with the course of nature to say that a tooth is formed thus: It is shaped, as far as its circumference and its cement is concerned, by the activity of the plastic artist "fluorine," and magnesium pours into it the forces which have to be shaped to a plastic form."

These paragraphs highlight a basic principle we meet throughout out the study of Biodynamic Chemistry. That being an active polarity between radiation and conclusion or as RS says 'damming up'. In this context RS is talking of the teeth and the halogen, Fluorine and metal, Magnesium. This is but one example of the principle seen continually through life processes. We can broaden these images

though and see that all Halogens have this damming up effect, while all metals have the radiating effect. We will see later in my exploration of the Cell Salts, how this same polarity, between radiation and conclusion, can be found within the Anions.

What I wish to establish with this quote is, that the plastic forming process Lievegoed describes, are a Jupiter process which RS clarifies as a Halogen process.

Within the context of Jupiter's rulership, it is worthwhile further referencing Dr Hauschka in his 'Nature of Substance', where he talks of the Halogens. He talks of the polarity between the Halogens (F, Cl) and the Alkalis (Na, K). The alkalis he identifies as, forming closed sheaths and colloids which work as up building forces, that sustain and promote life processes. While acids and the Halogens in particular, are "dry, contractive and hostile to growth", they 'breakdown, burn and dissolve', 'they press towards decisive action; they either curdle colloids or reduce them to a true solution'. "Hydrofluoric acid can melt the end of a glass rod" just as the jagged teeth are rounded off by enamel as they emerge". He goes on to use an example of an illness where body parts are not 'rounded off' or concluded, eg fingers, nose chin, toes, and that this is due to a weak halogen process. He goes on further to say the ancients saw these processes proceeding from the constellation of Pisces. " Just as Virgo symbolises the selfless offering of an enclosed sheath within which life develops, Pisces pictures an active coming to grips with the world and destiny.

Furthering the example of the teeth, Hauschka relates Magnesium to Sagittarius. Of Magnesium, Hauschka summaries its dual action, as a hardening agent that compresses life into solid earthly form and on the other side, it activates light forces. In this sense we see an image of the secondary Jupiter process. Mg works as the light bringer, that fuels the chemical reactions that fuel plant growth in the leaf region, and plant growth in general. In humans, Mg allows forces that previously served organic functions, to be set free in the form of a capacity to think and remember. An activity that can easily be associated with Sagittarius, as the philosopher, teacher explorer.

The Jupiter organ, the liver, also has two distinct processes it performs. It selflessly cleanses the blood and it metabolises all manner of substances for the bodies chemistry to function correctly. In this dual activity we again see a selfless process and a (al)chemically upbuilding process. The selfless process, being associated with the 'humanitarian' Pisces, and the alchemical process being associated with Sagittarius.

While Jupiter gives harmony and order, Mercury brings chaos, but one we might call "sensitive chaos". This is movement without any particular direction, but ready

to flow into anything, adapting to any resistance by flowing around, always in movement. One has only to think of liquid quicksilver for an image. Whatever kind of movement happens, it is in response to outer circumstances. In the human body, this type of streaming movement is represented by the lymphatic system. The blood vessels may be fixed but lymphatic streams can move as they chose, as long as they reach the lymph glands. While Jupiter is harmonious symmetry, Mercury has a tendency to asymmetry. If a feature is oblique or crooked in the human face, that is Mercury confounding Jupiter's intentions. Mercury has a sense of humour and is pleased if divine intentions don't quite come off. Thus, the gods never finish their work because a state of flux remains. If Jupiter is the king sitting on his throne, at his feet is Mercury as the court jester. Mercury tolerates all conditions, heat and cold, sun and shade, but wants life to go on. In extreme cases, Mercury becomes dishonest and even leads the plant into parasitism. Mercury was the god of merchants and thieves, making sure that earthly goods do not remain in one place but are constantly changing hands.

This faculty for adaptation would lead to loss of character; Ego avoids this by diverting movement with more movement. We see when two streams meet, they form whirlpools and empty spaces. This is Mercury's second principle - creating a responsive "newness" by combining movements. The organs taking shape from dynamic movement become different from the archetypical images being projected to Earth. In the plant world, we see these two principles. A beech leaf is completely different from an oak leaf - variability is a Mercury expression. Merging forces are healing, but true healing requires not only that forces merge but also that something new results from the merger. Mercury is active in the Chamomile preparation. This preparation stimulates plant growth through potassium and calcium and has been intensified by the intestine.

Jupiter and Mercury weave into each other; the preordained form of the organs meets Mercury and is changed according to the circumstances. The chemical expansion and contraction of Jupiter give direction to the streaming movement of substance through Mercury. Jupiter comes to rest in muscle, then the activity changes to chemical and the resulting muscle movement overcomes what would otherwise be rigidity. Muscle movement sucks at the liver. (That is, the muscles fetch substances from the liver rather than the liver sending to the muscles.) Mercury streams in an irregular way through the lymph vessels and rests in the lymph glands, where the fluid stream leaves the body. The one exception is the lung, which as an empty hollow lacks the fluid streams present throughout the rest of the body. Thus, the liver and lung are the consummation of Jupiter and Mercury respectively.

The two processes of Mercury are characterised as the primary process being

"Mercury brings chaos, but one we might call "sensitive chaos". This is movement without any particular direction, but ready to flow into anything, adapting to any resistance by flowing around, always in movement."

While the secondary process is "creating a responsive "newness" by combining movements. The organs taking shape from dynamic movement become different from the archetypal images being projected to Earth.

The two zodiacal constellations we have to consider are Gemini and Virgo.

Gemini is considered a 'youthful' sign that constantly moves between its two twins. Psychologically, this is generally experienced as an extrovert, outer social, and inner introverted duality of personality. Being the Air /Mutable sign, it is characterised as being constantly moving and is the zodiacal 'butterfly', that knows a little about a lot, but not known for its depth or lasting achievements. Hence it is easy to associate the Mercury 1 process to Gemini.

Hauschka associates Sulphur to Gemini. Sulphur acts as a catalyst in the interactions of the 'big four' elements of protein, H, N, O & C. It is the 'oil' that allows the spiritual bodies these elements carry, to interact with each other. When it is insufficient, it leads to a 'sticking' of the bodies, which manifests in Humans as the autism spectrum of ailments. Where there is too much S, it leads to a 'slippery' relationship between the bodies, resulting in the hysteria spectrum of illnesses. Similar results can also be observed in plant growth, however these appear as stunted and reduced growth when there is a lack. Sulphur is therefore the element of movement. In its multitude of relationships, it is THE prime unquestioning facilitator, of biochemistry.

Virgo on the other hand is Mutable / Earth and the sign of the craftsman. In Greek myth Virgo is associated with Hyphastis or the roman Vulcan, who acted as the maker of all manifest things. Anything the gods used, including the humans, was made by Vulcan.

Lievegoed's comment "We see when two streams meet, they form whirlpools and empty spaces" is very indicative. Whirlpools, are vortexes, which act as the basis for the organisation of forces and matter, within creation. In the middle, we find the 'empty space', manifesting as a vacuum. RS has commented that if one was to view matter from the spirit sphere, one sees only a black hollow vacuum, where the object stands. As, from the spirit view, one sees the organised spiritual activity, that holds the vacuum in place. Matter is sucked into a vacuum, and so once the spiritual forces are organised, manifestation must take place. In my chapters on the planets, (22) I outline a 12 fold planetary pattern, that places Vulcan with Virgo as the 11th planet. A planet that governs direct manifestation of matter from spiritual imagination.

Hauschka's association for Virgo is the Alkalis. He describes the alkalis, (Na, K) as creating membranes and colloids, within which life processes can be sustained. Virgo symbolises the selfless offering of an enclosed sheath within which life develops ". This supports the image of Vulcan as the creator of life as needed at the time, and Mercury 2 being ruled by Virgo.

Mars - Venus

Mars, the last of the outer planets, carries purposeful movement that is directed towards a goal. Mars-force is the process by which the archetype penetrates into the physical sphere but also that which pushes it out again into the world. Mars is at work as the growing point of a plant pushes out and conquers space. Mars brings an inner activity of determination and direction - without Mars, no plant would exist. Mars forces work in the shooting and sprouting of spring growth - as an athlete throws his javelin.

Mars forces enter Man between the shoulder blades and penetrate into the iron processes of the blood. They also radiate into the speech centers; Mars is formed in the words streaming from the human mouth. The Mars type of human is outwardly active all the time but finds himself unable to preserve what he has created because he can't stand to finish anything. Rather than care and cultivate, the Mars type destroys and builds anew. He has a strong creative urge but, if blocked, becomes consumed with wrath.

Mars does not yield to soft measures, so if the Ego is to resist being carried away, it must summon strong resistance. Such opposition creates a damming up of the direction but surprisingly, this transforms into sound. Think of the string on a musical instrument. Force and resistance interact as tautness - and the string forms a musical tone. If we take a metal plate, cover with fine sand and strike a tone, we observe the sand particles form "sound figures" indicative of the particular tone. On Earth, substances come into existence according to Tone Ether forms. Cosmic music starts from Mars and is passed on to the Earth through the Chemical or Tone Ether. In the human or animal body, Mars orders and forms the substances working from the astral body through the organs. In the plant, there is no astral body and Mars works from the cosmic sphere.

Iron forces are active in blood haemoglobin and end in the liver where the haemoglobin molecule is dissociated into gall. Iron is held back within the body. Out of this holding back are born albumen-forming forces like "sound figures". The process of building protein in the liver is one of arranging the chemicals like sound figures. Mars is manifested in the Nettle preparation, which harmonizes

forces in the soil, bringing true nutritive value to the plant. This is connected with a health protein-building process and also the formation of starch, because each starch granule is surrounded with a protein sheath.

The two constellations associated with Mars are The Cardinal , Fire Aries and Fixed, Water Scorpio.

The two processes of Mars are described as 1) carries purposeful movement that is directed towards a goal. Mars-force is the process by which the archetype penetrates into the physical sphere but also 2) that which pushes it out again into the world. Mars is at work as the growing point of a plant pushes out and conquers space.

The Mars type of human is outwardly active all the time but finds himself unable to preserve what he has created because he can't stand to finish anything. Rather than care and cultivate, the Mars type destroys and builds anew.

This last paragraph could have come straight from an Astrology book, as the description of the Aries individual. Aries the ram, is renowned for rushing in head first, and thinking about the outcome later. There is always some loss somewhere with Aries. Sadly it is often others, and not the Aries that experience that loss.

Hauschka has allocated Silica to Aries. He adds "the silica process shapes life out of the cosmos as a sculptors hands shape clay" " Macrocosmic ideas underlying outer forms of life." "The Sun which is the mediator of these forces transits the constellation of the Ram in April, just that time of year when nature rises to bring forward a wealth of new forms. The seasons when nature rises to bring forth a wealth of new forms." " The world of appearances selflessly receives the imprint of archetypal patterns from creative heights in the symbol of the backward looking Ram".

In these references we can see the 'pushing into space' image of the Mars 1 process.

*The secondary Mars process is described as-
Such opposition creates a damming up of the direction, but surprisingly, this transforms into sound.*

Mars orders and forms the substances working from the astral body through the organs. In the plant, there is no astral body and Mars works from the cosmic sphere.

Out of this holding back are born albumen-forming forces like "sound figures".

The secondary Mars process is concerned with the building up of protein. This is a

transformative process of lifting of carbohydrates, through its interaction with nitrogen and the astral body, into a new substance protein.

While proteins can be found in plants, it is more characteristic of the animal kingdom. So this secondary Mars process is the transformative process that lifts the plant kingdom into the animal kingdom. The legume and Solanace families are the two most common plant families which concentrate nitrogen alkaloids. The legumes form protein while the Solanace produce nitrogen poisons.

Scorpio, through its association with the phoenix image, is classically considered the sign of transmutation of elements. Its rulership of the eighth house, makes this the house of emotional and sexual alchemy. This is place where, after the partnership is formed in Libra, the mutual attributes and resources of both partners, are fused together to provide the combined base for the future outcome. It is the house where individuals meet the spiritual influences of creation, albeit still unconsciously, and are transformed by them. This leads to more formal education, in Sagittarius's ninth house, to bring consciousness into the deep life changing experience, had in the eighth house journey. This is the first stage of the spiritual journey which can unfold through the rest of the zodiacal houses. This is where the astral body enters to fertilise the occult union two individuals which results in procreation, in all its forms.

Hauschka has Carbon as the chemical element of Scorpio, but notes Carbon has a very special relationship with Iron, the metal of Mars, and that through their combination both are transformed. Carbon changes iron into steel and iron changes carbon into diamonds. It is this transformative ability of Carbon to be the most basic framework of all life, yet it reaches such sublime heights in the diamond, that he sees it emphasises the motif of the transformative Scorpio.

While Mars is out there, Venus is goes deep and stays hidden. Venus is connected with deeper nutrition (at the cell level) and the deepest building process of the nborganism where inanimate substance is first received into the life stream. Venus is connected with clearing space for something else to unfold. Think of the home belonging to a quite and attentive host. In this home, people can meet and have a productive exchange of ideas precisely because the quiet host has arranged the conducive environment. As Mars is associated with speaking, so Venus is associated with listening. Goethe called conversation more precious than light because of this harmony between partners.

To become Venus completely would mean to renounce the self; the Ego could no longer exist. Ego overcomes this by "sucking away" or excreting products of the life forces, through the kidney-bladder system. From these organs, the sucking

power of excretion reaches into all the living cells. The Venus process comes to an end in the kidney. Here ether force and substance are separated, the substance is excreted and the ether forces radiate upwards into the eye, combining the act of seeing with the force of going out into the world. Mars and Venus have a strong cooperation. Protein, formed through Mars, nourishes the cells along the Venus path. The ether forces freed by the kidney unite with the determinations and direction of Mars in the eye's force of vision.

Think of the violin. The determined movement of the bow is halted by the stable string and tone results. The resonance of the instrument creates the opening for the tone to develop and individuality adds musical quality to the tone. In the plant world, we can see the force of the growing point, directed outwards, is surrounded and filled by nourishing Venus force. Both are needed for growth. Building up and excreting cooperate closely; the dammed force of the growing shoot makes protein formation, while the force of excretion is in the bark and its deposits. Venus is manifest in the Yarrow preparation, which is prepared in the stag bladder, at the end of the kidney sucking process. Thus, the yarrow is strengthened in its connection with Venus so it can receive cosmic substance to enliven the soil and balance exploitation. It is associated with potassium processes.

The two constellations we have to define here are the Fixed Earth, Taurus and the Cardinal Air, Libra. Taurus is the constellation in Greek myth associated with Demeter—the goddess of fertility and agriculture. Libra is associated with her daughter Persephone, whose claim to fame was being abducted by Hades and taken into his underworld domain, where she became his very willing partner.

Venus primary activity is described as "Venus is connected with deeper nutrition (at the cell level) and the deepest building process of the organism where inanimate substance is first received into the life stream." Lievegoed talks of Venus opening up the etheric body, so that the astral can be received. It is here we see the images of the gracious host making the place for a nurturing environment to be created. Demeter as the nurturing goddess of nature, which provides the environment for all life to take place, is the ideal image of this process. We only need to remember when Demeter's daughter, Persephone was taken from her, that she withdraw her life giving forces, and all life was threatened with extinction. Taurus folk are well known for their love of food and sensual pleasure, thus easily fitting Taurus with this image of nurture.

Hauschka's association for Taurus is Nitrogen and he associates nitrogen penchance for movement with Taurus. Given Taurus is a fixed Earth sign I do not

see this relationship.

Venus' secondary processes is "To become Venus completely would mean to renounce the self; the Ego could no longer exist. Ego overcomes this by "sucking away" or excreting products of the life forces, through the kidney-bladder system." Venus, as the perfect hostess does not only provide the nurturing environment, she also cleans up afterwards. This is imaged in this part of the processes relationship to the kidneys. Libra is the traditional ruler of the kidneys. Any affliction to Libra in a birth chart generally shows up in a weakness of the kidney and urinary system.

Hauschka associates the activities of Calcium with Libra, mostly through seasonal references, which as a dweller of the southern hemisphere, I have some difficulty with. However the 'sucking action' of calcium can be seen to be synonymous with that of the kidneys. It is Dr Koenig in his book 'Earth and Man', Lecture 5 on "The Kidneys", where a clearer association can be found. He states (pg 123) "the kidneys keep, not only the blood, but the whole fluid of our organism in balance. If there is too much they excrete more, if there is too little they excrete less." "The second function of the kidneys is the one whereby all minerals within the body, if they are in excess, are excreted. Again it is an act of balance. Sodium, potassium and so on, are either excreted or sent back into the blood stream." "The third function ... The acids and alkalis within the body as well as the serum, are kept in equilibrium. If we eat too much protein, we excrete more acid substances; if we eat too many vegetables and become too alkaline, then we excrete more alkaline ions." It is in this constant balancing act of the kidneys that we see the activity of Libra—the scales. Judgements are continually being made as to what to keep and what to excrete.

The Energetic Activities and the Preparations

A summary of all this information provides the following suggestion of the energetic activities for all the compost preparations.

Saturn	Valerian	Phosphorus	Strengthens the Ego against the Astral
Jupiter	Dandelion	Hydrogen	Helps the Ego and the Physical entwine
Mars	Nettle	Nitrogen	Harmonises the Astrality and other bodies
Venus	Yarrow	Sulphur	Opens the Etheric to receive the Astral
Mercury	Chamomile	Oxygen	Strengthens the Etheric against Astral
Moon	Oak Bark	Carbon	Draws a rampant Etheric to the Physical

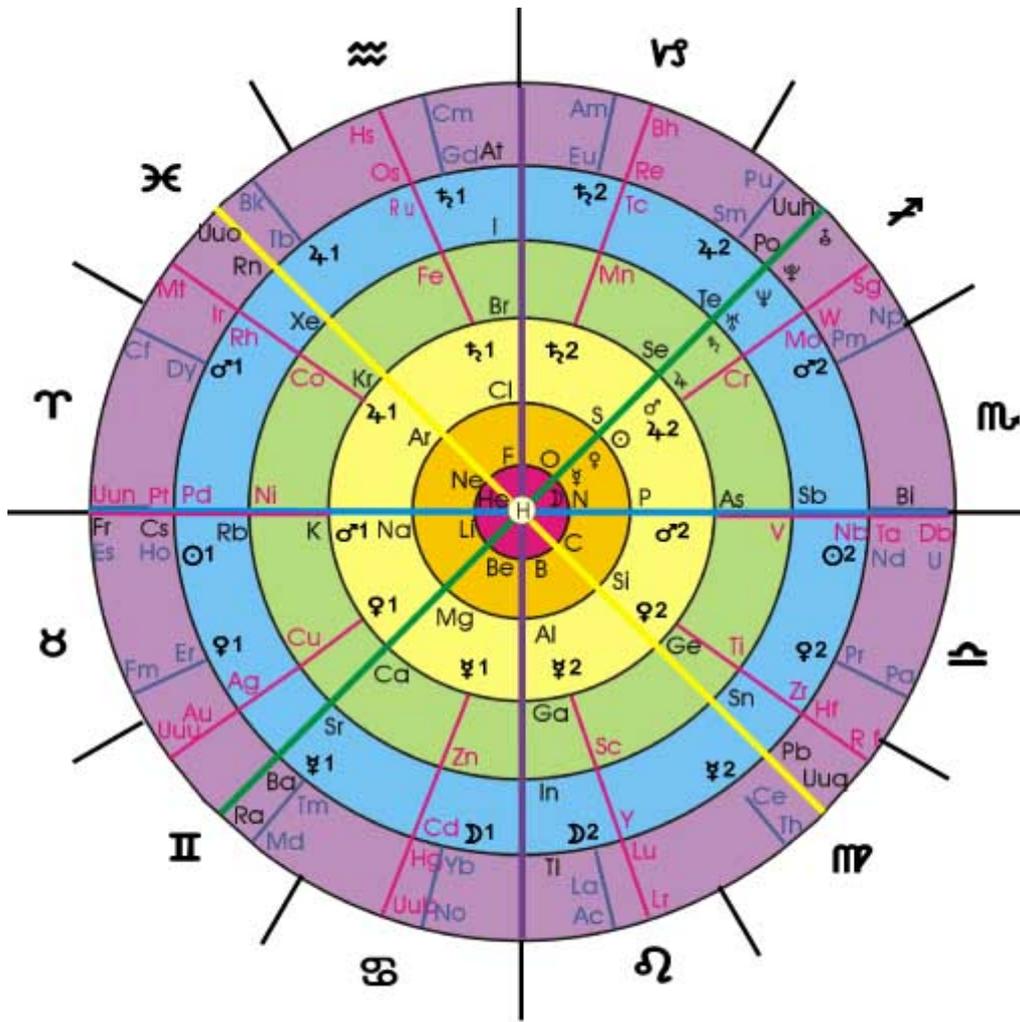
Further reasoning behind these suggestions can be found in the chapter on the preparations in Gyroscopic Astrology (26)

Dr Hauschka, the Elements and the Zodiac

Following on from the considerations made with the zodiac and the planetary processes, it is relevant to include a diagram with the Dr Hauschka's chemical elements and the zodiac, as outlined in his "Nature of Substance". (13)

It should be noted that Dr Hauschka provides a 12 fold reference system for his work, which does not appear to help when we refer to the periodic table, as it is accepted today. For example, he allocated individual constellations to Calcium and Magnesium, which are on the same arm of the Periodic Table, yet he grouped the twin alkalis (K,Na) together under one constellation. So while his work has great relevance as a 12 fold organisation of the basic processes of nature and chemical elements that anchor them, it is very problematic when we come to explore the energetic activities of ALL the elements of Chemistry, as expressed in the very broadly accepted Periodic Table of Chemical Elements. Indeed most of the information within the Steiner medical literature, on the energetic activity of the chemical elements is most often contradictory, and therefore rather confusing. On top of this, there is only information on around 20 of the elements, rather than the 118 or so elements on the accepted table. More work was needed to resolve these issues.

An exploration of the relationship of the planetary activity to the whole Periodic Table of elements, along with suggestions of each elements energetic activity, is available in "Biodynamic Chemistry" (23). This work is based upon the gyroscopic organisational form used for understanding the Agriculture Course, in this present edition, and so exists as a natural progression of this course. The diagram on page 93, identifies all the planetary, constellational and energetic body relationships to the chemical elements. For a fuller interpretation of Biodynamic Chemistry, please refer to the original book of this title.



*Periodic Table of Elements
Planetary and Constellational Rulers*

Glen Atkinson

Homeopathic Development of Biodynamic Agriculture

Glen Atkinson

A further section of this course that has been 'set aside', are the suggestions for the homeopathic development of the Biodynamic preparations. Rhythmic dilution is used elsewhere in BD practise, such as Peppering and with animal health treatments, however there has been very little 'sanctioned' exploration, into the use of the potencies of the BD preps, even though Dr Steiner mentioned the word 10 times during the Agriculture Course, and clearly describes a worldview based upon the influence and use of the 'smallest entities'. Like the other 'set aside' issues, this one is possibly 'too difficult'. Two significant hurdles remain. Firstly, the energetic activity of all the preparations needs to be identified, and secondly, making practical use of Frau Kolisko's graphs. (see pg 98)

My interest in the homeopathic development of the Biodynamic preparations began during my time of working at Weleda NZ (A Steiner pharmacy) from 1976 – 1980. Here I came across the work of the Kolisko's, published in "Agriculture of Tomorrow". In this work there are trials presented on the homeopathic dilutions of the biodynamic preparations, which show that their dilution, do indeed influence plant growth in the same manner all other substances. But this work has gone unsupported, even within Dr L Kolisko's own long life. A few independent researchers have taken up the challenge, however 'official' support for such endeavours is surprisingly absent, given it has been taking place over the last 30 years.

So lets start with Dr Steiner's references from the Course, before exploring his enthusiasm for Dr Kolisko's work. (I will give the page number of the green M. Gardner edition, however the quotes are from the 1938 edition available on my website.)

Within the Course, there are 7 specific references to the homeopathic development of what was presented there.

1) In the discussion after the 4th lecture (Page 78) when asked how to spread more than one horn, Dr Steiner describes a basic homeopathic potentising method of bulking up, as the solution. " But then I think the method of stirring would have to be changed. After stirring one cow horn in half a bucket of water, you can dilute the mixture with more water, but then you must stir again."

This is homeopathic dilution. Stirring, using Dr Steiner's broad usage, is a 1x potency.

2) On page 93 in the second paragraph, Dr Steiner refers to Dr Kolisko's brilliant investigations into homeopathy.

"Since Frau Dr. Kolisko's research work on the activity of "smallest entities" so

brilliantly established as fact what until then had been more guess-work in homeopathy, we can, I think, regard it as a scientific fact that it is from the small entities (quantities) that the radiating forces necessary for the organic world are released, when these small entities are used in the appropriate way. And in manuring we shall not find it at all difficult to use the smallest entities. We have seen how we can prepare these "smallest entities" quite readily within cows' horns, and how we are able to add to the forces contained in ordinary manure, these other forces which are applied in homeopathic doses. But we must try out all ways of properly vitalizing the manure, so that it retains the right amount of nitrogen and other substances and is thus vivified and enabled to convey the necessary vitality to the soil."

This highlights his support for the work, on rhythmic dilution, later described in "Agriculture of Tomorrow"

3) Page 108 2nd last paragraph

"Its pronounced homeopathic effect is what I have in mind"

4) Pg 119

"In this way the 'Effects of the smallest entities', which has been proved scientifically by the Biological institute (at Stuttgart), is literally put to fruitful use."

5) Page 122

Line 6 "make the pepper more homeopathic"

6) Page 128 7th line from the bottom

"Once again, very small amounts, a kind of homeopathic application, will be sufficient"

7) Pg 172 2nd last question

"What matters most is the quality that this homeopathic dosage contains"

The medical lecture series', have many quotes stating Dr Steiner's support for the use of Homeopathy.

Dr Steiner's enthusiasm for the Kolisko's work, gives the lead to the direction he would have been happy with his Agriculture lectures, being developed in.

"In all probability, the institute for biology under the management of Drs. Eugen and Lili Kolisko has successfully explained the function of the spleen. As a result of the Kolisko's' work, we must acknowledge that spleen function regulates the inconsistencies that always appear in the rhythmic process of digestion simply because people cannot be completely regular in their eating habits. (Even if we pedantically establish precise times for eating, our choices of different foods and the like disrupt the rhythm of digestion.) It becomes evident, strange as it may seem, that the function of the spleen is to balance out the inevitable effects of our human lifestyle on the rhythm of the digestive process.

Most recently, in a treatise that has just been published, our institute for biology has furnished precise proof that minute quantities of various substances actually do have effects on living things. In making this statement, I do not mean to take sides in any medical debate. If we proceed with exactitude in this field, however, we discover that one part of the human organism must be treated with larger quantities, another with minute quantities. Until now, homeopathy was based on faith because no exact research had been done.

Using very precise methods, we seem to have proved that high dilutions of certain substances, such as antimony compounds, affect the growth of wheat differently from still higher dilutions and that as the dilution increases, maximum and minimum effects are encountered in rhythmical succession. We have done everything possible to prove responsibly that dilutions of even one to a quintillion can indeed influence living things. Wheat kernels very carefully selected for uniform germination rate were sprouted in fluids containing substances in various dilutions.

References given were:- The Biological Institute of the Goetheaneum (Free School of Spiritual Science in Dornach), located in Stuttgart, where Dr. Lily Kolisko did her work. Her works include "Spleen Function and the Platelet Question" (1922); "Physiological and Physical Evidence of the Effects of Minute Quantities" (1923); "Physiological Evidence of the Effects of Minute Quantities of Seven Metals" (1926); "The Effects of Light and Darkness on Plant Growth" (1926)."

Another account is from Adalbert Count Keyserlingk – Developing Biodynamic Agriculture – reflections on early research (- translation of Erinnerungen an Frühe Forschungsarbeiten – by verlag der Kooperative, Dürnbau) p77-78 of the english edition:

"The most wonderful occasion was when Rudolf Steiner came into our classroom, his face alight with joy and said: 'Now at last we are able to demonstrate the etheric, because of Mrs. Kolisko's work with very small entities, and we can prove to anyone who wants to see that science can be taken further and can find its way out of the dead end of materialism!' I shall never forget the joy Rudolf Steiner radiated as he said these words.

He then told us that from the beginning of the fifteenth century people have tried to enter more and more deeply into the dead matter of both the macrocosm and the microcosm, though they had no real aim in this. This had led to the division between belief and knowledge, with the spirit banished to the realm of belief and all things physical to that of soulless knowledge. It ultimately caused many people to be torn apart at the very core of their humanity.

Now, however, a beginning had been made to connect things of the spirit - the etheric being the lowest form of the spiritual – again with physical matter. The

conscience of the scientist must also be part of the process. We were able to understand this world situation, both from the matter itself, from the method and the goal, and from the sheer joy in Rudolf Steiner's eyes.

These things were to play a major role in many of our lives, for an event had happened in Mrs. Kolisko's institute. And in Rudolf Steiner we had seen an initiator who had his suggestions understood and brought to realisation. He had shown a new way at a time when science had grown destructive....."

Then from a Steiner lecture given in November 1923 from The Healing Process:

"Just think of the effects of inhaled substances that are present in very high dilution. When we give patients therapeutic baths, we are often unaware that the substances inhaled along with the steam, substances that may be present in very high dilution, are much more important than the bath's external effects. Until now, such statements were simply a matter of scientific belief.

We attempted to confirm this belief scientifically - within justifiable limits, of course; the results are not to be interpreted as a universal remedy. We produced dilutions of up to one in one quintillion so that we were certain that ordinary material effects were no longer present and that any effects that we noted were due to qualities transferred to the medium from the original substance; that is, that we were dealing with purely qualitative effects. We were able to prove that diluted quantities of a substance develop astonishing rhythm-based effects. We tested the effect of these minute quantities of the growth of very carefully selected grain seeds. The seeds were allowed to sprout in solutions of metallic compounds in different dilutions. We proved that solutions of metallic compounds in dilutions of 1:10, 1:20, 1:50, 1:100, 1:500 and so on really do influence the growth forces of plants. We graphed interesting and very regular curves, demonstrating that when the enlivening force is influenced in a specific way at a particular dilution, the effect is reduced if the compound is diluted further and enhanced again at a still higher dilution. The result is a curve that alternately rises and falls in exact expression and confirmation of the effects of minute quantities of matter."

Finally from a lecture to the workman on 31 October 1923

"Since we in our Biological Institute in Stuttgart succeeded in proving the effects of the minutest quantities of substance, one must speak about these things, even in public, in a quite different way than formerly. We have in Stuttgart simply shown that when one has **any** substance, dissolves it, dilutes it greatly, one has a tiny amount in a glass of water. One obtains, say, a 1 per cent solution. A drop of this is taken, diluted to a hundredth of its strength.

It is now one ten-thousandth of its original strength. Again diluting this to one-hundredth of its strength, we have a solution one-millionth of the original strength.

In Stuttgart we have succeeded in obtaining dilutions of one in a million, one in a billion — that is, with twelve zeros. You can imagine that there is now no more than a trace of the original substance left, and that it is a question, not of how much of the original substance is left, but of how the solution works: for it works quite differently from the original. These dilutions were made in Stuttgart and they are not so easily imitated. (Perhaps the German Exchange can do it, but nobody else!) This has been done with all sorts of substances. We then took a kind of flower pot, and poured into it in succession the various dilutions. First, ordinary water, then the 1 per cent dilution, then the .1 per cent, the .01 per cent and so on, up to one part in a trillion. Then we put a wheat seed in. This grows, and it grows better in the diluted liquid than in the non-diluted! And the higher the dilution the quicker the growth: one, two, three four, five dilutions — up to twelve. At the twelfth, the growth becomes slower again, then increases again, then decreases again. In this way one finds the effects of minute quantities of substances. It is very remarkable. The effect is rhythmic! If one dilutes, one comes to a certain dilution where the growth is greatest, then it gets less, then again greater — rhythmically. One sees, when the plant grows out of the ground, something works on it together with its substances, something which works rhythmically in its surroundings. The soil environment works into it. That is clearly to be seen.

Now when we are clear that very minute quantities of substance have an effect, we shall have no hesitation in recognising that in such times as the present, when so many men take incorrect nourishment and then rot as corpses in the ground, this works differently. Of course, for the earth as a whole, the effect is very diluted, but still it is different from what happens when men live healthily. And here again, the food which grows out of the earth is a factor.

Naturally, people with grossly materialistic scientific views do not understand this, because they say: What importance can the human corpse have for the whole earth? This effect is very diluted, naturally, but it works."

Dr Kolisko carried out many trials of various homeopathic substances effect on plants. In these are some on the effect of the Biodynamic preparations. The graphs presented shows various effects of the different potencies. These trials leave NO doubt the preparations can be potentised and that they will have an effect. The unanswered question is what particular effect is it with regards plant growth?

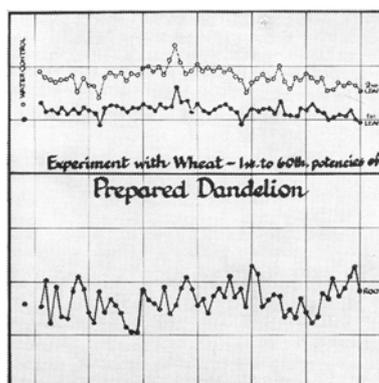


FIG. 198.—Wheat plants grown under the influence of 1st–60th potencies of prepared dandelion extract.

The second to last quote, and others from the Agriculture course, indicate that Dr Steiner made no substantial difference in name or function, between 'homeopathic' substances in simple very fine dilution, as in the first paragraph, and rhythmically diluted substances, as in the second paragraph and later described by the Kolisko's. In taking this approach, RS allows for a broad understanding of the word homeopathic, to arise. He appears to emphasize the need to appreciate the effects of the high dilution of substance, everywhere. He talks in the course of the functional role of 'homeopathic calcium and silica in the atmosphere' as well as the effect of oil baths. He is very happy with naturally forming high dilutions in nature.

In the intervening years very little has been done. Nicolas Remer presented his research into rhythmically diluted 501 Silica in his book "Laws of Life in Agriculture (1995, USABDA). Other investigations from around the world into biodynamic homeopathics are available at the 'Considera' website. Of particular note is the work of Enzo Nastati, Hugh Lovel, Greg Willis and the Biplantol company of Germany. All of these researchers have more than 20 years experience in this field, following on generally from the Koliskos.

Garuda Biodynamic Institute's work with homeopathic biodynamic preparations began in 1980. Through the 1980s we carried out trials of Horn Manure and Horn Silica on various vegetable and fruit crops. In 1989 trials began of the other compost preparations. In 1992, we re-did the Kolisko's trials of the preparations, on wheat, to establish the appropriate potencies for our preparations. A pinnacle in our trial process was reached in 2001 -02, when three of my mixtures of preparations were trialed by the premier research facility in New Zealand, HortResearch. These trials showed a) frost protection on apples being effective to -4C. At -2C very little damage occurred at all. b) a 20% increase in photosynthesis and a 30% increase in stomatal conductance on grape vines and c) a 50% reduction in the incidence in high bird damage on ripening grapes. These trials are available in the 'Case Studies' section of the Garuda Biodynamics website (25) www.garudabd.org. Subsequent credible trials have also shown products that increase dry matter, reduce nitrate levels in pasture, reduce water levels in plants, to mention a few. These trials and many more informal trials are all available at the above site.

It is fair to say that 'Kolisko' homeopathic biodynamics, does not have the body of evidence that has been produced for traditional biodynamic use of the preparations, however the Kolisko's work, along with that of Franz Rulni and my own endeavours, should be enough for any sensible enquirer to have the confidence to pursue this path of investigation further. There is certainly enough evidence to challenge any critics.

I trust this evidence is enough to make it clear that homeopathy, in all its forms, is

a natural development of the Agriculture course. Its applications should be seen initially as an addition to any requirements of the Demeter trademark, with further investigations to see to what degree it can replace the need for traditional preparations. My own investigations suggest that rhythmically diluted preparations can successfully replace traditional preparations. A side by side trial, carried out independently in 2010 of compost, made with traditional preparations and Etherics 1000, (made with all the preparations) showed in the biological tests, that the Etherics 1000 treated pile was superior in all biological parameters; such as total fungi and total bacteria. Direct applications of homeopathic BD preps to plants have shown similar results.

When we consider the real nature of health and illness, we see health is achieved when the energetic activities work 'normally', and illness, disease and pest attack, is when they are not working correctly. Health, in reality, is the absence of imbalance. Farming, in my experience, is a process of removing the limiting factors, be they caused by soil type, drainage, nutrient deficiency, or seasonal variation. By 'balancing the wheel', a state of 'health' naturally arises. So promotion of health or resolution of illness is achieved by the same action.

For how the BD preparations relate to this process, we only need reflect on Dr Steiner's comments regarding the Oak Bark preparation presented on page 70, and its influence over the etheric body. To this can be added his statements about the energetic activity of the Yarrow preparation. "One may say, the spirits of Nature have never brought the distribution of sulphur to such perfection as in yarrow (milfoil). And if we know the effects this plant can produce in the animal or human organism - how with correct biological use, it can set right all troubles which are caused by any weakness in the astral body, then we can further trace its particular nature throughout the whole process of plant growth in Nature. "

From these statements it is clear the Biodynamic preparations are direct influencers of the energetic activities and are to be used for the controlling of their interactions. Research on plants and humans by the GBI has proven that significant outcomes can be achieved through this development.

Conclusion

Books are such a journey, and I trust the journey you have been on through this one has brought you closer to seeing the wonderful world Dr Steiner has made available to us, based upon a conscious spiritual science.

I have enjoyed the opportunity to make this contribution to the Biodynamic lexicon and hope it can facilitate a burst forward in our ability to work consciously within Nature. I am most interested to hear your reaction to this work and any developments you make because of it .