Glen Atkinson

in Response to Enzo Nastati

'Basic Biodynamic Agriculture in 9 Meetings'

April 2019

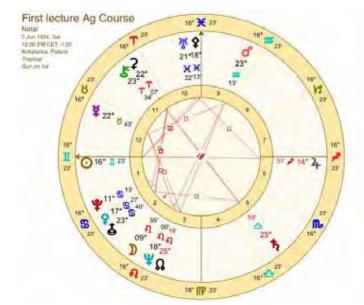
Foreword

In this book Enzo displays many fine aspects of Goethean Observation , which makes it a publication worthy of study. The basic premise of the story however HAS to be seriously questioned. Enzo is concerned with breeding specific features into plants, and has heard RS suggestions, that this is to be achieved by 'controlling' the influences around the 'seed chaos' time. The question is **when is the 'seed chaos'.** Is it at germination as Enzo says, or is it at pollination? I am of the latter school.

That this book has gone into such wide publication, without being questioned, shows how deeply this belief -'seed chaos' is at germination - is embedded in the Biodynamic understandings of the many. It underpins some of the cult like importance placed upon the Moon Planting calendar, as we see in Enzo's lectures.

A study of the literature though shows clearly (I believe) that RS's intention was Pollination. This is referenced and presented in the following critique. The 'money shot' though is in the discussion after lecture 4 when RS replies to an question on seed chaos " If there is fertilised seed at all , the chaos is complete." Beyond this there are many quotes in support. This is one of several 'issues' in need of clarification here.

The broader question is why Biodynamics has so many instances of 'misunderstandings'. My writings have been often concerned with addressing one odd belief or the other. Here is the same process, a huge misunderstanding blown into a full scale philosophy of plant management, and believed by many 'faithful'.



My answer to this question has come when I look at the 'birthchart' of Biodynamics. This is the chart for the time of the first lecture. I do not have the exact time, as yet, but this Solar Chart is adequate for the moment. Sitting right in the middle of it is a relationship of planets — Moon (stronger if the lecture began at 7pm) Mars, Mercury and Neptune, all in tension. Moon is unconscious feeling life, Mars is action, Mercury is communication and Neptune, in this regard is imagination and delusion. This tension easily very actively misunderstanding communication, and an active willingness to make up and actively disperse whatever imagination one might like, from it. Here in lies Biodynamics curse. At its very seeding moment a large watering of delusion was embedded with it.

To add to this, is the tension between Sun, Jupiter and

Uranus and Pallas Athene. This provides for a very adventurous willingness for individuals to run off and explore the course outcomes, but without any reference back to existing 'leadership' or accepted understandings. A third structure - Saturn, Venus, Persephone, Chiron and Ceres, suggests the mission of the course is to heal Agriculture globally, however the tension here suggests, the general rancor and disregard the individuals have for each other. While we see 'low level fellowship' of farmers, the BD movement is renowned for the animosity and disregard expressed between different sects, all over the planet. Individuals have setup their fortresses and no peer review is allowed. The internet has allowed these 'divisions' to be seen, but they stand clearly unresolved to date.

Like no other RS endeavor, Biodynamics is lost in a myriad of stories and understandings that has no consensus, and there appears to be no willingness to try to find one. The education has the curriculum, The Medical movement have a consensus of their understandings, and more importantly, their experiences. But BD is the wild west where anyone can say anything without any peer review. Mumblings in the corner arise, but there is no real ability to find a common story, actually based upon the Agriculture Lectures. Yes the most obvious frills of Agricultural Individuality, the Preparations and Moon planting have been seen, but the deeper structure of Nature and how this can be conscious controlled is far from 'settled'. For the medical movement this discussion has long been done and dusted.

Sadly, Enzo's book is a display of all that is good with Biodynamics, and what is also so terribly wrong with it. I have made an effort to be 'nice' in my critique, however in my overview of the whole experience of doing this, I am left with a 'depth of dread', at the number and strength of the errors that are contained here. Wonderful publication, brilliant depth of knowledge and experience, but wrong premise......... and we are breeding more of it. What a curse we carry. May this critique be one more brick in 'the wall of clarity' needed for Biodynamics to reach it goals.

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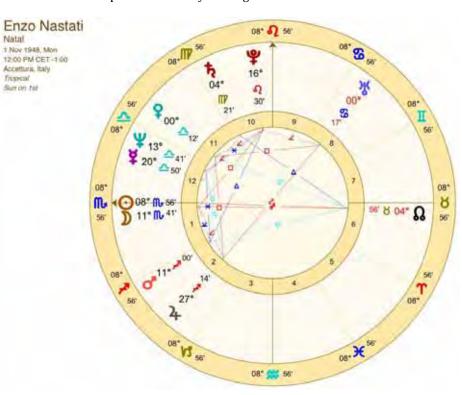
ISBN 978-1-58420-931-7 Lindisfarne Books

There is so much valuable information and experience conveyed in this book, that I would like as many people as possible to access it. I have great regard for Enzo's insights and enjoyed his observations throughout the book. However there are a few things within Enzos story, I have a different perspective upon. I hope by presenting another view, some clarity can come into an already very confused Biodynamic story. I appreciate this is a 2005 book and his story may have developed since then, (I know mine has) however this is meant as a 'companion' for anyone reading this 'Introduction to BD'.

It is only recently I have found Enzo's birth date, - his CV says he was born on 1 November 1948 - and naturally he now makes so much more sense to me...... I have had my birth data available for a long time, (21 Oct 1954, 11.58pm Brisbane, Australia.) and think it is important that anyone putting forward a 'worldview' needs to do this, as the birthchart indicates a persons subjectivity. So their biases and areas they may have a blind spot, can be seen, along with their 'talents'.

With Enzo three things stand out. One is his overly strong reliance upon structure. (Sun and Moon in Scorpio square to Pluto in Leo, and Mercury's only aspect, apart from a wide conjunction to Neptune, is a semi square to Saturn). I 'complained' about this tendency with his Agriculture Course Commentary, where he has the Agriculture Course ordered numerically. Lecture 1 is polarity, Lecture 2 is threefold, lecture 3 is 4 fold, lecture 4 (and 5) is 7 fold somehow, etc........ and I cried......Lecture 2 is NOT 3 fold ONLY, it is how the 4 fold Energetic Activities manifest within the 3 fold Physical Body. The 4 fold story within lecture 2, telling us of how Clay, Sand, Humus and Cations work together to anchor the Physical Formative Forces, is pivotal to 'getting' the rest of the course. Locking it into being a 3 fold thing, means a 'cornerstone' of the course is lost. Enzo's 'Clay is Middle' bias, and willingness to agree with GW Schmidt, shows he struggles with this cornerstone. This book has a couple of unnecessary 'holding to formula' moments.

The second 'subjectivity' is a wide Mercury conjunct Neptune (and Vesta) in Libra in the Solar 12th house. Mercury does not have strong aspects to other personal planets, which allows Mercury and Neptune to function somewhat independently. Dr Steiner had a similar aspect (unaspected Mercury Neptune in Pisces, leading to his various 'fuzzinesses') Mercury is the planet of communication and personal thinking process, Vesta is dedication, while Neptune governs imagination and ones connection to the collective unconscious feeling activity. This brings a strong imagination and a 'clairvoyance', however with few moderating factors this can lead to a strong dedication to fanciful and lofty proclamations, which we can find ample examples of. To aid Neptune, there is a positive sextile to



Mars and Pluto. This does help the imagination find practical applications.

Together these 'subjectivities' indicate the potential to become very fixed upon personal imaginations, with a continual interplay between too much form and then too little...... This makes things tricky as the excellent 'form' stages has one believing the 'formless' stages.......A positive tip in the balance is the influences of Jupiter quintile Neptune, supported by Mars sextile Neptune, along with Saturn trine North Node. This provides an insightfulness, that can be applied to life circumstances. These aspects complex further when the major asteroids are added, which provides the indications for his

leading role in the transformation of Agriculture globally. Hence, why I am offering my suggestions for tidying up of the fuzzy edges.

A third 'big' structure sits within Enzo's astrality. The Sun, Moon, Venus, Jupiter, Uranus and Pluto all have a tension. This gives a strong motivation for social renewal. He is committed and strongly focused on achieving his own goals. This is the mark of a leader, but the Scorpio 'All or Nothing' rules, may apply. Recently, I was talking to an Italian person, and Enzo's name came up, their immediate reply was, ah 'The Guru'. This is that 'authority'. Both given from others and personally desired. This moves a person to the forefront. We are lucky we have such a warrior on our team. Do we want to go where he wants to take us, though?

It is significant to note my Saturn Mercury in Scorpio sits upon Enzo's Sun Moon conjunction, which is why I am inclined to write this 'earthing critique', and why our 'relationship' has never been 'comfortable'. I appreciate there are few people who can critique Enzo, and of those who could, not many can be bothered, by the looks of things.

So without any further ado...... I take it for granted that my article is read in direct reference to the book.

The Main Issues

There are five main themes throughout this book I have significant issues with. (1) One is the question of **when 'seed chaos' occurs**. Is it really **at sowing time**? Upon this basis, Enzo promotes Moon Planting as THE time of influencing seed and plant development. I am of the opinion it occurs **at pollination**. Enzo shares his view with many other people, however this collective delusion, does not make it right. (2) The second is his assertion that **the Group Ego of the plants is sourced with the planets**. I reckon RS says it is **the Stars**. This 'issue' suggests he struggles with understanding the essential difference between Stars and Planets. Again, this is not an uncommon problem for many BDers. (3) Is the assertion that **Clay is THE middle** substance between Calcium and Silica(4) I suspect Enzo 'believes' GW Schmidt's premise of the Ether's through the seasons, as told in **Schmidt's 1971 'Seed Regeneration'** article. Enzo attempts to incorporate this into his own story, with the same confusing and odd outcomes. With number (5) being a fundamental difference in the understanding of the activities of **Potassium and Phosphorus**.

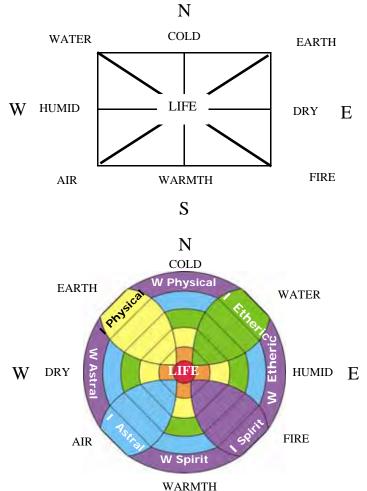
These are significant issues, and if they are 'correct' they would change the 'inevitable' conclusions Enzo presents here. I will address each of these issues as they appear in the text.

Page 7 The first diagram, Aristotle's Elements

The Four Elements - Fire, Air, Water and Earth - are used as the basis for the manifestation of the four 'Etheric States' - Cold, Humid, Dry and Warmth. Enzo references Aristotle, and thus stands upon an old tradition, nevertheless, I have trouble with these associations. For example this order is suggesting that Humidity is a result of Water and Air, whereas my experience, living in the tropics, has humidity resulting from Water and Warmth. Similarly , the Fire Earth poles could create Dry, however I have good reason to suggest this comes from Air / Astral and the Physical / Cold interactions.

Being a 'practical' Platonist, I am working from my experience of nature and 20 years of 'Walking Circles', sensing its organisation. I would have hoped this discussion with the 'philosophic' Aristotleans would have been resolved during my Greek incarnation, however here we are still following a philosophy, rather than the reality at hand.

In my wanderings through the Goethean Observation of Creation, I have come across an order that I accept as being 'archetypal'. Chemistry appears to organise to it, and 'remedies' made from the circle conform with their homeopathic prediction. Suggesting, due to it being based upon Creations larger order, its information will have a high potential of truth. This is of course the same 'game' Enzo, Steiner and anyone else paying attention to his story, will be playing. It is also the very thing I was saying Enzo was trapped by......and here is one of those times, even if coming from Aristotle.



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There is a bit of translation needed to get from Enzo's picture to mine. First we need to observe Enzo's picture is based upon the seasonal dominance of the Northern Hemisphere. All of the images on google of Aristoles elements, has Hot or Fire at the top of the diagram, with no magnetic indicators. Enzo has turned this around, so it points to the South. This sets this pattern to the northern hemisphere seasons. So Warmth is seen as a Southerly phenomena, while North is seen as a Cold pole. In the South, where I live, it is the opposite. This clarifies this image is **a seasonal archetype**, rather than the Earth Magnetic reality, upon which chemistry runs, or anything else, beyond the Earth. We are talking about climatic experiences, so seasonal Earth Atmosphere is the sphere.

Now, is the Spring East a Dry 'season' and is Autumn West a Wet Season?

The image I have generated by following Cosmic Order tells a different story. Most of my diagrams are now focused upon Magnetic North, while my earlier diagrams were Northern Hemisphere based. So 'my now usual' diagram needs to be flipped over 'top to bottom', to match Enzo's orientation.

My diagram (bottom previous page) puts Fire / Spirit and Water / Etheric on the right of the diagram with Humidity being the outcome as an East activity. Air / Astral and Earth / Physical are on the left hand side, with Dryness being their outcome. The contractive Fire and Air are together in the South , while the expansive Earth and Water are together in the South.

After playing with this organisation, based upon Magnetic North, for over 15 years, with chemistry's organisation and with physical circle work, including weather experiments, I see the practical reality of this organisation. Etheric / East is Wet and Astral / West is Dry, while Spirit (North) brings Warmth and Physical (South) is Cold. Place a rock or chair or pot plant on these spots in a circle, and see what happens to your weather, over the following week. I have indications this works the same in the Northern Hemisphere.

So hence, I do not agree with Aristotle or Enzo's diagram or his further assumptions built upon it.

Page 10 Paragraph 3 Clay as THE middle substance

This is a constant assertion by many BDers, however I am yet to find where RS supports this. There is the one quote at the end of the third lecture of the Agriculture Course where RS says "Silicon is the general external sense organ of the earth, lime the representing general which desires; clay mediates between the two. Clay is slightly closer to silicon and yet it acts as a mediator with lime."

"Then everything would have grown. But since a certain period, lime has been formed underneath and lime disturbs the work, and because the opposition of the limestone had to be overcome, **carbon allies itself to silicon and both together, in combination with clay**, they once again start on their formative work. (Lime, Humus, Sand and Clay)

How, in the midst of all this, does the life of a plant go on? Below is the limestone trying to seize it with its tentacles, above is the silicon which wants to make it as long and thin as the tenuous water-plants. But in **the midst of them is carbon which creates the actual plant-forms** and brings order into everything. And just as our astral body brings about a balance between our ego and etheric body, so nitrogen works in between, as the astral element.

This is what we must learn to understand - **how nitrogen manages things between lime, clay and silicon**. And also between what the lime is always longing for below, and what silicon seeks always to radiate upwards. In this way the practical question arises: What is the correct way of introducing nitrogen into the plant-world?"

So 'clay is closer to Silica', is a statement that also needs to be seen within the context of lecture given on 17 February 1923 - 'Cosmic Workings in Earth and Man' lecture 2 - where RS outlines how Clay is the middle between Mica and Quartz, both siliceous substances. "One of the three is a substance which we call mica. Only a small amount is to be found in plants to-day, but even so it is extraordinarily important. If you have already seen mica, you can perhaps remember that it is formed of thin plates, so thin that they sometimes look transparent. And once upon a time the earth was interwoven by such little mica plates. They went in this direction (sketch). As long as the earth was soft, such forces were still in it. Opposing them were other forces: they went so (sketch) and thus there was a real grating of lattice-work in the earth. These other forces are to-day contained in quartz.

And in between is yet another substance — clay. This clay unites the two, it fills in the lattice-work, so to speak. As a rock it is called feldspar.

Thus at one time the earth was composed in the main of these three kinds of primeval rock. But it was all soft, like pulp. There was the mica, which was really at pains to have the earth formed of thin plates in a horizontal direction. Then there

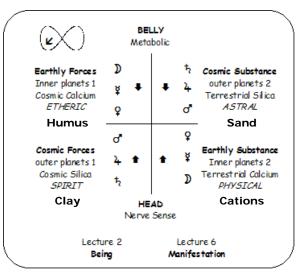
was the quartz, radiating in this direction, and then the feldspar cementing the two together."

We need also weigh this 'middle between Lime and Silica' against lecture 2 of the Agriculture Course (GA 327) where RS states **3 times** clearly that 'clay promotes the upward cosmic stream'........ So the one comment, upon which this whole 'belief' has been built, is very weak. This reminds me of, there being only one reference to the Ethers, in the Ag. Course, yet for some they are central in their BD worldview, while denying the Physical Formative Forces, RS spoke so much of.

My answer to this issue, is based on the last 2/3 of lecture 2 GA 327. Lecture 1 talks of Earthly Calcium and Cosmic Silica. Then in lecture 2 we are given the 3 fold physical structure of bodies, and the Earth. (in a couple of pages) Before we have the rest of the lecture talking of the four substances and activities, that work behind the 3 fold physical form. RS

talks of how **Sand and Clay** mediate the Cosmic stream inwards and outwards. Then how **Humus and Lime** / Cations mediate the Earthly stream inwards and outwards. **These four elements are the middle between Calcium and Silica,** as clarified in the lecture 3 quote.

By limiting Clay to the only 'middle' element, we are diminishing its role as the upward Cosmic element, and its partnership with these other three elements. Let us remember Clay is Aluminium Silicate first and foremost, with the Aluminium and its brother Boron, providing the 'dissolving' agent needed to free up the crystal Silica into action, upwards. Clay is Silica in motion. I find it fascinating how the Clay 'middle' folk happily talk of it 'philosophically' as a middle substance, and then quote its upward cosmic activity, in practice. Clay as a soil is a terrible thing. It is dry and rock hard in the summer and wet and sloppy in the winter, while it has a natural pH of around 4.5. It is ONLY of any use for growing when Sand, Humus and Lime / Cations are added. They all need each other.



Here is a symptom of seeing Lecture 2 as only a 3 fold story, one becomes blind to the 4 fold story upon which the rest of the course sits.

The rest of this chapter is a masterful observational exposition of RS 'geography'.

Page 19 Paragraph 7 Etheric body is more related to the Moon.

This section is discussing the organisation of the bodies in the various kingdoms of nature. A comment is made that the astral body is related to the planets, however the Etheric Body is more related to the Moon — Oh is the Moon not a planet? What is missing here and throughout this book is a clear ordering of the world spheres and the activities. (See next page)

In a very general context this statement is right, however in the more specific nature of Biodynamics, more definition is needed. If we just use the polarity of the Sun and Moon, yes the Moon 'governs' the Female Physical and Etheric pole, while the Sun is the Male, Astral Spirit pole, however once we come to the planets proper we need to be somewhat more defined. One of the 'problems' of this book is that Enzo is compressing many things into the Planets. He lacks the differentiation of the Stars / Spirit from the Planets / Astral and he also lacks the differentiation of the Etheric as the Atmosphere and the Planets being the Astrality. He is not presenting the whole picture.

We can clearly say the Star realm is the 'home' of the Spirit forces, The Planetary realm is the Astral home, the Atmosphere is the home of the Etheric activities and the Earth is the home of the Physical body.

The Etheric in particular is a very confusing term for BD folk, and I have attempted to clarify this in my article—'The Etheric Formative Force Problem' http://garudabd.org/wp-content/uploads/http://garudabd.org/sites/garudabd.org/files/ EFF-A.pdf The short version asks where is the Oxygen - the carrier of the Etheric - to be found in its greatest concentration? The Atmosphere. Where has it come from? From lifeforms. (Also note Calcium, the Etheric's other anchor, has come from the bones of animals) Where is the Schumann resonance, which resonates with our own resonance at 7.8Hz? The Atmosphere. This is our Life Sphere. The Atmosphere is the home of the World Etheric, within which our Etheric body is supported.

Next we have all the major 'body' activities interacting with each other. So within each sector of creation we can find all the other activities represented. So within in the planetary sphere we can find all the 'bodies' are active. The Moon

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SPIRIT	. ଅଅଧଲ≁ମ	Spiritlands
Galaxy	⊙↓ å	Collective Conscious
Color	ÅΨÅ	Collective Unconscious
Sblar System	 ቱ 4 ሪ	Outer planets Personal Conscious
ASTRAL	DĀδ	Inner planets Personal Unconscious
	Warmth Light Chemical Life	lonosphere Ethers
ETHERIC	Fire Air Water Earth	Stratosphere Elements
Atmo sphere	Hydrogen Nitrogen Oxygen Carbon	Troposphere
NAME OF THE PARTY	CHO Proteins Sugars 'Life'	Biosphere
PHYSI CAL	Mg, Na, K, Al, Mo Fe, Cu, Ag, Au, Pb	Chemicals
Earth	Ca. §i.	Solid Earth

The layers of Creation

D	Moon	ንተ	Uranus	ጥ	Aries	← Libra
Ā	Mercury	Ψ	Neptune	ಕ	Taurus	M₂ Scorpio
Ŷ	Venus	Ψ	Pluto	π	Gemini	✓ Sagittarius
ď	Mars	4	Persephone	38	Cancer	V3 Capricom
4	Jupiter	- ↓	Vulcan	શ	Leo	≈ Aquarius
ħ	Saturn	0	Sun	MP.	Virgo	€ Pisces

governs how the Physical and Etheric join, Mercury is more the planet of the Etheric, as it strengthens it, Venus works with the Etheric bringing it to the point of reproduction, by opening the Etheric to the Astrality (something we will talk more about later). Mars is the Astral planet, usually strengthening it, while Jupiter acts as the medium for the Spirit, carried strongly by Saturn, into interactions with the Astral body. The same can be done for the Zodiac. Through their planetary rulers we can find how the bodies work with the constellations. Within the Atmospheric sphere, we can see how the four main energies manifest through the Elements and Ethers, then within the Physical sphere we have the Physical Formative Forces and the 'Organisations'.

So Enzo's comment is not incorrect, it is again not the whole truth. His agenda is to show why Planting by the Moon has relevance, and this 'little fuzziness' helps with the argument.

Planets and Stars

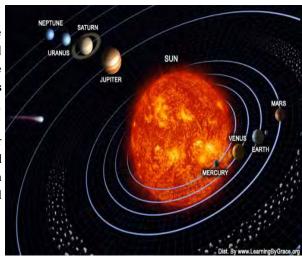
While I am at it, we may as well address Enzo's 'slack' differentiation between the Planets and the Stars. He does not make any, and later when he talks of the Group I of Plants, he places this as a Planetary activity, when as a Spirit activity it 'has to' come from the Stars.

No differentiation between Stars and

Planets is a common failing of Anthroposophical and Biodynamic people, no doubt based upon Dr Steiner often doing the same thing. This however does not make it right to do so. With no clear definition of the Astrality and the Spirit, Enzo 'misses' the Spirit activities of the Archetypal form, coming from the Stars, as described in GA 230 and lecture 5 of 'Cosmic workings in Earth and Man', and places them with Planetary / Astral activity. This has some very confusing consequences.

There is a huge difference between Stars and Planets. Can you see the difference? **Stars are nuclear reactors,** consuming Hydrogen and Helium, and producing immense electro magnetic forces and the chemical elements. While **the Planets are compost heaps** accumulating Carbon, Iron and all the other chemical elements, produced by Stars and Super Nova.

The billions of Stars all beam out immense forces in all directions for billions of years, which is why they are the source of the archetypal forces of form, and 'carriers of Spirit'. They are the base resonance upon which other frequencies can be carried. This is why Paracelsus said



'every species finds its source in a star'. We literally live within a holographic field of force coming from the Stars. Around each star, within its magnetic field, arise planets, that vacuum up all the cosmic dust in their environment. They are very different things.

This is the As Above So Below 'metaphor', of how the Internal Spirit accumulates an Astral Body. All of the Spirits' experiences and activities throughout its lifetimes accumulate to form its Astral body. The Stars are Spirit 'beings', while the Planets are Astral, accumulating impressions.......clear and simple. The Spirit can work through the Planets, especially Saturn and Jupiter, however this activity should not be confused with the Stars, as the source of the Archetypal Form forces. As the Star forces come through the Planetary sphere they pick up their resonance. Saturn in particular is Spirits field marshal in the Astral sphere, while Jupiter helps this intention to adapt to the needs of its field of play, and so on through Lievegoed. The Spirit also works through Warmth as it moves through the Atmosphere, and through many chemical elements (most notably the Halogens), as it moves through the Earth sphere.

Clarifying this difference has significant consequences in ones experience, as our Internal Spirit is our place of objectivity and centered calmness, while our Astral body is the wild beast we call our psychology, emotions, and feelings. Finding the difference between these two is the goal of the human journey, and clarifying their external difference helps to clarify their internal difference. They are indeed two completely different dimensions within your experience. Luckily the Astral body is 'bound' to the Planets, so observing them in relationship to your birth chart, will show you your subjectivity, objectively. You can gain objectivity with your Astral body, however I suggest you do not want to become 'disconnected' from it, as eastern religions suggest. As the Astral body carries your karma, both positive and negative, and given we take birth to clean up our karma, we want to stay on the 'planetary train', but we want to be objective with it, not controlled by it, so we can make 'free' decisions as to how we 'play our Astral hand', this time round. Transits and Progressions of the planets back to the birth chart, shows us the Astral hand we have to play at any moment. How people do this without Astrology is a mystery to me. I know they think they are being objective, but are they really. Till you have seen your subjectivity via Astrology, I doubt you really know the strength and depth of your subjectivity. The painfulness of Astral issues easily holds people away from what is really there. With Astrology if it is in the birth chart you HAVE to face it, sometime....

Page 21 , Paragraph 4 'Quintessence'

This 'quintessence' is what RS called the Cosmic Ether. Enzo is playing a mixed game here. One moment he is building up a picture of the twofold Physical and Etheric story, while he then dots the Astral and Spirit about without a clear image of how they all relate to one another.

Cosmic Ether is NOT the Etheric. The Cosmic Ether is ALL that comes from above. So it includes the Atmospheric Etheric activities, the Planetary Astral activities and The Star Spirit activities, all in one. When there is only a twofold story, the Etherites can talk of the individual Ethers as source of these activities, and placing them as the primary Etheric Formative Forces. The Ethers are only the 'local representatives', within the Atmospheric sphere, of the greater Astronomical dimensions. The quintessence is the 5th element but it is a very complex 'being', it is NOT just Etheric.

Page 22 Paragraph 1 The Journey of the Cloister

The cloister is a formalised Circle. Lievegoed's story gives us a good indication of the journey around the circle. I have clarified this somewhat through 'walking it'. This can be found at http://garudabd.org/wp-content/uploads/http://garudabd.org/sites/garudabd.org/files/lats-and-Acts-17_0.pdf .

In the follow pages, where a good description of activities is given, every time you read an Ether activity, think what primary activity it is working through that Ether. If Enzo mentions 'Light Ether' think Astral working through the Etheric.

Page 28 Paragraph 2

'All the planets do not act directly upon the plant, but via the Moon.'

This is not true. There have been plant trials of trees being sown at particular planetary aspects, with no consideration of the Moon, and specific images of the individual planets are evident in the subsequent plants. Agnes Fyfe in 'Moon and Plant' showed the effect of specific planetary aspects Mars and Saturn (I believe) upon plant chromatography. The Moon has a particular relationship to vegetables, and most 'Planting by the Moon' trials have been carried out on

vegetables, so a mythology has built up here. Dr Steiner mentions using the ascending period of Saturn to sowing Pine without mention of the Moon.

A more complete answer to this statement lies in the whole question of **Direct and Indirect planets.** RS describes three different sorts of Direct and Indirect planet types. The one Enzo is focusing on here, RS states influences Plant, Animal and Human 'Form' morphology, which is at a structural level. This is something Enzo is very focused upon in his plant breeding emphasis of these lectures, and it is fair enough to surmise plant form can be controlled in this manner..... But this does not mean that a blanket statement like this is warranted for all activities with plants. There are two other types of Direct and Indirect planetary orders. One of them Lievegoed gives us more insight into. He treats all the planets as individuals, and describes many very useful planetary plant processes, we can control with individual preparations. Enzo does not mention things bouncing off the Moon when he discusses this on page 96. The absolute statement he makes here is inappropriate.

This strong emphasis on the Moon is part of building his case for 'Seed Chaos' at the germination period, and thus the significance of Moon Planting.

Paragraph 5 The organic grower can do nothing for stimulating warmth

He can build a hothouse.

Paragraph 6 500 represents the centre of the Earth

Whew, there in lies dragons...... An important part of RS story is that the Star forces, which carry the plants Group Ego, work in from above, carried on the silica sand stream into the centre of the Earth, where they reside; only to then be able to work upwards again within the Cosmic Silica stream, that 'crystallises' in the soil after mid winter. Quartz is 'naturally' based in the Earth and works upwards. Horn Silica / 501 takes this crystallising process and takes it into the upper part of the plant BECAUSE of being in the horn throughout the Summer.

Horn Manure / 500 is a 'Earthly' metabolic product. So could be said to be 'an above ground' product, that has been enhanced to bring its digestive properties to the Earth, because of it being buried during the Winter. Its job is to enhance digestion in the soil, not push the roots to the centre of the Earth. This is a Silica process. 500 makes ramified or spreading roots, while Silica makes tap roots. By trying to link 500 to the centre of the Earth activity, we are being setup for confusion, when we come to the working of the plants' Spirit.

Paragraph 8 Clay as middle

I refer you to lecture 2 of the Agriculture Course where RS outlines it is Sand that draws things back to the Earth. Enzo mentioned this earlier with planting grapes and placing sand and silica rocks in the ground to draw in the autumnal maturity, but sidetracks off into the clay is middle belief here...... see page 10 para 3

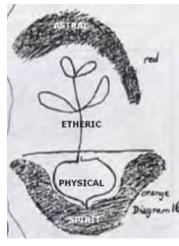
Page 29 Paragraph 2

Here it is stated that 'in a very sandy soil, clay serves as the vehicle downwards for the cosmic pole'. In lecture 2 RS states clearly it is the sand doing this, all by itself, and not the clay.

Page 30 Paragraph 1 The Group I reside in the planetary realms

This is were separation of Planets as Astral and Stars are Spirit / I realms becomes important.

Here is the picture RS gives us in the 8th lecture of the Ag. Course. Astrality above, which he says stretches over the whole Earth, hence all dahlia are 'sensually' connected through the common Astrality. The Spirit below 'accumulates' at the centre of the Earth. The group Ego of the plants are the species 'vibe', while the Astral activities are the planetary



'soul' aspects of the plant. If Enzo is 'altering' the Group Ego aspects of the plant he is altering the species. He is making a new species. If he is altering the planetary activity of the plant, then he is altering the soul of the plant, which will effect the way the plant expresses itself fundamentally. More uprightness, a annual becomes a perennial, things like that, but the dahlia is still a dahlia. If he is altering the Etheric aspect of the plant then he is altering the way the plant grows in a particular environment.

RS is very clear the Group I comes from the Stars. I have accumulated all I could find RS says about plant growth into one document. I have then summarised this document. These two documents can be found at http://garudabd.org/2018/12/04/rs-plant-growth-story/ The 'Cosmic Workings in Earth and Man' - lec 5 clarifies this...... see Page 51 paragraphs 5 and 6

Page 35 Paragraph 4 "Form"

'Form' is one of those words that causes confusion within BD. RS talks of the Spirit (a particular Star) being the source of the archetypal Form of a particular species, and carried by Hydrogen. This is the species pattern, and often called 'the Idea' by Enzo. These are the primary 'Formative Forces' that will keep the dahlia a dahlia. Then later RS also speaks of the physical form of the plant, which is what we see in front of us. This activity is identified with Carbon and often quoted by Hugh Lovel (HL). I have not seen RS clarify this difference of terms. Enzo is clarifying things better. He calls the Star 'Form', the Idea, and the then the physical 'the Form'. Here it is the physical Carbon Form of the plant, given to it by the Archetypal Form, and as altered along the way by all the lower levels of Astrality and Etheric regions. However as Enzo's story progresses it appears the Archetypal / Spirit Form, is being tracked into the Earth.

While here lets clarify, a Formative Force is ANYTHING that influences the physical form of a plant. So we have Spirit FF, Astral FF, Etheric FF and Physical FF. The Etheric FF are not the primary influence on plants, the Spirit FF are. One way of understanding the relationship of these activities is to put them in the context of building a house. The Spirit is the Architect - he has the plans, The Astral is the head contractor - he has to organise the plans fulfillment. The Etheric is the Workers - they provide the energy for the house to manifest. While the Physical are the building materials. Saying the Etheric FF are THE formative forces of creation, is like only seeing the workers at the building site, and believing they are doing it all by themselves. As Enzo does not make a differentiation between the Stars and the Planets he often merges the Architect and the Head Contractor, throughout this book.

Page 40 Paragraph 8 2 fold or 4 fold

Enzo mentions a series of lectures in this paragraph, where RS talks of warmth. He talks of more than warmth. He talks of how the bodies organise. We need to reflect on how the bodies organise when humans are asleep and how this is similar to plant consciousness. As you will see all four activities are always active with plants, it is NOT just a twofold 'game'.

"When we turn to consider waking life, from what has been said we shall understand the connection of the Ego with the astral body and with the whole organism. During sleep, when the Ego and the astral body are outside, the four elements



are nevertheless within the human organism: the solid supporting structure, the fluid organism, but also the air organism in which the astral body otherwise works, and the warmth-organism in which the Ego otherwise works. These elements are within the human organism and they work in just as regularly organized a way during sleep as during the waking state, when the Ego and the astral body are active within them. During the sleeping state we have within us, instead of the Ego — which is now outside — the spirit which permeates the cosmos and which in waking life we have driven out through our Ego which is part of that spirit. During sleep our warmth body is pervaded by cosmic spirituality, our air organism by what may be called cosmic astrality (or world-soul), which we also drive out while we are awake.

Waking life and sleeping life may therefore also be studied from this point of view.

When we are asleep our warmth-organism is permeated by the cosmic spirituality which on waking we drive out through our Ego, for in waking life it is the Ego that brings about in the warmth-organism what is otherwise brought about by the cosmic spirituality. It is the same with the cosmic astrality; we drive it out when we wake up and readmit it into our organism when we fall asleep. Thus we can say: In that we leave our body during sleep, we allow the cosmic spirit to draw into our warmth-organism, and the world-soul, or the cosmic astrality, into our aeriform organism.

If we study the man without preconceived ideas, we acquire understanding not only of his relation to the surrounding physical world, but also of his relation to the cosmic spirituality and to the cosmic astrality."

https://wn.rsarchive.org/.../GA202/E.../AP1958/Bridge_index.html 17 Dec 1920 RS

Page 5 Paragraph 5 Potassium and Phosphorus

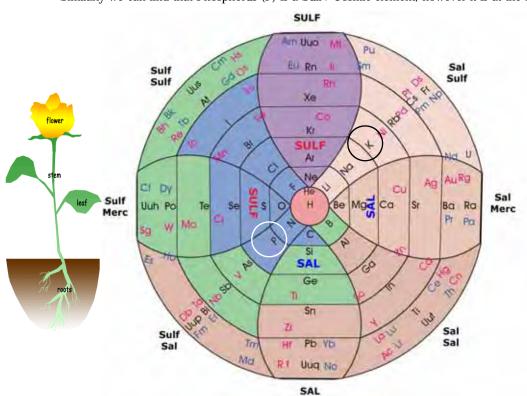
This is the first mention of an image used further along. Potassium is seen as a root / Earthly mineral, while Phosphorus is seen as a "fruiting' Cosmic mineral. This is all very well until Enzo takes this to suggest that Yarrow 502— well known for its relationship to Potassium as a 'root preparation'. More on this later......Rather than speak to Enzo's chemistry, which I have never seen........

This is possibly a more complex arrangement than Enzo uses — given he has not revealed his chemistry — however this arrangement does gives a precise understanding of these elements, based upon a series of good observational references.

So yes we can say that Potassium is a Earthly, being a Earth Metal, however it is placed in the metabolic Sulf pole of the Sal / Earthly metals. Rather than being associated with the root growth, Potassium (K) is considered to be necessary for good stem growth and is applied to the plant at the fruiting stage, to make the fruit larger. When plant material — stems and leaves etc — are burnt, it leaves behind a high Potassium content ash.

It is a Light Processer into the Etheric body, within the digestive system. This is one of K functions, when seen from the stance of a Stage 3 Manifest Element, of the Positive Astral Arm, while sitting on the Stage 1 Cosmic Etheric Ring, and Stage 2 World Etheric Arm. Lots of Etheric activity finding its way into movement, within manifestation, and especially functional processes.

Similarly we can find that Phosphorus (P) is a Sulf / Cosmic element, however it is at the nerve sense Sal / root pole of



the Sulf side. RS talks a lot about P as the element that incarnates the Spirit the nerve sense system / root to allow for thoughts to occur, while being the element that bring the formative Spirit influence into the bones, Calcium Phosphate. While it is considered important in plants as a root forming element, it is also the element involved in the light to energy transformation process (Astral to Spirit) within the photosynthesis processes. So it has many roles, however its primary role as incarnater of the Spirit,

with Silica, makes it firmly a nerve sense element. Rather than the metabolic element Enzo prefers, as an extension of his literal association of Sulphur with the alchemical Sulf pole of activity. I have heard Mark Moodie quote Enzo, with P moving further into space, as a finer condition than Sulphur / Gas process. There maybe some Christian significance to it........

I have Sulphur as a middle element, and the Halogens as the "Sulf" elements. I am observing the actual order of ALL of chemistry, and not just an 'abstract' few. This interaction of K and P becomes significant when we discuss the preparations, shortly.

Page 51 paragraphs 5 and 6 Group Ego in the planetary realm

In these paragraphs we are told that the plant lives between 'its Group Ego in the planetary realm and its consciousness in the centre of the Earth'. I will let RS talk for himself......

On the 31 Oct 1923 he says " The stem, the woody stem, is dead and only that which sprouts forth around the plant is alive. This you can easily prove in the following very simple way. Go to a tree: you have the stem, then the bark, and in the bark the leaves grow. Now cut the bark away at that point; the leaves come away too. At this point leave the leaves with the bark. The result is that there the tree remains fresh and living, and here it begins to die. The wood alone with its sap cannot keep the tree alive; what comes with the leaves must come from outside and that again contains life. We see in this way that the earth can certainly put forth the tree, but she would have to let it die if it did not get life from the damp air: for in the tree the sap is only a chemical, no giver of life. The living sap that circulates, that gives it life. And one can really say: When the sap rises in the spring, the tree is created anew; when the living sap again circulates in the spring, every year the tree's life is renewed. The earth produces the sap from the earthy-fluidic; the fluidic-airy produces the living sap.

But that is not all. While this is happening, between the bark, still full of living sap, and the woody stem, there is formed a new layer. Now I cannot say that a sap is formed. I have already spoken of wood-sap, living sap, but I cannot again say that a sap is formed: for what is formed is quite solid: it is called cambium. It is formed between the bark which still belongs to the leaves, and the wood. When I cut here (see sketch) no cambium is formed. But the plant needs cambium too, in a certain way. You see, the wood sap is formed in the earthy-fluidic, the life sap in the fluidic-airy, and the cambium in the warm air, in the warm damp, or the airy-warmth. The plant develops warmth while it takes up life from outside. This warmth goes inward and develops the cambium inside. Or if the cambium does not yet develop — the plant needs cambium and you will shortly hear why — before the cambium forms, there is first of all developed a thicker substance: the plant gum. Plants form this plant gum in their inner warmth, and this, under certain conditions, is a powerful means of healing. Thus the sap carries the plant upwards, the leaves give the plant life, then the leaves by their warmth produce the gum which reacts on the warmth. And in old plants, this gum, running down to the ground, has become transparent. When the earth was less dense and damper, the gum became transparent and turned to Amber. You see, then, when you take up a piece of Amber, what from prehistoric plants ran down to the ground as resin and pitch. This the plant gives back to the earth: Pitch, Resin, Amber. And if the plant retains it, it becomes cambium. Through the sap the plant is connected with the earth; the life-sap brings the plant into connection with what circulates round the earth — with the airy-moist circumference of the earth. But the cambium brings the plant into connection with the stars, with what is above, and in such a way that within this cambium the form of the next plant develops. [See: Man as Symphony of the Creative Word, Twelve lectures given by Rudolf Steiner in Dornach, 19th October to 11th November, 1923.) This passes over to the seeds and in this way the next plant is born, so that the stars indirectly through the cambium create the next plant! So that the plant is not merely created from the seed — that is to say, naturally it is created from the seed, but the seed must first be worked on by the cambium, that is: by the whole heavens.

It is really wonderful — a seed, a humble, modest little seed could only come into existence because the cambium — now not in liquid but in solid form — imitates the whole plant; and this form which arises there in the cambium — a new plant form — this carries the power to the seed to develop through the forces of the earth into a new plant.

Through mere speculation, when one simply puts the seed under a microscope, nothing is gained. We must be clear what parts the sap, the life sap, the cambium, play in the whole matter. The wood sap is a relatively thin sap: it is peculiarly fitted to allow chemical changes to take place in it. The life sap is certainly much thicker, it separates off its gum. If you make the gum rather thick, you can make wonderful figures with it. Thus the life sap, more pliable than the wood sap, clings more to the plant-form. And then it gives this up entirely to the cambium. That is still thicker, indeed quite sticky, but still fluid enough to take the forms which are given it by the stars.

So it is with trees, and so, too, with the ordinary plants. When the rootlet is in the earth, the sprout shoots upward. But it

does not separate off the solid matter, does not make wood; it remains like a cabbage stalk. The leaves come out directly on the circumference, in spirals, the cambium is formed directly in the interior, and the cambium takes everything back to the earth with it. So that in the annual plants the whole process occurs much more quickly. In the tree, only the hard parts are separated out, and not everything is destroyed.

The same process occurs in ordinary plants too, but is not carried so far as in trees. In the tree it is a fairly complicated matter. When you look at the tree from above, you have first the pith inside: this gives the direction. Then layers of wood form round the pith. Towards the autumn the gum appears from the other side, and fastens the layers together. So we have the gummy wood of one year. In the next year this is repeated. Wood forms somewhere else, is again gummed together in the autumn, and so the yearly rings are formed. So you see everything clearly if only you understand that there are three things: wood sap, life sap, and cambium. The wood sap is the most fluid, it is really a chemical; the life sap is the giver of life; it is really, if I may so express myself, a living thing. And as for the cambium, there the whole plant is sketched out from the stars. It is really so. The wood sap rises and dies, then life again arises; and now comes the influence of the stars, so that from the thick, sticky cambium the new plant is sketched out. In the cambium one has a sketch, a sculptural activity. The stars model in it from the whole universe the complete plant form. So you see, we come from Life into the Spirit. What is modelled there is modelled from out of the World-Spirit. The earth first gives up her life to the plant, the plant dies, the air environment along with its light once more gives it life, and the World Spirit implants the new plant form. This is preserved in the seed and grows again in the same way. So that one sees in the growing plant how the plant world rises out of the earth, through death, to the living Spirit."

There are a couple of things here. Firstly there is no mention of the 'Group Ego in the planetary realm'. The World Spirit activity, which holds the 'ideal plant', is sourced from the Stars, and as we saw before Stars a nuclear reactors, not compost heaps.

To clarify the 'Group Ego' we can look to a lecture on the 2nd February 1908 "The Groups Souls of Animals, Plants and Minerals" - "Just as this describes what we begin to feel with regard to these unsuspected beings, so it is where the souls of the plants are concerned. The plant egos dwell in a higher world than the animal egos. The separate group egos of the plants live on what we call the devachanic plane. We can even state the place where they actually are — in the very centre of the earth, whereas the animal group souls circle round the earth like trade winds. All these plant egos at the centre point of the earth are mutually interpenetrating beings, for in the spiritual world a law of penetrability prevails and all beings pass through one another. We see the animal group souls moving over the earth like trade winds, and how in their wisdom they carry out what appears to be done by the animals. Studying the plant we see that its head — the root — is directed towards the center of the earth where its group ego is to be found. The earth itself is the outward expression of soul and spirit beings. From the spiritual point of view the plants seem like the nails of our fingers. The plants belong to the earth, and when we look at them singly we do not see a complete entity, for the single plant is just one among the whole number of beings constituting a group ego. In this way we can enter into what the plants themselves feel. The part of the plant that springs up out of the earth, what from within the earth strives up to the surface, is of a different nature from what is growing under the earth. There is a difference between the cutting off of blossoms, stalk, leaves, and the tearing up of a root. The former gives the plant soul a feeling of well-being, of pleasure, just as it gives pleasure to a cow, for example, when the calf sucks milk from her udder. There is actual similarity between the milk of animals, and that part of a plant which pushes its way out of the earth. When in late summer we go through fields where corn is being cut, where the blade is passing through the corn stems, then the whole fields breathe out a feeling of bliss. It is an intensely significant moment when we not only watch the reaping with our physical eyes, but perceive the feeling of contentment sweeping over the earth as the corn falls to the ground. But when the roots of the plants are pulled up, then that is painful for the plant souls. In the higher worlds the same laws do not hold good which are valid in the physical world. When we rise to the spiritual worlds our conceptions become different; even here on the physical plane there is sometimes opposition between the principle of beauty and that of pain or pleasure. It is possible that, impelled by a feeling for beauty, someone might pull out their white hairs, that indeed would be painful. And it is like that in the case of the plants. When the roots are pulled up this may make for neatness — yet the plants suffer."

This passage makes it clear that the Group Ego of the plants reside in the centre of the Earth not 'in the planetary sphere' Some further quotes from **Man as a Symphony lecture 7** can help to clarify the movement of the Ideal Form from the World Spirit / Stars to the World Ego in the center of the Earth.

"Plants send down their roots into the ground. Anyone who can observe what they really send down and can perceive the roots with spiritual vision (for this he must have) sees how the root-nature is everywhere surrounded, woven around, by elemental nature spirits. And these elemental spirits, with an old clairvoyant perception designated as gnomes

and which we may call the root-spirits, can actually be studied by an imaginative and inspirational world-conception, just as human life and animal life can be studied in the sphere of the physical. We can look into the soul-nature of these elemental spirits, into this world of the spirits of the roots.

These root-spirits, are, so to say, a quite special earth-folk, invisible at first to outer view, but in their effects so much the more visible; for no root could develop if it were not for what is mediated between the root and the earth-realm by these remarkable root-spirits, which bring the mineral element of the earth into flux in order to conduct it to the roots of the plants. Naturally I refer to the underlying spiritual process.

These root-spirits, which are everywhere present in the earth, get a quite particular sense of well-being from rocks and from ores (which may be more or less transparent). But they enjoy their greatest sense of well-being, because here they are really at home, when they are conveying what is mineral to the roots of the plants. And they are completely enfilled with an inner element of spirituality which we can only compare with the inner element of spirituality in the human eye, in the human ear. For these **root-spirits** are in their spirit-nature entirely sense. Apart from this they are nothing at all; they consist only of sense. They **are entirely sense**, and it is a sense which is at the same time understanding, which does not only see and hear, but immediately understands what is seen and heard, which in receiving impressions, receives also ideas.

We can even indicate the way in which these root-spirits receive their ideas. We see a plant sprouting out of the earth. The plant comes, as I shall presently show you, into connection with the extraterrestrial universe; and, particularly at certain seasons of the year, spirit-currents flow from above, from the blossom and the fruit of the plant down into the roots below, streaming into the earth. And just as we turn our eyes towards the light and see, so do the root-spirits turn their faculty of perception towards what seeps downwards from above, through the plant into the earth. What seeps down towards the root-spirits, that is something which the light has sent into the blossoms, which the sun's warmth has sent into the plants, which the air has produced in the leaves, which the distant stars have brought about in the plant's structures. The plant gathers the secrets of the universe, sinks them into the ground, and the gnomes take these secrets into themselves from what seeps down spiritually to them through the plants. And because the gnomes, particularly from autumn on and through the winter, in their wanderings through ore and rock bear with them what has filtered down to them through the plants, they become those beings within the earth which, as they wander, carry the ideas of the whole universe streaming throughout the earth. We look forth into the wide world. The world is built from universal spirit; it is an embodiment of universal ideas, of universal spirit. The gnomes receive through the plants, which to them are the same as rays of light are to us, the ideas of the universe, and within the earth carry them in full consciousness from metal to metal, from rock to rock.

We gaze down into the depths of the earth not to seek there below for abstract ideas about some kind of mechanical laws of nature, but to behold the roving, wandering gnomes, which are the light-filled preservers of world-understanding within the earth.

Thus the gnomes, inside the earth, are actually the bearers of the ideas of the universe, of the worldall. But for the earth itself they have no liking at all. They bustle about in the earth with ideas of the universe, but they actually hate what is earthly. This is something from which the gnomes would best like to tear themselves free. Nevertheless they remain with the earthly — you will soon see why this is — but they hate it, for the earthly threatens them with a continual danger. The earth continually holds over them the threat of forcing them to take on a particular form, the form of those creatures I described to you in the last lecture, the amphibians, and in particular of the frogs and the toads. The feeling of the gnomes within the earth is really this: If we grow too strongly together with the earth, we shall assume the form of frogs or toads. They are continually on the alert to avoid being caught in a too strong connection with the earth, to avoid taking on earthly form. They are always on the defensive against this earthly form, which threatens them as it does because of the element in which they exist. They have their home in the earthly-moist element; there they live under the constant threat of being forced into amphibian forms. From this they continually tear themselves free, by filling themselves entirely with ideas of the extra-terrestrial universe. The gnomes are really that element within the earth which represents the extra-terrestrial, because they must continually reject a growing together with the earthly, otherwise, as single beings, they would take on the forms of the amphibian world. And it is just from what I may call this feeling of hatred, this feeling of antipathy towards the earthly, that the gnomes gain the power of driving the plants up out of the earth. With the fundamental force of their being they unceasingly thrust away the earthly, and it is this thrusting that determines the upward direction of the plant's growth; they push the plants up with them. It accords with the nature of the gnomes in regard to the earthly to allow the plant to have only its

roots in the earth, and then to grow upwards out of the earth-sphere; so that it is actually out of the force of their own original nature that the gnomes push the plants out of the earth and make them grow upwards."

"Through the fact that the sylphs bear light into the plant, something quite remarkable is brought about in it. You see, the sylph is continually carrying light into the plant. The light, that is to say the power of the sylphs in the plant, works upon the chemical forces which were induced into the plant by the undines. Here occurs the interworking of sylph-light and undine-chemistry. This is a remarkable plastic activity. (Life Sap) With the help of the upstreaming substances (Wood Sap) which are worked upon by the undines, the sylphs weave out of the light an ideal plant-form. They actually weave the Archetypal Plant within the plant from light, and from the chemical working of the undines. And when towards autumn the plant withers and everything of physical substance disintegrates, then these plant-forms begin to seep downwards, and now the gnomes perceive them, perceive what the world — the sun through the sylphs, the air through the undines — has brought to pass in the plant. This the gnomes perceive, so that throughout the entire winter they are engaged in perceiving below what has seeped into the ground through the plants. Down there they grasp world-ideas in the plant-forms which have been plastically developed with the help of the sylphs, and which now in their spiritual ideal form enter into the ground."

There is more in this lecture about the role of the Salamanders / Warmth Spirits, however I will leave it for the comments on 'Seed Chaos', later on. There is also good references, in the last 2/3rds of the second lecture of the Agriculture Course, for those who need more convincing.

With regards to the 'plants consciousness being centered in the Earth', - I am not sure what Enzo means by this. In the last chapter of this course he adds that the Cambium is 'the living principle of the idea of the plant'. It seems he has the line of activity from the 'Stars' (albeit planets) through the Cambium to the centre of the Earth, and is attempting to differentiate them, but without any explanation. The key issue here is that this is a Spirit stream of activity......... See page 30 para 1

"500 and 501 do no act internally upon the plant"

There is quite a bit of literature that challenges this comment. Koepf and Rumer for starters. While this might mean they act as an 'external source of activity', the plant form and quality changes evident with 501, can not be achieved unless the internal workings of the plant are involved.

Page 54 Paragragh 5 > Page 55 Potassium and 502 being related to Root processes.

Here is another example of Enzo holding onto some 'structure idea' too much. This time it appears to be that the preparations were delivered in the pattern of the plant. Yarrow 502 being the first prep given, it must be related to the Root of the plant. This pattern continues when he places the skull preparation 505 as a rhythmic system / middle preparation. This ordering is contrary to all other orderings I have seen, and never have I seen Yarrow related to the root function, however when he talks later of Yarrows effects on plants (pg 61 para 4) he talks of how it helps the plant flower? (Note no reflection back to his earlier statement). I am in favor of the order Dr Lievegoed presented in his 1951 talk to the Experimental Circle.

Part of Enzo's story of Potassium is also tied into his belief that the Chaos period of seed development occurs at germination. He is not alone in this belief, as it supports the 'Planting by the Moon' cult so prevalent amongst BDers. However closer examination of RS's comments suggest otherwise. We will talk of this more later. Firstly lets address his ideas of the preparations.

Yarrow 502. One of his key assertions about K, is that it 'is related to the roots and supporting organs. I have already presented what chemistry says it does. But a mainstream sources found on the internet by **Amir Tajer says**

- Potassium regulates the opening and closing of stomata thus regulating the uptake of CO2 thus enhancing photosynthesis.
- It triggers activation of important biochemical enzymes for the generation of Adenosine Triphosphate (ATP). ATP provides energy for other chemical and physiological processes such as excretion of waste materials in plants.
- It plays a role in osmoregulation of water and other salts in plant tissues and cells.
- Potassium also facilitates protein and starch synthesis in plants.
- It activates enzymes responsible for specific functions.

It is thus fair to say it has more to do with the leaves function and fruit development than the roots.

In the Ag course piece (Lecture 5) - for me the main line in this text is "it can set right all troubles which are caused by any weakness in the astral body, "..... The real question that arises from all of RS statements about the preps energetic activities is 'How is this achieved?' Does it strengthen the Astral body, or does it effect the relationship between the Astral body and the Etheric? The medical lectures give a good picture of the kidney bladder system, as the place the World Astrality is received and processed into our metabolic / physical being. If this process is malfunctioning then all manner of psychological problems will arise for the individual, not to mention the physical problems such as stones, shrunken kidney, and nitrate poisoning. My 'Equisetum and Fungus' article (http://garudabd.org/wp-content/uploads/ http://garudabd.org/sites/garudabd.org/files/Equisetum-v7_0.pdf)gives a RS look at the kidney, but in this case RS is suggesting Equisetum (Eq Av) rather than Yarrow. In this exploration we can see Eq Av is used to stimulate the Internal Astral activity against the 'World' Astral. So we can say of Eq Av "it can set right all troubles which are caused by any weakness in the astral body", also, however this is done in a very different way by Yarrow than that done by Eq Av.....Lievegoed - http://garudabd.org/.../files/Energetic-Activities-17-3.pdf- gives a very good image of the Yarrow prep, with the outcome being that 502 'opens up the Etheric to the inward moving Astrality'In the medical lectures RS talks in several places of how the Physical and Etheric bodies block off the Astral and Spirit from combining with them. It is Yarrow that opens up the Etheric body, so that the Astrality can be received. This is a Venus gesture, where the Venus creates environments and situations for people to interact. Observe your Libran friends and to a lesser degree your Taurus friends....... 502 is creating space for something to occur, rather than strengthening the Astrality to push through the barrier, which is more of a Eq Av activity. Nettle comes into this play, as well, by harmonising an overly active Astrality that is too strong and over powering / pushing the Etheric. I see it as pulling the Astral off, while Yarrow is opening from below, to receive the 'fructifying' astrality....These three preps 'harmonise the middle'.....The role of the stag in particular, as the polarity of the cow, has the metabolic processes, created by the interplay of the metabolic Astral \ Cosmic Substance and the metabolic etheric / Earthly Forces, that work forwards and are then reflected back to the metabolism by the cow horns - in the stag, flow outwards via the antlers, providing it with a sensitive metabolic clairvoyance. This is also true of a source of clairvoyance in humans. Hence the stag has a particularly fine relationship to the integration of the astrality, and this is concentrated in its kidney bladder system.......I could go on how Potassium and Sulphur are elements of the Etheric / Astral interplay from my chemistry, but that is a more complicated story....... So with 502, "it can set right all troubles which are caused by any weakness in the astral body," by opening the Etheric, from below, to receive the astrality when it is too weak to penetrate deeply enough to combine with the Etheric...... This action will influence all manner of insect attacks, pollination problems, as well as fruit sizing and flavour issues.

We find K as an electrolyte in the inner cellular fluids, as well as part of the electrical conductivity in the nerve synapse. As an alkali element it is also functional in the flowing of water within a living system. So it is an element that controls the energetic movement (Astrality) within the water sphere (Etheric).

We see this imaged in the Energetic Periodic Table in two ways. At the second stage of the organisation we see K as helping the Cosmic Etheric work into the World Etheric, imaging its water controlling activity, and suggesting a very good point to activate if one wishes to 'make rain'. While at the third 'Manifest' stage of the Periodic organisation, it is on the positive cation side of the Astral arm. This emphasises its role in the conveyance of the life energy – EM – within living organisms, both within cells and nerve synapse . In both cases we see K working with the Etheric Astral interface.

Sulphur on the other hand is found as a chemical catalyst in many biochemical functions within living systems. RS characterises it as the 'oil' that allows the elements of protein to function together or not. Too much S and we have Hysteria – too loose interaction of the bodies – and too little S, and we have autism – the bodies become stuck. S is a facilitator of living processes within the physical sphere.

In the Energetic Periodic Table (EPT), at level two, it is the element of how the Internal Astrality (movement) incorporates into the Cosmic Physical sphere. Hence this is the Astral stimulus for 'things' to integrate into matter. What 'things'? At level three (manifestation) of the EPT Sulphur is on the Negative Anion side of the Etheric arm. This brings its Astral / movement active of level two (laws behind manifestation) into the 'Manifest' Etheric sphere, hence the 'things' it is moving is the Etheric, meaning S helps the life processes work into the Physical sphere.

Yarrow by working with these two elements, helps the Etheric and Astral work together, but from the Etheric side of the equation. So Enzo's emphasis on the dragging of the Spirit impulses into the Roots and Earth appear to be somewhat overblown. His other stories of the other preps, apart from Oak Bark are within 'a credible range', so there is little needing to be said about them. Interestingly Enzo uses Lievegoed's planetary relationships for the preps, but not the traditional planetary order.

If we are looking for an order for how the preparations were delivered, I would put them upon a spiral with 502 being the first, one of the middle preps. Then moving outwards and towards the bottom with 503 etc.

Saturn	Valerian	Phosphorus	Strengthens the Ego against the Astral	507
Jupiter	Dandelion	Hydrogen	Helps the Ego and the Physical entwine	506
Mars	Nettle	Nitrogen	Harmonises the Astrality and other bodies	504
Venus	Yarrow	Sulphur	Opens the Etheric to receive the Astral	502
Mercury	Chamomile	Oxygen	Strengthens the Etheric against Astral	503
Moon	Oak Bark	Carbon	Draws a rampant Etheric to the Physical	505
MIOOH	Oak Daik	Carbon	Dians a lampain Lineile to the Lhysical	

Generally the rest of this chapter holds to the consensus view of things. Other than 505 being a 'middle prep' and it having a role in moderating negative Astrality as stated on pg 71, para 3. Similarly the early pages of the 'Plant Diseases' chapter are very helpful.

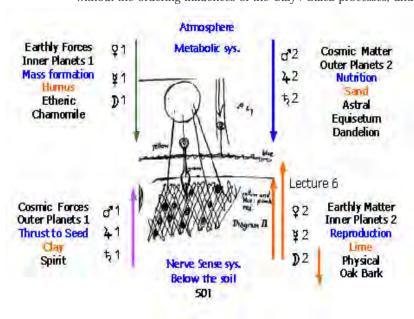
Page 71 Paragraph 6 '

A sandy estate is unbalanced towards the world of insects'

This is a 'logical' Biodynamic association - Sand , Light, Astral, = Insects...... however, I had a kiwifruit orchard on a very sandy volcanic ash soil for 10 years. I initially thought I would have pest problems, however my biggest problem was fungal problems. During this period I was visiting Emerson College in the UK, for short teaching gigs, where they are on a heavy wet clay. There main problem was insect attack and no problem with fungal diseases. So this is the exact opposite of what we might expect using the BD 'polarity theory', as stated in Enzo's comment.

Enzo's approach generally in this book, and specifically here, is somewhat 'confusing', because he is trying to tell a fourfold story, as a twofold polarity. Rather than deal with the specifics of his approach to fungal problems, it is best to point you to my article on fungus — http://garudabd.org/wp-content/uploads/http://garudabd.org/sites/garudabd.org/files/ Equisetum-v7_0.pdf .

I agree with Enzo that there are two main sources of fungus cold wet and hot dry, however because I am looking for the four players in every situation, the Cosmic and Earthly players from the top and bottom can be clearly described. I also see Clay and Sand as polarities, as described in lecture 2 of the Agriculture Course. Clay encourages the Silica processes upwards from the soil, and Sand encourages the Silica processes from Above downwards, into the Earth. Hence in a sandy soil, the upward clay processes, which pushes the plant though to seed, are inhibited, both by the Sand and dominant Calcium processes. So when the soils Calcium processes / Moon 2 forces are too strong, they move upwards without the ordering influences of the Clay / Silica processes, and we get fungal rotting diseases. We can encourage the



downward Silica processes with Equisetum and Sand, however this is not addressing the real problem of weak clay forces. We need to add clay both physically (A 20 cm ball to 10 square meters of bed) and energetically (D20) to allow them to work properly upwards, which in turn strengthens the atmospheric Silica cycle to work inwards. We can also use Oak Bark 505 to pull the Moon 2 forces back to the Earth. I could grow very good roots and leaves and when the plants when off to flower fungal attack would begin. Only once I added clay to the soil were the plants able to ripen seed. If we are looking for a 'middle', it is Clay, Sand, Humus and Cations, not just clay. These are the four elements that make a good potting mix, and an assessment of any soil of what is lacking from these four should be one of the

first steps in a BD analysis of a soil. What is missing needs to be bought to the soil one way or other, even in small amounts.

Dry Hot diseases come from the opposite direction and need a different approach. Dr Steiner suggested Mercury Sulphate for these. My trials suggest this needs some further development to overcome the 'growth problems' this remedy might also cause.

The other concern I have with Enzo's approach to fungal problems is his use of heavy metals. We have shown control of diseases on grapes are possible without using these products. The footnote suggests Enzo has moved on from this practice.

Page 80 Paragraphs 1—4

Direct and Indirect Planetary Influences

This is a very 'tricky' subject mostly due to there being three different types of Direct and Indirect Planetary organisations. As part of the basic axiom 'As Above , So Below' RS starts with the polarity of the Cosmos beaming forces from Above, and the Earth receiving these, and then reflecting them back outwards. A simplistic Cosmic and Earthly designation does not allow for the required complexity we have later in the story, so he clarifies **forces from Above as being Direct, and forces coming from the Earth as Indirect.** But exactly when is this clarification applied?

With the Indirect activities there are three variants that he mentions. (A) is where the **Direct Sun or other planetary** forces are reflected off the Moon or other planets before to reach the Earth as Indirect forces. Thus we have the Direct Sun and planetary forces and then we have Indirect Sun and planetary forces via the Moon and other planets. (B) Is where the planetary influence comes into the Earth from the opposite side of the planet to the plant. Sp the Direct comes from Above and the Indirect comes through the Earth. This will occur each day. (C) is when the planetary influences come directly from above, and are accumulated in the Earth, before being released back upwards. While this process is a continual process, it also has a seasonal component to it. As part of RS's 'Seasonal' story, the Direct planetary influences are drawn in through the Autumn, 'crystallised' at mid winter, and then released back upwards, as Indirect forces in the Springtime.

During the Agriculture Course RS quickly describes all these planetary processes, A is talked of in Lecture 4, B in Lecture 1 and C in lecture 2 and 6. They are also talked of elsewhere.

(a1)Astronomy Course - lecture 7 - 7th January 1921. http://wn.rsarchive.org/Lectures/Dates/19210107p01.html

(a2)Human Questions Cosmic Answers lecture 4 2 July 1922 https://wn.rsarchive.org/Lectures/Dates/19220702p01.html

(b) Agriculture Course lecture 1 — 7 June 1924 $\label{eq:http://wn.rsarchive.org/Lectures/Dates/19240607p02.html}$

(c) Agriculture Course lecture 6-14 June 1924 http://wn.rsarchive.org/Lectures/Dates/19240614p02.html

Summary

(a1) "Diagrammatically now let this be the animal form. If after going into an untold number of intervening links in the investigation, you put the question: 'What is the characteristic difference of the front and the back, the head and the tail end due to?', you will reach a very interesting conclusion. Namely you will connect the differentiation of the front end with the influences of the Sun. Here is the Earth (Fig. 3). You have an animal on the side of the Earth exposed to the Sun. Now take the side of the Earth that is turned away from the Sun. In one way or another it will come about that the animal is on this other side. Here too the Sun's rays will be influencing the animal, but the earth is now between. In the one case the rays of the Sun are working on the animal directly; in the other case indirectly, inasmuch as the Earth is between and the Sun's rays first have to pass through the Earth (Fig. 3).

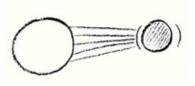


Fig. 3

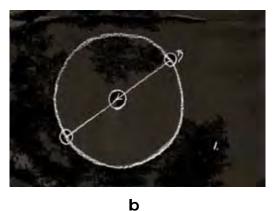
Expose the animal form to the direct influence of the Sun and you get the head. Expose the animal to those rays of the

Sun which have first gone through the Earth and you get the opposite pole to the head. Study the skull, so as to recognize in it the direct outcome of the influences of the Sun. Study the forms, the whole morphology of the opposite pole, so as to recognize the working of the Sun's rays before which the Earth is interposed — the indirect rays of the Sun. Thus the morphology of the animal itself draws our attention to a certain interrelation between Earth and Sun. For a true knowledge of the mutual relations of Earth and Sun we must create the requisite conditions, not by the mere visual appearance (even though the eye be armed with telescopes), but by perceiving also how the animal is formed — how the whole animal form comes into being."

Now super-sensible observation has revealed that everything that radiates from the light of the moon, everything that streams as reflected sunlight from the moon on to the earth, and also streams into our thought-life as formative force — all this works, too, in the shaping of the animal forms. Essentially, all that is indeterminate, formless will-force in the animal is to be found within the sphere of the direct light from the sun. But all that gives the animal its independent form, which is not adapted to the earthly element, is, in the true sense of the word, woven out of the gleaming moonlight." Human Questions Cosmic Answers— 2 July 1922

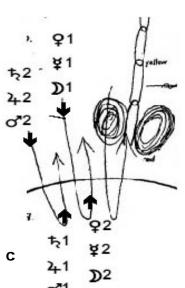
(a2) "Now super-sensible observation has revealed that everything that radiates from the light of the moon, everything that streams as reflected sunlight from the moon on to the earth, and also streams into our thought-life as formative force — all this works, too, in the shaping of the animal forms. Essentially, all that is indeterminate, formless will-force in the animal is to be found within the sphere of the direct light from the sun. But all that gives the animal its independent form, which is not adapted to the earthly element, is, in the true sense of the word, woven out of the gleaming moonlight"

We need to note here, the animal Head is influenced by the Direct forces, while the metabolism is effected by the Indirect forces.— Either Sun forces through the Earth or reflected by the Moon. When this relates to the plant though it would seem it is the other way round. The Roots / Head will be influenced by the Indirect forces, and the top of the plant by Direct forces. Nevertheless Enzo is clear that the reflected Moon forces continue to dominant in the influence of plant form. It seems he is saying the Direct Sun forces influence the Roots, while the Indirect Moon forces must influence the metabolic / fertility side of the plant......so not so clear here.



(b) "Saturn goes slowly round, in thirty years. Let us draw it thus (Diagram b): here is the course of Saturn. Sometimes it shines directly on to a given spot of the Earth. But it can also work through the Earth upon this portion of the Earth's surface. In either case the intensity with which the Saturn-forces are able to approach the plant life of the Earth is dependent on the warmth-conditions of the air. When the air is cold, they cannot approach; when the air is warm, they can."

I have seen Enzo use this organisation, however can not quote it, at present. Also Hugh Lovel refers to this in some of his writings. But generally it is not referred to.



Understanding scenario C takes a bit of following.

(C) In addition to the Lecture 2 story we have "It was pointed out that we must learn to distinguish those forces which arise in the cosmos but are absorbed by the earth and work upon plant-growth from within the earth. These forces come from Mercury, Venus and Moon and act not directly, but through the mediation of the earth. They must be taken into account if we wish to follow up how the mother-plant gives rise to a daughter-plant, and so on. On the other hand, we have to consider the forces taken by the plant from the outer-earthly, and brought to it by way of the atmosphere from the outer planets."

"Now I want you to imagine that Diagram C represents the earth level, where the influences of Venus, Mercury and Moon I enter into the earth and stream again from below upwards. These are the forces which cause the plant to grow during the season, later produce the seed, and by means of this seed a new plant, a second plant, then yet a third and so on. (I indicate this schematically). All this goes into the

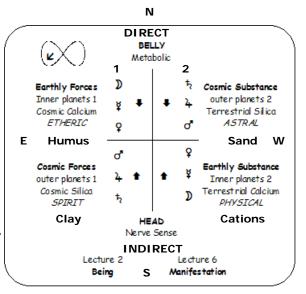
power of reproduction and streams on into the succeeding generations. The forces, however, which take the other path, remaining above the earth level, come from the distant planets. I can draw this schematically in this way. These forces cause the plant either to spread into its surroundings or to become fat and juicy, to build matter into itself such as we can use for food because it is produced again and again in a continuous stream." "From this we are able to see how we must proceed if we are to influence plant-growth in one way or another. We have to take account of these two sets of forces."

Taking our lead from Picture C and the lecture 8 picture we get >>> From this diagram we can see RS

Cosmic Forces = InDirect Outer Planets 1; **Cosmic Substance** = Direct Outer Planets 2; **Earthly Forces** = Direct Inner Planets 1; and = Indirect Inner Planets 2. **Earthly Substance**

But we need to know we have jumped into Stage 2 of the story. To really understand how we get here we need to go back to Stage 1 and follow a slightly winding path of how we got here.

Given these stories have to be patched together from small pieces from a few different lectures, it is not surprising very few people have 'got it'. Beyond these references, RS medical lectures gives further details of the arrangement of the planets activities, so in 1951 Dr Lievegoed (BL), a medical doctor, gave lectures to the Experimental circle, with more details of how story C works in greater detail, and how the preps



are related to these activities. - "The Working of the Planets and the Life Processes in Man and Earth". This is a very dense booklet, and very few BD folk have been able to do much with it. So much qudos to Enzo for being one of these few, to be doing something with it (see pg 96). During the later 1990s, discussions on the BDNOW email list led Dave Robison of Oregon, to re edit this booklet into a more comprehendible form. This is available at the Oregon BD website. Some years later I added a suggestion of which constellations relate to the planetary processes Dr Lievegoed describes. This can be found at http://garudabd.org/wp-content/uploads/http://garudabd.org/sites/garudabd.org/files/Energetic-Activities-17-3.pdf.

One of the **foundational structures** of RS's story is not provided clearly by either RS or BL. In my wanderings I have observed that there are three stages to manifestation. They can be seen in cell division, where the cell is carrying out its normal function. It then begins to pulsate, before then splitting in two. This can be expressed as a Circle representing 'The Archetype' / Form; the 'Lemniscate'—representing pulsing, which indicates the laws standing behind manifestation; and then the 'Enfolded' Manifestation of the cell dividing. I first saw this progression by following the 'movement' of the constellations of the zodiac, by following the planets, from the Archetypal order, provided in 'Biodynamics Decoded' to







how the zodiac appears in the sky. (http://old.garudabd.org/books/4_8. html) Then again in the Agriculture course, and then again in my journey through Chemistry. What this understanding does is it provide us with three different organisational patterns of the same Manifestation internal parts, for three stages of Creation.

Archetype

Laws Behind

Primary planets N Secondary planets Silica - Cosmic outer planets ď ď ۱Λ/ E Q Q Calcium - Earthly ğ ğ inner planets D D Being Manifestation Antichemistry - Ethereal Chemistry-Physical Upbuilding Stream Destruction Stream Invisible - Dynamic Visible Formation "Forces" "Substance"

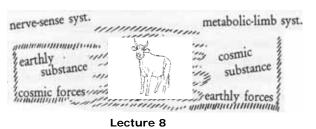
So We need to know which stage we are talking about. So **firstly** BL leads off with the story Enzo draws on page 96. This is RS basic story of the incarnation journey. After death, we travel out through the planets re-experiencing our past life deeds. Once we get to Saturn we meet Chiron—the guardian of the threshold—who asks us if there is anything there we might like to revisit and resolve. From that point, if we decide to return for another life, we move back through the Incarnating Planets, setting up the events of our next life we wish to experience. This is the Primary Planets (1). At the bottom of the curve, we are born and then the outward journey is us living our lives, through the Secondary (2) Planetary Processes, until at Saturn we again die. This is the 'Archetypal journey' that all things go through in

someway to build its energetic form, become manifest and then live out its life. In Biodynamics this is how we have to view our plants and animals. They go through a 'accumulation of forces' stage before becoming manifest as the plant we see. However with plants we need to see this process through the progression of the seasons. So while the plant is growing through the present season, predominately after mid summer, it is also accumulating the force form for the plant we will see in the following season. Albeit via the seed in annual plants or via the wood and cambium in perennial plants. So in autumn, both the 'new' Force and the 'old' Substance processes are occurring at the same time. We will look at this more when dealing with the question of 'seed chaos'. So this is the Archetypal processes of creation. Forces organise and this 'vortex/sphere' is then filled with substance. At this stage of the story we are ONLY talking of the Primary / Incarnating and the Secondary /Excarnating planetary processes. At this stage we are at 'What IS'. Next stage is what happens when things MOVE, as this is when we have Polarisation and Life Begins.

Stage 2. This next bit is the tricky bit. After this first part of the story, BL moves onto how the planetary activities

polarise in their activity. Saturn 1 will work with Moon 2 in the formation of the Brain and Skeleton for example. He leaves these activities as opposites. However RS provides us with this picture, from lecture 8, which is how the basic activities BL outlines organises WITHIN a living entity. We need to follow the threads, of the Cosmic and Earthly, Forces and Substances, and the Planets, through the Agriculture Course, and allowing for the Lemniscate of Life movement; where the Primary Planets flip over, meaning BL's polarities now stand next to each other, in the Physical Systems; and we come to this diagram of the Stage 2 'Laws standing behind Manifestation'. Take a moment to join BL's picture with RS's picture.

RS then talks of how the Star and Planetary influences shine upon the Earth as 'Direct' Planetary activities, and are received by it, and then reflected back outwards as 'Indirect' Planetary activities. This process is different to the incarnating and excarnating processes, we just saw BL outline. Both BL and RS talk of the Direct and Indirect planetary activities, as 'active' planetary processes working onto the Primary and Secondary planetary activities. These are two cycles running 'next' to each other. Hence we have the Direct planetary activities being made up of the Inner Planets 1 and the Outer Planets 2, while the Indirect



N DIRECT BELLY Metabolic 1 2 D Earthly Forces Cosmic Substance Inner planets 1 outer planets 2 ğ Cosmic Calcium Terrestrial Silica ETHERIC ASTRAL Q ď Humus Sand W ç ď Cosmic Forces Earthly Substance Inner planets 2 outer planets 1 Cosmic Silica Terrestrial Calcium SPIRIT PHYSICAL Clay Cations HEAD Nerve Sense INDIRECT Lecture 2 Lecture 6 Being Manifestation

processes are the **Outer Planets 1 and the Inner Planets 2** activities. Take another moment to clarify this. (Remember this has confused most everyone for 95 years , and still stumps Enzo as shown on Page 98 para 5).

So in RS and BL descriptions of the polaric life processes, they are talking of a structure at the lemniscate phase. **The Laws Behind Manifestation.**

If you compare this diagram to Enzo's on page 79, you will find similarities and differences, but no reference to RS lecture 8 diagram, as shown here. I suspect this diagram is borrowed from GW Schmidt's 1971 'Seed Regeneration' essay. Pg 81, para 3 seems to reference the same document. Hence Enzo mirrors all that I do not agree with from Schmidt. I suggest Schmidt mixed up the Life and Chemical Ethers, and Enzo mirrors this. Hence he presents Lievegoed as a separate thing to the Schmidt diagram.

Physical Formative Forces

The Physical Formative Forces (PFF) - Cosmic Forces, Cosmic Substance, Earthly Forces and Earthly Substance - are a bit of a 'novelty' within RS literature. While they play a central part within the Agriculture Course they only rate a mention here and there within the Medical Lectures. In those lectures RS tends to talk more directly about the energetic activities working within the physical systems, and how this drives the 'organisations' eg warmth organisation. Whereas in Agriculture they do serve a good service. RS story is about how the four main energetic activities Stars / Spirit, Planets / Astral, Atmosphere / Etheric and Earth / Physical work into the 3 physical systems Nerve, Rhythmic, Metabolic. However with plants this is complicated as they only internalise the Physical and Etheric, while the Astral is outside above the plant and the Spirit is within the Earth , below the Plant. This does not mean the World Astral and World Spirit do not effect

the individual plants, they do both from outside working inwards, but also by working through the Etheric and Physical bodies. In the Etheric the Ethers are the functional parts. The World Spirit works through the Warmth Ether, the World Astral works through the Light Ether, while the World Etheric works through the Chemical Ether and the World Physical through the Life ether. These activities also work into the Physical body, the Spirit works primarily through the Cosmic Forces, the Astral primarily through the Cosmic Substance, the Etheric primarily through the Earthly Forces and the Physical primarily through the Earthly Substance. The reason I said ' primarily' is because these words mean more than this simple organisation. RS story has all four activities working through each of



the three physical systems, so when we talk of the Metabolic system or the flowering and fruiting parts of the plant, we have all four activities there. So the Earthly Forces are primarily Etheric with a sub layer of Physical activity, and the Cosmic Substance is predominately Astral with a sub layer of Spirit. So when we say Cosmic Substance we are meaning the Direct Light and Warmth processes coming from the environment, which 'cook the plant to bring the nutritive quality of the plant. Upon these paths of light and warmth comes the Outer Planets 2 and the Stars bringing their Species vibe. All these activities are drawn into the Earth, directly and via the plant, mostly during the Autumn Winter period. They 'crystallised' around mid winter, before working back outwards as Cosmic Forces of inner Light and Warmth from the Earth. These are Spirit forces with a secondary Astral sub layer. This activity carries the Archetypal intention of the species, given to it by the Spirit / Star side of the Cosmic Substance, last season; and it wants to move upward towards the new seed development in the coming one. As it moves upwards the Earthly Calcium stream hitches a ride, with the help of Boron..

The same cycle motion goes for the Earthly stream. The Earthly Substances - minerals / Physical and water / Earthly Etheric—are drawn up through the plant and transpired out into the Atmosphere, to become 'homeopathic Calcium' and Earthly Forces, which are then predominately Etheric activity, with a sub layer of Physical activity. These work with the moisture and substance in the air, and Undines to grow leaves and bring size, mass development and quantity to the plant. The Etheric makes things bigger and brings reproductive fertility. These Earthly Forces are drawn to the Earth by Lime, but held there by the humus in the soil. In the plant they are stimulated into photosynthesis then 'cooked' by the Cosmic Substance, to bring nutritional quality, to the quantity.

I trust it is apparent why Enzo's page 79 picture is so confused. Compare it to mine and see the differences.

Page 80

Paragraphs 1-3

are ok. Paragraph 4 he brings confusion. Vegetative Forces and Nutritive Value. Indirect Inner Planets and Direct Outer Planets. This is the **Earthly Substance** (Indirect inner planets 2) and the **Cosmic Substance** (Direct Outer planets 2), while the second 'polarity' is the Indirect Outer planets 1 / **Cosmic Forces** / Form working with the Direct Inner planets 1 / **Earthly Forces** / fertility. **Not Earthly Substance.** These are not the interaction BL and RS describe.

Paragraph 5

"The direct influences of the inner planets are converted into Earthly Forces" - these were just called Earthly Substance!

While the Indirect Earthly processes 2(Earthly Substance) are Water — when the Etheric is the Water element. The Indirect Inner planets are Physical dominant. Again he has misplaced the Warmth dominant Spirit activity into the Atmosphere, while RS has it as in the Earth, and the Air activity usually associated with Astral dominance in the Earth rather than active Above.

So NO Enzo's approach to this subject does not conform with RS or BL. So from here on it is anyone guess as to what he is really getting at.

Paragraph 8

Even though this is up side down, lets not take any notice of what was said in para 4 and 5, and lets go with what RS said about the parts of the poles working together. He then makes some interesting suggestions, albeit using the wrong reference terms. The thought processes displayed here are good observations.

Page 81 paragraph 3 The Ether Cycle

This paragraph gives a very quick run through the cycle of the Ethers through the year. I suspect Enzo has 'lifted' his story of this from GW Schmidt, and his 'Seed Regeneration' article from 1971. Interestingly, Schmidt gives no references for

his allocation of the Ethers, moving into and out of the Earth, except 'his extensive research'. The page 79 diagram I have just rebuked, appears also to be one from Schmidt, as well. Hence his Ethers story is also 'very weird'.

The only place I have come across RS talking about the Ethers through the seasons is in lecture 7 of 'Man as Symphony of the Creative Word' (2 Nov 1923) and a companion lecture given a few days earlier - lecture 5 of 'Cosmic Workings in Earth and Man' (31 Oct 1923). The accompanying picture is the result of mostly those lectures. This is for the Southern Hemisphere orientation , so opposite in basic orientation to Schmidt's picture. This study was part of a wider study into 'What did RS say about how a plant grows' . This study and the reference material I have used is available at http://garudabd.org/2018/12/04/rs-plant-growth-story/



Page 81 Para 4 -6

These are wonderful Goethean Observations. I might be altering the time, due to the odd Ethers story, but yes good.

Page 82 Para 3 Physical Formative Forces

This is telling the story of the fourfold PFF processes, but without any reference to the lecture 8 diagram. I find this very strange.......EN is choosing also to make the Primary planets activity the dominant force. But why? Fits the story nicely, however in RS stories - the downward force is not driven by the Inner Planets 1 / Earthly Forces, it is driven by the inward moving Silica processes and Sand. He talks of the Cambium being the driving force of the descending sap and this is a Cosmic Substance phenomena. We could talk of the Earthly processes 'responsiveness' to the Silica direction.

Para 4 onwards are all wonderful observations and applications. Which is why if the rest of the story was better this would be a great book. There are gems here.

Page 83 , Para 3 Dual Activity of Jupiter

Enzo talks here of the dual activity of Jupiter. The dual activity of the planets show themselves in the Zodiac, however I have not seen where he shows which is which. Jupiter rules Sagittarius and Pisces. The question is which is Jupiter 1 and which is Jupiter 2 Enzo says Jupiter 1 is Light and Jupiter 2 is Movement.

I have a suggestion on this matter.

Sagittarius is the Fire Being , and seems to be the Light pole, which fits with the Cosmic substance 'quarter. While Pisces, the Mutable Water Being, is Movement, fitting with Earthly Forces quarter. Using Lievegoed and the Archetypal Zodiacal order — this says The Movement side is Jupiter 1, Pisces; and the Light is Jupiter 2, Sagittarius.

So not sure where Enzo got his reference from?

North Primary 173 **≈** 5 × 4 ď ተተ ď East d Ŷ Nutrition ARTH ¥ T 13 D D Manifestation - 2 Being - 1 Antichemistry - Ethereal Chemistry-Physical Upbuilding Stream Invisible - Dynamic "Forces" Destruction Stream 'Substance' Dr Lievenned

There are some very good insights in this last part of this chapter. The Primary and Secondary effects indicated by retrograde or not in interesting, and probable. I would like to see some research findings on this. The virus being an excessive Moon 2 activity is also intriguing and possible. Trials would be valuable to see.

Page 88 Para 1 Seed Chaos

This premise is again based upon the **Plant Group I being based in the planets**......The incorrect nature of this stance has been addressed earlier.

The following chapter contains many 'statements' based upon this false assumption.

Seed Chaos

Enzo's commitment to the Planting by the Moon 'cult', has him strongly supporting **the 'seed chaos' at germination**, belief. My study of RS comments regarding **'seed chaos'** shows he saw it as **occurring at fertilisation**. This short quote shows such — **"If there is fertilised seed at all, the chaos is complete."** Rudolf Steiner, Agriculture Course, Discussion after Lecture IV, https://wn.rsarchive.org/Lectures/GA327/English/BDA1958/Ag1958_discuss4.html .

A central theme of this book is that Seed Chaos occurs at Seed Germination. This gives strength to the argument that **the moment of sowing** is THE time, to fix the Form of the Idea of this Plant, into this seed.

I disagree very strongly with this premise. I understand RS to be saying **Seed Chaos** - **when the immediate structural plans from the Stars, for the next cycle, are given to the plant, and inscribed into its energetic matrix - occurs during the Pollination period of a plants growth cycle**. There are several quite direct statements in this regard.

Here is the section in Lecture 2 of the Ag Course where seed chaos is discussed. This is one section in a whole dialogue, of how the Plant moves through it growth cycle.

"Now with regard to the cultivation of the soil there is a point of great importance which must be thoroughly understood. It is a point I have often dealt with amongst Anthroposophists. It is that we know the conditions which the forces of the cosmic spaces can work upon the earthly realm. Let us begin with seed formation. The seed which gives rise to the embryo of the plant is generally regarded as a molecular structure of exceptional complexity, and science lays great stress upon this interpretation. The molecules it is said have a certain structure, in simple molecules it is simple, in complicated molecules it becomes more and more complex, until we come to the extreme complexity of the albuminous or protein molecule. People stand in wonder and astonishment at the enormous complexity of the structure supposed to exist in the seed. They do so because they reason as follows. The albumen (or protein) molecule, they say, must be enormously complex, and since its structure was determined by the embryonic conditions of the seed, the latter's microscopic or ultra-microscopic content must also have a structure of enormous complexity. Well it is complex indeed in the beginning. As the earthly albumen is formed, its molecular structure is driven to the utmost complexity; but this alone would never give rise to a new organism. For the organism arising from the seed does not proceed by a mere continuation in the off-spring of what was present in the parent plant or animal.

What happens is that when the **embryonic structure** has reached the highest stage of complexity in the earth domain it falls to pieces and becomes a "little chaos". It breaks up and dissolves, one might say, into "world-dust". And when this little chaos of world-dust is there, the whole surrounding cosmos begins to work upon it to stamp it with its own image and to build up in it a structure conditioned by the forces of the Universe working in upon it from every side (see drawing no. 3). Thus the seed becomes an image of the Cosmos. Every time this happens, and seed formation is carried through to the point of chaos, the new organism is built up from the seed-chaos by the activity of the cosmos. The parent organism has only the tendency to bring the seed to such cosmic position that through its affinity with this cosmic position the cosmic forces will act in the proper direction so that, eg a dandelion will give rise to another dandelion and not a berberis.

But the new thing that is built up is always the image of some cosmic constellation. It is built up out of the cosmos. And if in the Earth we would make effective the forces of the cosmos, we must drive the earthly elements into the state of greatest possible chaos. This has to be the case whenever we want the cosmos to act upon our Earth. In the case of plant-growth this is in a certain sense provided for by nature herself. But just because every new organism is built up by the Cosmos it is necessary that the cosmic principles must be allowed freedom to work in the organisms until the seed-formation is completed.

If for example, we plant the seed of a given plant in the earth the seed contains the impress of the whole cosmos from a particular cosmic direction, which means that it came under the influence of a particular constellation and received its particular form. At the moment when the seed is placed in the soil it is strongly worked upon by **the terrestrial ("belly Ed.) forces,** and it is filled with the longing to deny the cosmic forces, in order that it may **spread and grow in all directions.** For the forces above the surface of the Earth do not want the plant to retain this cosmic form. The seed had to be driven to the point of chaos; but now that the plant is sprouting it is necessary to oppose the terrestrial to the cosmic forces which live as the form of the plant inside the seed, For the cosmic forces must be opposed and balanced, as it were, by the terrestrial forces. We must help the plant to become more akin to the Earth in its growth. This can only be done by introducing into the plant some form of living earthly matter **which has not yet reached the state of chaos**

A more in depth exploration of the literature, supporting Seed Chaos at fertilisation, and its understanding, is provided by Stewart Lundy in his google books article — 'Bringing Order to Seed Chaos' available at https://docs.google.com/document/d/1hPurMuiCaBpkFKKo12ITiZHxW8VLbZmk7_nIKcnWqpU/edit? usp=drivesdk.

My own exploration of the literature led me to the same conclusion, however 'life circumstances' have only enabled me to prove a small part of the thesis.

My interest was sparked by Coriander rushing off to seed. Could this be halted? My experience with the Umbellifere family shows they have a very strong 'commitment' to their biennial seeding cycle. Second season, off they will go to seed. Coriander does this within one season. So making a change of it becoming at least a biennial should be possible, even though it is some what of a 'species' change. So pollination is the time, and the Task is we want to have a specific impulse, enter into the energetic stream that is naturally occurring, at the time.

There is a side track about 'perception of reality' we need to make here. I find it necessary to accept that my experience of reality is highly subjective, and experienced as if I am at the centre of it all. What happens in the middle of it all, is an expression of the immediate 'All' and 'what is real' is dependant on how I receive it all.Similarly, a plant receives what it can receive according to the environment in which it finds itself. So if we can 'control' the plants perception of its reality, at the time of 'Seed Chaos', we should be able to influence the message it receives, in the Cosmic Idea's plans. The traits we wish should then be carried through to the new seeds.

My research since the 1980s shows it is not the physical environment the plant is in, that 'dominates', its the 'subjective' state that directs its response. Eg We spray the plant with ThermoMax— a mixture of homeopathic BD preps— and it has an internal temperature rise of 2 degrees, which provides a frost protection response, as well as a 'warm spring' response that allows the plants to grow as if the environment was warmer. Similarly, pest control trials have shown that irrespective of the insect presence, the pests do not develop after birth. In Brassica, small holes are made and then the grubs drop off, or they do not reach birth.



The first picture of this series is an example of a trial. Early leaves were protected by a homeopathic. It 'ran out' and in came the bugs. Another application and the centre was protected again. The incidence of the butterflies did not change. The 'energetic environment' of the plant changed. So if we control the energetic environment during the time of pollination, and I suggest through until after the 'milky' phase of seed maturity, we should be able to impart this influence to the following generations.

My coriander trials plan was to produce a plant that did not go off to seed so quickly and show that the qualities would be carried in the seed of the next generation. We would create the environment of the change desired, allow the plant to move through it, and then collect the result.

The suggested way of doing this was to **hold back the Cosmic Forces stream** that sits beneath the plants desire to go to seed. When it moves upwards it is in an orgasmic like event. The plant slowly bursts into puberty. If this can be held back, then we have achieved our goal. A side effect of this change in the balance of the Cosmic and Earthly poles, towards the Earthly. We can expect more Etheric, and for things to be bigger.

I showed the flowering processes could be controlled, in brassica, in my 1991 trial with Kale plants. Three plants all from

the same punnet, and sprayed differently, over a three spray trial. See pic 2

With the Coriander, I sprayed plants with three degrees of 'intensity'. (A) had no spray, (B) had one application (C) (not shown) had two applications of a spray (ZeroIn like) known to inhibit the upward Silica process – stimulated by Clay – and so holding back the upward stream, not allowing the plants to go off to seed. (see the dahlia and celery trials, which had similar treatment . The dahlias laid down from one day to the next) The plants growth habit immediately changed as seen in these pictures.

A performed normally, B grew horizontally and set seed. The flowers on B were larger than A. C did not set viable seed. I collected the seed from A and B and sowed them soon after, into one pot. When they germinated the

seedlings from B were twice the size as A, after a couple of weeks. (sadly no picture of this survives.... You will have to believe me). This mirrors the larger flower size, and indicates stronger Etheric activity, released by holding back the natural contractive cosmic activity. Showing this significant indicator was passed over to the next generation. Sadly At this point of the experiment I moved home, and while I tried to continue the experiment in pots, it dissolved into the chaos. I have not found the time to repeat this experiment, due to 'laziness', and other experimental interests. Also a constant supply of coriander is achieved by allowing it to freely seed.

Nevertheless, we saw the influence of the growing environment, did move through the seed to the next generation.

I see in my plant experiences that **the plant physical morphology can be significantly influenced at any stage of its growth.** Not just at germination. Germination is obviously one of those stages in the plant, that impact upon the plants future growth, **but with 'remedies' we can intervene at any stage** of the plants growing cycle.

So the changes Enzo describes in Page 89 Para 2 could be describing the



Sprayed - Unsprayed flowers





effects of any number of things and stages throughout the plants growth.

It is apparent that the plant is an extremely sensitive thing and that its form and outcome can be influenced at any stage of its development. The growth change shown by the one application of the treatment is as dramatic as one might show with a Moon planting time. The real question is when did RS suggest seed chaos occurs. The quote "If there is fertilised seed at all, the chaos is complete" says alot. As Stewarts article shows, there are many other quotes that clarify this statement. It is a meandering story but worth exploring....... So yes sowing times can be used to influence the growth of the plant, but so can a homeopathic remedy. I conject - If we wish to make dramatic growth changes, passed on through the seed, then controlling the 'epigenetic' environment of the plant, during the seed chaos time, of pollination, holds enormous potential?

Since that time I have been concerned with other matters - circle chemistry mostly - however this is an outstanding question, and one I hope to do more with in the future.

For now there is enough to strongly question Enzo's 'enthusiasm' (and many other peoples) for RS's seed chaos being at sowing time. We can see from later in the lecture, Enzo is talking of the Seasonal Cycle RS talks of. He identifies a few stages in this cycle. Pollination,........ The Cambium / 'Living principle of the idea of the plant'. And the centre of the Earth described as "the seat of the consciousness of the Group Ego". Then the Germination stage of the Spirits journey is "the moment of sowing, because it is the moment of the incarnation of the idea, the spiritual conception of the plant." I am taking this to mean the moment the 'Archetypal Idea' joins with the plant. So there is more to this story......nevertheless this stream of activity is a Star stream, not a planetary one.

Fructification

Germination is the plants birth. Conception is pollination, and 'pregnancy' is the journey through to RS **fructification**, which he places with crystallisation around mid winter. Quoting Goethe, RS makes several comments that the 'fertility' of the plant, is not complete till after mid winter. I see fructification as the culmination of the Gnomes task of combining the Cosmic Forces and Earthly Substances from last season, and imbuing the seeds with these, for the season ahead. This 'Fructified Seed', is then sown into the soil. RS talks then in lecture 2 of how the Earthly Forces try and steal the Cosmic Forces away from their destiny......and so the Cosmic and Earthly dance begins once more.

Pages 91 - 94

are examples of the Anthroposophical Agricultural approach. An approach I stay away from due to the immense supposition involved. There is enough Spiritual Science available to us, without needing to venture too far into religious realms. The real energetic realms we have before us is enough. Reality is connected to them. **We are Nature consciously interacting with itself.**

Page 91-95

This is an example of Anthroposophical Agricultural associations. The highly speculative nature of this practice causes me to avoid this path of knowledge.

Page 96

While I congratulate Enzo for working with Lievegoed, his appreciation of the various stages can be refined further. In my case I have found the 'circle work' - where one moves around the circle, experiencing the various stages - has helped to clarify them. I have written about this in my Lanthanide Journey's article. http://garudabd.org/wp-content/uploads/http://garudabd.org/sites/garudabd.org/files/lats-and-Acts-17_0.pdf

Page 98 Para 4 Planets act via the Moon.

See page 28 para 2

Page 98 Para 5

In this paragraph **Indirect planetary activity and Secondary activity**, and similarly Primary and Direct activities are **joined together** as being the same thing. This is not the case, as has been shown in earlier pages. Page 80 para 1 - 4. We are at **Stage 2** when we are talking of Direct and Indirect. **Stage 1** gave us the Incarnating Primary planets, and Excarnating Secondary planets. However once we come to, the internal organisation of the energies standing behind plant growth, these Inner planets are Direct and the Outer planets of this group are Indirect. Similarly the Excarnation stream are secondary, but the Inner planets are Indirect and the Outer planets are Direct.

Lievegoed clarifies this.

This 'confusion' highlights the need , in this territory, to define the three stages of manifestation. Incarnation and Excarnation are Stage 1, while at stage 2 a twist occurs and then, we have the Direct and Indirect classification **added to them**. It does become confusing trying to hold all these organisation in ones head. This is why I make diagrams of things. To move them out of my head.

Did you note there is still a Stage 3 to explore...... see page 5 para 5 for an image of what Stage 3 looks like.

Page 98 Para 7 RS Fructification

"moment of sowing, because it is the moment of the incarnation of the idea, the spiritual conception of the plant." Hummmm really?

Page 99 — 109 Moon and Zodiac

This chapter is dotted through with 'errors' I have already addressed, which means this is a very 'tricky' chapter full of questionable statements. I do not wish to bore you or myself by pointing them all out paragraph by paragraph. I trust by now you can see them for yourself. There are a few that need noting though.

Page 100 Para 3

has a huge mistake in that the Air and Water constellations are wrongly stated and need to be reversed.

Page 100 Para 5

Enzo provides the rationale for a further division of the constellations, however does not provide an image of the division. Here is one probably very similar to Enzo's suggestion, I provided in the early 1980s.

	Level 0 - I he modes			
	The Part of the Plant			
	Nerve Sense Root Fixed	Rhythmic Leaf Mutable	Metabolic Flower \Fruit Cardinal	
The Type of Plant Fire- Seed Air - Flower Water-Leaf Earth-Root	Leo Aquarius Scorpio Taurus	Sagittarius Gemini Pisces Virgo	Aries Libra Cancer Capricorn	

Level 3 - The Modes

Level 4 - The Elements

Page 101 Para 4

The **four elements 'live' in the Atmosphere.** That is where we find them. Not "beyond the planetary realm". The Zodiac Star forces come in through the Atmosphere, and while their they orientate to and activate one or other of the Elements. So we receive them as one thing, but Fire / Warmth are activated by Star forces, as they move through the Atmosphere. Base upon this reality, we allocate Zodiacal Constellations and Signs, Elemental rulerships.

Page 101 Para 6 "No Moon in Zodiac"

Subsequent research to Dr Steiner's time, was that of Agnes Fyfe. In 'Moon and Plant' she presented a extensive set of chromagraphic studies of the Moon through the constellations, as well as the observation of the direct effects of various planetary transits upon plants. Thus disputing both this Moon comment, and the one about the planets only working on plants via the Moon.

Page 104 Para 2 Signs and Constellations

This is an interesting take on this discussion. For another approach you can reference my writings on this subject at http://old.garudabd.org/books/4_7.html Out of interest you might like to also consider my article on the Equinoctial Archetypal and Seasonal / Manifest Zodiacs. http://old.garudabd.org/books/4_8.html , a discussion that becomes relevant the more one works with Lievegoed.

The rest of this chapter has some fine observations and suggestions. The philosophising though, I find wanders 'off'.

See Page 88 Para 1

Page 105 Para 8 Intervene in 80% of the life of the plant

I hope my efforts here have shown the life of the plant can be significantly impacted at any stage of its development. Sowing time is but one opportunity. Generally, anything that can be done at sowing can be achieved at any other stage of growth using the preparations. I doubt I could achieve what Thun achieved, with the change in the colour of fruit by sowing time, though........

Page 106 Para 6 Moon in Capricorn

I find it very odd when in an earlier paragraph Enzo is denying the relevance of Thun's (and Fyfe's) work with the constellations and then suggests using the Moon In Capricorn.......

Page 112 > The Tree

This is a very good chapter overall. Good thoughts put together to suggest worthwhile outcomes. The **'Group Ego'** problem gets some added twists. For all of the lectures so far, we have the Group Ego or Idea of the plants comes from the Planets (when it should be the Stars). When talking of the Cambium, we are told it has a formative function but more so Page 113 Para 2 says this is the **'Living principle of the idea of the plant'**. Then on Page 115 Para 6 we have the centre of the Earth described as " **the seat of the consciousness of the Group Ego"**. No doubt the difference between these things are described elsewhere in Enzo's writings.

RS describes this process in Cosmic Workings Lecture 5. This Cambium stream of activity comes from the Stars, and is drawn into the plant with the Warmth stream, during the growing season, and is passed through the Cambium into the roots, and onto the centre of the Earth. It is all Spirit Warmth processes. This stream comes back upwards with Silica, but also strengthened by Clay - Aluminium Silicate - Silica in motion. This maybe what Enzo is trying to describe albeit 'messed up' with the Astral and Planetary influences.

Page 113 Para 6 Tree Paste

I can offer a different interpretation of what is occurring with tree paste based upon the lecture 8 diagram RS provides us. Sand is the Silica element that strengthens the downward Silica processes, while Clay strengthens the upward Silica processes, while Manure I would put in the middle of these two.. (a) because they are mineral and manure is an organic colloid) (b) because manure is a product of the interplay of the Etheric and Astral activity within the metabolic system of a cow. Yes it is a nutritive substance but much more it is a colloidal living substance, while the minerals are inert. So for a sandy soil, I would add more clay to the mix, rather than manure.

Conclusion

I have waded through the critique of this book, because of the many valuable insights and methods, Enzo displayed here. My efforts should be seen as a mark of support for his efforts rather than an 'attack'.

My sense is his personal insights and applications are excellent, however his attempts to incorporate other peoples ideas, eg Schmidht, and his falling into RS's unclarity around the difference between Stars and Planets , distracts from his own expert application of RS intentions. I doubt Enzo will give any credit to my comments, so this is written for his 'followers' and those who see his practical value, but have trouble comprehending his philosophic wanderings, and attempt to align Enzo with RS. As shown there are many instances where he does not 'fit' with RS. This is not uncommon amongst BD commentators, RS is very difficult to comprehend. All the various bits need to be assembled, often pieces need to be added, and then the story has to be seen in 'overview'. This is a huge task, and Enzo has achieved more of this process than most others. With these few 'adjustments' this book is a fantastic 'Beginners Guide to Deeper Biodynamics'. He shines a bright light to Biodynamics future path. Well done.

Glen Atkinson 8th April 2019