

### Third Meeting

Together we have delved into the first 25 paragraphs of the first lecture of the Koberwitz agriculture course. We have appreciated how Rudolf Steiner characterized silica and limestone, completely ignoring the qualitative and quantitative chemical aspects and preferring to express himself in terms of form or shape. Understanding form is to understand the action of the *Spirits of Form* whom we now know correspond to the third category of the second spiritual Hierarchy. They are called the 'Powers' or the 'Dynamis' in esoteric Christianity and have their centre of action in the Sun.

In other words we could say that reading form gives us the possibility to pass through the 'gateway of the Sun' and to acquire the consequent initiation. We can also state that observation of form is a training that allows the modern human being to cross the threshold beyond which one may grasp the weaving of life. All of this will constitute our base from which to approach the higher hierarchies and the world of the 'group I' or the 'individual principal of each species'<sup>7</sup>.

Our departure point for this journey is the Earth which, being a solid body, is impenetrable to light and is therefore internally permeated by darkness. In other words our feet rest on this world of darkness and clearly we must make a qualitative jump to begin to look higher. The problem lies in the fact that we have organized ourselves to make our life more pleasant in this material world to such an extent that we have not only fallen in love with the system that we created, but also find it difficult to come out of this dimension. Indeed, many consider it to be the only real one.

Starting then at the Earth and following the impulse of human beings to return to their cosmic origin, we first meet the lunar sphere. The Moon is the planet that administers life, so we can begin to familiarize ourselves with the laws of life and of life's rhythm via its celestial motions. The Moon also strongly influences the weather - which is so chaotic today - and here too it will be necessary to understand the imbalances in order to attempt to find a remedy.

Beyond the Moon we meet Venus and Mercury which strongly influence the entire realm of reproduction. We must also get a thoroughgoing understanding of these. Here also Steiner suggests which path to take since, as we have seen, after having spoken of limestone and silica he introduces the subject of form. He re-emphasizes that study of the metamorphoses and variations in forms is the most important way in which we can be adequately prepared for reaching the solar threshold.

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Let's go back to commenting on the course at Koberwitz from where we left off, from the twenty-sixth paragraph of the first lecture ("*With that, let us now look ...*"). Steiner is still presenting a two-fold view since we are still reading the lecture connected to Zarathustran agriculture and, while beginning to speak to us of the plant, he notes that the plant lives within a polarity between the lower part and the higher

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<sup>7</sup> The I or self is that part of us which can learn from experiences and use these insights in future events. It is the I that endures and perseveres. The I plans and musters determination to see things through using its own will power. The I thus gets traction on its own destiny. Plants have an I but this is shared with all other plants of that species. Each dandelion, for example, has the one 'dandelion I' in common and we can call this the individual principle of the dandelion species.

part. The lower part looks toward the centre of the Earth and is connected to the “*inner force of reproduction and growth*”. The upper part is dedicated to the formation of nourishment for the other kingdoms of nature. By ‘force of reproduction’ Steiner means the force of vigour and growth, or the vegetative forces that act from below - even though we connect the idea of reproduction with the flower. In order to avoid such a misunderstanding we will not use the term ‘reproduction’ when referring to these forces but rather ‘vigour’.

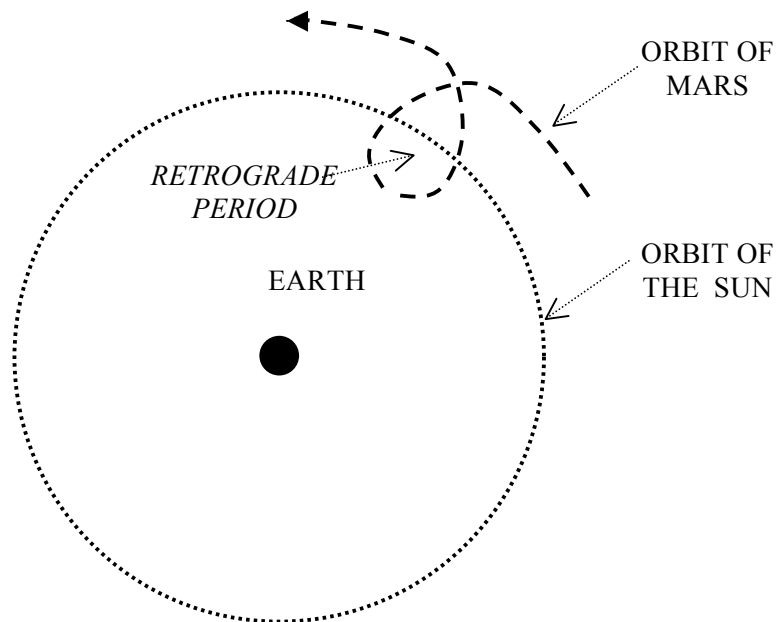
The same polarity can be seen as an opposition between the world of light and the world of darkness. The former consists of an opening and giving, an expansion outwards so that the other kingdoms of nature may enjoy that which is produced by the plant such as smell, colour or food quality. The latter has a centripetal gesture, an expression of the plant’s need to bring minerals, water and life for its own survival.

At this point Steiner clarifies that all that has to do with vegetative forces is related to limestone because limestone expresses a gesture that we could characterize as *greed*. Limestone dries, absorbs and takes. Now we can understand how a limestone soil favours the development of the plant’s lower pole thereby enhancing the quantitative aspect of production while it wouldn’t enhance the qualitative aspect connected to the nutritional value of the products. We will see shortly that the element that governs quality is silica. Let’s remember that during the previous century grain crops have lost about 30% of their silica content, coinciding with a definitive decline in quality that manifested outwardly as the dwarfing of the plant. At the beginning of the last century wheat was as tall as the shoulder of a man while today wheat is about 50 centimetres tall and we are trying to make it even shorter. In this way we are convinced that we can counteract the phenomenon of lodging which is really symptomatic of a too great enhancement of the vegetative pole at the expense of quality. This comes about because of excessive and chemical nitrogen fertilization.

The twenty-sixth paragraph concludes with another important piece of information: Rudolf Steiner indicates that the plant’s lower element is connected to the internal planets, namely Moon, Mercury and Venus.

We may now summarize what has been presented up to this point. As we have seen, the limestone or silica environment determines the differing forms of plants. The forms connected to silica are the image of forces originating from the external planets that act upon plants through silica and cosmic warmth.

These planetary forces are further differentiated depending on whether the planet is in its ‘regular’ or ‘retrograde’ phase. The plant (like human beings and animals) observes the sky from its point of view which we can obviously characterize as ‘earthly’. For all living beings, the dominant perception is to be at the centre of a system around which the Sun and the planets rotate. This system of reference is usually called the ‘Ptolemaic system’. If we observe the movement of the planets from this point of view we will notice that at certain times the planets appear to be going backwards in relation to their overall orbital progress. This perception comes from the fact that each planet’s centre of rotation is the Sun even though the Sun appears to rotate around us. In this way *epicycles* appear in the orbits of the planets (see figure with the example of Mars).



In spiritual-scientific terminology, the *primary influence* is defined as the action of a planet during its regular movement, and the *secondary influence* as its action during its apparent retrograde movement. The primary action can be characterized as ‘*incarnating*’ or ‘*materializing*’ and the secondary action as ‘*excarnating*’ or ‘*dematerializing*’. The primary influence dominates during the first half of an organism’s natural lifespan, and the secondary during the later half.

In this way each planet has at least two types of influence on the living world - the primary and the secondary. The following emerges from our studies:

- Saturn 1 brings the plant structure, verticality, genetic memory and memory of form;
- Jupiter 1 connects the plant with the cosmic form understood to be the planetary Group I, or consciousness;
- Mars 1 brings the plant growth within its form, asymmetry, and possibly encourages the formation of alkaloids.

All of this then establishes the formation of seed and the plant’s quality that contributes to the sustenance of the human form - its capacity to nourish the human being.

As we have seen the earthly forms are connected to limestone and to the internal planets. In particular:

- Mercury I: the formation of microvilli, the spiral insertion of leaves along the leaf stem (*phyllotaxis*), the ability to re-grow;
- Venus I: brings the form into the seed and its development;
- Moon I: brings the impulse to ramified roots, binary leaves, the basal rosette, and symmetry.

In this twenty-sixth paragraph we are told that if we consider the plant from the point of view of its capacity to nourish the animal kingdom and the human being, we must turn our attention to the action of the external planets, Saturn, Jupiter and Mars, which act through the silica element. This planetary influence is of an excarnating type and is therefore connected to the planets’ retrograde movement.

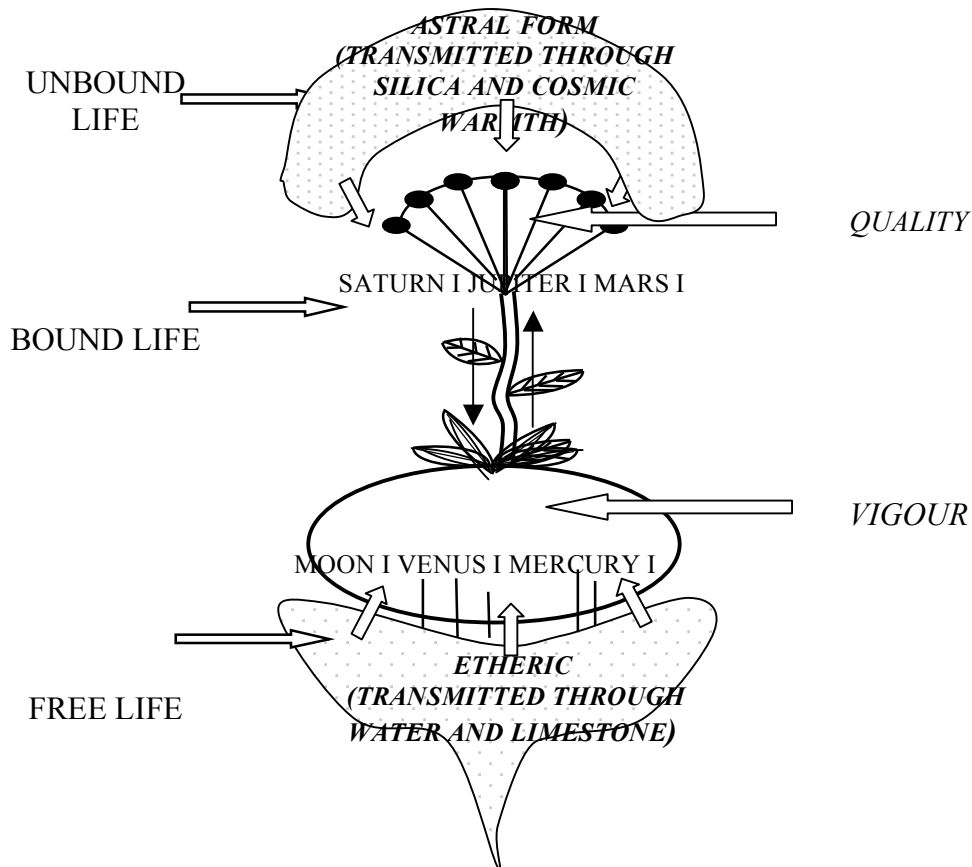
Soon we will go back to these considerations which, we repeat, are of great importance. In the meantime let us turn our attention to the pivotal question asked by Steiner in the twenty-seventh paragraph: *“How can these forces be either intensified or somewhat restrained?”*

We will give some structure to our recent considerations with the help of a diagram. Let's remember the fact that the planets, even though they are always in the sky, are not always equally effective on plants. This means that the processes through which the planets act need a *mediator*. Depending on whether the influence in question originates from the internal or external planets, the mediator - whether a process or a substance - will be different.

At this point, having come to the twenty-eighth paragraph (*“When we observe how ..”*), Steiner revives the example from the fourteenth paragraph when he speaks about water and the full Moon. We must get used to paying close attention to the examples brought up by Steiner during his presentations even if they might seem to be trivial diversions, because with each example he inserts observations or concepts which will be fundamental for the next subject. Here Steiner tells us: *“Water is much more than merely a chemical compound of oxygen and hydrogen. It is the ideal substance for bringing into the Earth those forces that come from the Moon for instance, for bringing about a distribution of the lunar forces within the Earth. There is a definite connection between the Moon and the water on the Earth.”*

In the twenty-ninth paragraph (*“Thus, we will need to consider ...”*) Steiner asks whether it would be all the same to choose a rainy period before the full Moon or a random time for sowing seeds. The answer seems obvious because if the full Moon follows a rainy period it will fully activate the forces of vigour as well as the entire world which we have represented in our diagram as being underground. We should qualify this: if without further thought we were to work upon a soil that is still soaking the result would be the multiplication of lunar forces, encouraging the proliferation of weeds and fungi on compacted soil. On the other hand there could come a period of drought when water is scarce. In this case the full Moon could assist us since it could multiply the effect of any water that we irrigate on our fields.

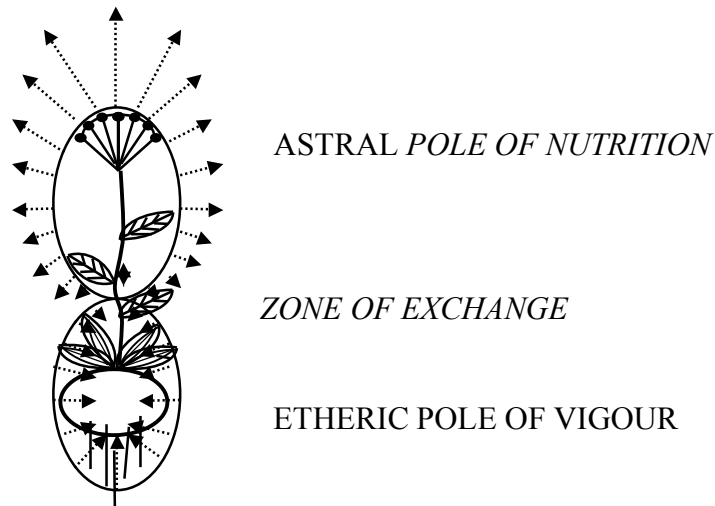
We would like to digress briefly and note that all waters are not the same. In fact, looking only at the main distinguishing factors of water, we have water that rises up (spring water), water that runs (river water) and water that falls (rain). The water that rises sustains the ascending sap which, being rich in minerals, sustains the plant's vigour. Water that falls sustains the qualitative pole of the plant, while water that runs will have an intermediary value. (Stagnant water should be avoided because, being dead, it would only bring forces of death to our crops.)



Having stated that water is the mediator between the forces of limestone and of the internal planets, we find the indication in the thirtieth paragraph (“*Let’s continue ..*”) that the forces of the external planets are mediated by silica and the air’s warmth.

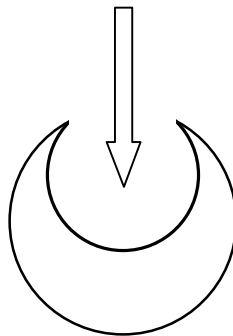
From this we can understand that if the ripening processes come thanks to the forces of the external planets when the atmosphere is rich in warmth, these processes must take place when the fruits are still hanging on the plants. Evidently the techniques used today, which include harvesting fruits before they are ripe and storing them in a refrigerator until the market demand that it is the time to artificially ripen them, do not take the direction indicated by Steiner and can make us wonder about the quality of such products. The fruit must be ‘cooked’ by the Sun. It must be allowed to receive roundness from Jupiter, and its nutritional value from Saturn.

It’s worth emphasizing that Steiner also refers briefly to thunderstorms in this paragraph. We could present the most recent diagram in a different way. Let’s construct a lemniscus and place our plant inside. The lower orb of the lemniscus represents the vegetative pole of the plant in which the contractive forces of vigour are strongly expressed, while the upper represents the expansive pole of nutritional value. At this point we can say that the lower orb also represents the etheric where life expresses itself the most, while the upper curve expresses the astral related to the external planets which, in theosophical terms, can be called *lower devachan*.



If we move from the plant world to the animal world, the upper curve is flipped over and comes 'into' the lower one. The animal is named such because it is the carrier of '*anima*' or soul and it is defined by the fact that the astral or soul element comes into the etheric element. In this way we obtain a figure that reminds us of the phenomenon of invagination:

*ENTRY OF THE SOUL ELEMENT  
INTO THE ETHERIC ELEMENT*



Now bring a typical thunderstorm to the mind's eye: an image of a dark sky out of which abundant rain falls. Suddenly lightning splits the darkness. We are spectators of this scene from the Earth in an atmosphere that is high in ethericity because we know that water supports the etheric. Above us, invisible, is the astral world that we place beyond the gateway of the Sun inasmuch as it is connected to the external planets.

Lightning is therefore a sudden and momentary split in an imaginary drape which allows us to glimpse the astral light, the one which we will see when we reach the Solar initiation or after we reach death.

Note how Steiner speaks of thunderstorms after having spoken of the warmth of air, clearly referring to Saturn and Jupiter, and since the life that manifests in the etheric comes from the higher worlds, lightning represents precisely Life which is brought from the astral plane to the etheric plane. In fact, after a thunderstorm everything seems more alive. We should learn to understand the experience of thunderstorms intensely. We can add yet another thought: with a thunderstorm comes

purification of the air. So much is this true that during the plague people eagerly awaited rain and thunderstorms. With thunderstorms comes the formation of ozone which is trivalent oxygen (O<sub>3</sub>). Oxygen is connected to the etheric plane, while ozone is connected to the astral plane. During the transformation from oxygen to ozone there is a contraction in volume which provokes an increase in warmth, creating the right conditions for Saturn to act as we have said above.

A final diversion on the problem of the 'ozone hole'; as we have been told such a 'hole' mainly occurs above the poles, in other words above the coldest areas of the Earth. Once again we see the relationship between the warmth of the air, Saturn and ozone. To be complete let's note that the ozone hole is also strongly linked to the lack of 'soul warmth' or the 'power of love'. No comment necessary.

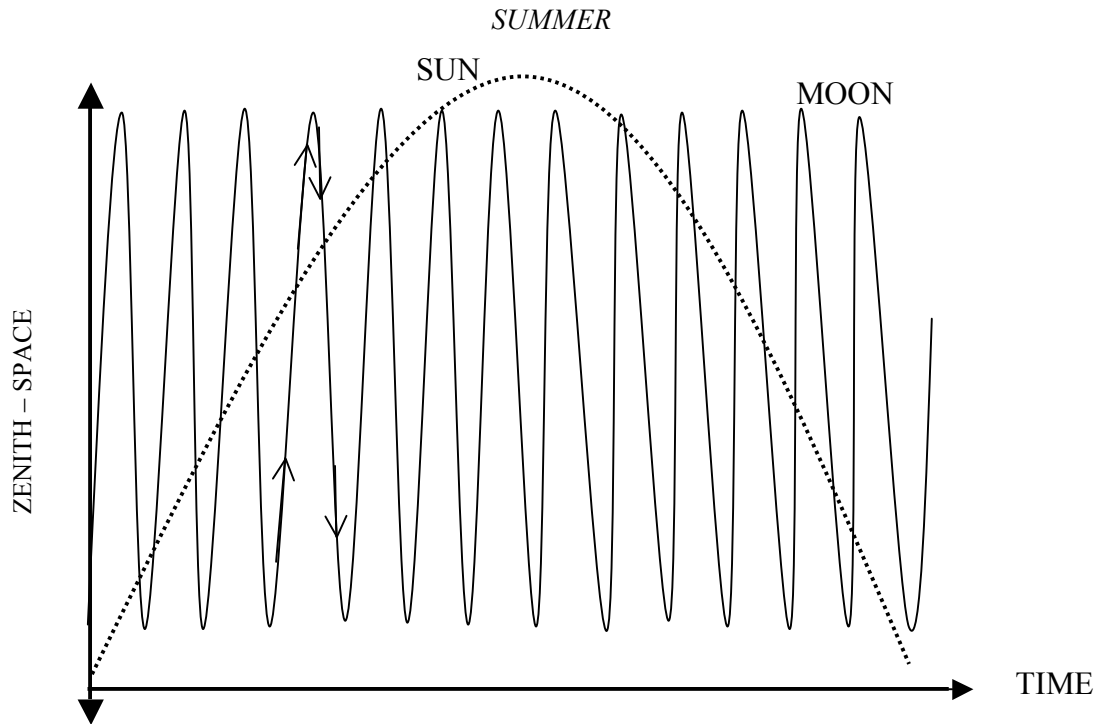
In paragraph thirty-one ("*Where then do we see ..*") Rudolf Steiner begins by observing that Saturn takes about thirty years to make a full orbit around the Sun so it is difficult to notice its action on annual plants. However it will have a strong influence upon perennials and especially conifers. He underlines the interconnections between annual plants and internal planets, and between perennial plants and external planets. He then gives a few examples which highlight the importance of choosing the right moment for sowing the seeds of perennial plants, depending on the intended purpose of those plants.

In the last paragraph, the thirty-second ("*Although these things ...*"), he says that ignorance of the correct times for sowing seeds due to a break-down of knowledge and by lack of interest in the laws of nature, actually brings about a degeneration of the products in terms of quality. In paragraph thirty-one he briefly refers to "...*the so-called ascending period of Saturn...*". Let's attempt to understand why Steiner has made this comment.

The planets, including the Sun, are not always visible in the sky because they are not always above the horizon. The Sun, when it is visible, makes arcs across the sky that get progressively higher from the winter solstice to the summer solstice. If we connect the highest points (*zeniths*) of the arcs which the Sun appears to make in the sky over the course of a year, we obtain a curve.

If we make similar arcs for the lunar cycles in a year we obtain thirteen tighter curves, because the sidereal Moon has a 27.3 day cycle which reaches the highest and the lowest points approximately thirteen times in one year. (We don't need absolute precision to make this particular point. The important thing is to have an understanding of the phenomenon to which Rudolf Steiner refers.)

We can clearly see in the lunar diagram the ascending and descending periods of the Moon. In a similar way we can map out lines for Venus and Saturn which we would use depending on which phenomenon we want to understand. For example, if we wanted to determine a cows fertile period, we would have to consider the ascending curve of Venus.



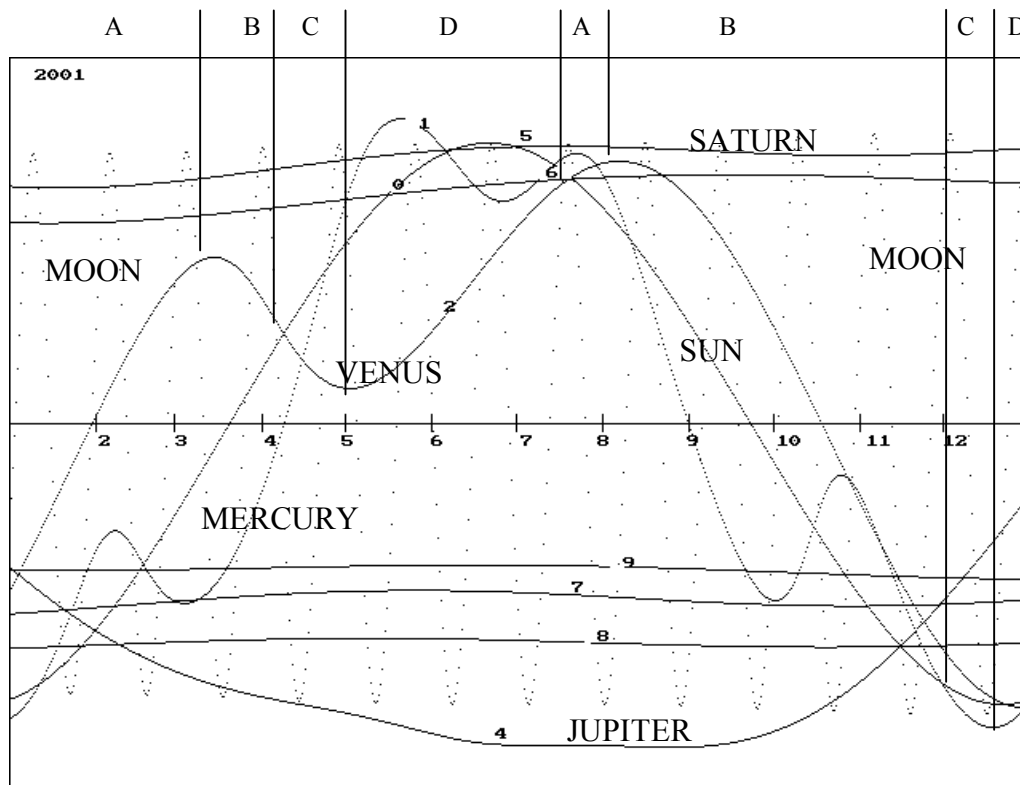
To gain a better understanding of this concept we will leave Steiner's example because the Saturn-cycle is too long and would need a multi-year graph to see it as a whole. We will look more closely at Venus which, in 2001 (the year to which the graph below refers) made a significant path. Venus' diagram is useful to know for the sowing of all plants connected to Venus such as the *drupaceae*, in particular the peach tree.

We recognize four distinct situations in the diagram:

- Venus ascending and above the Sun - A
- Venus descending and above the Sun - B
- Venus descending and below the Sun - C
- Venus ascending and below the Sun - D

Obviously such a combination is also found if we refer to the Moon or to other planets and in the Moon's case, for example, these situations will be repeated many times a year.





DOTTED LINE = MOON      1 = MERCURY      2 = VENUS  
 0 = SUN                  3 = MARS        4 = JUPITER      5 = SATURN

To understand what Steiner wants to communicate to us we must bring back to our mind that the first lecture refers to Zarathustran agriculture based upon a two-fold vision of the world. We must also follow the path which Dr Steiner is taking us on; first he had spoken about water and the Moon (the example of the two professor's wives), then he talked about limestone and silica, then about quantity and quality, and finally about ascending and descending phases of the planets. Evidently he is still speaking to us of quantity and quality or of vigour and nutritional value, but this time in macrocosmic terms. From this viewpoint the period above the Sun's arc brings an impulse of vigour or quantity, and the period below the Sun brings an impulse of quality.

We note that during the autumnal and winter periods the Moon is more often above the Sun and brings the impulse of vigour or growth. We may also add that the action of the Moon is amplified when its ascending or descending phase corresponds to the similar solar phase. In other words the ascending Moon's above-the-Sun impulse of vigour is enhanced by the Sun in its ascending phase (from January to June) while the descending Moon's below-the-Sun impulse of quality is enhanced by the Sun in its descending phase (from June to December).

In this way one will have the most vigour during the first months of the year, coinciding with the ascending phase of the Moon, while the most nutritional value will come about during the last months of the year when the Moon is descending.

Obviously, when the Moon is below the Sun all its impulses will be weakened but the main principle of the Sun and the Moon's corresponding phases supporting each other will still hold. In this way we can understand that an ascending Moon in May, though it won't bring the same vigour of an ascending Moon in February, will be stronger than an ascending Moon in September, considering the fact that in May the Sun is in its ascending phase while in September it is descending. We can adjust the same reasoning to resonate with the macrocosmic impulses of quality.

What we have just presented is very important because it is the basis for the 'sowing calendar' with which Zarathustra successfully domesticated the wild plants. In fact Zarathustra only used the limestone-silica polarity of the soils as appropriate environments to enhance the specific planetary forces.

All of the above will help us to understand the fourth lecture and the use of the horn-manure and horn-silica preparations. In fact these two preparations correspond to the influence of the Sun. More precisely, the horn-manure represents the descending Sun and the horn-silica the ascending Sun. Therefore, in effect, the use of these preparations allows one to 'move' the solar forces, as if the curve of the Sun were moved lower or higher according to need.

According to this reasoning we may also modify the curves of any planet since Steiner gave us a preparation for each planet: yarrow corresponds to Venus, chamomile to Mercury, nettles to Mars and so on. At this point we may grasp the action of seed baths with the homeodynamic products that successfully create a microcosm around the plant able to benefit its growth.

Today, however, it is no longer sufficient to use Zarathustra's techniques of 7,000 years ago because the active forces have changed. In fact all of nature has lost the integrity it had at that time. Not even cosmic space has been spared from man's pollution. The sky has been violated an infinite number of times with satellites, by computers, robots and nuclear reactors, and it continues to be penetrated by myriad electro-magnetic waves caused by man's desire to communicate. Before our very eyes the weather has been completely altered.

But we haven't only seen negative events. 2000 years ago humanity witnessed an event of cosmic significance known as the mystery of Golgotha. When Jesus' blood was poured onto the Earth it brought with it the forces of the whole cosmos and these are now available to us, here on Earth.