

The Planetary Processes in Cosmos and in Man
By Bernard Lievegoed

In describing the following seven planetary processes it will be assumed that the reader is familiar with the fundamental works on the connections between planets and metal, especially with the work of L. Kolisko.

<u>Planet</u>	<u>In the sphere of Metals</u>	
1. Saturn)	Planets beyond the Sun	Lead
2. Jupiter)		Tin
3. Mars)		Iron
4. Sun		Gold
5. Venus)	Planets nearer than the Sun	Copper
6. Mercury)		Quicksilver
7. Moon)		Silver

This sequence has been chosen because when studying the inner effects we can resolve it into three polarities, with the Sun as the harmonizing middle.

First Polarity:	1-7	Saturn-Moon Sun as middle
Second Polarity:	2-6	Jupiter-Mercury Sun as middle
Third Polarity:	3-5	Mars-Venus Sun as middle
Fourth Process		The Sun as Middle by Itself

These seven planetary processes are seven qualitative worlds, seven qualities, seven principles of activity. To understand them we must enter their life, must live inwardly with their impulses of movement, must get to know them by something like the sense of touch.

SATURN

We begin with Saturn, the most distant planet from the Earth, just as the Moon is the nearest one. Both these planets are like gateways: from the planetary Astrality Saturn leads in the world of Spiritually active stars, the Moon into the Ether spheres close to the earth—Where the Spirit wants to impress its seal right into substance, Saturn must bestow the direction and the strength to incarnate. Out of the heights, Saturn accompanies every process of incarnation, from the cosmic midnight hour through the gateway of birth as far as the first thirty years of human life. This is a sublime process, because with the help of the Saturn forces the Spirit reveals itself even as far as dead matter.

In man the Saturn process work in such a way that it enters the hair vortex at the back of the head, radiating into the dead material of his body, wanting to make man a picture of his individual, Spiritual Ego. From above and behind downwards it radiates through the body, terminating in the skeleton which thus becomes a lifeless image of the Ego. The skeleton is so sublime because it shows us this picture of the Ego. If Saturn were to work by itself, the whole human body would calcify and within thirty years man's body would have turned into a beautiful stalactite.

Saturn, at work already throughout the whole embryonic development, places us as a Spiritual being toward the world of space. After the cosmic midnight hour, the human Ego turns towards the Earth with the

help of the Saturn forces and while completing the painful path towards incarnation, all the time becomes denser. During the embryonic life and in early childhood Saturn crystallizes the skeleton out of the watery organism. Saturn work as a differentiating force within warmth, the most spiritual of the elements. Where Saturn rarifies warmth, crystallized substance (bone) comes into existence. Where it densifies, the carrier of the element of warmth, the blood (bone marrow) can be formed. The blood is born in the red marrow of the bones, in the center of the physical, almost lifeless skeleton. Having lived for about three weeks it disappears in the spleen. Thus we may call the spleen the consummation of the Saturn process, and in that sense a Saturn organ in which the Saturn process dies.

There are two Saturn processes in Man:

1. The incarnating Saturn process, leading to the dead image in space. We can say: through this first Saturn process man (his Ego) dies in space.
2. The resurrecting Saturn process which enable the Ego, in the blood, to fulfill his karma in the course of time.

Saturn is the planet of death and resurrection. The Ego appears twice in Saturn process, once as image in space, as skeleton, once as image living in time, in the blood, manifesting as biography.

To summarize all this we can use these two symbols ? ?. Saturn leads the Spiritual to the Physical, but in doing so brings death to appearance in the rigid image. Saturn leads the Spiritual out of the Physical in the course of human karma; thereby kindling resurrection, the overcoming of matter through the Spirit. In the plant world we shall meet first and foremost the Primary process, i.e. that of incarnation. Saturn brings to manifestation in the plant the Spiritual archetype of the species. Saturn, the outermost planet, surrounding the whole solar system, is active as carrier of the Spirit, working from the furthest distances, from the circumference. Saturn can be effective, where it can work from all sides 'comprehensively' but now when working from a center. It is active in the Valerian Preparation 507 which envelops the compost heap; fetching the Spiritual inwards. Such compost can be a healing factor in the soil, because it bestows the faculty of bringing to full expression the Spiritual form of the plant species.

MOON

Next we must describe the Moon process, standing in opposition to Saturn and manifesting wherever certain qualities continue through a sequence of generations. Moon processes are active in propagation and the stream of heredity, in reproduction, where a new a new organism rises from an old one, where cell is formed from cell, where cell is linked to cell in steady growth. The Moon is associated with the ever recurring repetition of the same, with the memory of something which has been created before, the ideal of heredity. She is concerned with the sequence of generations streaming horizontally across the Earth, continuing its existence in time. Moon forces are active wherever we meet swelling growth: in the individual organism through cell division, in separate organisms through propagation.

If Moon forces alone were active in Man, he would roll through the world like a soft sphere of albumen and the growth forces would continue without end. But in Man this Moon process finds its limit in the skin, outside of which it ceases to be effective. In front, below, in the region of the bladder, the Moon forces radiate into the reproductive organs and permeate the whole organism from within outwards, as far as the skin.

Whereas the Saturn process is the bearer of the individual Spiritual forces and manifests in the skeleton, the Moon process is bearer of the type principle, of heredity, and becomes visible in the skin. (It is significant how heredity expresses itself just in the color of the skin). Human beings with strong Moon forces have a beautiful skin and strong sexual attraction. The film star is the ideal of the Moon type of mankind. The skin as 'Moon skeleton' is the image of Heredity-Man.

The Moon processes express themselves as the differentiating factors within the processes of Life, as those of Saturn in Warmth. During embryonic life, out of the skin the nervous system is differentiated, which is like a skin, place within as an island. This 'inner skin' is the bearer of a second process: the outer world reflected inwardly through the nervous system, reaches the level of man's consciousness. The 'lifeless reflection' can only take place, when the life processes are dimmed. The brain (a 'skin' island within man)

thus becomes a Moon organ, where the Moon forces come to rest. Physiologically this force which can hold back the processes of mere life and cell division expresses itself as one of tissue differentiation. The nervous system is the most differentiated tissue—the organism becomes an image of its Spiritual archetype through the potentialities of differentiation. Goethe called this force in the plant intensification.

The Moon also shows two aspects: firstly growth promotion in the stream of reproduction and heredity, streaming along in time, linking being to being, resulting in the eternal repetition of the same.

Secondly, by repressing life it assumes the quality of a mirror. The Moon herself reflects sunlight and we use silver for covering our mirrors; and photography is based on the silver's property of preserving the image of the outer world.

In the plant world the Moon effects manifest in the processes of cell division and growth. Limestone acts within the watery element as mediator of the Inner planetary forces. The Oak Bark Preparation 505, consisting almost entirely of organic limestone and prepared in the animal skull (the seat of the brain) and kept under water, is the representative of the Moon processes. Rudolf Steiner says of Preparation 505 that it counteracts plant diseases by suppressing the rampant ethereal element. One could also say, by setting a limit to the Moon forces (forming a skin).

A deeper study of these processes, of Saturn and Moon weaving one into the other, shows Saturn as the image of the Ego, of what is individualized, placed into space, and how this becoming an image means death from which the human Ego resurrects by inscribing its image into time in its biography. The Moon, on the other hand, places into the stream of time what is not individualized, the principle of heredity. The human Ego overcomes this sequence of generations by repressing the life processes, and, in reflecting the outer world, awakens.

Saturn I	Saturn II
Incarnation as far as the Skeleton	Excarnation—Overcoming of Death
Thus Death as Image in Space	through Resurrection in Time (Biography)
Moon I	Moon II
Reproduction—Repetition	Repression of Reproduction Process
Flowing on in Time	Differentiation in Tissues, Intensification
	Image Consciousness in Space

Saturn—Moon: together they weave through the mysteries of space and time, of death and resurrection, of 'swimming along' in the stream of time and awakening in consciousness.

JUPITER

Jupiter is, in the first place, the great molder of the world. When Saturn in the sublime forms of the skeleton has created the bare image of the Spirit, Jupiter plastically moulds around this skeleton the semisolid forms in flowing beauty. It is the soul of man which is expressed by these Jupiter forms. The plastic Jupiter forms work from above downwards, rounding, recreating the celestial sphere in the roundness of the brow. All internal organs are rounded above, sometimes hollowed out below, because the roundness of the organ below presses into it. The balls of joints are placed at the top end of the bone, the sockets at the lower. The Jupiter forces radiate from the brow into the organism, modeling in childhood the beautiful

architecture of the brain, forming later on the thoughts, and especially those concerned with bringing order into the great universal connections. Then again working more deeply into the body, they give shape to the organs and muscles.

Jupiter moulds internal organs and surfaces of the body in beauty, but at the same time with super-human gestures. If he alone were at work, at fourteen years of age we would be like beautiful Greek statues, expressing in bearing and gesture purely and simply the forces of the soul. We would all be Apollo statues, because the plastic force of Jupiter is the bearer of a sublime and harmonizing wisdom. This finds expression in the way in which our organs are formed out of the watery element. But this plastic force in all its wisdom, on reaching consummation, would lead to a general rigidity.

From this rigidity the human Ego frees itself in movement, in features and in gesture. The gesture is plastic soul expression in the element of movement, which is based upon the muscles and they in turn bestow beauty to the surface of the body. In their alternation between hardening and softening, swelling and contracting, they perform a play which in its chemistry is deeply connected with the liver. The muscular contraction is due to chemical changes in surface tension, and wherever these occur, in the plant too, Jupiter forces are at work. The Jupiter activity comes to an end in the liver, the only human organ not permeated by the plastic wisdom-filled Jupiter forces, neither in outer form nor in its chaotic structure within. But precisely on account of this it can be so active chemically.

In the plant the modeling Jupiter forces above are all at work, and only secondarily the changes in surface tension, where Jupiter and Mercury together regulate the stream of the sap.

Among the preparations Jupiter is represented by the Dandelion Preparation 506. Jupiter's molding forces are handed on in the plant by the silica, the mineral bearer of the cosmic planetary forces from beyond the Sun. Rudolf Steiner characterizes Preparation 506 as the mediator between the silica forces in the cosmos and those surrounding the plant, bestowing health and stability.

MERCURY

Opposite to Jupiter stand the Mercury forces. Where Jupiter gives rise to harmony and order, Mercury creates chaos, though not an ordinary one, but one which we might call a 'sensitive chaos': movement without direction, but ready to flow into anything which might be suggested from outside. Mercury is streaming movement, adapting itself to any resistance it may find, flowing around it to the left or right, just as may be possible and with no inclination of its own, but always in remaining in movement. The one this Mercury never abandons is movement, in this streaming and flowing. What kind of movement results, which direction it takes, that will depend on outer circumstances. Mercury adapts itself but it always streams. In Man it becomes effective and active in the sphere of streaming where there are no definite and fixed paths: in the lymphatic system. The blood vessels have their fixed paths, but the lymphatic streams move where it happens to be possible, as long as they reach their next goal: the lymph glands.

Jupiter is active symmetrically, following sublime cosmic laws, Mercury has a tendency to asymmetry. What is oblique or crooked in the human face, or in the plant, is due to Mercury's interference with Jupiter's intentions. Mercury has a sense of humor, is always ready for a joke, and is pleased if the divine intentions do not always quite come off. Thus the Gods never finish their work, they must go on working, and all remains in a state of flux.

A friend once told me that Jupiter and Mercury reveal their nature in the picture of the king and his jester, the king on his throne orders everything with wisdom, his clothes are draped symmetrically. But at his feet sits the jester, with asymmetric clothes, half yellow, half red, just as it happens, and he comments on the kingly words and shows that at times the best laid plans can go astray. Mercury is the great realist and can put up with heat and cold, with sun and shade, but, under all circumstances, is concerned that life continues, that the plant grows further. If need be, he can even become dishonest and lead the plant into parasitism. The Greeks made Mercury the God of merchants—and thieves. Both make sure that earthly goods do not remain at one place, but change hands.

But this faculty for adaptation would ultimately lead to utter loss of character; and the Ego avoids this by meeting movement with movement. What happens when two streams meet and mingle? Whirlpools are created and empty spaces, which in the river form sandbanks. Thus we see in the confluence of Mercury

forces a second, organ forming principle. The organs taking shape as a result of these meeting, flowing movements are different from those resulting from divine images being impressed upon the Earth.

The plant world reveals most clearly this interplay of these two form principles. If we compare a beech leaf and an oak leaf, we can tell them apart quite easily. But if we pick some hundred leaves from one beech tree, we shall not find two of them quite alike. This tremendous variability of form is an expression of Mercury forces. Every meeting of two active forces is a healing process. But true healing is possible only when the one force (be it the human body, be it the plant) can receive into itself the other force, and something new can result from the meeting.

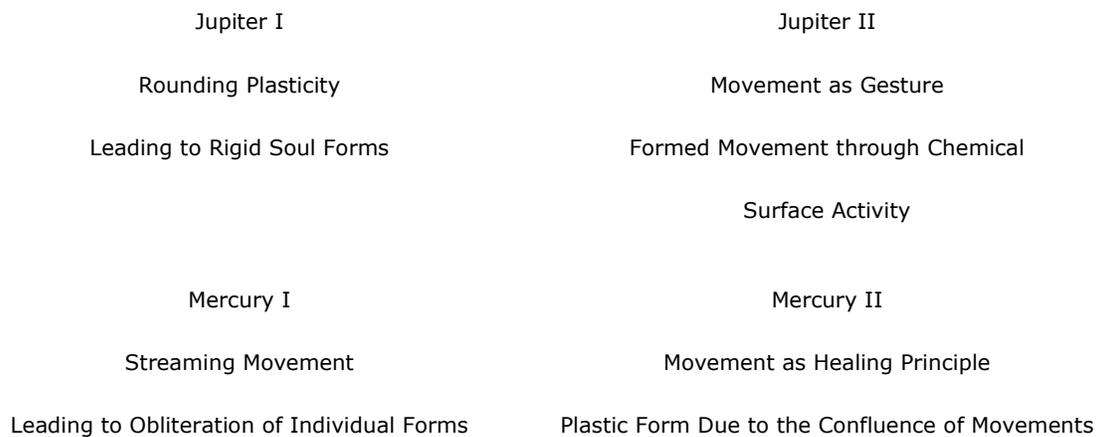
Mercury is active in the Chamomile Preparation 503 which stimulates plant growth through potassium and calcium. The treatment with the intestines intensifies the Mercury activity. (With this we shall deal more fully later on).

Here too Jupiter and Mercury weave one into the other: the preordained and wise form of the organs, on meeting with the confluence of Mercury forces, suffers change according to the particular circumstances. The chemical expansion and contraction give direction to the streaming movement of Mercury (by means of surface tensions). In this interplay we find the key to all the problems of turgor, the state of tension within the tissues.

Jupiter in all his plastic activity comes to rest in the 'muscle-man'; then the activity changes into chemistry and overcomes the plastic rigidity in movement.

In wisdom-filled chemical activity the movement of the muscles sucks at the liver where Jupiter comes to rest chemically. (This is in opposition to the usual concept that the liver sends substances to the muscles. From the aspect of this description it can be understood that the muscles fetch the substances from the liver.) Mercury streaming through the tissues in fluidity and without regularity, arrives finally at a certain contraction in the lymphatic vessels, coming to rest in the glandular activity. The glands (as terminal points of streaming fluidity) are the place where this fluid stream leaves the organism. Fluids stream through the whole body, excepting the inverted air sack which we call the lung. The lung is a gland, but a negative one, it is a hollowing out within the fluid man.

Liver and lung as consummation of Jupiter and Mercury activity, are Jupiter and Mercury organs.



MARS

Let us now describe the activities of Mars and Venus. Mars, the last of the planets beyond the Sun, is the carrier of movement which is creative but directed towards a goal. Mars represents the force by means of which the Spiritual archetype of the plant pierces through to, penetrates into the Physical, and which also

pushes it out again into the world. We see Mars at work wherever the plant in its growing point pushes into space, and in so doing conquers space. Through Mars an inner activity is brought into the world, conquering the world with determination and a sense of direction, revealing its own true nature. Without Mars no plant would exist. Mars forces are at work in the shooting and sprouting of every spring, with all its conquest of space. To get a true imagination of these Mars forces we should picture to ourselves a javelin thrower at the moment in which he is about to throw the javelin and is letting go. The strength concentrated upon the target, that is pure Mars force.

The Mars forces radiate into Man between his shoulder blades and permeate him in the iron process of the blood. They radiate downwards into the blood, but they also radiate upwards into the speech process. It is Mars force which is being formed in the word streaming from the human mouth. The Mars type, is a man in whom Mars forces predominate, is outwardly active all the time, but spends himself and is unable to preserve what he has created, because he cannot bear that something should be finished. Rather than care and cultivate, the Mars type destroys what has been created and rebuilds anew. He is carried by a continuous creative urge, and where he meets an obstacle he is consumed by wrath.

The Ego, when wishing to oppose being carried away by all this activity, must summon strong resistance, because Mars does not yield to soft measures. This process of opposition results in the damming up of the directed force, and now something happens which may come as a surprise at first: Where Mars forces is dammed up the world beings to sound.

The sting of an instrument shows the same phenomenon. The force with which the bow is used, is dammed up by the resistance of the taut string. Force and resistance struggle with each other, and the string begins to sound. Or we take a metal plate covered with fine sand; we strike it with a bow and sound figures appear indicating that matter arranges itself according to the principles of sound. We meet this harmonizing principle again in chemistry, where the order in chemical and organic compounds follows musical laws. Every tone has its own sound figure. The Higher Hierarchies speak into the Ether world, and out of these cosmic harmonies here on Earth substances come into existence according to the order of the chemical elements. This cosmic music starts from the Mars sphere and is passed on to the Earth through the Chemical or Sound Ether. Within the animal and human organism, Mars orders and forms the substances, working from within in the Astral Body. In the plant organism the cosmic Mars brings this about.

The iron forces, active in the hemoglobin of the blood, come to their end in the liver, where out of the red hemoglobin the iron-free green-yellowish gall is formed. The bilirubin is identical with the iron-free hemoglobin and in its formation the iron is held back, it does not enter the gall. Out of this holding back, this damming up, the albumen forming forces, essential for the building up of the human body, are born in the liver like 'sounds figures'. This process of protein building in the liver is sounding tone, in which the substances C—H—O—N—S—P are arranged in sound figures. The driving force bringing this about is the activity of Mars being dammed up. In the plant this process is more hidden, but here too Mars plays a part, once in the growing outward, again in the forming of protein.

The force of Mars manifests especially in the Stinging Nettle Preparation 504 which harmonizes the iron forces in the soil, bestowing true nutritive value on the plant. This in turn is connected with a healthy protein building process, but also with starch formation, inasmuch as every starch granule is surrounded by a delicate protein sheath. We shall deal with this more fully later on.

VENUS

In contrast to the active Mars processes, the Venus processes are hidden, and we shall truly understand them only by being quite still and listening inwardly. Venus is connected with the deeper nutrition (of the cell), with the deepest building forces of the organism, where the offered substances are received into the life processes to unfold their activities by being taken up by higher principles. Venus is connected with the creation of a 'milieu', with the clearing of space for something else to unfold. We may think of the home of a quiet and modest woman with a significant soul. Here people meet one another in the exchange of ideas and all shyness is cast aside. And if we ask why such social life, so stimulating and fertile, occurs just in this home we must admit that it is due precisely to the quiet personality in the background who perhaps does nothing else but brings coffee just at the right moment and disappears again. Venus has this ability to make room for something else to manifest. As Mars is associated with speaking, so Venus with listening. Goethe call conversation more precious than light, because conversation is the harmony between Mars and Venus, in which the one partner is the speaking Mars, the other the listening Venus, changing parts after a while.

Where Mars and Venus truly meet, a third element comes into existence, something new can be made manifest.

Entirely to become Venus, to make oneself into a vessel to receive something higher, would lead to complete renunciation of self. The Ego could no longer exist in an absolute Venus attitude. The process must revert into its opposite: the Ego overcomes the building up process by 'sucking away' that which has passed through the life processes, and does so by means of the kidney-bladder system. The destructive and excretory processes exert their sucking forces from kidney and bladder reaching right into the last living cell. The Venus process comes to an end in the kidney, the Venus organ. When in the kidney Ether force and substance are separated, the dead matter is excreted and the Ether forces radiate upwards into the eye, bestowing the force of going forth into the world in the act of seeing. Pathology knows well this secret connection between the kidney and eye.

Most beautiful is the co-operation between Mars and Venus in the living organism. Protein, formed through the Mars force, nourishes the cells along the Venus path. The Venus process, coming to an end in the kidney, there produces radiations. These ray upwards and unite with the Mars force with all its determination and direction, to appear again in the eye's force of vision. The force with which the eye faces the world originates in the kidney radiation. The striking picture of Mars and Venus is such a musical instrument as the violin. The bow is movement full of aim and purpose, the string stays this movement and begins to sound. But quality is added to the tone only by the resonance of the instrument which creates a milieu in which the sounding tone can live, only now being born as living tone quality.

It is similar to the growing plant where especially the first two activities of Mars and Venus come into play. The force of the growing point, directed outwards, is surrounded and filled by the nourishing Venus force; only through both these processes together can the plant grow. Creation and congestion, building up and excretion closely and intimately co-operate; the dammed up force of the growing shoot makes possible the protein formation, while the force of excretion lives in the bark and its deposits.

Venus forces manifest especially in the Yarrow Preparation 502. The Yarrow is prepared with the Stag's Bladder, the end of the kidney sucking process, and thus, strengthened in its connection with the Venus region, it can receive cosmic substances which enliven, refresh the soil, and balance exploitation. Especially the potassium processes in the plants are activated.

Mars I	Mars II
Directed Movement	Tone Due to Staying of Movement
Growing into Space	Protein Forming Force
	Substance Forming
Venus I	Venus II
Nurturing Nutrition.	Excretion
Milieu Forming Receptacle for	Separation of Substance
Something Higher	from Ether Forces

THE WORKING OF THE SUN

In the center of these three polar processes stands the Sun process. Wherever there is a state of balance, not just a dead equilibrium, but a living interplay, between Saturn and Moon, Jupiter and Mercury,

Mars and Venus, there the Sun is already at work. The archetype of Sun activity is diastole and systole, the expanding, spreading out into space, and the contracting into a point. But expansion and contraction do not follow a straight line, but are spiral processes. The striving and tending away from the center to the circumference takes place in ever widening arcs, orientated right from the beginning to the infinite periphery. On the other hand, the contraction from the circumference towards the center takes place in ever decreasing arcs, with the center as point of orientation right from the start. Those readers who have done some Eurythmy will understand what is here meant by orientation.

Thus the Sun manifests in two activities: On the one hand contracting, leading everything to the center —on the other hand drawing it out into the infinite distances. We can call this contrast also 'Winter Sun' and 'Summer Sun', or 'night Sun' and 'Day Sun'. In the making of the Preparations it is of great importance whether a process is exposed to the 'Winter Sun' or to the 'Summer Sun'. Without a proper understanding of this twofold Sun activity, our measures will remain automatic. The great breathing and pulsating of the Sun goes through all the planets, both those beyond and those nearer the Sun, causing an external and rhythmic interplay between them. It is the task of the farmer working with the bio-dynamic Principles, to live with these rhythms and to adjust his actions to these rhythms and life processes of the plant.

In the most beautiful way this Sun rhythm is revealed in the human circulation when the blood disperses from the heart into the infinite periphery of the smallest vessels. In a great arc it leaves the heart, streaming towards the periphery. On its return journey towards the heart, it flows but slowly to begin with, gathering speed and finally rushing in a vortex into the right Atrium of the heart. At one time the Sun rhythm condenses the cosmos into substance, then again it transforms the substance into cosmic quality. The two Preparations by means of which we can handle these two Sun activities, as the need may be, are the Cowhorn Preparations 500 and 501. In the one case it is the Horn-Manure, exposed to the 'Winter Sun'. Both preparations are stirred before use, i.e. a rhythmic stirring inwards and outwards takes place, the vortex each time reaching the bottom of the vessel. With this stirring we subject these Sun-Preparations to a rhythmic, spiral Sun-breathing movement, releasing into activity, the 'Summer' and 'Winter' Sun forces bound and preserved in the Horns.

The plant really is a Sun-Earth-Being, and for this reason the Preparations 500 and 501 are so important. After the Earth has received the compost in which the planetary forces are harmoniously active, the Sun-breathing process brings all this into movement; and it is for this reason that the Preparations 500 and 501 are applied in the last minute before sowing and during growth respectively, and in such a way that, in the one case the forces concentrate towards the Earth, thus leading to germination and growth, and in the other case the substances and forces open towards the cosmos and can thus produce quality and aroma.

"The one will trouble and the one refresh,

So mixed is life in this our mortal flesh."
