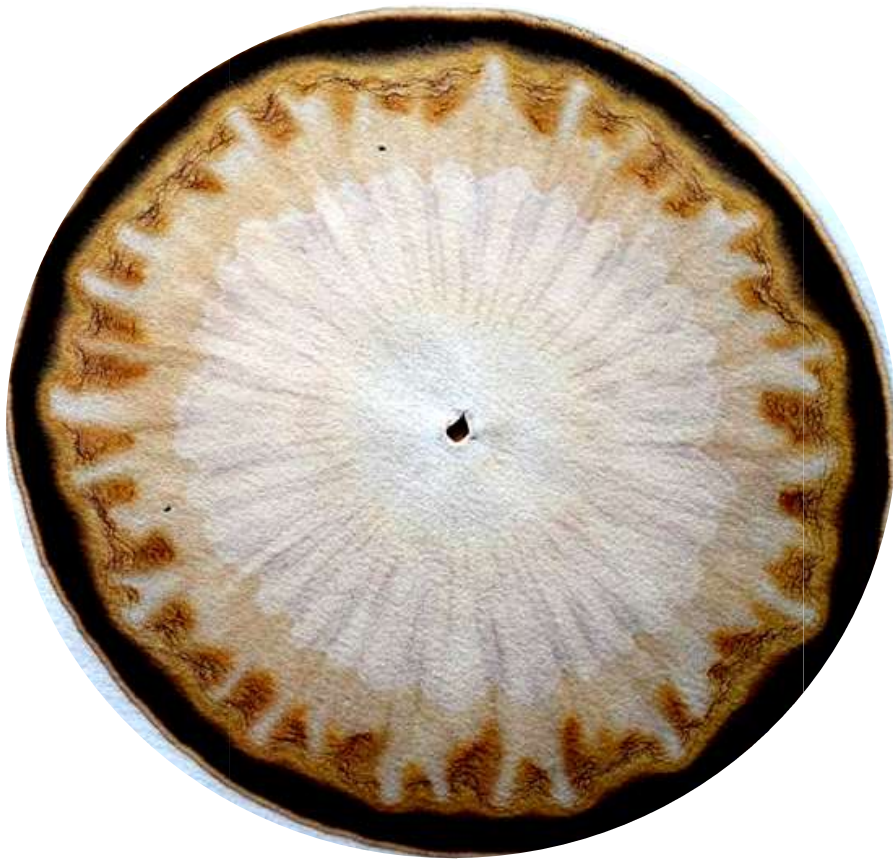


REVEALING THE FORMATIVE FORCES THROUGH PFEIFFER'S CHROMATOGRAPHY



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BIOGRAPHY

PEDRO ANTONIO PAÇÓ, piscean, was born on March 18th, 1989, in São Carlos, São Paulo, Brazil, son of Damaira Gonçalves and Antonio Augusto Paçó. He began his undergraduate studies in agronomic engineering in 2008 at the Federal University of São Carlos. During this time, he became aware that conventional agriculture is not the sustainable path we want for future generations. He was interested in agroecology and biodynamic agriculture, considering them as the best humanized alternatives to produce food. In March 2014, he started his master's degree in organic agriculture at the Federal Rural University of Rio de Janeiro and Embrapa Agrobiology, in Seropédica, Rio de Janeiro. In March 2016, he presented his dissertation entitled: "Spatial arrangements of green manures mixture before organic bean cropping ". Ten days later the presentation, he moved to Germany to begin his studies in biodynamic agriculture and anthroposophy at the Dottenfelderhof agricultural school in Bad Vilbel, Hessen. During this period in Germany, he delved into the circular chromatography method, improved by Ehrenfried Pfeiffer as a tool to develop the imaginative faculty of perceiving etheric formative forces.

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INTRODUCTION

This work is the result of the author's interest in delving into the anthroposophical study of etheric formative forces through the round filter chromatography method (referenced here simply by chromatography). This idea and interest originated during an intensive year of study and living in anthroposophy and agriculture at the biodynamic agriculture school "Landbauschule Dottenfelderhof", in Germany. Thus, the structure of the work is divided into two parts: the first focuses on compiling information about ethers and elements, and the second presents the practical part, showing the experiments with the chromatography. The objective of the work is not focused on the interpretation of the images (chromatograms), but on the quest for a more intimate relationship between the idea of the etheric world and the practical intention of the chromatography.

It is not the author's goal with study to dive deeply into details about the method of chromatography itself or to study in a systematic and profound way the etheric world, which can be studied directly through the original works. It is also appropriate, on this occasion, to say that due to the broad content of the area of study cited above, the short period of time and the limitation on the author's mother language (Portuguese), the depth of the work was limited. However, the present study is not considered to be concluded, but rather, it marks biographically, for the author, the beginning of a life dedicated to spiritual scientific study, thus joining to so many others who strive to rescue of this forgotten knowledge.

The purpose here is to take the first step quietly towards the better understanding between matter and spirit, and thus self-knowledge. Through the inspiring words of Rudolf Steiner, the central idea of this work will be introduced: *"Perception with the eye of the body imparts knowledge of the sensible and material; perception with the eye of the spirit leads to the perception of processes in human consciousness, to the observation of the world of thinking, feeling and willing; the living union of the spiritual and bodily eye makes possible the knowledge of the organic which, as a sensible-supersensible element, lies between the purely sensible and the purely spiritual"*.

FIRST PART

The content of the first part refers to the conceptual part of the work, where the author sought to compile diverse information regarding the chromatographic method and the etheric world. The literature consulted on the technique and methodology of chromatography were as follows: *"Chromatography Applied to Quality Testing"* by Ehrenfried Pfeiffer; *"Der Chroma-Boden-Test: die Bodenqualität bestimmen, bewerten und verbessern: ein unentbehrlicher Ratgeber für Landwirte, Berufs- und Hobbygärtner"* by Helmut Voith and Elisabeth Guggenberger; *"Cromatografia: imágenes de vida y destrucción del suelo"* by Jairo Restrepo Rivera and Sebastião Pinheiro; *"Portraying Soils and Compost: Color, Form, and Pattern"* by Bruno Follador.

Two works, in particular, served as a basis for the knowledge of the ethers, whose authors used the indications presented by Rudolf Steiner: *"Etheric Formative Forces in Cosmos, Earth and Man"* by Guenther Wachsmuth; and *"The Four Ethers:*

Contributions to Rudolf Steiner's Science of the Ethers, Elements-Ethers-Formative Forces” by Ernst Marti. Beside these, three others were consulted to clarify further details on the questioning: “*The Working with the Stars in Earthly Substances*” by Lili Kolisko; “*The Nature of Substance: Spirit and Matter*” by Rudolf Hauschka; “*Ehrenfried Pfeiffer: A Modern Quest for the Spirit*” by Thomas Meyer.

In addition to the above mentioned works, fruitful, in-depth conversations took place during this period, helping in the process of building the work. A special thanks to Roland Ulrich, Bruno Follador, Ansgar Vortmann, Gunter Gebhard and Livia Pian.

In this context, the author was involved in organizing the existing ideas on the subject, and answering the following questions:

1. What is the origin of the ethers? What they really are, and how can we perceive them?

When beginning the studies of the ethers one sees the importance of studying, at the same time, the elements (fire, air, water and earth). It is important to study together, because they have an intimate relationship with each other, and share their origins. They originated in pairs, a new pair in each phase of Earth's evolution. In the old Saturn the warmth ether and fire element originated; in the old Sun, the light ether and the air element; in the old Moon, the sound/tone/chemical ether and the water element; on Earth, the present planetary phase, the life ether and the earth element. “Four pairs of siblings, arising from the same origin, each pair having an upper and lower sibling, a celestial and a terrestrial, intimately permeating each other and working cooperatively in the organic world, becoming differentiated in the inorganic world”. That is why our present terrestrial planet consists of four ethers and four elements.

Modern science has distanced itself far from the notion of the four elements, and nowadays they no longer know them. The states of matter aggregation (solid, liquid, and gaseous) are not elements, as we have learned to think during our school formation. We lost the knowledge we had, since antiquity, about Nature. In ancient Greece, for example, knowledge about Nature was based on the understanding of the four elements. The ether, as such, joined them almost as a fifth element. The Greek philosopher Aristotle, in his work "On the Heavens," said of: “It is that which is different from earth, water, air, and fire; it is eternal and eternally revolves”.

Anthroposophy, from the greek "knowledge of the human being", founded at the beginning of the twentieth century by the Austrian Rudolf Steiner (1861-1925), brought back this idea and founded a new conception of the nature of the four elements, and their interrelationship with the ethers and their origins. Thus the ancient homogeneous ether known of the Greeks was revealed to be fourfold (warmth ether, light ether, chemical/tone ether, and life ether), giving rise to a new science of ethers. Although Rudolf Steiner has not made a systematic presentation of etheric formative forces, but his indications about formative forces are permeated in his various books.

In life, we experience reality through perception and thinking. Through perception the senses give us manifestation (the phenomena); the essence we initially grasped as an idea. The four ethers and the four elements are actually spiritual entities. To experience the spiritual reality of essence, the higher cognitive capacities of imagination, inspiration and intuition are needed, which Rudolf Steiner seeks to teach us to acquire through the transformation of our passive “*day-by-day thinking*” into *active thinking*, and in this way, perceive the supersensible world.

We can perceive ethers and elements through the development of imaginative cognition. The three states of aggregation of matter, solid, liquid, and gaseous, derive from perception; fire, air, water and earth are ideas, which appear in a variety of ways. The water element, for example, appears like rain, blood, wine, gasoline; And manifests the qualities (perceptions) of wet, cold, liquid, etc. The element of water is an entity underlying everything that is liquid, moist, etc.

2. What is the origin of particular forms in the physical world? Where do they come from? From elements? From substances?

At first glance, it is a little hard to conceive, but no, it is not the substances that give rise to the various forms of life on Earth, as in the vegetable, animal and human kingdom. The various substances known among us are created from the conservation and condensation of stellar forces imprinted on the elements acting on Earth. Thus, there is no force in the elements that shapes forms, but an ability to confer physical substances on a certain characteristic quality of each element (fire, air, water, earth). The fact is that we cannot observe the elements in the sensitive world, but only perceive their qualities.

Ernst Marti wrote: “*The elements can nowhere be found as principles, pure and simple. They permeate everything physical and are the basis for the physical. They make it possible, give it existence, but not its particular form of existence*”.

The substances themselves, or their combinations, in this way, do not imprint forms in Nature. Rudolf Steiner has pointed out to us that the etheric body is the architect and constructor of the physical body, and in this way we must recognize it as the originator of forms and configurations. The correct reasoning is that stellar forces stimulate the ethers acting on Earth, and then, they give rise to the forms in the organisms of the Earth. Therefore, it is correct to affirm that the origin of both the substances and the formative forces is of the stars, but the first acts in the physical and the other in the etheric.

3. What are the basic characteristics of ethers and elements in the physical phenomena of matter? What can we perceive?

What is necessary for us at this moment is to learn how to acquire a satisfactory mental representation of the elements and ethers, to study the phenomena of the sensory world, and to learn to recognize them correctly, as manifestations (phenomena) of the idea in

question (ether and element). An important fact revealed by Rudolf Steiner is that the elements and ethers behave in the opposite way.

Steiner has shown that the elements tend to converge at the center, whereas the ethers tend to move towards the periphery. The elements have central forces, while ethers, universal forces. The elements represent the physical aspect, the ethers the etheric. The physical lacks life, the ether is the real realm of life. We must face the basic forms brought by the ethers in all the kingdoms of Nature with an living mind.

Warmth ether and fire element: The warmth ether presents forces that conduct the substances to the world of the phenomenon, it causes to arise, and to mature. It is only with the warmth ether that phenomena of heat arise. The tendency is to give rise to spherical shapes.

The fire element disappears from the world of perceptions, the heat dissipates.

Light ether and air element: The light ether has the tendency of expansion, the impulse to radiate out of the central point, to suck, acting centrifugally. The periphery is the constitutive point of light. Acting from outside it makes things visible, revealing its limits, the spatial contours. From the inside the light ether provides the spatiality of living beings as a force of growth. When its acting force is exerted on the world of substance without obstacles, it produces triangular shapes.

Air's tendency is to fill the space between things, to unite the objects of a room, for example. Air is passive, filling the space at your disposal. The point is the constitutive principle of air.

Chemical/tone ether and water element: The chemical ether has the tendency to act toward the center; the impulse to concentrate everything in a certain center. It acts centripetally. It has an inclination to divide, producing numbers, numerical relations, symmetry: distances, fractions, duplications arise: one can add and count. This ether forms nodes, creates intervals. Rudolf Steiner mentions it as "the ether of numbers". Steiner also calls it chemical ether because it is the vehicle of chemical activity. Chemically substances bind to each other according to numerical relationships; Their chemical forces and relations are manifestations of the chemical ether. It presents a force of lightness, and whose performance is harmonizing and ordering. It produces, when without obstacles, half-moon shapes.

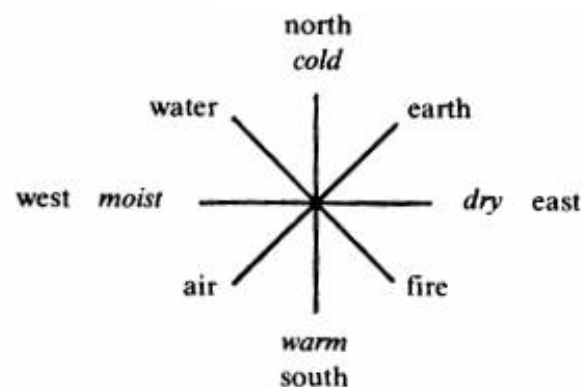
The water element is something continuous, homogeneous, constant. The water is compact, dense. It weighs. It tends to form a globality, adding all the parts into a whole.

Life ether and earth element: Life ether vivifies and individualizes in such a way that it gives rise to totalities that are delimited by a skin, appearing to be a unit that pervades itself. Life ether heals. It divides, but not in parts, but in members, in which each member is unique, a totality, an organism. It differentiates the globality in the diverse directions of the space, originating its form from the inside. Its forces produce square shapes.

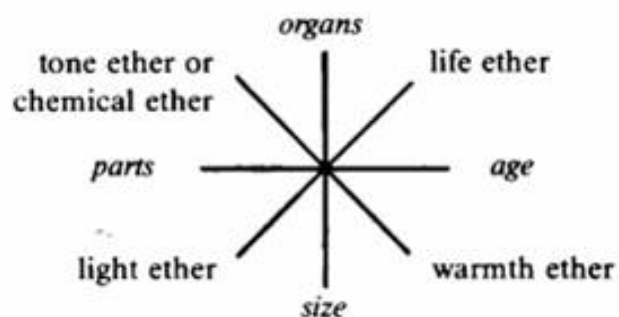
The earth element represents the solid state of matter, rigid and impenetrable. It rejects, asserting itself abroad. It is divisible: can be divided into several parts, giving rise to other bodies (volume).

4. What are the characteristics of the working together of the four ethers?

The vision of the working together of the four ethers recalls the experiences experienced internally by the man of the past. In ancient times, man did not know the elements only intellectually, Man felt them and lived them; there was an emotional connection between them. For example, starting from the point of view of Greece being at the center of reference, when men traveled north, they felt that it was colder, and warmer as they went south. They also felt dryness as they headed east, and felt moisture as they headed west. Thus, they had varied perceptions for the four cardinal points (north, south, east and west). They perceived inwardly, then, that in the northwestern region, between the cold of the north and the humid one of the west, arrived forces connected to the water element. Thus, through the lived experiences, a combined representation emerged between the four cardinal points and the elements, as shown in the following figures taken from the book “The Four Ethers” by Ernst Marti:



In this way, the ethers can also be grouped so, because they form pairs with the elements. We can say that elements and ethers are primary qualities, they are **ideas**. While the sensations of heat, cold, wet and dry, for example, are secondary qualities, **perceptions**. Thus, the action between the warmth ether (the time that matures) and the light ether (dilates and creates space) is perceived as “size”, the origin of space in a lapse of time.



The action between chemical ether (separates and orders) and light ether (creates space), is perceived as “members” (parts), separations of a spatial unit. Between the chemical

ether (divides) and the life ether (vitalising force limited by a skin, generating a globality), it gives rise to organs (liver, lungs, kidneys), partial vital entities. The perceived action between life ether and warmth ether is the generation of a globality in time, that is, the age. For example, a person of 70 years of age (globality) was maintained by warmth ether, dissipating and generating heat.

What about the interaction of diametrically opposite ethers? Between warmth ether and chemical ether originates the maturation chemistry, for example, in the maturation of a fruit or sex cells. It gives rise to processes. Between light ether and life ether originates the growing individual (totality), the metamorphosis of a living organism, for example, the transformations of the form of a human being between birth and adulthood, or the transformation of an adult frog from an egg. That is, the elaboration of form or configuration.

5. Can ethers act on the phenomenon of colors?

Guenther Wachsmuth, in his book "Etheric Formative Forces in Cosmos, Earth and Man", presents a new idea about the appearance of colors in the sensory world. It was especially worthy of the study on Goethe's book "Theory of Colors" (Zur Farbenlehre): *"It would not be possible to speak here on the basis of reality concerning the true nature of phenomena of colour had not Goethe in his theory of colour given the foundation for a conception of 'light', 'darkness', and 'colour' which can be set over against the terrible caricature that has been systematically developed from the mechanizing hypothesis of Newton in the course of the present materialistic age"*.

Wachsmuth explains that through the action of etheric formative forces on terrestrial organism, the different variations in the world of colors arise. Thus, when there is an active predominance in the world of the substance of the:

- Warmth ether, then appears the colour red;
- Light ether, then appears the colour yellow;
- Chemical ether, then appears the colour blue;
- Life ether, then appears the colour violet.

The indefinite number of variations of the world of colour arises from the fact that either the forces of light are gradually being suppressed by the forces of the dark, or those of the dark by those of light. *"Every colour is the result of a conflict between the real etheric forces of light and darkness"*, wrote Wachsmuth.

The circle of the spectrum of Nature and of light encloses two worlds. The world of the spiritual being is transmitted to the world of substance, bringing involution, evolution. "Creating something out of nothing" in a closed harmonic circle. Thus, they also transmit cosmic formative forces to the living world of the being of the terrestrial organism, within the "dull" world of enlightened substance.

Therefore, by observing various forms and colors in the phenomena of the sensory world, we are led to believe that the ethers act together, and in various possible combinations depending on the substances.

6. What is the principle of chromatography, and what is the real intention of Ehrenfried Pfeiffer when developed his image forming methods?

Ehrenfried Pfeiffer (1899-1961) was a German soil scientist and worked closely with Rudolf Steiner to test and document many of the effects of biodynamic practices. He developed two anthroposophic image forming methods ("Bildschaffende Methoden" in German), the "round filter chromatography" (circular chromatography or chroma test) and the "copper chloride crystallization method", developed together with Erika Sabarth. Besides these two methods there is still another known as "rising picture method" ("Steigbildmethode" in German), developed first by Lili Kolisko. In the anthroposophic movement, the image forming methods have been used for investigative purposes related to the vitality of organic substances in the field of agriculture and medicine.

Paper chromatography already existed, and the first developments and applications were done by German chemist Freidlieb Ferdinand Runge (1795-1867). Pfeiffer developed a new way of working with chromatography, seeking to determine different humus formations in soils and composts, which could not be identified by chemical analysis. The principle used by Pfeiffer is simple: organic substances (soil, compost, food, etc.) are extracted with a sodium hydroxide solution (NaOH), and then this solution runs through a filter paper, which was previously impregnated with silver nitrate (AgNO₃). Through the phenomena of capillarity, the filter paper can physically retain the substances, and with the help of silver nitrate and light it can reveal. The end result of the process is the appearance of an image (chromatogram) with colors and forms, originated by formative forces, the vital Nature of the substance.

According to Pfeiffer, the evaluation of the images should take into account the following points:

- a) Number, width and color of the different zones, as well as their regular or irregular formation and shading;
- b) Ring formations between the middle and outer zone and at the edge of the outer zone;
- c) Color of the zones;
- d) Radiation, number, color and shape of Spike-like formations.

In 1945, in his article entitled "The Soliloquy", Pfeiffer comments on the real purpose in which his image forming methods were developed:

"In another realm, in that of crystallization research, a very peculiar experience was had. Crystallization research was started in order to study the 'anschauende Urteilskraft' (power of perceptive judgement) with regard to life processes: that is, to become more familiar with the etheric and formative forces. Under the pressure by some co-workers

and the audiences, consisting at first of anthroposophists, it was demanded to develop the crystallization more and more as 'proof' for the formative forces. It had not been my original intent to publish the work. But it was talked about so much, that I preferred to make the work public in my own words. Through this 'providing of proof' was necessitated, that is from a method started to develop the perceptive judgement, an analytical, scientific method resulted. It was estranged from its original spirit and when the medical application came, the majority of the anthroposophical physicians demanded that the path of 'proof' be followed instead of training the imagination. I have complied with this demand out of a feeling of duty, more or less successfully.

One day, in 1939 in winter (I cannot present this in any other form), a delegation of spiritual beings came to me and said approximately the following: 'We are the beings which are needed in order to work within the physical and chemical forces in nature in such a way that the formative forces become visible. We have aided you in your striving because we hoped that thereby the force of imaginative perception (*bildhafte Urteilstkraft*) in those persons who came into contact with it would be developed. We feel that we should co-operate only in the task of cognition of the etheric. You have engaged in paths where you demonstrate etheric formative forces, but other people want to make from this proofs along materialistic lines. This is not in the original intention of the spiritual world, which wants to replace materialism by imaginative cognition'.

The consequences which I had to draw from this conversation, were that I can personally perform and ask to be performed only such crystallizations where that which the spiritual world revealed as abuse does not enter”.

Pfeiffer refers above to the copper chloride crystallization method, developed previously. In this sense, it is believed that Pfeiffer's original intention of not wanting to "prove" the formative forces, but rather to develop imaginative cognition, applies in all the methods developed by him. In 1959, on issue number 49 from periodical “Bio-dynamics”, he presented the chromatography as a simpler alternative to the copper chloride crystallization method:

“We have tried the sensitive crystallization method developed by this author which, in the checking of other biological materials, has performed quite satisfactorily. With regart to compost it may give some information, but the method is too cumbersome for practical surveys. For the last three years, we have been using a method of circular filter paper chromatography wich has performed quite satisfactorily and is rather simple, requiring very little equipament”.

7. What is the function of NaOH and AgNO₃ in chromatography?

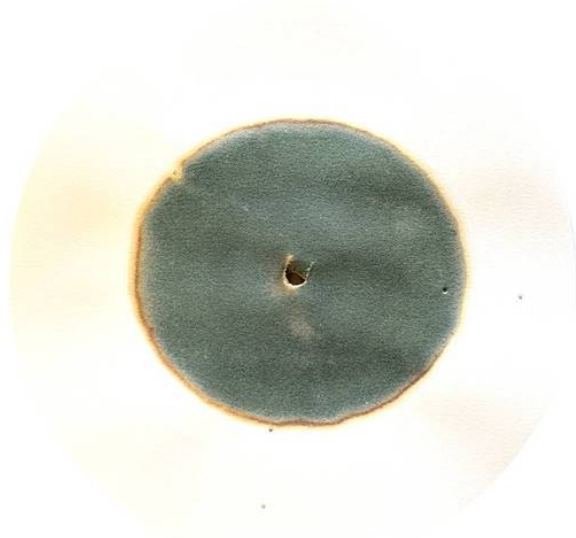
Sodium hydroxide (NaOH) is used in chromatography in different concentrations (0.1%, 1%, 2%) depending on the substance to be studied. Pfeiffer's recommendation for silver nitrate (AgNO₃) is 0.5%, however, other concentrations may be tested. Both NaOH and AgNO₃ are solubilized in distilled H₂O. NaOH, also known as caustic soda,

is a strong base and has the characteristic of being an excellent "dissolver", "extractor". It breaks down rigid, solid substances, long and complex molecules, making them smaller and more mobile molecules in the aqueous solution. In turn, AgNO_3 is a metal and a strong oxidizing agent, quite soluble in water. Characterized by being an incredible "revealer". Rudolf Hauschka, in his book "The Nature of Substance: Spirit and Matter", wrote the following about silver: "The chemistry of silver paints the first strokes of its portrait in the striking phenomenon of its **mirroring capacity**. [...] The tendency to form mirroring surfaces is one of silver's chief characteristics. When an object is reflected in a mirror, we speak of a pictorial reproduction. We also speak of photographic **reproduction**. When we stand between mirrors we see countless reflections of ourselves, [...] Ceaseless repetition and wave-like reproduction of some motion or condition of matter are characteristic of the silver force".

Eugen and Lili Kosliko in "Silver and its Connection with the Human Organism" comment on the characteristic of silver in revealing the formative forces: "If we think of the experiments with filter paper we see that silver is a metal which has in itself a **hidden power of formative force** which we do not find in any of the other metals in the same strength [...]"

The silver helps to reveal the formative forces of other metal salts which are not so easily found by using them alone. The strong reproductive and formative power of silver helps all the other metals to reveal their specific forms. If we bring together the immense amount of material we gathered through many years of incessant study day and night, all the constellations of Sun and moon, Mars and moon, Saturn and moon, Jupiter and moon, Venus and moon, Mercury and moon and all the other qualities of this metal which we mentioned above, then perhaps we might be allowed to say: **the silver acts in such a way that it represents what lives in the light, it produces pictures of what acts in the light**. And if we find that this is connected especially with the moon, it may be justified to say: **the silver behaves like the moon in the cosmos**. The moon itself has the strange quality that it continually reflects the light which comes from the sun and all the other planets. The moon is the great photographer of the universe, it continually brings us back pictures. It is indeed a very strange phenomenon that the silver salt solution has the power to produce 'pictures'".

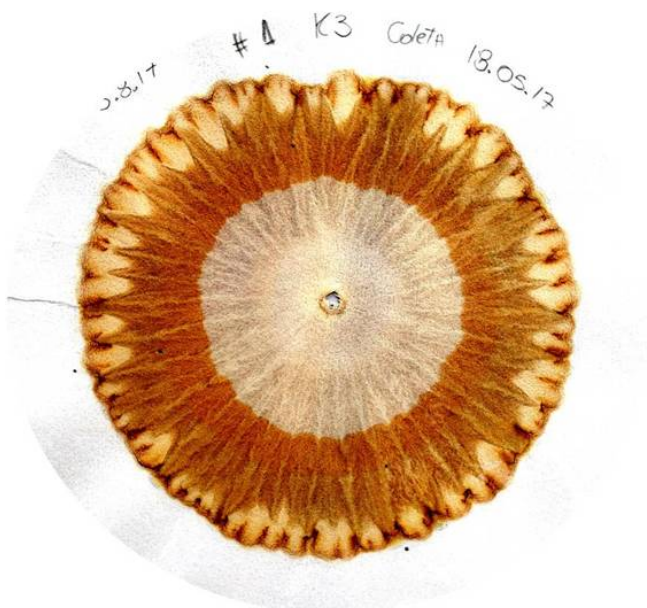
The next figure shows the silver nitrate revealing ability, bringing shapes and colors on the filter paper:



A) Only silver nitrate (AgNO_3) impregnated on round filter paper.



B) Compost without AgNO_3 previously impregnated.



C) The same compost above, but with AgNO_3 previously impregnated.

SECOND PART

This part of the work presents the practical experiences with chromatography, testing different substances in order to observe the different patterns revealed. These experiments aimed to develop a closer relationship with the chromatogram, not the interpretation of the images. The exercise here is to perceive shapes and colors as a language and manifestation of forces. The experiments followed the following ideas:

- 1- Follow the development of a compost pile, collecting samples periodically, in order to observe the transformation of materials (substances) into humus;
- 2- Observe the revealed forms and colors of biodynamic preparations ("500" to "508") and also of different foods;
- 3- In order to present the method, the experiment was to pin a poster on the market and cafeteria Dottenfelderhof with the following question: "The Picture of Vitality: What you feel when you contemplate the shapes and colors? Please write your perception of these 3 pictures on the paper. Thank you".

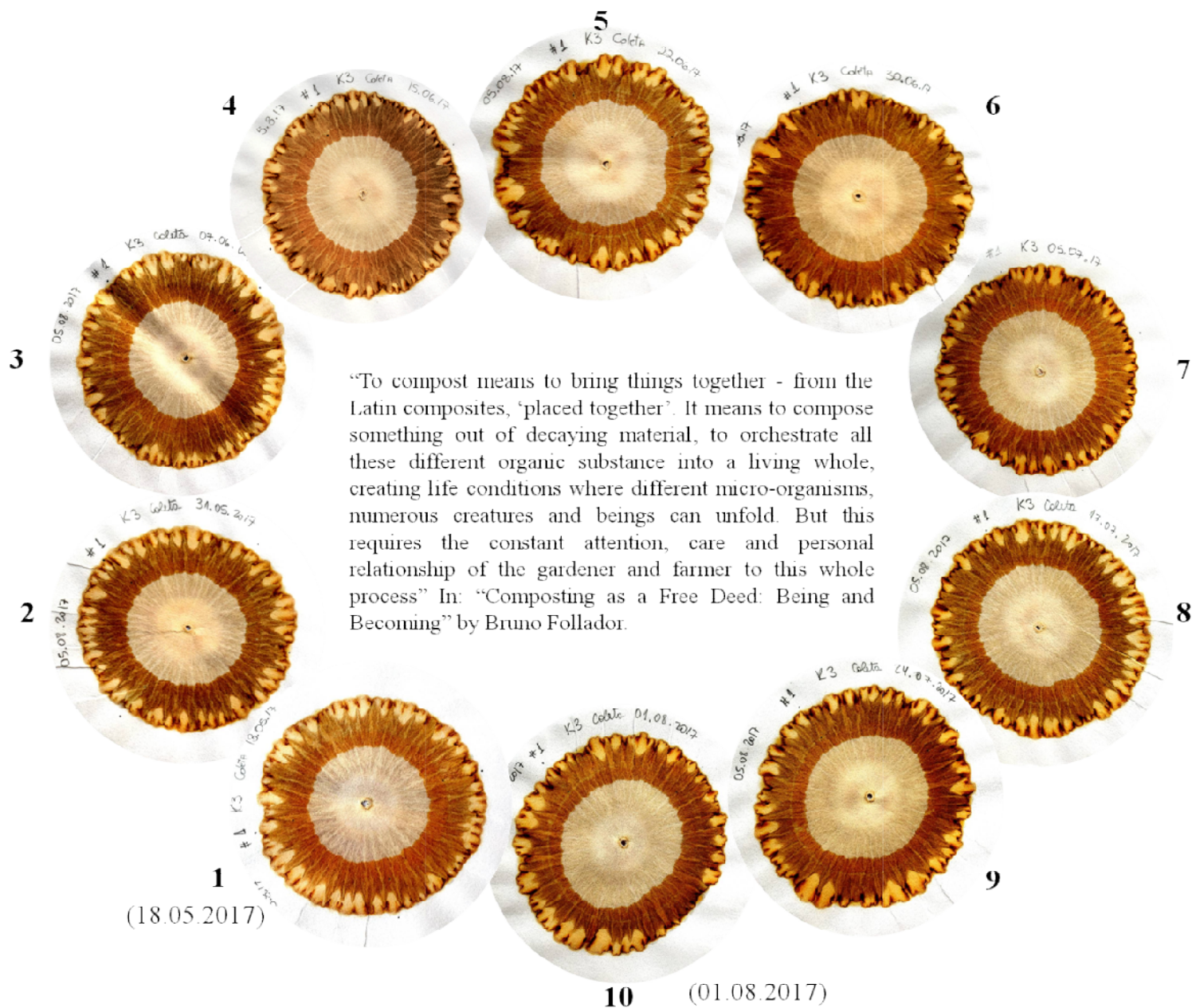
As a result of the experiments, the chromatograms will be presented along with quotations and phrases, which are printed on transparent paper for a better visual effect. The intention is not to interpret or judge the chromatograms, but rather, that the citations and phrases arouse personal interest in the image, motivating people to learn more about it, inspiring a dialogue between the observer and the image, exercising the perception.

Following the ideas proposed above, the next image refers to the collect of ten compost samples over a period of 76 days. The numbers "1" to "10", next to the chromatograms, tell us about the sample collect sequence, where "1" represents the first sample and "10" is the last. After collection, the samples were dried and stored for analysis on the same day by chromatography.

Seventy-six days represent the period of observation of the compost pile from the moment the material was taken to the composting yard until its use. Previously, this material remained in the "pre-compost" yard, near the stall of cows. At this site, all kinds of organic material from the farm is received daily until the amount is accumulated enough to prepare a new compost pile.

Normally, every two weeks a new compost pile is prepared. When preparing the new compost pile, they also add materials rich in carbon and clay soil. The pile is revolved with the aid of a machine. The time to turn it is decided by the person in charge, checking the temperature and humidity. Normally, this measurement is carried out empirically. Biodynamic preparations are used at least three times, usually at the start of the process, after the revaccination.

Below is the figure of the ten chromatograms performed. Observe each of the chromatograms carefully, pay attention to the variations between their shapes and colors. How many different zones can you observe in each one? Is there a relationship between each region? Can you notice any difference between them?



The next page will begin the second experiment of the work, showing a sequence of different chromatograms, and the diversity of its shapes and colors. The quotes may help in the relationship with the image.

Horn Manure Preparation (500)

“We take manure, such as we have available. We stuff it into the horn of a cow, and bury the horn a certain depth into the earth [...] You see, by burying the horn with its filling of manure, we preserve in the horn the forces it was accustomed to exert within the cow itself, namely the property of raying back whatever is life-giving and astral. Through the fact that it is outwardly surrounded by the earth, all the radiations that tend to etherealise and astralise are poured into the inner hollow of the horn. And the manure inside the horn is inwardly quickened with these forces, which thus gather up and attract from the surrounding earth all that is ethereal and life-giving.

And so, throughout the winter - in the season when the Earth is most alive - the entire content of the horn becomes inwardly alive. For the Earth is most inwardly alive in winter-time. All that is living is stored up in this manure. Thus in the content of the horn we get a highly concentrated, life-giving manuring force [...]”. In: “The Agriculture Course: Lecture Four” by Rudolf Steiner.

Horn Manure Preparation (500)



Horn Silica Preparation (501)

“Once more you take the horns of cows. This time, however, you fill them not with manure but with quartz or silica or even orthoclase or feldspar, ground to a fine mealy powder, of which you make a mush, say of the consistency of a very thin dough. With this you fill the horn. And now, instead of letting it “hibernate,” you let the horn spend the summer in the earth and in the late autumn dig it out and keep its contents till the following spring.

So you dig out what has been exposed to the summery life within the earth, and now you treat it in a similar way. Only in this case you need far smaller quantities. You can take a fragment the size of a pea, or maybe only the size of a pin's head, and distribute it by stirring it up well in a bucket of water. Here again, you will have to stir it for an hour, and you can now use it to sprinkle the plants externally. It will prove most beneficial with vegetables and the like”. In: “The Agriculture Course: Lecture Four” by Rudolf Steiner.

Horn Silica Preparation (501)



Yarrow Preparation (502)

“The mass we thus gain from the yarrow (*Achillea millifolium*) has an effect so quickening and so refreshing that if we now use the manure thus treated, just in the way manure is ordinarily used, we shall make good again much that would otherwise become a ruthless exploitation of the earth. We re-endow the manure with the power, so to quicken the earth that the more distant *cosmic* substances - silicic acid, lead, etc., which come to the earth in finest homoeopathic quantities - are caught up and received [...]

As to the yarrow, we have learned to know it. Its homoeopathic sulphur-content, combined in a truly model way with potash, not only works magnificently in the plant itself, but enables the yarrow to ray out its influences to a greater distance and through Large masses [...]

In: “The Agriculture Course: Lecture Five” by Rudolf Steiner.

Yarrow Preparation (502)



Chamomile Preparation (503)

“We want to give the manure the power to receive so much life into itself that it is able to transmit life to the soil out of which the plant is growing. But we must also make the manure able to bind together, still more, the substances which are necessary for plant growth — that is, in addition to potash, also the *calcium* compounds. In yarrow we are mainly dealing with potassium influences. If we also wish to get hold of the calcium influences, we need another plant, which — if it does not enthuse us like yarrow — also contains sulphur in homoeopathic quantity and distribution, so as to attract through the sulphur the other substances which the plant needs, and draw them into an organic process.

This plant is *camomile* (*Chamomilla officinalis*). It is not enough to say that camomile is distinguished by its strong potash and calcium contents. The facts are these: Yarrow mainly develops its sulphur-force in the potash-formative process. Hence it has sulphur in the precise proportions which are necessary to assimilate the potash. Camomile, however, assimilates calcium in addition. Therewith, it assimilates that which can chiefly help to exclude from the plant those harmful effects of fructification, thus keeping the plant in a healthy condition [...]” In: “The Agriculture Course: Lecture Five” by Rudolf Steiner.

Chamomile Preparation (503)



Nettle Preparation (504)

“Truly it is (stinging nettle) the greatest benefactor of plant growth in general, and you will scarcely find another plant to replace it. If it should happen to be unobtainable in any place, then you must get it dried from elsewhere [...] It can do very, very much. It, too, carries within it the element which incorporates the Spiritual and assimilates it everywhere, namely, sulphur, the significance of which I have explained already. Moreover, the stinging nettle carries potassium and calcium in its currents and radiations, and in addition it has a kind of iron radiation. These iron radiations of the nettle are almost as beneficial to the whole course of Nature as our own iron radiations in our blood [...]

This “condiment” will make the manure intelligent, nay, you will give it the faculty to make the earth itself intelligent - the earth into which the manure is worked. The soil will individualise itself in nice relationship to the particular plants which you are growing. It is like a permeation of the soil with reason and intelligence, which you can bring about by this addition of *Urtica dioica*”. In: “The Agriculture Course: Lecture Five” by Rudolf Steiner.

Nettle Preparation (504)



Oak Bark Preparation (505)

“We must bring calcium into the soil by our manure, But it will not be of use to bring the calcium to the soil by any channels that avoid the living sphere. To have a healing effect, the calcium must remain within the realm of life; it must not fall out of the living realm. [...] Now there is a plant containing plenty of calcium - 77 percent of the plant substance, albeit in a very fine state of combination. I refer to the oak - notably the rind of the oak, which represents an intermediate product between plant-nature and the living earthy nature [...] For calcium as it appears in this connection, the calcium-structure in the rind of the oak is absolutely ideal.

Now calcium, when it is still in the living state, not in the dead (though even in the dead it is effective) - calcium has the property which I explained once before. It restores order when the ether-body is working too strongly, that is, when the astral cannot gain access to the organic entity. It “kills” or damps down the ether-body, and thereby makes free the influences of the astral body [...] What you add to your manuring matter from the resulting mass will lend it the forces, prophylactically to combat or to arrest any harmful plant diseases”. In: “The Agriculture Course: Lecture Five” by Rudolf Steiner.

Oak Bark Preparation (505)



Dandelion Preparation (506)

“In time, we need the silicic acid to attract and draw in the cosmic properties. Now in the plant there simply must arise a clear and visible interaction between the silicic acid and the potassium - not the calcium. By the whole way in which we manure the soil, we must quicken it, so that the soil itself will aid in this relationship.

We must now look for a plant which by its own relationship between potassium and silicic acid can impart to the dung - once more, if added to it in a kind of homoeopathic dose - the corresponding power. And we can find it. This, too, is a plant which if it only grows among our farms, has a most beneficial influence in this direction. It is none other than the common dandelion (*taraxacum officinale*).

The innocent yellow dandelion! In whatever district it grows, it is the greatest boon; for it mediates between the silicic acid finely, homoeopathically distributed in the Cosmos, and that which is needed as silicic acid throughout the given district of the Earth. Truly this dandelion is a kind of messenger of Heaven. But if we need it especially - if we want to make it effective in the manure we must use it in the right way. To this end - it will almost go without saying at this stage - we must expose the dandelion to the influences of the Earth, and in the winter season”. In: “The Agriculture Course: Lecture Five” by Rudolf Steiner.

Dandelion Preparation (506)



Valerian Preparation (507)

“Now you have one more river to cross. Before you make use, of the manure thus prepared, press out the flowers of Valerian.(*Valeriana officinallis*) Dilute the extract very highly. (You can do it at any time and keep it, especially if you use warm water in dilution). Add this diluted juice of the Valerian flower to the manure in very fine proportions. There you will stimulate it to behave in the right way in relation to what we call the “phosphoric” substance”. In: “The Agriculture Course: Lecture Five” by Rudolf Steiner.

Valerian Preparation (507)



***Equisetum arvense* (Horsetail) leaves**

“Where, now, according to the indications we have given, does the cosmic nature live in the plant? It lives in the silicious element. Look at the equisetum plant. It has this peculiarity: it draws the cosmic nature to itself; it permeates itself with the silicious nature. It contains no less than 90% of silicic acid. In equisetum the cosmic is present, so to speak, in very great excess, yet in such a way that it does not go upward and reveal itself in the flower but betrays its presence in the growth of the lower parts.” In: “The Agriculture Course: Lecture Two” by Rudolf Steiner.

Equisetum arvense (Horsetail) leaves



Potato “Belana”

“To some extent, in this respect, the potato is akin to the tomato. The potato, too, works in a highly independent way, and in this sense: it passes easily right through the digestive process, penetrates into the brain, and makes the brain independent - independent even of the influence of the remaining Organs of the body. Indeed, the exaggerated use of potatoes is one of the factors that have made men and animals materialistic since the introduction of potato cultivation into Europe. We should only eat just enough potatoes to stimulate our brain and head-nature. The eating of potatoes, above all, should not be overdone.

The knowledge of such things will relate agriculture in a most intimate way — and in a thoroughly objective way - to the social life as a whole. It is infinitely important that agriculture should be so related to the social life”. In: “The Agriculture Course: Lecture Eight” by Rudolf Steiner.

Potato "Belana"



Apple “Topaz” from Dottenfelderhof

“The plant, as we saw, has a physical body and an ether-body, while up above it is hovered-around, more or less, by a kind of astral cloud. The plant itself does not reach up to the astral, but the astral - so to speak - hovers around it. Wherever it enters into definite connection with the astral (as happens in the fruit-formation), something available as foodstuff is produced - that is to say, something which will support the astral in the animal and human body.” In: “The Agriculture Course: Lecture Eight” by Rudolf Steiner.

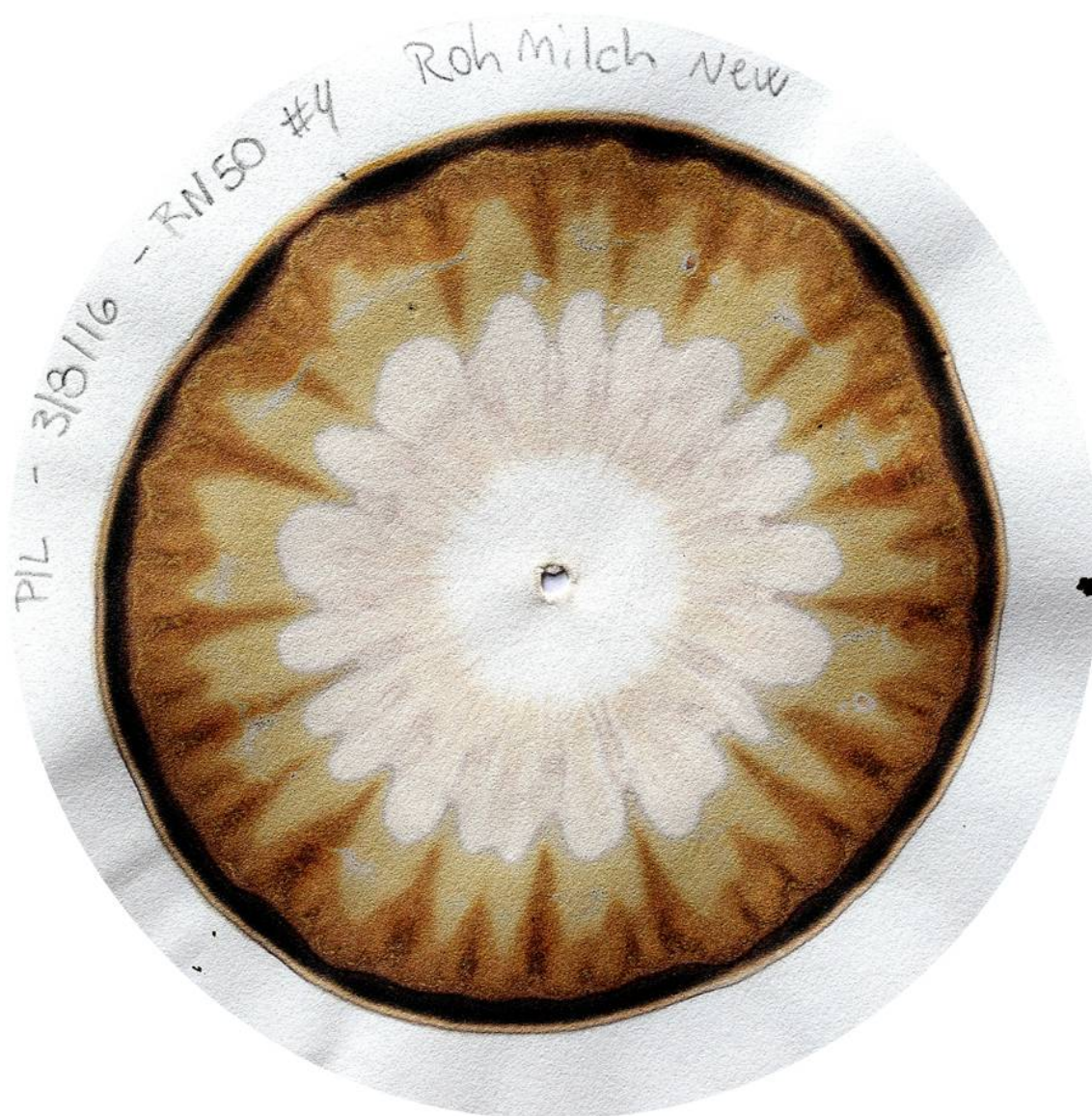
Apple "Topaz" from Dottenfelderhof



Raw cow milk from Dottenfelderhof

“For the good milk contains what has been specially developed in the metabolic process. It is a metabolic preparation, which, though it has not yet passed through the sexual System, has become as nearly as possible akin - in the digestive process itself - to the sexual digestive process. Milk is a transformed sexual gland secretion. A substance which is on the way to become sexual secretion is met by the head-forces working into it and so transforming it.” In: “The Agriculture Course: Lecture Eight” by Rudolf Steiner.

Raw cow milk from Dottenfelderhof



Raw sheep milk from Dottenfelderhof

“Milk is a product in which the etheric body of the animals is preferably involved. The astral body is involved in it to the least extent. The human being can live in the first times of his life as a baby only on milk. There everything is contained in it that he needs.” In: “Where and How Does One Find the Spirit?: Lecture VII” by Rudolf Steiner.

Raw sheep milk from Dottenfelderhof



Sage (*Salvia officinalis*) leaves

“Having looked at the labiate life (referring to the family Lamiaceae) as a whole, let us return once more to the formation of the leaves. It strikes one that the meagre amount of play permitted in the shaping out of the labiate leaf - from the broad leaf of melissa or woundwort to the needle-like leaf of rosemary or thyme - faithfully reflects the extent to which cosmic warmth actually takes hold of the species. And this is also reflected in the taste of the leaf, from the mildly aromatic one of melissa to the fiery, peppery taste of summer savory and thyme with their narrow leaves, and finally the burning, caustic flavour of the small leaf of *Teucrium marum*.” In :“The Labiatae Plants of warmth” by Wilhelm Pelikan.

Sage (*Salvia officinalis*) leaves



Mint leaves

“Tea works in a totally different and opposite way. When large quantities are drunk, thoughts become scattered and light. It might be said that the chief effect of tea is to let witty and brilliant thoughts, thoughts that have a certain individual lightness, flash forth. So we can say, coffee helps those, such as literary people, who need to connect thoughts in skilled and refined ways. This is the positive aspect of the matter. The negative aspect can be observed in coffee table gossip. Tea, which tears thoughts asunder, is the opposite. This is why tea is not without justification a popular drink of diplomats.” In: “Human Circulation through the Worlds of Sensation, Soul, and Spirit: Second Lecture” by Rudolf Steiner.

Mint leaves



Summer wheat leaves from Dottenfelderhof

“The indefinite number of variations of the world of colour arise from the fact that either the light forces are gradually being suppressed by the dark forces, or the dark by the light. When the forces of darkness weaken the light forces manifested in yellow, then appears orange, etc. Every colour is the result of a conflict between the real etheric forces of light and darkness”. In: “The Etheric Formative Forces in Cosmos, Earth and Man” by Guenther Wachsmuth.

Summer wheat leaves from Dottenfelderhof



Carrot “Rolanda” from Dottenfelderhof

“Carrots are the root of the plant. They grow down in the earth and have a large quantity of minerals. They have the forces of the earth in them, and when they are taken into the stomach, they are able to work up through the blood into the head. Only substances rich in minerals are able to reach the head. Substances rich in minerals, root substances, give strength to a human being by way of the head. That is extraordinarily important. It is through carrots that the uppermost parts of the head become strong — which is precisely what the human being needs in order to be inwardly firm and vigorous, not soft.” In: “Lecture I: Nutrition and Health” by Rudolf Steiner.

Carrot "Rolanda" from Dottenfelderhof



Biodynamic Mate Herb from Argentina

“The effect of coffee becomes manifest through its influence on the astral body. Through caffeine and the after-effects of coffee, our nervous systems automatically perform functions that we otherwise would have to produce through inner strength. It should not be claimed, however, that it is beneficial under all circumstances for a man always to act independently out of his astral body. Men are beings who are not dependent on themselves alone. Rather are they placed within the whole of life.

Coffee is also a product of the plant kingdom that externally has raised the specific plant process up a stage. Consequently, coffee can take over a certain task of man. Trained insight perceives that everything in the activity of our nerves that has to do with logical consistency and drawing conclusions is strengthened by coffee. Thus, we can let coffee take over in making logical connections and in sticking to one thought, but this, of course, is in exchange for a weakening of our specific inner forces.” In: “Human Circulation through the Worlds of Sensation, Soul, and Spirit: Second Lecture” by Rudolf Steiner.

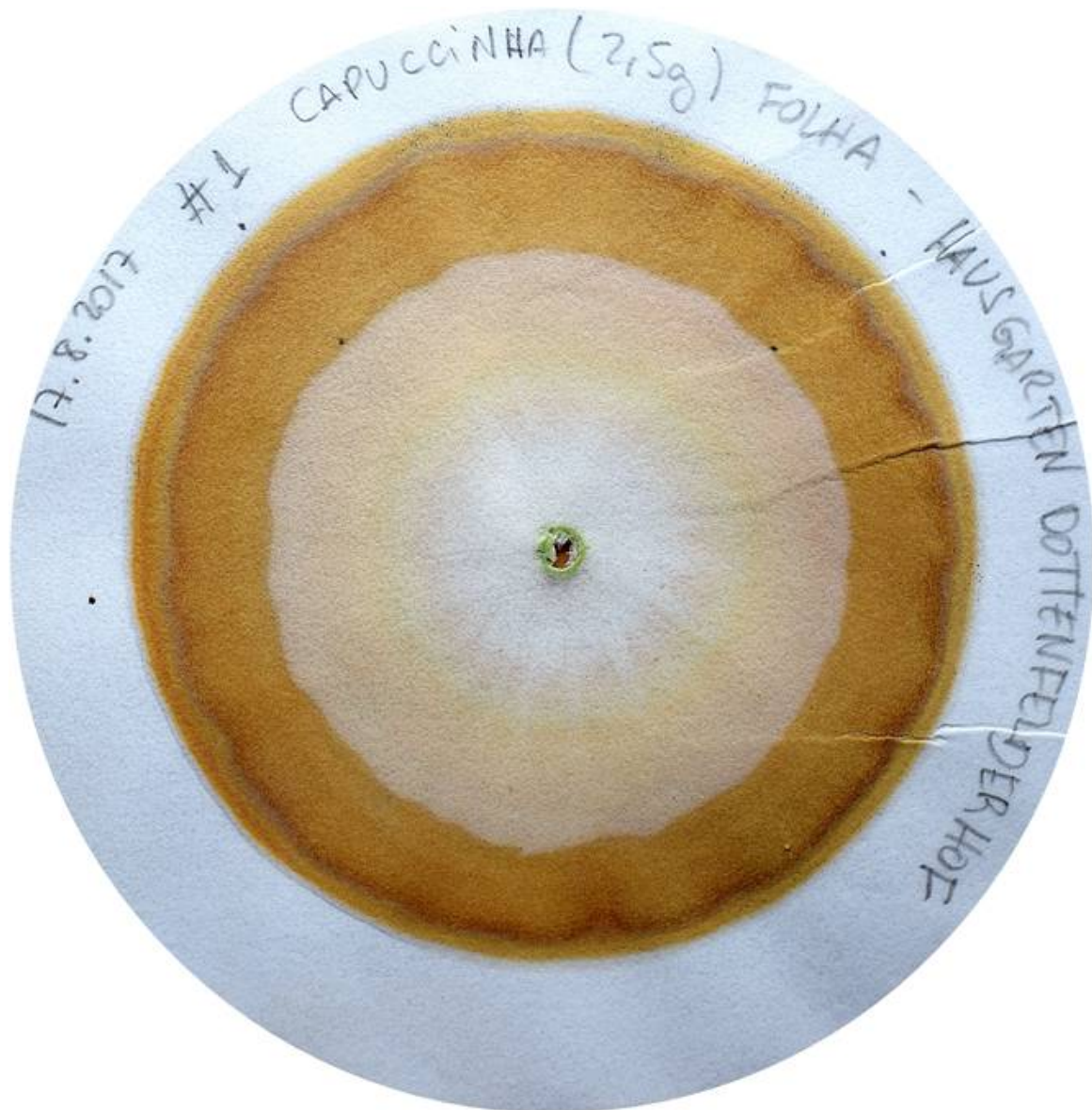
Biodynamic Mate Herb from Argentina



Nasturtium (*Tropaeolum majus*) leaves

“Nasturtium (tropaeolum majus) [...] show the spherical physiognomy of warmth ether, which, after having impelled the plant to a certain form, had to be solidified in this shape in the mature plant.”. In: “The Etheric Formative Forces in Cosmos, Earth and Man” by Guenther Wachsmuth.

Nasturtium (*Tropaeolum majus*) leaves



The third experience of the work begins here: “The image of vitality: What you feel when you contemplate the shapes and colors? Please write your perception of these 3 pictures on the paper. Thank you”.



After one month exposing the chromatograms, these were the following perceptions of the people who participated:

Compost: Shows vitality but still presents a chaotic characteristic. Inharmonious colors. It has a strong radial characteristic of expansivity. Conveys the sensation of heat.

Apple: It gives a feeling of relaxation, tending to the act of inner reflection. Conveys the idea of protection.

Potato: Beautiful image, but presents a disharmonic characteristic between the interior zone and the exterior zone. There is a sense of distancing ourselves from the world, tending to individualize ourselves, to a solidification of our thoughts.

THOUGHTS

“Clarity in the specific, depth in the universal are the two most important requirements of reality”. Through this phrase given by Rudolf Steiner, we can go further in our relationship with the chromatogram. In chromatography, the colors and forms interact with each other. “Gestures” emerge, expressing certain qualities, and so are perceived

by the observer as the manifestation of a true "personality". The idea is to pay attention to the details of the shapes and colors, and in this process create a dialogue and an intimate relationship with the image. Certainly, a feeling will emerge in this intimate relation. It may or may not sympathize with us, but it must be worked qualitatively in the interpretation of the object of study.

The chromatogram "exhales" colors and shapes, which we must "smell" with our eyes, and thus nourish our imaginative world. We must become involved with the image, becoming intimate with its whole. Pfeiffer's chromatography seeks to cultivate the perception of colors and forms as a means of developing a new faculty of perceiving the etheric world, a tool for observing formative forces.

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