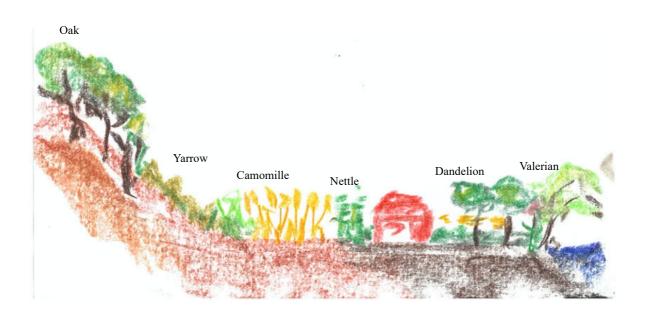


Goetheanum · Freie Hochschule für Geisteswissenschaft
Sektion für Landwirtschaft
Section for Agriculture
Section d'Agriculture
Seccion de Agricultura

Encounter with plants - Summary

Online course on the Goethean approach on the example of preparation plants with Jean-Michel Florin

Forest Dry meadow Fields Ruderal area Orchard/meadow Water/stream



Section for Agriculture at the Goetheanum

Hügelweg 59, 4143 Dornach, Switzerland <u>jean-michel.florin@goetheanum.ch</u> <u>agriculture@goetheanum.ch</u>

The dandelion, spring sunshine in congested terrain (*Taraxacum officinalis*)

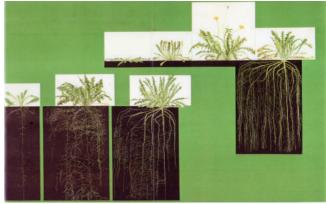
The dandelion with its vigorous rosettes of bright green, vegetative leaves and powerful eye-like yellow flower heads that open on sunny days and close again as soon as direct sunlight disappears best symbolizes the beginning of spring. It is a plant that blooms when the sun begins to rise rapidly into the sky, when the days get longer, and generally grows on moist, compacted soils that are too rich in young organic matter, often of animal origin (e.g. fresh manure), as if it had been force-fed with too much food. The dandelion also always seeks direct sunlight to such an extent that it closes its flowers (flower heads) as soon as clouds pass.



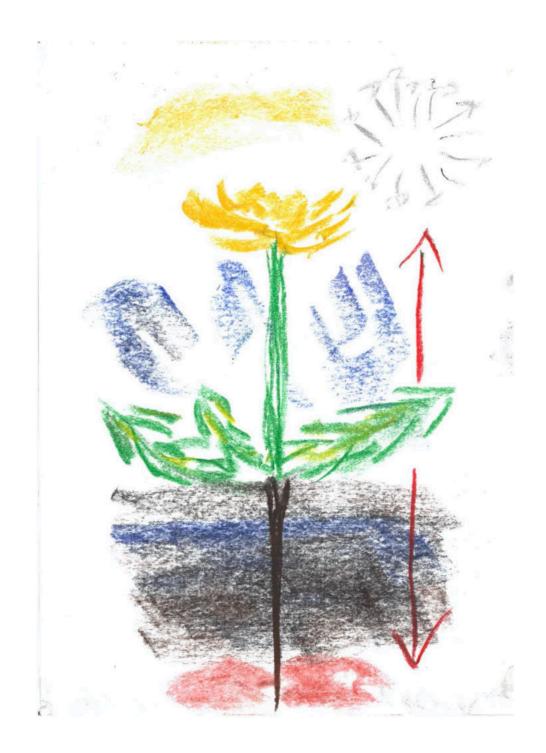
As gesture, we can see a great contrast between:

- a root rooted in soil that's too rich on the surface, almost overcrowded. This taproot
 crosses this zone and goes very low down to feel the depths of the soil, the mother
 rock,
- a rosette of many very vegetative soft green leaves, filled with bitter white latex,
- and the flowering which then forms a splendid sphere of seeds, light, dry and penetrated by light, opening completely towards the periphery and giving way to the luminous space.





Where the dandelion grows, it brings - it shows it in pictures - qualities of structure, of finesse in a too rich and heavy soil. By living intimately this gesture of the dandelion, one can perhaps sense why R. Steiner, in his Agricultural Course, calls it the "messenger of heaven". We can also understand how, just like its action on the ground, it is also one of our best depuratives.



Chamomile, bringing life back to dead soil

(Matricaria recutita)



It can be found in gardens, fields, along paths and even on highway found embankments. lt is particularly in disturbed, very compacted, excessively mineralized or even saline soils, as well as in silty soils with a tendency to be beaten. In these compact soils, it buries its fleshy roots which branch out finely in all directions to explore the smallest parcel of soil which will be loosened and aerated. What all these places have in common is that they are all open to the

light: chamomile, a pioneer plant, germinates in the light. Chamomile's favourite environment is dead soil totally exposed to full light!



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benefits from the intense sunshine it seeks in its specific environment. It is truly a plant linked to light and air.

The fleshy, slightly succulent, finely segmented leaves follow one another on the multiple branches of the plant to give a voluminous, rounded tuft covered with flower heads, themselves domed, which give the image of intense life activity developing and blending closely with the surrounding air space. This life is not directed towards hardening but metamorphoses into the formation of flowers and seeds, containing the perfume. Each stage (leaf, flower, seed) is fully expressed, brought to its ultimate end before giving way to the next.



The capitulum, whose receptacle swells and bulges and whose ligules turn completely downwards, shows this gesture of total completion of the floral stage in the most obvious way. This same gesture of "bulging" is also found throughout the whole of the camomile tuft, which disperses and almost dissolves in space.

One really has the impression that, in its bloom, the camomile opens, turns around, totally exhales and abandons itself to the air space as much in its gesture as in the exhaled smell. The plant completes its tendency to get lost in the air by withering completely to give a young humus and only small seeds remain, which fall back to the ground and are ready to start a new cycle again. All the remaining vitality has passed into the seed, which is why the plant dies by drying out in the air and light as soon as its flowers.

Chamomile shows us the image of intense life activity that it brings in dead soil by setting water and air in motion. It also flavours the whole atmosphere with its fragrant flowers.

Yarrow, heal and gather

(Achillea millefolium)



Yarrow's preferred environments are pastures or slopes that are subject to compaction, whether from sheep or humans in lawns or even from passing machinery with the tendency of losing the humus layer. The root is quite shallow, which is surprising for a drought and heat resistant plant. On the other hand, many purplish underground stems (rhizoms) colonize the soil in all directions, with the tips sticking out at the surface forming new leaf rosettes. This mode of growth allows it to form

thick mats anchoring it in the ground by a system of stems that prevents erosion of the surface humic layer of the soil. In pastures, in drought years, it is one of the most resistant plants and can thus take over.



Its habitus varies greatly depending on the station where it grows, showing its great sensitivity to the surrounding conditions, whether it is the nature of the soil or the intensity of light and



heat. Yarrow has, like Chamomille, also a strong connection to light which it reflects through the white flowers. Yarrow flowers in summer when the sun, after passing the solstice on Midsummer, stagnates a little and begins to fall back into the sky. The whole atmosphere of yarrow is summary: dry heat and aromatic air surround us with a large mass of dense flowers. This evokes the atmosphere of the ripening and hardening processes that accompany the formation of fruit and seeds in the middle of summer.

From this point of view, one almost has the impression that the yarrow inflorescence is a "fruit" process in the sense that it exhales little fragrance but rather concentrates, closes, dries out, densifies. If we take up the overall gesture again: strong anchoring to the ground, which it covers with a dense green carpet finely differentiated to "heal" it, avoid the loss of the layer of organic matter and, upwards, a very fine division of the organs (leaves and flowers) which nevertheless remain very vital (no drying out of thorn formation in dark green leaves) and are nevertheless joined together to form a whole in a straight rigid stem. This gesture thus evokes the ability to bring together dispersed elements, while organizing, very finely structuring the whole and vitalizing and regenerating it.

The yarrow thus evokes by its presence a kind of quiet strength, a friendly presence linking a rigid, dry aspect with very fine chiselled forms.



Stinging nettle, make the soil reasonable

(Urtica diocia)



Nettle is a common plant, at least in temperate zones; often you only have to go around the house or look for a place where rubble, scrap metal or stones are piled up to discover a nice dense clump of nettle covering this rubbish.

It grows from early spring to late autumn and always looks green as if it is still spring. It grows back with increased vigour as soon as it is mowed. It can often be found on the edge, along walls in half-shade and rather in cool, even damp places. It appears as soon as

either fresh organic matter accumulates manure, abandoned compost, accumulated dead leaves, stones, iron pieces, etc., or as soon as the soil is dry.

Nettle always appears in thick clumps that leave little room for other plants: it occupies the whole area. Its rare companions are like them nitrophiles such as the bedstraw, the rumex, sometimes brambles, bindweed, etc. Among all these poorly structured plants, it looks like a soldier with its vertical stems and its loose leaves.

In summary, it can be said that it appreciates stations where the earth is not yet homogeneous and alive but, on the contrary, is still only a simple heap of various materials.

By pulling a stalk of nettle out of the ground, one discovers a vast network of yellow rhizomes,

i.e. underground stems from which the various stems of the clump emerge. Under these rhizomes, many fine roots penetrate intensely into the area of organic matter or rubble. The nettle does not penetrate deeply into the earth; it remains in the matter to be transformed but has a great capacity of vegetative multiplication by its underground rhizomes which reject abundantly.

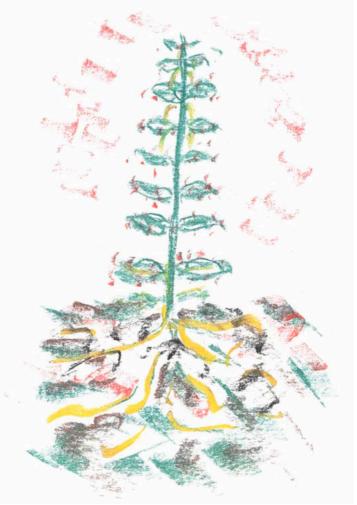


The gesture of the nettle:

First of all, the nettle shows by the rigorous quasi-military structure of its leafy shoots how it brings order to a totally chaotic terrain. It brings this powerful gesture underground by its horizontal rhizomes which bring vital and organizing processes underground. It is one of the plants that most rapidly manages to transform organic matter into a black humic substance.

The vegetative process is expressed by the fact that it grows almost all year round as well as by the density of the nettle tufts and the intense photosynthesis capacity of the leaves. Stinging nettle has the highest chlorophyll content just behind kale but still ahead of parsley.





In short, nettle is a very powerful and active vegetative process (rich in protein (nitrogen) and chlorophyll), which means that it is still very much a "juvenile" plant (with great vitality and the ability to produce plant matter). But this vegetative process is constantly controlled from top to bottom by a very special "peripheral" specification process (expressed for example by the particular teeth of nettle leaves) which does not penetrate the substance to devitalize it (which would cause either the formation of hard thorns or the deco.

The valerian, bring fruit process in the soil

(Valeriana officinalis)

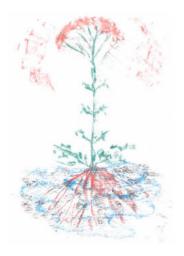


To find Valerian officinalis, you have to go to humid places: ditch or river banks, forest edges, swamps, etc. It also appreciates a rich and fertile clay soil while looking for a situation of edge half-shadow half-light, fleeing from overly lit meadows as well as shady undergrowth. It also needs sufficient summer heat. To sum up, it seeks ideal conditions that favour a powerful vegetative proliferation: rich soil, humidity, half-light and heat. It is often found in the company of large

marsh plants: shaggy fireweed, purple loosestrife, marsh cirse, meadowsweet, angelica, nettle, etc.

The vegetative and generative phases are clearly distinguished in the growth of valerian. It first forms the rosette and the roots. After the winter, the stem rises with strictly ordered leaves that become more and more refined towards flowering, fruiting and scent. As the vegetative growth densifies into a structured form and clearly separates itself from its surroundings with its vertically tapering stem measuring up to 2 m high, the juices have become more refined in the floral scent. As a perennial plant, valerian forms new rosettes or runners next to the old flower stem in autumn, from which new rosettes emerge. In spring, it is one of the first plants to form new leaves, from the centre of which the flower stems will grow after some time.





Valerian has a strong tendency to bloom. This is reinforced by cultivation or when the soil is too humic. It then begins to have a prolific vegetative development which can continue in the rise of the stem and it loses its shape. Double leaves appear, three leaves instead of two per node, a tendency to form thick banded stems, swellings and spiral stems. But the floral impulse brings about an opposite tendency whose action increases and which materializes as best described in the formation of the filigree inflorescence, in the order of the leaves and the hardening of the stem. When valerian grows in moist edges, or in alluvial forests, and receives a lot of sunlight at flowering time, these two tendencies are in balance.

Oak, overcome the death forces

(Quercus robur)



If most annual plants, after having concentrated their essence in the seed, do not overwinter, the trees do not disappear and, by their silhouette, give charm to the landscape. Life has taken refuge in the cambium, a thin layer of living cells between the bark and the wood, and in the buds, which can be considered the seeds of the future twigs that will grow on the tree. From year to year, the trees, by generating the branches, in fact produce themselves the soil on which the flowers and leaves will grow. Just as vegetation on the ground appears in spring and disappears in autumn, the vegetation of the "earth" generated by the tree follows the seasons. It is, however, quite different from the vegetation that grows on the ground: it is made up of a single species and the distance between the buds is regular, allowing the flowers and leaves to develop without hindering each other.

They grow separately, at a good distance from each other, and their roots etc. are not visible. By constructing this "earth" of trunk and branches, the tree lives over time and becomes a constituent element of the landscape, halfway between the plant world and the frozen mineral world. It is in winter that the structure of the different tree species is most clearly visible. It is then easier to make sketches of them and to feel their special nature from their shape, which is particularly moving when it comes to a hundred-year-old oak.

We talk about sessile and pedunculate oaks which are the two most common species in temperate Europe. Further south, especially in the Mediterranean region, the seasons are different, which is why other oak species may appear, bearing evergreen leaves. Moving from north to south, the leaves, which initially



have large lobes as in the pedunculated oak, increasingly retract and take on the appearance of thorns, as in the kermes for example. This is a consequence of the change in climate which, moving towards the Mediterranean region, combines increasing drought with more and more intense luminosity. The light chisels and refines the shapes, the drought isolates the plants by tightening them, a phenomenon that the heat intensifies.



Although the pedunculate oak can grow even in relatively humid environments, it is still the tree par excellence of intermediate lands, preferably with deep and rich soils. It does not climb very high up but remains a typical tree of the plains and hills. The sessile oak makes do with less rich soils and can grow higher up. For the forester, the oak is one of the light species because acorns and young oaks need a lot of light to grow, unlike e.g. beech, which can grow in the shade of other trees in the first years.

A summary of the online course "Encounter with plants" – A pilot project on the Goethean approach with the example of preparation plants. Text, pictures and sketches by Jean-Michel Florin.