

Some Fundamental Considerations regarding the Picture Forming Methods

Thoughts inspired by the Natural Science and Agricultural Sections' Conference:
*Vitality and Quality as Seen Through Picture Forming Methods: Bridging the Polarity
of the Analytical and the Imaginative in the Evaluation of Food and the Environment*
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Introduction

Of growing interest today are the nutritive quality of food, the freshness of water, and the healing qualities of medicines. Because of the general degeneration of the quality of agricultural products due to industrial farming, new means of assessing the quality and vitality of food are being sought. Pollution of our waters is calling for new ways of determining the quality of water. Increasing interest in natural and holistic medicine is calling for the assessment of medications that are thought to have healing effects that go beyond the measurable physical-chemical effects of allopathic remedies. This growing interest in quality is usually accompanied by a search for vitality, for sources of life-giving forces.

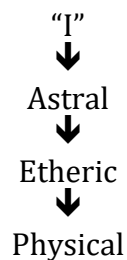
Modern quantitative science focuses on the spatial-physical world in as far as it is measurable and can be broken down into, and re-assembled from, its constituent parts. It grasps what is dead and no longer animated by a living, self-organizing principle. A deeper understanding of living organisms therefore eludes its methods. However, as Rudolf Steiner pointed out over 100 years ago, Goethe established the foundations of a science capable of grasping life through his dynamic concept of metamorphosis. In his *Metamorphosis of Plants*, Goethe described the metamorphosis of the annual plant as the continuous formative movement that gives rise to the series of physical plant organs as the plant develops throughout its life cycle. It is a transformative activity that occurs in the stream of time and

involves rhythmical processes—contraction in the seed, expansion and elaboration in the vegetative leaves, contraction in the flower bud, expansion in the petals, contraction in the stamen and ovary, and simultaneous expansion and involution in the fruit. In spiritual scientific terms, metamorphosis is the activity of etheric formative forces. Unlike astral forces such as joy and sorrow, pleasure and pain, etheric forces tend to elude our experience. Metamorphosis becomes perceptible to us only when, in exact imagination, we begin to actively participate in the formative movement that generates the series of distinct physical forms. We experience this formative movement—expansion, elaboration, contraction, etc.—with our three lower senses: our sense of movement, that normally senses the movement of our own body, our sense of balance, through which we orient ourselves in space, and our sense of life, through which we sense our bodily health and wellbeing. Unlike our other senses, these senses are not first and foremost directed toward the external world but toward the etheric workings of our own organism. We sense the formative activity of a plant when, through the movement of our thinking, our etheric organism participates in the plant’s metamorphosis. It is as though we were re-creating the formative movements of the plant in eurythmy, but only inwardly in imagination. Though this involves a kind of sculptural *thinking*, it is not a cognitive activity in the usual, conceptual sense, but rather a thinking that has become will activity: formative movement that we sense through our three lower senses. Goethe called it “anschauendes Denken,” a thinking that is at the same time a *perceiving*.

In his dynamic morphology, Goethe focused on the formative activity of metamorphosis rather than on the distinctive qualities (characteristic gestures and properties) of various plants. The unique qualities of different plant families and species are determined by higher forces or beings that impress their particular qualities upon the flexible etheric nature of the plant and which express themselves most strongly in the blossom. In the blossom, the sequential unfolding of leaves over time that is characteristic of the green, vegetative plant is transformed into a simultaneous spatial display of petals, stamen, and pistil characterized by its delicate, ephemeral nature and its expressive geometric form, color, and scent, all of

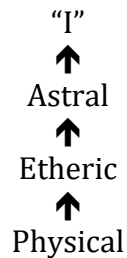
which convey a deeply inward, timeless quality. The higher beings of the various plant species and families which manifest through these qualities are of an astral nature. We are generally far more aware of the manifestations of these beings than we are of the working of etheric forces. Thus we easily recognize plant species by their blossoms but are less aware of the metamorphosing forms of their leaves.

Higher levels of being work upon and determine lower levels: In plants, physical substances, which themselves are lifeless precipitates of higher levels of being, are again taken up and organized by etheric life forces. In the blossom, the vital etheric nature of the plant is transformed into an expression of its astral nature. In animals, the astral nature is internalized, and in the human being the "I" works upon and transforms the astral when selfless spiritual impulses take hold of and transform our instincts, desires, and emotions. The interrelationships between these hierarchical levels of being can be indicated as follows:



We have already seen how Goethe, by re-creating the metamorphosis of plants with his sculptural thinking, was able to experience the formative movement of etheric forces. The question now arises as to how we experience the distinctive *qualities* of astral forces.

In order to apprehend the creative spiritual forces at work in the physical world we need to view the physical phenomena as manifestations of those forces. By learning to "read" the physical phenomena, we can rise to an experience of the forces that express themselves in them:



We have already seen how Goethe rose from the observation of physical plants to an experience of the etheric forces that form them. As has also already been indicated, we experience the imprint of the astral much more readily. The astral can be characterized as a realm of soul experience in which feelings of all kinds come to expression. We learn to “read” the facial expressions, gestures and body language of other human beings without conscious effort, yet with great accuracy. But these modes of qualitative expression are products of human life and culture, and—to the extent that we actually learn them—we assimilate them through an almost unconscious process of acculturation, as we do our native language. As noted above, however, we also easily recognize the distinctive qualities of blossoms. Colors and sounds, warmth and cold, can speak strongly to us of their inner qualities. We have an even more visceral experience of smells and tastes.

As we have noted, modern science has no way of grasping life. Nor has it any way to grasp qualities. It therefore interprets qualities as subjective responses to objective external stimuli. However, unbiased experience interprets qualities as expressions of realities of a non sense-perceptible but nevertheless often powerful nature. The question before us is: Do the Picture Forming Methods comprise a scientific method of “reading” the physical manifestations of etheric and astral forces, and, if so, how?

We have seen how Goethe developed a *direct* way of experiencing etheric formative forces through his study of metamorphosis. The beginning of a path that leads toward the direct apprehension of purely qualitative, astral forces can again be found in Goethe’s scientific works. In the sixth and final section of his greatest

scientific work, his *Theory of Colors*, Goethe approaches the qualitative realm in his exploration of “the sensory-moral effects of colors.” In introducing his method of inquiry, he writes in § 763:

In order to experience these particular effects optimally, one must surround the eye completely with one color, for example in a room of one color, or by looking through colored glass. *One thus identifies oneself with the color; the color attunes the eye and mind with itself so that they are in unison* (emphasis added).

By inwardly identifying oneself with a sensory quality, one enters into its deeper, more inward dimension. Just as inner participation in metamorphosis requires a transformation of intellectual thinking, thus inner participation in the qualitative nature of color (or other sense perceptions) also requires the development of new capacities. In lecture 7 of his course “The Boundaries of Natural Science” Rudolf Steiner describes how

in every color effect, he [Goethe] experiences something that unites itself profoundly not only with the faculty of perception but with the whole human being. He experiences yellow and scarlet as “attacking” colors, penetrating him, as it were, through and through, filling him with warmth, while he regards blue and violet as colors that draw one out of oneself, as cold colors. *The whole human being* experiences something in the act of sense perception (p. 100, emphasis added).

Here we experience something quite different from the rhythmically alternating time process of spatial contraction and expansion so characteristic of metamorphosis. Instead, we encounter color as gesture, as the expression of a more inward dynamic that is active in a realm beyond space and time, but which places its stamp upon both. It is in this realm that we meet the distinctive characteristic qualities of various plant families. Here we can experience how the lily and rose

families, for example, inform the etheric and physical aspects of their respective members, determining how the process of metamorphosis takes its course and what kinds of substances are formed.

Qualities cannot be grasped by the muscular, formative thinking that participates in metamorphosis. They are experienced when we allow our whole inner being to be suffused with their dynamism. This intimate inner communing is only possible when our thinking activity is held back and the soul becomes fully receptive. In everyday life we immediately connect concepts with our perceptions, thus bringing this inner communing to a halt. This is necessary for our orientation and conduct in practical earthly life, but it prevents us from deepening our qualitative experience of the world. Rudolf Steiner describes how this deepening can take place:

Sense perception, together with its content, passes down into the organism, and the ego with its pure thought content remains, so to speak, hovering above. We exclude thinking inasmuch as we take into and fill ourselves with the whole content of the perception, instead of weakening it with concepts, as we usually do (Boundaries, p. 100-101).

He then indicates how, in a further step, we can bring this “whole content of perception” into picture form:

Instead of grasping the content of the perception in pure, strictly logical thought, we grasp it symbolically, in pictures, allowing it to stream into us as a result of a kind of detour around thinking. We steep ourselves in the richness of the colors, the richness of the tone, by learning to experience the images inwardly, not in terms of thought but as pictures, as symbols. Because we do not suffuse our inner life with thought content ... but with the content of perception indicated through symbols and pictures, the living inner forces of the etheric and astral bodies stream toward us from within ... (p. 101).

In lecture 8 Rudolf Steiner indicates how this process leads, through disciplined work and “an intensive effort of will,” toward the higher cognitive capacity of Imagination. Later in the 8th lecture he describes how “by striving for Imagination, by a kind of absorption of external percepts devoid of concepts, ... one wends one’s way ... penetrating into the inner realm so that ... the experiences stemming from balance, movement, and life come forth to meet one” (p. 115). Here we again encounter the activity of the three lower senses. Imagination as described here is immersion in a purely qualitative experience, a sensing of the far more refined, yet also far more dynamic activity of the astral as it impresses itself upon the etheric. The question arises: Is the experience of the three lower senses mentioned here an experience of our etheric body as it responds to the activity of our astral body?

At some point in these considerations the fundamental question confronting modern science will present itself anew: How does this deeply inward activity of our own astral and etheric bodies relate to the creative forces at work in nature—forces we are trying to experience and understand? We must never forget that the method described here begins with careful, thorough observation of an outer, sense-perceptible phenomenon. Our inner experience arises when we intensify our conscious inner participation in the phenomenon. By its very nature, this rigorous phenomenological, participatory method leads toward an experience of the essential nature of the phenomenon itself. This experience is similar to the experience of understanding a mathematical or geometric law: it is as though we were experiencing the phenomenon from the inside out; the phenomenon becomes fully transparent, a manifestation of its innermost being.

The *experience* of particular qualities, or characteristic essences, however, is only the first step in identifying and understanding them, i.e., in establishing a qualitative *science*. The second step is bringing concepts to our qualitative, Imaginative experience that will illuminate it and place it meaningfully into its wider context. This can involve ascertaining how the particular quality we are experiencing fits into a continuum, or scale of comparable qualities. This is especially obvious when

we are judging the warmth of something and place it somewhere on a scale between the polarities of hot and cold, when we determine the pitch of a tone, or place a color in relation to the prismatic spectrum. This mode of assessment correlates with measurable, quantitative aspects of the phenomenon and remains rather superficial with regard to a grasp of its inherent quality. We can also describe a quality experienced by one of our senses by comparing it to a quality in the experience of another sense, for example when we speak of a *warm* red or a *cold* blue. This comparative mode of assessment reveals unique qualities that elude the former method.

In his color circle, Goethe established a still more comprehensive and dynamic context for understanding the interrelationships between the qualities of colors. Briefly, Goethe developed his color circle as a drama arising out of the interplay of light and darkness: Yellow arises through a darkening of light; blue through lightening darkness. The passive merging of yellow and blue yields green, the quality of which Goethe characterized as “real satisfaction.” As light penetrates through increasing darkness, yellow intensifies to gold, orange, and red. As light penetrates ever more intimately into darkness, transforming it, blue deepens and intensifies to violet. When red and violet merge, they bring forth pure red or magenta, the quality of which Goethe characterized as “ideal satisfaction.” In the color circle, opposite colors are complementary and balance one another. Such comprehensive frameworks help us to orient ourselves in our experience and to come to a deeper conceptual understanding of it.

Finally, we have to express and communicate qualitative experience through language. In this context Rudolf Steiner remarks toward the end of lecture 7 that our language is generally “not yet sufficiently developed to be able to give full expression to the experiences one undergoes in the inner recesses of the soul” (Boundaries, pp. 101-102).

From what has been said so far it should be obvious that we are only at the very beginning of qualitative science and that much work still needs to be done to develop it further.

Picture Forming Methods

With this introduction as a basis, let us now consider the Picture Forming Methods.

It is immediately apparent that there is a clear difference between Goethe's approach, which we can characterize as "direct," and these methods, which we might characterize as "indirect" in as far as they are based not on the observation or experience of plants, substances, or other entities but rather on observations of their effects on a sensitive medium.

We have already indicated that higher levels of reality manifest in lower levels, right down into the physical. This happened in earlier stages of earth evolution when physical substances precipitated out of creative spiritual processes. It becomes possible today when physical substance is raised up into such a sublimated state that it can be taken up and reorganized by etheric formative forces. This occurs in living organisms. Etheric forces can also manifest through Picture Forming Methods. A necessary physical condition for this extremely subtle action of etheric forces is that it take place in a watery or colloidal state that is highly mobile and susceptible to them. In the various Picture Forming Methods sensitive conditions of this kind are created.

In the sensitive crystallization method, a copper chloride solution is allowed to crystallize under carefully controlled conditions. When an extract of a plant, for example, is added to the solution, the formation of the crystals is subtly altered. Extensive experimentation with this method has shown that specific crystalline patterns result from extracts of specific plants or inorganic substances. Of particular importance for quality assessment is the fact that extracts from plants of the same strain but grown under different conditions or according to different agricultural

methods consistently give rise to specifically modified crystalline structures. Apparently, the crystallization of copper chloride out of a watery solution is such a sensitive process that it is susceptible to the subtle effects of these differences.

The question then arises: How are the resulting pictures to be interpreted?

Let us first consider the question: How do the Picture Forming Methods reveal the creative forces active in nature differently from the way they manifest in nature itself? At first glance, a picture arising, for example, from the extract of a plant in a copper chloride solution will display no similarity to the physical plant. Indeed, it will bear more similarity to other copper chloride crystal formations. We therefore need to train ourselves to observe the subtle differences in many different copper chloride crystal formations resulting from the effects of various plant extracts. We will then begin to be able to “learn the language” through which the various plant substances express themselves through the medium of copper chloride crystals. This language must be learned in the same way that we learn to “read” the gestural language of plants as living organisms: by inwardly living into their forms and gestures while withholding our thinking; drawing their essential qualities deeply into ourselves, and experiencing them with our lower senses. Our “reading” of the sensitive crystallization pictures should correspond with our direct qualitative assessment of the plants in question. It should therefore serve to complement and support the result of direct experience.

The fact that we ourselves are creating the conditions – both outer and inner – for the manifestation of creative forces opens up the possibility, indeed even the likelihood, that we ourselves may have an effect on the result. Our own etheric, astral and “I” organization may have an effect on the picture that forms in our presence, and it may also color our experience and interpretation of it. Thus a prerequisite for an accurate assessment is that one carry out the entire assessment process in a fully conscious, sensitive and selfless way.