The Calibrated Alphabet – A Cipher for a Moment

Poetry and the Natural Sciences

Let us record the atoms as they fall upon the mind in the order in which they fall, let us trace the pattern, however disconnected and incoherent in appearance ... [it is] a vision ... focused on the impact of mind upon objects, an autonomous act, it creates not so much a fusion as an elevated awareness of their relations... Virginia Woolf, On Being III, 1930

In writing I seem to be discovering what belongs to what... From this I reach what I might call a philosophy...that behind the cotton wool is a hidden pattern; that we — I mean all human beings — are connected with this: that the whole world is a work of art, that we are parts of the work of art... we are the words; we are the music; we are the things itself. Virginia Woolf, Moments of Being, 1941 1976

Pattern-forming processes as life principle

In poetry, image motifs find expression in the way they relate nature and the world, with an immediacy best described as the first nature of poetry. Therein is decided, not what is understood as true or false, but what is experienced as coherent or incoherent. For this purpose, memory chambers are laid out associatively in order to track down hidden patterns.

The interaction of poetic forms and metaphors creates a sort of circuit of alternating current, in keeping with the assumption that the basic pattern-forming processes of nature that have shaped the human hand and mind also can be found in the works the hand and mind create. (01) Because the various forms and rhythms of existence follow an order, on which the principle of all living is based.

While poetic image and word analogies change as circumstances change and are reinvented in shifting contexts, the essential attitude to life and to concerns remains constant: to lend expression to the living through measure and deviation, rhythm and variation, and in this way to keep it in punctual states of equilibrium.

Of the visible and invisible

The question of what poetry can do just as well or better than the natural sciences, and vice versa, is certain to lead us astray. For both are concerned with a deeper understanding of being-in-the-world. And, ideally, they are aware of their methodology and categories as well as the limits of their knowledge – a prerequisite not only of their reciprocal perception, but also for delineating their specific characteristics.

Poetry derives its meaning from the image-based naming of experiences – and through a contemplation that is clearly subjective. With alert senses and precise observation, poetry –

in its irritations in particular – continually engages face on with the measure of that which is human. In the awareness and knowledge of what we as human beings do because we are human beings.

The descriptions that characterise the findings of scientific research are also largely based on metaphors derived from observation (02), e.g. 'black holes', 'white dwarf' or 'red giant'. Yet how can this appropriation of language succeed in those instances where, increasingly, the subject matter of observation is experienced merely indirectly and is no longer accessible to sensory perception, often in a pretence of certainty where the boundaries of our cognitive capacities are merely pushed further out or deluded? Indeed, working from the assumption of the reality of objects, the astrophysicist Hans-Peter Dürr concludes in his research that 'the probable is becoming ever more probable'. (03) And, on the matter of the points of contact between animate and inanimate nature, he adds: 'As matter is taken ever further apart we have found that what remains no longer has the properties of inanimate matter, but those actually attributed to the animate. It is not determined; it is spontaneous and creative; it emerges and decays.' Could it be that natural science, for all its boundary-pushing, is oriented in its metaphors to the living?

The way in which images are involved as a means of representation and cognition in natural science and in poetry differs. In the first instance, both are about perceptions and experiences, the specificities of which are assumed to lie in the formation of patterns. But while natural science, from evolutionary biology to cosmology, convergent nanotechnology to neuroinformatic and others, strives for knowledge through models and constructs and often only enquires as to the repercussions on us human beings and the environment after the fact, i.e. when it comes to the practical implementation, poetry keeps its eye on the animate from the outset. (04).

And how vast is the multitude of images with which we are able to make ourselves understood, also with regard to our own nature – with it and about it! In keeping with physical laws and existential necessities. Against the background of the wonders of nature and the silence of spaces. Kant's fundamental idea that the laws of nature reveal the conditions for the possibility of experience, can be proved by the first nature as a place of immediate experience as well as by the second nature as a place of reflection. Through sharing and communicating. Between nature and culture. And, at the same time, as a struggle to establish correlations. With regard to the unlimited and universal, the visible and invisible. Between figments of fantasy and imagination that transform emotions into something that is figuratively visible while seeking out secret affinities between that which is disparate. Between thoughts on questions of meaning and insights about failure and erring. In acceptance and with respect for the phenomena we explore. In all of this, natural science and poetry converge with their respective approaches to reality as it were in asymmetrical geometry.

The world as a whole – A chamber of curiosities for metaphors

Pythagoras sought to explore the structure of the world using mathematics and determine the order of the visible through the power of numerical ratios. Similarly, speculations about the unity of the universe consist in deducing the detectability of the unknown from nature in numbers and words, of understanding the connections between, say, music and alchemy, biology, physics and computer science. Nevertheless, much like a Möbius strip, we are able intellectually merely to form circles which, turned inwards and outwards and then twisted, bring into view - in infinitely interwoven concatenations - only individual partial links.

Poetry toys with paradoxes, phenomena and concepts by means of its own formal patterns such as repetition, alliteration, assonance and internal rhyme. Meanwhile, the world as a whole remains a chamber of curiosities for metaphors for insights that escape fleeting observation. To this end, our imagination transports us back to archaic-romantic states of unsecured existence, with all their contradictions. The profane and the sublime acquire an aesthetic quality. And all the while the aspiration of poetic verse resonates as it strives to become song capable of suspending the contradictions of our sensations and experiences for just a moment.

Reclaiming all that is fleeting - On the law of currency

The differences between the natural sciences and poetry lie first and foremost in their relation to our experience of time. Both are eager to suspend time. But while the former ultimately strives to defeat time, to make its effects disappear, such as illness and death as the last undefeated disease (05), or natural disasters and human destructiveness as well as every form of entropy in general, poetry for its part wishes to step out of time. As if we were in a moratorium where we engage into a conversation with something which, in art, is referred to as beauty but fails to emerge in its immensity, but instead exists simply in its broken and sublime symmetries. In this respect, poetry and all art strive to conform to the patterns inherent in the law of the vivid in perpetual moments of equilibrium.

Just as in philosophical Taoism the primordial ground of all being is described as Tao, as the unnameable, the emptiness that overflows (06), this understanding seems to correspond with the findings of quantum physicist Anton Zeilinger. In his search for symmetries in the organization of the world, which he has found in its modules, he states that it is not matter - according to him consisting of mathematical structures - that is important, but rather being and consciousness and everything that could be, which can be bundled in the concept of coincidence or information as the basic blueprint of the universe. In his experiments, he extends Werner Heisenberg's proposition that the observer influences the outcome of his observation; he does so by demonstrating how the properties of objects that are measurable, even over distances, are only real for us, if they can be measured. He posits that the concepts of reality and information are inseparable. 'Evidently, what we could say about the world

plays an important role not only in shaping the image that we have of the world, but also in determining what reality can be.... (07)' The world is open, determined by nature itself. We wonder about experiments in which entangled particles spin backward through time faster than the speed of light. Unlike our everyday experience, Anton Zeilinger concludes from this the overcoming of time and space as the paradox of the radical knowledge of quantum physics while enthusing about the elegance of its theoretical formulations (08).

Among the scientists who has explored nature through a similar approach is the mathematician Jules Henri Poincaré, who with regard to the phenomenon of beauty writes: 'The scientist does not study nature because it is useful; he studies it because he delights in it, and he delights in it because it is beautiful. If nature were not beautiful, it would not be worth knowing, and if nature were not worth knowing, life would not be worth living. Of course, I do not here speak of that beauty which strikes the senses, the beauty of qualities and of appearance; not that I undervalue such beauty, far from it, but it has nothing to do with science; I mean that profounder beauty which comes from the harmonious order of the parts and which a pure intelligence can grasp.' (09)

Common touch points arise when poetry and the natural sciences explore the visible and the invisible, each from the beginning and the end, with their respective resources. When they find expression in metaphors that connect the sensual-emotional and mental-cognitive. But what matters then are particular levels of consciousness that are also particular levels of the human, which are continually contested in both realms.

'And we, we stay spectators; turned towards all things and still transcending none! All overwhelms us. We set all in order. All falls apart. We order it once more and fall, collapse, disintegrate ourselves,' wrote the poet Rainer Maria Rilke in his *Duino Elegies* about 'the beautiful' as the 'beginning of the terrible' (10). However, we as observers and protagonists, as part of nature and of evolution and as bearers of history, in the midst of all the horror over the abysses of the human soul, of the wars and the destruction of nature – in view of the plethora of phenomena of the living, of luck and providence – we time and again encounter with fascination the hidden patterns of an order that fill us with wonder, admiration and awe.

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Translation by Stephen Grynwasser

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