

SOPHIOLOGY AS AN EXAMPLE OF INTEGRAL SCIENCE AND EDUCATION IN THE SLAVONIC TRADITION

Emil Páleš

Received December 4 2014 • Revised February 12 2015 • Accepted February 20 2015

ABSTRACT

Several thinkers among the Slavs and in the Orthodox East have been led by the vision of Sophia – integral wisdom. Sophiology is an effort to integrate different sources of knowledge: revelation, reason and sensory experience. Its intention is to overcome the split among the psychic components of the human personality, which is echoed in the split among social processes and institutions. Such effort is of importance for the education of independent and morally responsible (wo)men and for the renewal of society's weakened fundamental values.

Sophiology's basic intuition is the unity of creation; nature and society are shaped by the same beings or principles that are manifested and also operate within the human soul. Thanks to this, one can understand the external world by drawing on one's inner experience and vice versa, and give meaning to things by means of all-pervading analogies. This epistemological presupposition has been all but abandoned recently as a relic of a romantic or even older medieval way of thinking. In Slovakia, this has been reflected in the argument within the Štúrovci group concerning the principle of *spiritual vision*, which played a vital role in its *Slavonic science* project.

We shall demonstrate that knowledge of this kind is still possible. It is possible, for example, to understand and effectively predict cultural epochs in history from the sequence and contents of psychic configurations during the biographical development of an individual. Introspective observation of archetypes sheds light on the evolution of new species, which appear to be a somatization of these archetypes. Architecture can be derived

from the shapes of the human body, specifically those organs associated with the qualities of the soul that prevail in a given historical period. The inwardly perceived effects of some metals correspond to their outward qualities. Therefore, developmental psychology and history, history and paleontology, architecture and anatomy, psychology and chemistry can be at least partly integrated.

The metaphysical basis of these connections and thus also the limits of the applicability of this approach are still controversial. It does provide, however, a number of advantages from a pedagogical point of view. Awareness of the links between nature, history and the intimate processes of the human psyche restores lost meaning to things, consolidates the consciousness of objective values and encourages responsibility by following the causation of things into the free core of the human personality. Synthetic knowledge also correlates significantly with creativity and independent judgment. By embedding knowledge in interconnections and ridding it of emotional neutrality it works in accordance with the natural functioning of memory and relieves it of the tiresome cramming of knowledge.

1 Ethics within the edifice of knowledge

Knowledge once resembled a cathedral; every piece of knowledge was a stone hewn into a single great edifice, attuned to a coherent style and crowned by a common purpose. Contemporary knowledge resembles a temple devoid of the keystone of the central vault. It disintegrated into a number of diverse and incoherent shelters. They are weakly interconnected and sometimes even obstruct one another.

The lost keystone is – man. The Renaissance still understood man as a focal point where all the forces and elements of the cosmos converge (*microcosm*). The human physical body is composed of the elements of the mineral kingdom. The forces of growth and reproduction are interweaved in man's vital body (*anima vegetativa*), which in the outside world shape various kinds of vegetation. Passions

flow within his sentient soul (*anima sensitiva*), which are manifested within the surrounding nature in animals. Within man himself there was a complete circle of animals, a circle of plants, and a circle of crystals, planets, stars as well as angels; he was the sum total of nature, and nature was man disassembled into individual aspects. Finally, within his spiritual soul (*anima intellectiva*) man is aware of himself, creates freely and harmonizes all forces into an equilibrium. This spiritual essence makes him the crown of creation exceeding all other realms of nature.

Thus man was inwardly akin to the spiritual sources of things; by mastering himself he mastered the causes of the world's formation, of coming into being and passing away. That is why nothing in the world was alien to him, he could understand everything directly from within his soul, he was linked to all, responsible for all and could affect all. All events

possessed meaning and purpose wherein he himself participated and was touched personally by it.

Such a synthetic worldview was methodologically possible because man found the terms by which he could understand the world within himself. Astrology and angelology provided a universal terminology integrating all disciplines. Since angels and deities were the spiritual intelligences of celestial bodies, both angelology and astrology more or less conflate into one another. In fact, they capture real knowledge about the archetypes and laws of human psychology. Through them, our forefathers attempted to elucidate everything in the surrounding nature, including the minerals and the constellations. Everything was explained through spiritual signatures. For example, every animal represented one virtue or vice, and even metals were classified by means of the same spiritual qualities in alchemy.

The modern era has developed an extroverted science, shifting the emphasis from inner intuitions to outer senses. This kind of sensualistic science achieved extraordinary progress in exploring the material world, but has lost sight of spiritual wisdom. It disintegrated into specializations, none of which can grasp the whole. In the eyes of modern science, man is no longer the pivot of the universe. He is but a random product of evolution on the fringe of the dead and cold distances of interstellar dust. He is no longer a dignified lord of himself, but a puppet driven by the tricks of genes and hormones. His conscience and moral concepts are no longer rooted in the exalted depths of the supreme

intelligence of the Creator anymore – they are but transient and fallible schemes inculcated in the young by society.

The self-understanding of modern man has already brought about a lot of destructive consequences. In the 20th century it caused two political disasters with 150 million victims. Genetic determinism steered mankind towards eugenics and Nazism. As proclaimed by Hitler's deputy, Rudolf Hess, Nazism was "nothing but [the] applied biology" of its time (Black 2003, 270). On the other hand, social determinism led to communism. Both were based on the assumption that there is no spiritual individuality in man, no innate dignity, no eternal spark from heaven; rather, man results merely from the forces of heredity and environment. Therefore, man can be bred or moulded by re-education into an arbitrary form useful to the state.

Primitive nations understood nature as animated and sacred, and themselves as the mesh in an invisible web of connexions, where the spirits of nature punished every sin and separation from the whole by misfortune. The separation of mental processes and linearity of utilitarian thinking in the modern era have made for the destruction of the environment by the economic activity of man. The perception of man as a machine, begun by Descartes, implied on the one hand the feeling of powerlessness in regard to our own body seemingly not related to our psyche. On the other hand, it went so far as to grow human embryos for industrial purposes and disassemble and sell living humans for organs (components).

Absence of a higher goal and ideals in

the consumerist society entails psychological decay, an instinctive and thoughtless life for the broad masses of the population, their easy manipulation and the ruin of democracy. A vision of common values beyond individual personae – be it in an image of some deity or some heroic tradition – has always enabled cooperation and cohesion of communities, golden ages and the blooming of cultures. The contemporary world has material means as never before, but it does not have enough moral and psychic energy to distribute and utilize them wisely. Individualism, egoism, and atomization of interests have arrived at a stage where we are not able to act together even when obviously marching toward a catastrophe. We are living in a civilization which is not a culture anymore; it is making use of the achievements of the spirit in the form of technology, but it does not revere anything higher anymore and hence loses the possibility to evolve into something higher in the future.

The paramount global problem of today is the absence of any vision of values. Our edifice of knowledge is built up in such way that ethics have dropped out. Knowledge once had a form from which moral incentives naturally resulted. Today it is possible to be a top expert and a bad or morally indifferent person at the same time. It is considered to be an illusion that there are some archetypes of virtues and laws of life objectively inscribed somewhere in the nature of things, or that there is some kind of purpose (a sense of being) and facts about the world that would have some spiritual significance for man.

We have knowledge but no wisdom. The sci-

ences surround man with material comfort, but not one of them can advise him existentially on his life decisions. They are silent about virtue, good and bad, justice, love, beauty, and the purpose of life. If they are not silent, like sociobiology, they try to reduce ethical and aesthetical notions darwinistically to mere utility and survival, whereby they are stripped of their intrinsic nature. We continue to improve new generations of machines, yet we have nothing more to say about ennobling ourselves. Knowledge has been narrowed down to the material domain only, and spiritual truth has been pushed aside into the sphere of pure faith. The social sciences and the science of the soul are stuck somewhere halfway. Only psychophysical relations are discussed (e.g. the dependence of mental processes on the physical organs; the climatic, geographic, economic conditions of historical events), while the psychospiritual ones no longer are (e.g. the transformation of the soul through spiritual exercise; the inspiration of spiritual powers in history).

Cognitive method distorted by one-sided sensualism renders the world as if no spiritual realities existed or were unknowable. This holds true for science as well as the church, which – though encouraging the belief in the existence of the spiritual world alone – agrees that it is inaccessible to our cognitive faculties. Without conclusive, reliable knowledge there is no responsibility either. If a surgeon cuts a patient's aorta, he will go straight to prison for total ignorance of anatomy. Yet when politicians and bankers make cuts through legislation, which would bleed national economies to death financially – nobody is convicted. And when delete-

rious philosophical ideas are disseminated that subvert a whole culture and bring about its decline, we are mostly unaware that something bad is going on.

2 Three sources of knowledge

Man is endowed with several faculties that are the gates of knowledge. He has sense organs that mediate data about the outer world for him. Further, he has reason, which is but a knowledge source of a different kind. One cannot observe or measure mathematical and logical truths empirically anywhere – they can be inferred by correct reasoning only. And he has intuition as well; moral, aesthetic and other intuitions, feelings, images, ideas and ideals that emerge from within and are perceived introspectively. These experiences come neither from the outer world, nor do they result from a rational process of reasoning, but possess a character of inner revelation.

These three sources of knowledge can also contradict each other. Which one of them is more important? Reason can tell of senses that deceive us. One's heart can desire something unreasonable. And the senses can refute inspirations as false. Every epoch tends to admire and place one or more of these three ways of knowledge to the forefront. However, the negative consequences of a one-sided worldview always provoked a reaction and the need to place an emphasis on another type of knowledge and society. There have been periods when revelation was considered the only serious source of

knowledge and the senses treated as an unreliable delusion. But all one-sidedness is bad. A medieval prophet seeking to confine the human spirit within the letter of the Holy Writ is as equally dangerous and obstructive to progress as the modern scientist who wants to restrict all knowledge to the senses alone, or an ancient philosopher who believes in inferring all truth about the world from pure reason. Eras of sensualism, rationalism and mysticism in history have alternated periodically. Whoever deems the currently preferred sources of knowledge to be absolutely essential should remember that this shall change in the future again.

Every day we make decisions and act according to facts, reason and intuition. Can any of these sources be neglected? Can somebody ignore his inner feelings for example? He will grow unhappy and soon fall ill. In the most important questions of life – such as the choice of a partner, religion, aesthetic and value orientation – intuition prevails. A great deal of cultural achievements and institutions, temples and concert halls would disappear if we dismissed irrational intuitions from our lives.

Thanks to the works of scholars such as Gaston Bachelard, Pitirim Sorokin, Thomas Kuhn, Michel Foucault or Luc Ciompi, we are beginning to understand that the intuitive dimension is present in *all* knowledge, including scientific knowledge. In the beginning of each new science, irrational processes are employed of the same kind as in the arts and religion. Discoveries begin with an inspiration, and only then comes work with facts, while a final rational resolution comes in the final

stage (although another sequence is possible as well). A number of prominent scientists acquired crucial intuitions for their discoveries in dreams or altered states of consciousness, or typically, these emerged in moments of rest just when rational activity had stopped.

Feeling plays a much more significant role in relation to thinking than had been admitted until recently (Ciampi 1997). Feelings act as a cognitive operator. Feelings determine what we pay attention to and what we disregard. Furthermore, they determine what we remember and what we delete from our memory. Feelings function as a glue that binds individual rational facts into an overall image. Affects lie behind several different kinds of logic; over time they recede into the unconscious and leave behind mental habits and whole patterns of a world-view structure constructed of rational facts, albeit personally colored. For individuals, this mental undertone or mood manifests itself as a *mode* of thinking. Yet whole cultural epochs are colored by something – what was once called *Zeitgeist* and nowadays we call *paradigm*, *episteme* or *system of truth*. It is a collection of subconsciously accepted intuitions and creeds about the nature of the world that are not a subject of discussion in a given time period because they are taken for granted or are wholly unconscious. All subsequent thought and action, however, is derived from this as from self-evident assumptions.

For example, in the era when Calvin and other religious leaders preached predestination, i.e. the inevitability of the course of events and the bureaucratic mechanisms of absolutist states were being built everywhere,

Galileo founded mechanics and Descartes developed his conviction about the mechanical determinism of material processes. And yet the new scientific discoveries were not the *cause*, but the *result* of an altered religious and political frame of mind. Mechanics as a science was born in a new spiritual atmosphere, which had been at work for one or two generations already. By contrast, in revolutionary eras when the requirement for human freedom has been promoted, philosophical indeterminism regularly prevailed and the same value has been introduced into the concept of the physical nature of matter.

Similarly, the wave and particle explanation of the nature of light has alternated in history. When clothes were composed of mere circles and spheres (Spanish fashion), men imagined light to be a stream of particles, tiny balls of atoms flying across space. And when clothes were covered by rhythmic elements (in rococo), the wave theory of light gained momentum. In reality, light has both wave and corpuscular properties. We cannot describe its nature unequivocally – that is why we speak about wave-particle duality today. Aesthetic sense also plays a role when designing equations in modern physics – fully consciously in the case of Poincaré or Pauli.

Another well-known example is how the political-economic situation of England in the first half of the 19th century is reflected in Darwin's theory – that is why he laid an emphasis on competition as the driving force of evolution. Kropotkin, on the other hand, saw progress in nature through cooperation in which Russian values are reflected. In fact, both com-

petition and cooperation do play a significant role in nature.

Therefore, not even the most rigorous knowledge is a result of pure rationality and facts, but has its mystical, irrational dimension running through the personality of the researcher. Descartes' mechanicism is, *inter alia*, the offspring of the obsessive-compulsive nature of his personality, just as Bacon with his hysterical-hedonistic disposition fathered a utilitarian empirism, and since they fit into the overall structure of their era, they became famous. Herein we have a tangible connection between morality and cognition because the quality of knowledge depends on the harmonious growth of personality, and every mental deviation manifests itself in some distortion of the result. True knowledge is impossible without self-knowledge. A researcher must also improve and inquire into himself so as not to be a lopsided mirror distorting reality.

It is necessary to realize that all knowledge is complex by any means, even if some of its dimensions remain unspoken. The question of true knowledge shall then no longer consist in pretending it is the result of impersonal reason and machine data alone, but in asking whether all dimensions of cognition are properly articulated within it. That means we should realize that knowledge has several dimensions, each one of which has its own requirements and all must be brought into harmony. Disintegration of these dimensions made us understand science, arts and religion as completely isolated, unrelated worlds. Contemporary man thinks one thing, his feelings tell him something else

and what he then carries out is yet another thing. Universities have their intellectual theories; churches preach an altogether different truth; and finally, economic life compels us to do something a third way, unrelated to the former two. We have three social spheres with three types of authorities contradicting each other. According to what should man orientate himself? How can he make responsible decisions?

3 Pansophia of Comenius

The apostle of the Slavs and the creator of the Slavonic script, St. Cyril (827–869), dreamt the following when he was seven years old: the strategos assembled all the maidens of the city and he had to choose one of them for his life mate. He chose Sophia, Wisdom. He became a priest and librarian in the basilica of St. Sophia in Constantinople. In the Christian east, Sophia is perceived as a personified, beautiful being and temples have been dedicated to her. Wisdom that is personal, is integral: light of reason is interconnected within her with warmth of heart and the beneficence of hands. To develop one dimension in isolation, as happened later in the west – namely brilliant intellect, which is cold and morally indifferent – would mean separating the head from the chest and limbs and thus striking the living Sophia dead.

The effort to overcome fragmentation among the sciences and different approaches has emerged recently in the west under the name *integral studies*. For instance, Ken Wilber (1949) developed a comprehensive view where the inner is always intercon-

nected with the outer and the individual with the collective. Individual subjectivity (stages of mental development) corresponds with individual objectivity (stages of biological organization), collective subjectivity (types of culture) and collective objectivity (forms of civilization) (Wilber 2000).

The Slavs have in this regard their own long tradition in the form of *sophiology*. The quest for integral wisdom, in which Truth, Beauty and Goodness become one, is a dream, a longing of Slavic peoples and their future mission. A line of eminent personalities starts with Cyril among the Slavs, who were led by the intuition of Sophia and who try to put this intuition into practice. They include John Amos Comenius (1592–1670) in Bohemia, Bronisław Trentowski (1808–1869) in Poland, Vladimir Solovyov (1853–1900) in Russia, and the group around Ludovít Štúr (1815–1856) in Slovakia, especially Jozef Miloslav Hurban (1817–1888) and Peter Kellner-Hostinský (1823–1873). They shared a quest for such knowledge, which integrates all components of the human personality as well as all spheres of life, and yields primarily the moral enrichment and elevation of the people, rather than technological and material gain.

Comenius' *opus magnum* is his *General Consultation on an Improvement of All Things Human*. He earned the titles "teacher of nations" and "the father of modern education" for his lifelong efforts in pedagogy and the improvement of humankind. Education has three goals according to Comenius: 1. to know the world; 2. to know and master oneself; 3. to raise oneself up to God. In comparison, the goal of scholarship for Bacon is little more

than to know nature, subjugate her and exploit her for the fulfillment of one's own wishes. The second and third points are missing.

Pansophia, i.e. universal wisdom or All-Wisdom, was the very means of general improvement on which Comenius laid a lot of hope. Central to his work is the emphasis on the inclusiveness of knowledge. According to Comenius, everything should be viewed in terms of the "triple eye" or the "three books", or the "three open sources of divine wisdom" – namely the senses, reason and revelation: "If something is not sufficiently inferred from the senses, reason and the Holy Writ, if it does not connect harmoniously with the rest, it must not be uttered" (Komenský 1988, 92). Whoever wants to abide by one of the aforesaid principles alone shall fall into the abyss of errors, Comenius warned. Whoever wants to rely exclusively on sensory knowledge shall not rise above the naiveté of a simple man; he cannot conceive of the sun being 400-times bigger than the Moon, for example. Whoever wants to abide by reason only and omit the senses shall succumb to delusions and build castles in the air, as happened to some philosophers in the past. And whoever wants to neglect both the senses and reason, and draw knowledge solely from the Holy Writ shall succumb to blind faith and stipulate all kinds of nonsense and superstition as dogma. "Only he who learns to master things through his own senses, his own reason and his own immediate testimony of God – only he can know that he is not deceiving himself" (Komenský 1992, 328).

It is necessary to feed all sources of light (knowledge) into one stream – "all luminaries from

which light flows, i.e. nature, common innate concepts and God". These "three streams of knowledge shall bear the whole three-founded light of God within a full watercourse". Then we shall have "the greatest blaze of light one can have" (Komenský 1961, 75). Comenius is convinced that all three streams of illumination come from one source: God is one and the same spiritual power which reveals itself internally to the prophets and mystics; which endows us with the faculty of reasoning and which created the outer nature as well. This is the underlying intuition (or presupposition) of sophiology. Therefore, harmony between the senses, reason and faith constituted a *criterion* of the veracity of knowledge for Comenius. If they are not in concert, it implies that something is not working well: one or more of them must be revised. That is why Comenius regarded the rupture between theology and philosophy, and their separation from the sciences as a symptom of regrettable particularism and losing one's way.

The beginning of the 17th century was an important crossroads. The renaissance ideal of universal knowledge had just fallen apart in the time of Comenius. In France, René Descartes (1596–1650) developed a one-sided rationalism distrusting of the senses. In England, Francis Bacon (1561–1626) developed a one-sided empiricism that underrated reason and rejected even mathematics. Accepting an invitation from the English parliament to London in 1641, Comenius introduced his project of a pansophic academy, which was to unite all material and spiritual knowledge on a common ground. However, unsettled political circumstances prevented its realization. In the Netherlands in 1642 he met

Descartes but did not succeed in persuading him. Whereas for Comenius "philosophy without divine revelation is incomplete", Descartes replied: "I will not step beyond philosophy, hence a piece of what is a whole with thee shall remain with me" (Komenský 1924, 47–8). In the end, only a synthesis of French rationalism with English empiricism occurred on which contemporary academies and universities are based. The Slavonic requirement of integrality and the inclusion of revelation fell short.

As induction is characteristic for Bacon and deduction for Descartes, what is characteristic for Comenius is his syncritic method. *Synkrisis* is a comparison and unification; a kind of synthesis. It is an integral approach, a method of pansophy. It assumes the world has been created harmoniously according to a uniform idea and it possesses a fractal-like structure. Everything testifies to everything, and any part permits assumptions about the whole and the whole about its parts; by comparison, one can penetrate to the essence of things thanks to universal analogy. The syncritic method grasps the meaning of things as a whole, consummating knowledge and leading to insights of a moral kind. By applying it, we enter into a relationship of intimacy with reality instead of a reserved distance. Comenius could point at a rose and thus instruct a child: just as the flower appeared at the end of a thorny stem, so you too can attain virtue only by way of renunciation in your life. Comenius' *ars docendi* (art of teaching) relies in particular on this method of analogy, which interprets reality "with love and grace" (Palouš 1992, 32).

4 Solovyov and sophiology

In the same spirit as Comenius, Solovyov defines *sophiology* as an effort to synthesize the three sources or domains of knowledge about God, man and nature. True wisdom can consist only in the synthesis of empiricism, rationalism and mysticism (Solovyov 2008).

Western currents of thought have attempted to unify knowledge by reducing all other cognitive principles to one of the three. Solovyov wittily demonstrates how each of these attempts have ended up by undermining their own foundations. Empiricists who tried to reduce everything to matter and perception at last came to contest the very existence of matter. Rationalists intended to reduce everything to mind and spirit and came to deny the existence of a thinking entity. Likewise the mystics – relying solely on revelation and God, underestimating reason and regarding the world as a delusion – shall lose God and divine revelation in the end, too, because they have no means to get out from the labyrinth of subjective feeling in which they wander.

Solovyov calls the three one-sided types of philosophy *abnormal* because they attempt to deny some part of human nature and natural experience. They usually result from the pathologically one-sided constitution of an individual or a culture or from power seeking. A traditional example is the church thesis that philosophy should not be an equal sibling, but the maidservant of theology. Although thinking has its own procedures and own criteria of truth, and when they have to be twisted in order to come to

some prescribed dogma, it means chopping at the vital roots of rationality. Obscurantism, so closely tied to the history of the church, resulted from attempts to curtail free thinking dogmatically. Another more recent example is sociobiology. It attempts to explain away the whole sphere of human moral and aesthetic intuitions by reducing them to natural selection and recombination of genes. Moral concepts, it is said, are genetically fixated patterns of behavior that maximize survival and the propagation of one's own genes when living within ape-like troops. Likewise the experience of beauty. Beauty and dignity as an independent dimension of human existence thus vanishes like an empty gimmick, which is but a function of physical survival. Such opinion then indeed contributes to the brutalisation of man and the application of the rule of the jungle in human society (social darwinism).

Each of the three domains has its own criteria of correctness to fulfill. Empirical science for correct observation and classification of data (reproducibility, falsifiability, predictive and explanatory power); rational philosophy for creating concepts and theories (systematicity, consistency, parsimony); and praxis of mysticism, too, has its requirements (moral purification, unselfishness, sacrifice) and criteria that have been applied for millennia to tell genuine spiritual inspiration apart from self-deceit. Among them are signs pertaining to the actual form and circumstances of the revelation, as well as intersubjectivity, and last but not least, it can be distinguished by its beneficial fruits that bring peace, concord and the ennoblement of life.

In every piece of knowledge, those three dimensions of cognition must be organically interconnected so that one does not miss or distort another by trespassing on their competences. One cannot replace or supersede either of the other two. Exceeding the competences of any domain results in deformation of the whole. For instance, the existence of a new empirical phenomenon cannot be reasonably refuted by rational-theoretical argumentation alone (as clerics did when they refused to look into Galileo's telescope, for as much as Aristotle's writings did not allow for anything new to appear in the sky). Nor one can argue against inner perceptions, which represent direct experience.

On the other hand, by neglecting any of the three dimensions ambiguities arise that open the way to arbitrariness. Reason is able to devise a lot of theoretical frameworks that have no sensory correlates. The same empirical data can be interpreted according to several rational conceptions. And not every conception is noble-minded and consistent with the moral intuitions of one's conscience. Further, among many religious inspirations and prophecies, too, only some shall pass through the prism of reason and be confirmed by material events. Neither a heap of disordered data, nor an abstract conception, nor an inner perception alone can be called knowledge – they are but *fragments* of knowledge. Among, say a hundred conceivable rational concepts, only a dozen can be reconciled with measurements, and not more than one or two with our conscience.

If scientists pretend a theory comes from sheer data, it implies only that they are un-

aware of their own intuitive assumptions. Every theory contains metaphysics, and attempts to eliminate the metaphysical dimension usually require faith in some metaphysics of a kind that is implicitly involved in argumentation or in the choice of terms. This can be dealt with only by consciously entering one's own deep psychical processes and correcting any aberrations. For comparison, the Hubble space telescope has a skewed mirror because of a manufacturing defect; however, by virtue of knowing how exactly the mirror is skewed, we can deduct the ensuing distortion and obtain a true and sharp picture. The most important instrument, the mirror of knowledge for man, is his own soul; in order to cognize without distortion, he would have to overcome all the one-sidedness of his character (to become a saint) or to at least be aware of them.

Unfortunately, scientists refuse to do spiritual exercises for moral purification or meditation for the sake of self-knowledge because they regard it as a religious activity that falls beyond the scope of their specialization. Consequently, each one of them creates a theory according to his personal constitution or according to contemporary fashion. All of the theories are scientific, yet they vary as quickly as artistic fashion. Thus, neglect of the religious dimension brings about arbitrariness in science. Inclination to different schools seems to be random and provides free space for the authorities to exercise power.

For the same reason, neglect of the scientific dimension causes arbitrariness in religion. There are thousands of sects. There are hun-

dreds of Christian churches alone in spite of appealing to a single book – the Bible. Each church expounds it in a different way and wants us to believe that such is the will of God. This number would be considerably lower if revelations were confronted with reason and reality, and genuine revelations were discerned from delusion and fiction. Regrettably, theologians avoid the requirement of integrality or they apply it too laxly and dishonestly. They invented a view of science and religion as two skewed lines, bypassing one another with no intersection whatsoever. According to this thesis, only this world can be perceived and subjected to critical thinking – the other (spiritual) world should be only a subject of blind belief. But is it a different world altogether? Or is there only one world with an inner, spiritual dimension? Are those two worlds isolated causally and wholly unrelated? If yes, it suits the powers that be. The church then does not need to resolve any conflict with science; no observation and no reasoning can disturb the dogma and the authorities can infallibly determine anything. Such a faith, which is completely out of touch with reality, is trouble free; but it is also worthless for the same reason. Disconnected from life, it becomes abstract, barren and stagnant. After all, it does not matter what is believed in because it has no consequences.

Abandoning the requirement of integrality opens the way to ambiguity, fragmentation and arbitrariness. Philosophers who stopped concerning themselves about the moral imperatives of the spirit, as well as the special results of the sciences, are fabricating brilliantly constructed castles in the air. But they

have lost the ability to discern the valuable from the rubbish and have become stuck in relativism. Anything shocking or affecting the emotions began to be regarded as art, even though it has no moral or truth value. Art, too, has to be truthful – it should convey the subtle, yet significant truths of life and educate morally, otherwise it is useless. Art must involve something generally valid – instead of being a mere diagnosis of the mental state of its author. To this purpose, the artist must take an interest in knowledge on the one hand and enter the service of higher ideals on the other, not indulge in the personal sphere of feelings only.

Integration of the sciences, arts and religion leads to their purification and enhancement. Disintegration leads to the decadence of all three. Disjoined, each of them acquires hidden degrees of freedom that are not filled with anything random, but become a purposeful field of activity covered by demons (concealed evil tendencies). Scientific knowledge, supposedly value neutral, is massively distorted on behalf of private profit. Artistic creativity serves to incite the lower passions. And religious preaching, which supposedly does not care about this world, only the next one, accommodates all the more flexible political expectations.

Knowledge and also free, independent and responsible individuality with it, come into being only through integration of the three mental components. Only integral knowledge gives man the inner certainty of autonomous judgment. We can stand firm only in such a thing as this, which is objectively examined *and* subjectively experi-

enced. It has to be clarified in the mind, felt in the heart and tried out in practice by hand. Somebody with disconnected thinking, feeling and will is open to manipulation and vulnerable. He may divorce theory from practice, practice from morality, morality from reason. He is not able to discern right from wrong in the multitude of alternatives and shall succumb to the pressures and temptations surrounding him: to experts, prophets, and celebrities. If one of the three faculties takes precedence within him, he will try to navigate his way according to that. Alas, because of a lack of integrity, he will be duped by false intellectualism instead of true wisdom; religious sentiment will cast a spell over him instead of true faith; and he will become immersed in a destructive economic sphere, instead of constructive creativity.

Democracy is a social order that presupposes the freedom of individualities – and individuation comes through the integration of personality. This ideal of integral humanity has been embodied in old pictorial wisdom as solar heroes or sun deities. Their opposing power then was called the solar or midday demon. This demon acts through another three demons (evil inclinations), who are seemingly quarrelling but in fact contribute to a single goal: to prevent the birth and liberation of spiritual man. The first of them is the brilliant, but cold-hearted and morally indifferent intellect. The second is represented by pleasurable sensations that do not involve any idea and contain no deeds. The third is the temptation of power, unbound by human compassion and judgment. These three dark currents within the soul act within the three

spheres of society and institutions by isolating and misusing them.

Similarly, the human body is threefold. Sensory and nervous system activity is concentrated in the head; the rhythmic system of breathing and blood circulation is centered in the chest; and the motor-metabolic system is located chiefly in the belly and limbs. These three parts of the body support the three aspects of the soul: thinking, feeling and will. They correspond roughly with three groups of organs evolving from three embryonic layers (ecto-, meso- and endoderm). Three constitutional types (asthenic, athletic, pyknic) accrue from a slight predominance of one or another system. All three are interwoven into one organism, but each one acts in his place through his own proper way. Health is a correct balance of all three. Disease arises from disturbing this balance. The organic integration of scientific, artistic and religious elements denotes mental health. And the organic threefoldness of the cultural, political and economic sphere denotes a healthy society.

5 The Slavonic science of the Štúr group

It is little known that Slovak revivalists led by Ľudovít Štúr also intended to develop a distinctive Slavonic science. The first issue of the journal *Slovenské pohľady* begins with a programmatic article about Slavonic science written by Jozef Miloslav Hurban. In the first sentence, he characterizes it as follows: "Science is a clear and lucid awareness of what is in us and around us, in spirit and in

nature, in heaven and on earth; this is made understandable to the higher aspirations of the human spirit; in this way I am saying science is the purest education of man and humankind" (Hurban 1846, 1–14). Obviously, he means a different concept of science than the one current today. It explores the spirit as well as matter, inner worlds as well as outer nature; and it aims above all at education, and the enrichment and moral improvement of man, and less at material affluence. Cultivating the shoots of Slavonic science should actually have been the primary goal of *Slovenské pohľady*, since it should serve as the "purgatory" of Slovaks and raise them from their misery and unify the Slovak intelligentsia. The coming of the age of the Slavs will only come with Slavonic science, and not before.

The constitutive feature of Slavonic science is its integrality: "The foremost move of Slavonic science shall and must be the spiritual vision of the whole truth" (Hurban 1846, 9). "The defining characteristic of Slavonic science is its wholeness, its roundedness. Slavonic science must draw all particulars together into one whole and unify all ruptures and fragmentariness, for if it would not do this, it would cease to be Slavonic. Our science is a sea into which all streams of science merge. The science of the Slavs must be an absolute unity of all epistemological moments of true cognition" (Hostinský 1851, 123). The Štúr group followed up the ideas of their Polish contemporary, Bronisław Trentowski, a philosopher, pedagogue and patriot. The chief subject of his philosophy was universality, an emergence from one-sided solutions, a synthesis of objective with subjective

knowledge, and sensualism with idealism.

They expected the development of integral knowledge from the Slavs. Along with Hegel and Herder, they looked at history as a story wherein individual cultures come forward in a sequence. Each one of them contributes to the temple of mankind with something unique whereby the World Spirit brings history one step closer to its final goal. Ancient Indian, Persian, Graeco-Roman, and Romanic cultures reached their zenith in the past and nowadays Germanic culture is experiencing its peak. The Slavs are the last branch of Indo-Europeans whose cultural peak is still under preparation and lies ahead of them – they are "the youngest son in the tale of mankind" (Hostinský 1851, 125). After Germanic culture, the Slavonic one shall follow: "Every nation has its time under God's sun, and linden blossoms only once the oak blossom has passed" (Štúr 1993, 59).

According to the Štúr group, the Romanic peoples manifested a talent for empirical observation, but they developed it one-sidedly and got stuck in mindless materialism. The Germanic peoples tended to a one-sided idealism and ended up in speculations about total abstractions. The Slavs are supposed to merge both moments harmoniously: "what both of them meant for their world, all of that must be fused into a single moment by the Slavonic seer, who shall see, recount and 'sing' the truth as observed originally with his Slavonic eye" (Hurban 1846, 9). The Slavic vision should at last be the fullness of all the partial moments of knowledge developed by preceding cultures – "the temple of all moments of knowledge", "the pantheon of all gods of truth",

“the amen of truth” (Hostinský 1847, 469).

Solovyov, too, understands the birth of sophiology as a logical developmental moment in the context of a progressive sequence of cultures and corresponding shifts in the centre of creativity from the East towards the West and back again. In the oriental cultures of the past, science, the arts and religion originally formed an undifferentiated unity. The beginnings of science were included in the wisdom of the priests, and the arts were closely linked to religion, too. This initial unity, however, was instinctive, unconscious, and unfree. Later on in the West, all three components became independent, which boosted their conscious development, but also caused them to lose their mutual interconnection. The Slavic East is supposed to reunite them again, but into an organic whole while consciously maintaining their inherent differences.

The West has a greater aptitude for analysis, the East for synthesis. However, analysis must precede a correct synthesis, so the Slavs are building the next floor of culture upon Germanic foundations: “The Germans learned step by step and we shall cognize entirely, if God wills it so; but if the latter should be, the former would also have to be” (Zoch 1847, 412). “A good teacher is not one who discerns well, but who unites well” (Hostinský 1847, 476).

Thus, on the one hand, Slavic knowledge differs from oriental knowledge and resembles western knowledge with its analytical concreteness. On the other hand, with its integrality it reminds one of the Indian concept of knowledge (*jñāna*) or Byzantine wisdom

(*sophia*). Such knowledge results not only in a theoretical system of thought, but affects and transforms all components of personality, including feelings and will. True wisdom unites clarity of thought within itself with a sense of beauty and moral conduct. To emphasize this, the followers of Štúr invent composite neologisms like *faith-knowledge*, *science-feat*, *intention-deed*, *truth-song*. The West detached thinking from moral will and went astray within the wasteland of a dead intellect. Selflessness and sacrifice vanished among westerners, their education went commercial and “is not able to lend strength and vigour to nations” (Hurban 1846, 10). Slavic man seeks to bring his knowledge and moral intuitions into harmony; true science leads to God and not away from Him: “In our midst, science is not trampled by faith, but invokes feats of life, celebrated and transformed into a vision of certitude and truth; we need faith for science, and science is needed for faith... The power which shall compel the world to believe in the kingdoms of heaven rests in science alone; science creates the heroes who shall conquer the world by faith”. With us “Christianity shall be the spirit of the castle of Slavonic science” (Hurban 1846, 4, 9).

The Slavic sage is a scientist, priest and poet in one. Kellner-Hostinský therefore sought to write in a poetic language. Both he and Trentowski were sure that science and philosophy must be “expressed in a fine style”, even “sung out” because the unity of truth, beauty and goodness is embedded in the very nature of creation, which is the speech of God (Hostinský, manuscript M45E9). For the Slavs, a sense of beauty – the eye of the heart –

is a cognitive organ that senses the truth. The oldest Russian chronicle, *The Tale of Bygone Years*, thus speaks about the acceptance of Christianity in Rus: in the year 987 the Kievan prince Vladimir the Great sent envoys to neighboring peoples to inquire and report on different religions. They disapproved of Islam and Judaism, as well as western Christianity. As they did not find beauty, purity and joyfulness there, they reasoned that those laws were not good. They chose Greek Christianity as the most beautiful and therefore the most truthful in their judgment. Thus they reported to the prince about the ceremony in the temple of St. Sophia in Constantinople: "We knew not whether we were in heaven or on earth. For on earth there is no such splendor or beauty, and we are at a loss how to describe it. We know only that God dwells there among men, and their service is fairer than the ceremonies of other nations. For we cannot forget that beauty" (Cross and Sherbowitz-Wetzor 1953, 10).

St. Cyril perceived Sophia as his spiritual fiancée. Thrice she appeared to Solovyov, who recorded his mystical experience in the poem, *Three Meetings*. During his journey to Egypt he woke up once in the desert and the air smelled of roses. He saw all that has been, that is or shall be in her radiant countenance – the unity of all things where the ugly and bad were also given meaning by the whole and become a part of the beautiful and good. Thus, Comenius beheld his *All-Wisdom* just as Kellner-Hostinský did when he speaks of "the Minerva of the Tatra Mountains", "the Slovak Athena" or "the golden shining queen of the castle of Slavonic science" (Hostinský 1851, 122, 125; Hos-

tinský 1847, 483). He addresses her and she replies. This personification is no superfluous metaphor, but a methodological necessity. A personal relationship is a requirement of inner knowledge, just as outer knowledge requires a certain impersonal distance. It concentrates the emotional and volitional powers of man into intuition, which when purified enables him to see archetypes. "Blissful is the one who might have beheld this star with his own spiritual eye, for he saw the celestial maiden – the truth" (Hostinský 1851, 162).

Each branch of nations is endowed with a particular gift, and yields flowers and fruits by the time it discovers its own abilities and begins to draw from them. The Slavs shall contribute their "spiritual eye" along with Romanic empiricism and Germanic rationalism: "The Slavonic people shall give spiritual vision to the world... The most special moment in Slavonic science must be vision". So Slavonic science has its own epistemological principle that is going to enable a new worldview, from which a unique Slav culture shall grow. This dormant gift manifests itself latently in Slavic devoutness: "The Slavic people believe because there is a spiritual eye in them which no nation before them had" (Hurban 1846, 10–11).

From the beginning, the first generation of the Štúr group was already in dispute over the noetic principle of Slavonic science, distinguishing it from the western one. Ctiboh Zoch opined that Hurban does not know exactly what he wants to say when speaking about the *spiritual eye* and *integral vision*: "He wants to see the Slavonic science of the fu-

ture – but it is still like in a cloud and that is why he is not able to express exactly what it is he wants” (Zoch 1847, 411). Under the notion of spiritual vision, he could not imagine anything other than arbitrary subjective visions. Kellner-Hostinský made a fervent stand for Hurban. Explaining that genuine intuition or inspiration is something other than fantasy, somnambulism, soothsaying or visions conditioned by the stomach (bodily organs). The history of Slovak philosophy in fact begins with this controversy about the “eye of the heart”.

Štúr, Hurban and others assumed the real existence of a spiritual world from which the human soul draws knowledge and content by means of a *real* process of inspiration. This was implicit and self-evident in the romantic worldview, whereas the Enlightenment and modern Western views (on behalf of whom Zoch is also speaking) regarded such communication with the world of spiritual beings as fictitious and non-existent. For them, it is a flagrant contravention of correct thinking to mix religion and poetic inspiration with science because feelings do not contain any objectiveness. But the Štúr group believed that truth is revealed to man in poetic or prophetic inspiration; that one can gaze at the principles and ideas according to which the world has been formed and thus observe the objective world from within through one’s spiritual eye. Therefore, references to fairy tales, legends and myths, for instance, counted as a valid argument when looking for truth since the genius of a nation is manifested as a real being in them.

“The Kellner-Hostinský method consists in the parallelization of semantic associations between natural phenomena and the world of man” (Čečan 1989, 98). That is to say, he presumes the same as Comenius, and not Kant’s thesis about unknowable things-in-themselves by which the definitive subject-object split occurred in the West and in which all metaphysics has been buried. For instance, one can know a rose-in-itself very well because the metaphysical power standing beyond the phenomenon of the rose, the idea of the rose, is a being that we can know intimately and see inwardly as the power of love. The spiritual rose reveals itself and also pervades our own soul. The same powers that shape external nature are also moving and working inside the human soul. That is why nature can speak to us in the *figurative language of symbols* innate to man. Images in dreams have the same meaning.

Unfortunately, as a consequence of the fall of man, the forces of our inner world are in chaotic disarray and distorted by personal bias. Only an artist with moral aspirations, forging and ennobling his own inner being in the hearth of ardent love and sacrifice will purify his imagination and transform it into an organ able to correctly perceive the inspirations of a higher power. His inner images gradually become equal to the archetypes: “The enthused artist simply follows his inner inspirations and at the moment an idea conceived through fervent love is brought forth... into outward reality – all else must vanish in the soul of the artist, and where he submits to a higher power, his imagination becomes equal to the archetype” (Hostinský, manuscript M45D8). The innermost es-

sence of nature is freed from a spell, becomes self-conscious inside the human spirit, and the artist becomes a sage. What is otherwise regarded as a *lyric metaphor* only is refined to become objective imagination. This is what Plotinus (205–270) taught – that the inner eye is schooled by beauty and having been cleansed from its vices it beholds archetypes that embody the truth.

Looking inside oneself, one can see the archetype, the “inner form or figure” that fits together with outer forms and events like a key and lock; it integrates them in a certain way and gives them meaning. It might become clearer and develop into a mental concept. Such an “organic unity of all moments of knowledge” – an agreement of theory, senses and intuition – is called *seeing* by the Štúr group. This is the noetic-aesthetic principle that is the “fount of integral science” (Sošková 2005, 133). Compared with western gnoseology, something more is being required here: the outer as well as the inner experience acquired introspectively must fit together to create a theory.

But does any introspective knowledge exist at all? As late as the end of the Middle Ages it was still regarded as a matter of course that ideas can be directly observed by the mind, and the inspirations of gods, angels, muses or ancestors constitute one source of knowledge. Later, incredible achievements and the power of modern science seemed to confirm the accuracy of the Western concept of knowledge and contributed to its promotion. Introspective practice stopped being cultivated and its former status as knowledge

began to be denied. The verb *to speculate* changed its meaning *to fabelize*. Yet the Latin *speculator* originally meant *to inspect* oneself inwardly, which is not to construct something – but rather to wait for what is going to appear.

Needless to say, in such light the Štúr science project must appear hopelessly illusory and utopian, methodologically naive and flawed, outdated and backward, irrational and unscientific – causing embarrassment. This is also how it has been evaluated over the past 150 years. Despite the fact that the Slovak constitution obliges us to base our values on the tradition of Sts. Cyril and Methodius, as well as on the Štúr tradition, and the largest Slovak university is named after Comenius – the epistemological project that constitutes the core of their efforts has been abandoned as a “relic of romanticism” or an obsolete medieval way of thought. The main protagonist of Slavonic science, Peter Kellner-Hostinský already seemed to many of his contemporaries and even more to following generations as an “outsider” at the very margins of Slovak philosophical thought (Čepan 1989, 94). A characteristic feature of his is thinking in “overlaps” – from philosophy to arts, from knowledge to action, from mythology to science, from objective cognition to a personal stance – insofar as he could not be classified within any one genre. He sought to defend Slavonic science philosophically, yet it does not sound anymore convincing to contemporary man. A person bred by 20th century culture is unable to conceive of anything specific out of all that. Was the intuition of the Štúr group wrong – or was it, after all, in some way true? Where are the specific results of Slavic science?

6 Does introspective knowledge exist?

Let us take a number of examples that can serve as particular working material. All of them are examples of objectively valid knowledge acquired by looking inwards into one's self. They demonstrate firstly that introspective knowledge is possible. Secondly, that the origin of this knowledge is largely unknown. And thirdly, that such knowledge is necessary because the results of extrovert science are often distorted without it.

Indian yogis were masters of introspection. Their observations of inner states and processes have been captured in a scholarly and meticulous terminology of a kind for which there are no equivalents in Western languages. They elaborated a subtle physiology that is at least 900 years old (if not more). According to yoga, there are streams (*nādi*) of life force (*prāna*) of diverse qualities flowing through the human body. These qualities are expressed by astral symbolism. Lunar energy (*ida*) flows through the left side of the body, and solar energy (*pingala*) through the right side. Both streams cross over in the head and change sides. Less than every two hours, they alternately flow stronger. The times when vital breath flows predominantly through the left side is favourable for different kinds of activities than the times when it flows through the right. There are techniques by which these streams can be regulated. Whoever succeeds in bringing both to an equilibrium attains spiritual enlightenment (Weinfurter 1947, 190–193).

The modern West alone did not know anything about this until the second half of

the 20th century when it was otherwise discovered by Roger Sperry, Nathaniel Kleitmann and Milton Erickson. Sperry was awarded the Nobel Prize in 1981 for the discovery of cerebral asymmetry and the lateralized function of the brain (Sperry 1974, 5–19). Each hemisphere specializes in different processes; but because the nerve strands cross over in the head, the right side of the body is innervated by the left hemisphere, and the left one by the right hemisphere. Kleitmann discovered that hemispheres are activated alternately less than every two hours (80–120 minutes) and called it the “Basic Rest Activity Cycle”. Their findings correspond entirely with the contents of Indian treatises (*śāstra*) and with the astrological meaning of the Sun and Moon. The Sun represents self-awareness, reason, activity, and the future; the Moon represents the unconscious, imagination, receptiveness, and the past. Indeed, only the hemisphere innervating the right side is self-aware, while the other one is unconscious. During the phase when activity on the right side predominates, we are better able to solve verbal, rational tasks, and we are ready for assertive activity (even aggressiveness in the case of an extreme imbalance). Conversely, the hemisphere connected with the left side is more receptive, musical, and recognizant of images, shapes, faces and emotions. That is exactly what the ancient Indians said: if the breath flows through the right side, one should engage in writing, calculation, combat, etc. If it flows through the left side, the time is favorable for singing, decorating, and family meetings, etc. On our left, we experience the past, on our right, the future. Erickson

observed that eye movements to the left and right are indicative of cognitive processes like recall and planning. The tradition spoke of two kinds of spiritual beings approaching us from the left and right; the former bear our past, the latter lead us into the future.

Sperry discovered anatomical correlations of mental processes that were discovered introspectively by yogis and tantrists. The Indians discovered it through attentive perception of their inner being – the Americans by using a scalpel and cutting away various structures of the brain, like the optical nerve or the bridge between the hemispheres and watching the altered behavior of their experimental subjects. The Westerner went blind inwardly – he is not even able to say what is going on in the present moment within his own soul. The German physician Richard Kayser noticed in 1889 that the breath flows alternately through the left and right nostrils, which alternately become freer (the nasal cycle) (Kayser 1889, 96–109). Again, he noticed only what was physical and overlooked the fact that two types of mental processes are also alternating rhythmically along with the nasal cycle. Experts from the West looked upon Indian scriptures as religious literature based on fantasy. They ignored the possibility that this could be based on accurate introspective observation. The hemispheres of the brain and the whole nervous system are apparently anatomically symmetrical and equal. A one-sided angle of vision relying on external senses only suggested the idea that both hemispheres carry out the selfsame mental tasks. Thus, the discovery of the lateralized functions of the brain came as a surprise to scientists.

They were wrong because they grossly ignored an entire important branch of knowledge – self-perception.

However, the pre-modern West also had the same knowledge. The motif of an androgyne with a masculine right side and a feminine left side of the body, with the Sun to the right and the Moon to the left, was handed down from generation to generation from the ancient Egyptians or Jews until the alchemists of the late Middle Ages. It has been said that the archangels of the Sun and Moon, Michael and Gabriel, stand to our right and left (as they also stand at the iconostasis of an orthodox temple). Moreover, the same archangels act as spirits of time and alternately inspire the world over a cycle of 500 years.

In fact, there is a statistically significant 500-year cycle in the history of culture, obviously related to the alternate dominance of the brain hemispheres. This rhythm is mirrored in the cyclical blooming of philosophy and logic at certain times, and the visual arts at other times; in the alternation of rationalism and sensualism; in the transfiguration of social values. This alternation was discovered independently by the American sociologist of Russian origin, Pitirim Sorokin, in the first half of the 20th century. He discovered two types of culture based on opposing intuitive assumptions that he called an *ideational* and *sensate* system of truth. These two types alternate periodically through history. He did not realize that the time pattern as well as the contents of what he found coincide with angelology, a doctrine several millennia old. He could not recognize the connection with

the brain hemispheres at that time because their functional specialization was still unknown (Sorokin 1962).

Sorokin also learned that cultures informed one-sidedly by either one of the systems of truth cease to be prolific and stagnate. The most creative and wonderful periods in time came about during transitions from one system of truth to the other when both systems were respected as equipollent and mankind attempted to synthesize them. That was the most significant conclusion made by Sorokin. Sperry came to the same conclusion as a result of his own research: individuals who rely predominantly on one of the two hemispheres are not successful because they founder in situations requiring the skills of the opposite hemisphere. The most successful individuals can develop and employ both hemispheres simultaneously and flexibly. Sorokin as well as Sperry spoke about one and the same thing as the Indian sage Goraknath in the 11th century or the Dominican saint Albert the Great in the 13th century did. Whoever succeeds

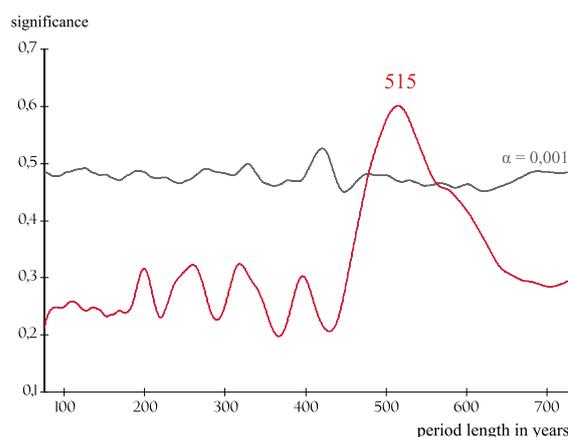


Figure 2. Periodogram of dreams and night visions mentioned in the Bible. There are 27 dreams and night visions mentioned in the Bible (according to Catholic Encyclopedia and Jewish Encyclopedia). Nocturnal apparitions to the patriarchs returned every 500 years. Significant period lengths between 500 and 530 years (red line) surpass the threshold of statistical significance (grey line). The angel of dreams, Gabriel appeared once every 500 years.

in bringing *ida* and *pingala* into equilibrium shall experience enlightenment. Whoever accomplishes the alchemical wedding of Sol and Luna obtains the philosophers' stone.

Dreaming is an introspective experience experienced by everyone. Do dreams mean something? Neither humans nor animals can live without the dreaming phase (REM) of sleep. Yet the purpose of dreams is

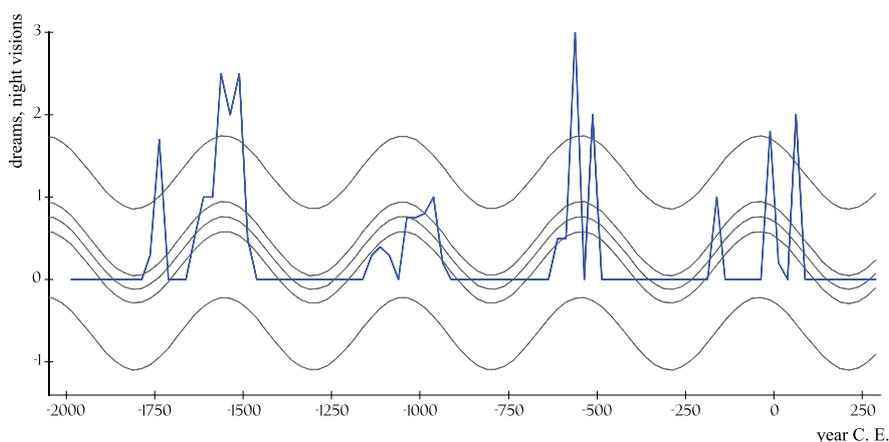


Figure 1. Chronogram of dreams and night visions mentioned in the Bible (blue line). There are 27 dreams and night visions mentioned in the Bible (according to Catholic Encyclopedia and Jewish Encyclopedia). Nocturnal apparitions to the patriarchs returned every 500 years. There is a statistically significant periodicity of slightly more than 500 years (grey line) culminating around the years 1550, 1050, 550 and 50 B. C. E. The odds of pure chance are less than 1 to 100 000. The angel of dreams, Gabriel appeared once every 500 years.

a great unknown in science. We take them as a mere echo of diurnal experience. Freud believed dreams expressed unfulfilled desires. Ancient peoples took dreams so seriously that kings had their dreams explained to them and took decisions in accordance with them. They regarded dreams as a harbinger of the future. There are 27 night visions mentioned in the Bible (Singer and Adler 1906, 654; Habermann 1909, 154). Plotting them against a time axis we get a 500-year rhythm (see Fig. 1 and 2). For the Jews it was Gabriel, the angel of dreams, God's messenger, who took over the reins of the ruling spirit of time every 500 years. Is the imaginative, right hemisphere activated collectively in a 500-year cycle? Can dreams contain some useful information inaccessible to the waking consciousness?

The temples of Asclepius served as ancient medical institutions. After a preliminary purification, the patients slept at the altar of the god who appeared to them in their dreams and revealed the therapy prescribed by the priest. Long before the patient begins to feel ill, various color forms can be observed in the dream consciousness affecting the organ that will become sick (a black serpent bites into the kidney, say). Not only the location, but also the character of the impending illness could be deduced from these colors and forms. It can be diagnosed at the level of the soul before the corresponding organic changes detectable by instruments take place. We have positron tomography worth millions, but we make no use of dreams, which are free.

It sounds quite reasonable that deeper layers of our consciousness might tell us some-

thing about the state of our own body. But could they also inform us about the nature of reality around us? Could a required herb simply appear to the patient in a dream? In a similar manner, animals are able to discern and find medicaments, which can help them (zoopharmacognosy). In doing so, they do not use rational thinking – they are constantly in a state akin to a dream.

What is the true meaning of the word *symbol*? The rose is the symbol of love. A true symbol contains real knowledge. Phenylethyl alcohol is the major and characteristic constituent of rose scent. It is a chemical compound closely related to phenylethylamine, the molecule of love, which is synthesized by the limbic system when one falls in love.

Let us take a Greek myth. Endymion, for example, is the lover of the moon goddess; he is forever young and always asleep. Experts in religious studies find it to be no more than pure fantasy. In fact, there is biochemical knowledge encrypted there. Silver is a metal sacred to lunar deities. Silver rejuvenates and accelerates regeneration. It is used for the revivification of tissues. However, it also induces vivid imagination and sleepiness (Selawry 1966).

Or the myth about Aphrodite, born of sea foam on the shores of Cyprus. The metal sacred to Aphrodite is copper, which was mined in Cyprus in antiquity. Again, experts in religious studies do not see anything more than an accidental association here. As a matter of fact, copper cannot be described in a word any better than by describing it as the metal of love. The functions of copper in the body are very closely associated with emotional

experience and the hormones of pleasure. The copper level in blood goes up and down along with the female sex hormone estrogen; there is more copper in the blood of women than men; and during pregnancy copper levels even rise threefold (Pelikan 1981).

How can old myths contain knowledge that is being discovered today only by virtue of advanced analytical chemistry and molecular biology? Could our ancestors have discovered it by means of some simple experiment or accidental experience? Yet until now it has been said that priests and alchemists assigned metals to spiritual archetypes on the basis of their manifest qualities. Iron is hard and firm, it is suitable for the production of weapons and tools. So let it be the metal of men, the metal of the god Mars. Copper is beautiful and amenable (malleable), has an interesting color and appeals to the emotions. Apart from gold, all the other metals are greyish. Copper makes for beautiful minerals as well. So let it be the metal of women, the metal of the goddess of love and beauty. Silver can mirror objects better than any other metal. So let it be the metal of the goddess of imagination – Luna – with her silvery shine.

Suppose our ancestors reasoned in this (erroneous) way based on magical analogies. How then is it possible that it resulted in correct conclusions about the inner effects of these metals? Suppose they experimented with the inner effects. How then is it possible that these effects have external analogies? Why should a metal that is beautiful from a physical and mineralogical point of view be the one that has a psychophysiological part to play in the experience of beauty and falling

in love? How can the physical attribute of silver to mirror and create images be related to the fact that when applied internally it arouses the imagination? How come physically strong iron strengthens the will and makes it in fact more active? The iron level of blood is characteristically higher in men than in women. But the ancient Greeks could not have known anything about the structure of haemoglobin, whose core consists of an atom of iron. Is this mere coincidence?

These are facts that lie completely beyond the way modern science thinks. But in the logic of the ancient doctrine of signatures, they appear as self-evident. According to this doctrine, the Maker gave us one herb for every illness and marked it with indicators for man to recognize what he could use them for. A renaissance medicineman could have contemplated herbs in the following way: a herb is like myself. It is threefold like man, only turned upside-down. The root is like the head; the rhythmically formed stem with leaves resembles the human chest; and flower is the sex organ. These three parts of the plant will cure the corresponding parts of the body. For example, if the nervous system or the metabolic system interferes too much with the rhythmic system, they disturb its regular pulse and so it needs to be strengthened. The rhythmic system dominates the other systems in some herbs. Not even the flower can stop the ongoing growth of the stem in these herbs – on the contrary, growth draws the flower into a neat rhythm. Such a herb teaches one's heart to beat regularly. The Lily of the Valley, Foxglove, Motherwort really do contain the cardioactive glycosides convallatoxin, digitoxin and leonurin

used as cardiotonics. Many such herbs can be recognized at a glance.

Today, the doctrine of signatures is regarded as utter superstition. The similarity between the temporal rhythm (of the heartbeat) and the spatial rhythm (the leaves on the stem) is an analogy that does not involve any causal connection. There is no reason to associate them. However, man unburdened by science saw that they are related. His chest is the only part of the body where everything constantly pulsates in a temporal rhythm of heartbeat and breath. At the same time, it is the part of the body that is spatially organized into a rhythm of ribs and vertebrae. Here before his very eyes was a palpable transition of the temporal to a spatial rhythm. It was enough simply to look at one's own self!

The herbal stem evolved along the same geological timeline as the spine; the rib cage along with the branching out of the stem into leaves; the heart and the cardiovascular system evolved at the same time as vascular plants with their circulatory system. This parallel evolution took place in the older Paleozoic era. Are they really not interrelated? Not only their form and function is analogical, but they also came about at the same time. According to science, they cannot be interrelated: after all, a stem is not a spine and they have no common genes inherited from any ancestor. There is an abyss in terms of evolution between man and plant so that they cannot be homological in structure. And yet they are similar. The rhythmical green of the leaves with the stem constitute a respiratory and circulatory system much like the human chest with the heart – and they

also contain many similar compounds (porphyrins, glycosides). The flower is the reproductive organ of the plant and contains many compounds associated with sex in humans (phytoestrogens, essential oils and pigments). Thus, herbs with a rich flowerage can serve in this way. Finally, many compounds similar to those in the human head can be found in the root. These include alkaloids that serve as neurotransmitters in humans, and that is why they affect the nervous system. What are they doing in the plant's root? Only in the last decade have scientists gathered evidence that the vegetal root is an organ comparable to the brain of lower animals. Root cells are very active sensorially and electrically; information about the environment is processed, computations and decisions about the plant's further behavior take place there. A new sub-branch has come into existence: plant neurobiology. Thus, the science of the 21st century arrived at something anew that has been known intuitively to others for centuries. Of course, the old intuitive wisdom did not provide us with the amount of detailed and precise information that modern science does. But would not cooperation with intuition (instead of its suppression) make science more advanced? Anthroposophic pharmacy has built upon the threefold analogy of man and plant for a century already – why can it not be debated at universities?

Let us reflect upon this statement: "The butterfly is a flower that took wings" (Skácel 2005, 78).

Or this one: "Behold the plant: it is a butterfly fettered by the earth. Behold the butterfly: it is a plant freed by the cosmos" (Steiner 1993,

73).

These are the words of a poet and a prophet. It is an aesthetically perceived truth. This poetic image, nevertheless, is not arbitrary, but has a deeper justification. A kind of exact metaphor. The prophet, poet and scientist come to a rare agreement here. Especially since we know that butterflies and flowering plants evolved together via co-evolution at the turn of the Jurassic and Cretaceous periods.

How did it happen? Allegedly, plants developed conspicuous flowers to lure insects. Insects pollinate them and get nectar in exchange. It is nothing more than trading that involves those two parties and nobody else. Besides, the butterfly mimics the flower in order to avoid being spotted and devoured by a predator. This is the perspective of the Darwinian biologist. Does anybody have a better explanation?

The sophiologist thinks as follows. When I entered puberty, an entirely new mental reality or entity took me over. That entity or being was once known as the archangel of Venus, Anael. Strong feelings arose in me similar to inner colors. My skin darkened with a stronger pigmentation. And my body began to differ visibly from the other sex. The same creative power ruled nature during a certain period in Earth's evolution (in the Mesozoic). Therefore, all nature burst forth with colors and feelings at that time. The emotional brain of birds and mammals came into being. Sexual dimorphism was accentuated. A flamboyant beauty of crests, frill-necks, tails, feathers and flowers was produced by a multitude of animals and plants, including those pollinated by the wind and fungi that needed no

pollination by insects. I grew until I reached adulthood. Sexual maturity terminated my growth in height and caused moderate bone growth in width. Likewise, the flower (reproductive organ) terminated the longitudinal growth of the stem and spread its petals outwards. A long, green and segmented caterpillar lived at the stem, fed on leaves and grew. It metamorphosed upon sexual maturity: it stopped growing, acquired colours and spread its wings like flower petals, around which it flies in the form of a butterfly.

When I fell in love, I felt a lightness and wished to soar and fly. I began to sing and play a musical instrument. When I saw my beloved, my pupils dilated, my heart began to beat, and heat flowed through my chest. I ate little. That is why birds sing and fly. They are the offspring of Venus. Avian physiology is permanently accommodated to the state that humans experience only in moments of amour. They possess hot blood, an accelerated heartbeat, large eyes, enlarged sex glands, a short digestive tract, colorful feathers, developed vocal cords. Birds live in couples and take care of their young. They are always in love and enthused in beauty (Páleš 2012, 894–933).

In this way the sophiologist covers a lot of facts with one intuitive glance. By means of an archetype derived from one's own being he can link them together and at the same time relate to them in an intimate way. The Darwinist needs a lot of cumbersome *ad hoc* explanations to explain all those facts one by one, as if they were not inter-related. Thereupon he is silent about their

synchronicity and the meaningful coherence within one archetype. Why did vocal cords, warm-bloodedness, and an emotional brain evolve simultaneously in birds and mammals if they represent two evolutionary branches separated long ago? Why would birds grow beautiful together with flowers if they do not pollinate them? Why would the larch join in and bloom with red cones if it does not need pollinators? Why would plants begin to generate heat just when animals became warm-blooded? A long line of facts that fit together as pieces in a meaningful mosaic as soon as we admit that all nature was permeated by one creative spiritual impulse which is in us, too. And they break down into a number of barely comprehensible coincidences if we want to explain them by reductionist bottom-up causation.

It was only at the threshold of the 21st century that evolutionary biology ploddingly came to realize that the wing came about as a result of love, and warmth is related to emotional attachments. A hundred years long, discussion took place over whether the wing could evolve gradually, since tiny wings do not enable flight and constitute no evolutionary advantage. The wing was the fan of love that allowed birds to charm one another during mating rituals. It grew with enamouredness until birds were able to free themselves from the ground and take off.

Language itself expresses the connection between heat and devoted, warm relationships with such words as *ardour* and *fervecy*. Every young girl can tell me where heat originates. Only the evolutionary biologist is the last to find out. Through tedious work

with facts he learned that warm-bloodedness evolved in connection with emotional bonds and parental care. Warm-blooded animals are good parents. In these and many more cases, sound intuition could have guided the researcher without straying straight towards the end.

Similarly, everybody knows that one's voice is an expression of the soul. When rejoicing, we start to sing; but we also cry out when we get a fright. A person unencumbered by education understands that a frog seeing a stork cries out because it is scared. And when the frog finds itself in the stork's beak, it sends out a dramatic shrill that every soul immediately understands to be an expression of panic. For the Darwinist mind, a great puzzle starts here: why does the frog cry? Perhaps it will attract a secondary predator who will scare away the stork – that is why frogs that do not send out distress calls are no longer here. And why does it draw attention to itself when it is not otherwise taken any notice of? The frog is not such a social animal that it would gain some genetic advantage by dying while warning its fellow frogs. It is simply a mystery. This soulless view of nature is something appalling. The nightingale does not sing for his mate because he loves her – he is simply genetically programmed like a mechanical gadget issuing a sound. Ecology will acquire a deeper dimension only when we start protecting nature for more than its economic merit alone. Not until we tell our children that nature has an inwardness, too; and it is the soul of man and his own feelings and desires that flow through nature and reside there in the form of animals.

Let us consider Comenius' thesis that a part resembles its whole. The renaissance mind believed the world to have a fractal structure: wholes are mirrored and scaled down in their parts, and parts reflect the wholes. Take the human body, for example. It is a microcosm, a condensed image of the whole cosmos. The twelve signs of the Zodiac beginning with the Ram and ending with Pisces shape the human body from the head down to the heels. A drawing by Girolamo Cardano from 1658 depicts the twelve signs also assigned to the head alone. The head is a complete man folded up into a sphere. All the principles shaping the body repeat themselves once more in the head. Is this a productive way of thinking? (Cardano 1658)

The upper part of the skull is the very head of the head where the mental faculties are centered. The middle part of the face corresponds to the chest (for instance, the nose facilitates breathing). And the lower part is connected with the belly (the mouth with digestion). The jaws are the limbs of the head: the upper jaw represents the hands, the lower one the legs. They are the executive organs with big muscles enabling the head to grasp objects. The number of fingers on the limbs corresponds approximately to the teeth. The joint of the jaws is actually the hip joint. The eyes are the kidneys; the mouth matches the sexual organs. The azygous thyroid gland is mirrored by the pituitary gland, the didymous adrenals by the lacrimal glands, and the sex glands by the salivary glands.

The Chinese developed acupuncture and also pondered the human body as a fractal. The whole body scaled down is mirrored

in acupuncture microsystems – on the head, on the ear, on the soles of the feet. Indeed, the acupuncture microsystem of the head corresponds with all that mentioned above: the reflex points of the head are on the forehead, the points of the torso are around the nose, and the limb points are on the jaws. The hands are on the cheek bones, the legs on the lower jaw. Chinese culture and western astrology arrived at the same result independent of each other (Růžička 1999, 35).

Is this speculation only? Today we are learning that these organs are also often akin histologically or linked functionally. The pituitary controls the thyroid gland; kidney diseases are correlated to eye diseases. The lacrimal glands not only adjoin the eyes like the adrenal glands adjoin the kidneys as regards their position, but they also communicate with each other and secrete the same stress hormones. The salivary glands not only end in the mouth in a similar manner to the sex glands in the genitals, but they also produce sex hormones and manifest sexual dimorphism in animals.

The concept that the head is a miniaturized man breaks the contemporary theoretical framework about the origin of man. Modern theory refuses to look at the body plan as a platonic idea that should repeat itself elsewhere on a smaller scale. It regards the body as a mosaic of organs – each one of them arose for a different specific purpose. Such theory must therefore close its eyes to the aforementioned affinities as if they did not exist. Why do the lacrimal glands concern themselves with the kidneys if their purpose is nothing more than to moisten the eyes?

What do the salivary glands produce sex hormones for if they are to help in the digestion of food only? After all, we do not reproduce by mouth! Nevertheless, every layman intuitively perceives these affinities between the trunk and the head. Everybody knows what kissing on the lips means – it represents the thought of sexual intercourse. Everybody knows that eyes are a “window to the soul”, much like the kidneys are closely associated with the psyche. Everybody has experienced emotion that makes not only the adrenal glands secrete their substances, but also the eyes shed tears. Everybody can guess that the heart of the head is on the forehead between the eyebrows where Indian women wear a red dot.

All thoughts become deeds and the distorted theories of man are always being transferred to distorted social practice, too. For instance, genetic determinism steered us toward eugenics and concentration camps. It went on to be taught at universities until the end of the 20th century in spite of the fact that it logically leads ultimately to Nazism, which we have already condemned. It has been strongly suggested that DNA is a program containing unambiguous instructions according to which the human body is built and operates. Everything up to the psyche begins from a sequence of amino acids in the DNA chain. All of us, however, get a randomly shuffled sequence at conception.

Scientists have observed a simultaneity of psychological states with levels of certain substances in the blood. Hence they have come to the conclusion that psychological states are *caused* by these substances.

The same states can be induced by the administering of these substances, too. In reality, they had a second choice though: that on the contrary, the psyche *effects* the synthesis of these substances. And spiritual experimentation could prove that man can control their levels by a decision of the will. Further, scientists have observed connections between certain genes and diseases. Hence they concluded that disease was *caused* by a gene, and so it is incurable since nobody can change their genome. Causation was directed only from the genome to everything else, not vice versa. A killer presumably had a gene that decreases the level of serotonin in his brain and causes aggression. If we had to be consistent, the court would have to admit that the killer is not to be blamed because it is a mere chemical chain reaction triggered by the killer gene. He should be absolved of guilt as not being *sui juris*.

Why has that not been followed by anybody? Because this scientific concept deeply contradicts moral intuition and first-hand experience when making free decisions. Scientists have entirely omitted the dimension of moral will from the whole of reality. Had they experimented with this dimension – as various saints and ascetics have – they would have discovered that man can resist and overcome his instincts and the urge of his hormones, and no drug can impel man to act against his moral convictions. Thanks to self-mastery, even bad genes do not manifest themselves.

Only at the end of the 20th century did this view begin to change at last. A new sub-branch of science emerged – epigenetics. We are now beginning to understand that DNA

is not a controlling program and that causation is bi-directional. The body as a whole makes decisions and chooses which genes are expressed or put to sleep. Sleeping genes are marked by methyl groups or otherwise. It is not only the genome that causes man, but man also regulates his own genome. He can pass a modified genome on to his descendants. But all of us who drew attention to this fact were persecuted as Lamarckists up until recently. Departure from the official version was sufficient proof that we were wrong. However, what we were saying derived from experience and science committed a methodological mistake: it departed from the whole and completely ignored the one dimension of reality (moral intuition and religious experience). Thereby, two seemingly equipollent alternatives arose in regard to how to interpret sensory observations. Scientists chose the materially aligned alternative. This choice *was not* scientific – it followed neither from observations nor from rational reasoning. It was a subconscious suggestion.

However, there is an intelligent intent manifested within these and other suggestions, in spite of their subconscious nature. Apparently, our moral weaknesses are intertwined with what we are used to assuming is the truth. It was after all very pleasant to Aryanize and seize the assets of the Jew (whose genes can no longer be improved). To inform a patient that his disease is rooted in his unalterable genetics means acquiring a life-long customer in need of medicaments who will no longer search for a path to recovery. In short, our science is godless, non-Christian and often co-inspired by demons; in this

case, by the demons of mechanicism and reductionism.

The same situation holds sway in the historical and social sciences. If we were to delve into ourselves and discover our inner worlds, the layers of the collective sub- and supra-conscious with their laws and archetypes – we would grasp and understand the motive forces of history from within. Self-knowledge would give us the key to the hidden causes of history.

If I delve into the adolescent frame of mind, I will soon make sense of mesozoic nature as well as the whole spirit of the 13th century. Why cathedrals were strewn with stained glass rosettes reminiscent of peacock tails, etherealized and hovering above the ground. Why Europe was crisscrossed by troubadours extolling love in their poems. Why one's outer appearance started to be so important, and why male and female fashion diversified so conspicuously. Why people dressed like birds – wearing high headdresses, long trains, winged sleeves, colored tassels and bells. The culmination of revolutionary events can be naturally understood from an adolescent frame of mind revolting against the authorities. I can also guess why during periods charged by such erotic intensity people regularly took an interest in the sciences based on polarity – electromagnetism and chemistry. Knowing that passion and sex hormones terminate growth and weaken the immune system, I can see why people at that time were short and stricken by epidemics. The golden age of mysticism and heraldry – all that begins to make sense in this light. The Gothic Age was the puberty

of the West (Páleš 2012, 708–873).

Extrovert historical science rather does not reckon with human inwardness or considers it to be essentially the same in every era. The origin of these waves of mentality and whole cultural epochs then remains abstruse and elusive. Since historical science was methodologically blind to the perception of the spirit unifying the entire character of an era, it tries to break it down and explain it in pieces via external causes: geographic, climatic, economic, demographic. In doing so, space is created for a great number of conflicting assumptions that are difficult to verify. This is comparable to somebody ignorant of Kepler's laws and believing that a specific explanation must be found for the movement of every planet.

Backward inferences are made from concealed assumptions: if people were in revolt, presumably a climatic change and crop failure had taken place. Shorter stature hints at a food shortage. In hard times, mysticism also flourishes because people escape into dream worlds. The troubadour sang and composed poems apparently to win over the wealthy heiress of the manor. Heraldry arose from the prosaic reason that kings were illiterate and used pictures as their signature. Electricity and magnetic poles were discovered by chance. Birdlike fashion was a mere irrational fancy. The pandemics of plague were caused simply by bacteria and unsanitary conditions. A logical component of the value system in such an era was the cult of the woman. This cult was manifested, *inter alia*, in the fact that queens sat upon thrones three times more often than in other times. But historians have

lost sight of the overall picture and look for causes in local and temporary factors only. Such explanations are often casual, sometimes quite mistaken, other times partially justifiable, but always incomplete. Women allegedly seized power because men left for the Crusades and somebody had to govern domestic affairs. But a closer look reveals that by far the most queens were exactly where all the men went – the Levant. Contrary to what historians espouse, the feminine antipole dynamised and motivated men in combat. They put a crown on the head of their *anima*, the feminine being that appears inwardly to the adolescent male and points him toward his higher self and which was extolled by the troubadours as their spiritual mistress and lover. The incompleteness of this explanation is quite evident from the fact that women simultaneously sat upon the thrones across all of Asia, which did not take part in the Crusades. The proportion of women on a throne doubled or tripled every 500 years before and after, from ancient Egypt up to today (see Fig. 3). Neither can this be caused by the Crusades.

Romanticisms resembling a worldwide puberty recur roughly every half a millennium. The old doctrine about angels saw a connection between human biography and history: the same seven archangels that guide us during particular developmental stages inspire history in the same sequence and over a 500-year cycle. Developmental psychology and history can be unified. Surprisingly many things can be understood about the Baroque from the traits of children's psyche. The psychology of the school age is further able to explain why the Enlightenment followed

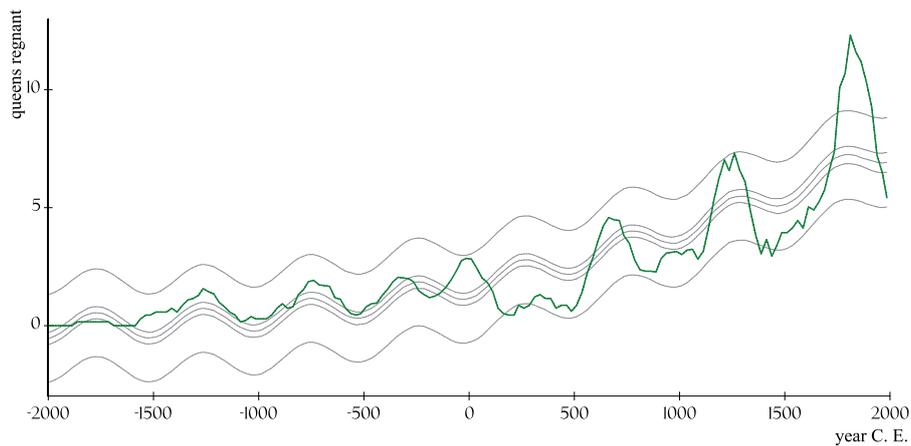


Figure 3.

The number of queens regnant in every quarter century since 2000 B. C. E. until today (green line). There lived 390 queens regnant known to world history (Gordon 2005). Apparent is a significant periodicity of 500 or more years (grey line) culminating around the years 1250, 750, 250 B. C. E. and 250, 750, 1250, 1750 C. E. The odds of pure chance are less than 1 to 3000. The number of women ascending royal thrones doubled or tripled every 500 years together with recurrent eras of romanticism.

with its emphasis on reason. Romanticism occurred like puberty with its awakening of the feelings. Adulthood brought the imperative of sovereignty of the individual and the whole world went over to democracies. The timing of the world wars coincided with a midlife crisis, and at present we are heading towards a conservative age with the traits of a senescent psyche.

This sounds ridiculously simple and improbable at first to an expert. But the plain fact is that angelology is the oldest and best philosophy of history, and in accordance with the modern standards of science, too. It can clearly not explain everything, but it captures some deep layer of history from where periodic fluctuations of mentality emerge. It has the explanatory power to elucidate a great many phenomena via a few principles. It successfully makes long-term predictions that nobody has been able to do until now. This is even though contemporary sociology, anthropology and religious studies do not know and likewise never learn about it. Their

blindness is paradigmatic. It is a vicious circle, a self-hypnosis of thought within one framework that is continually confirmed because it examines itself – what is beyond this framework is not examined and therefore neither is it confirmed because it is unthinkable in advance. Despite mathematically evident cycles in history, universities everywhere teach that they do not exist. They do not exist because they have not been found because nobody is looking for them.

Johannes Trithemius (1462–1516), the abbot of the Sponheim monastery, was one of the last to be acquainted with this doctrine of time spirits and who wrote about it. He writes, for example, that along with Oriphiel, the archangel of Saturn, there have been recurring tendencies that unify the world into one single monarchy and build giant monuments like the Tower of Babel. This cycle is a matter of fact. Over corresponding time periods, political centralization takes place and states merge into bigger units under the leadership of absolute monarchs stand-

ing atop a bureaucratic pyramid. All this takes place within the spirit of conservatisms, traditionalism, hierarchical respect and obedience. Besides this, giant monuments of stone are built as symbols of enduring values that should outlast eternity. It is the rhythm of pyramids and megaliths (Trithemius 1508).

Only Trithemius had no information about the history of non-European countries, nor about the long past cultures of Europe, let alone any notion of their dates that were only obtained in the 20th century by radiocarbon method. So how could he know? He knew the seasons of the spirit. A Benedictine monk knows nothing about radiocarbon, but meditating in his monastic cell he discovers the laws of the inner worlds. I wrote on the basis of Trithemius' cycle in 1998 that stone circles like Stonehenge were most likely built in the 26th century B. C. That differed from the then recognized dating by 400 to 600 years. Only in 2007 did British universities thoroughly inspect Stonehenge again and announce that a mistake had been made. The most impressive phase of construction took place in the 26th century B. C. Both dating and the social context of the structure have been confirmed – it had to do with the unification and centralization of prehistoric Britain. Previous samples for radiocarbon analysis had been taken from an incorrect layer. The material and the spiritual dimension of knowledge must interlock like a crossword puzzle. If archeologists had worked with both dimensions, the disharmony of the two would have warned them of having found something unlikely (Pearson 2012).

The construction of great walls also fits into the same rhythm. Namely, it concerns an introverted, obsessive-compulsive psychological structure that craves constancy, security, certainty, order and structure, and which comes to the fore at the end of life in an individual biography. Civilizations of this kind used to isolate themselves, fortifying themselves against chaotic foreign elements (barbarians) with a wall. Inside, they built a highly organized, perfectly ordered and rigid, slowed-down civilization. Throughout the history of nature such eras have occurred for instance in the Permian and in the Oligocene, when everything grew bone-like structures en masse; animals like the tortoise originate in these periods. We are dealing here with civilizations that became tortoise-like.

A historian finds it easy to explain the origins of the Great Wall of China: its construction was provoked by nomadic raids. He can conclusively attest to this with a primary source where the emperor orders the wall's construction with the express words "in order to avert further incursions of the nomads". Nevertheless, an integral view reveals something else. Let us take all the constructions of great walls and all the raids known to history. Yes, they do correlate, but there is an even stronger correlation with something else. The coefficient of determination between raids and walls is 14%. But it is 33% with such phenomena as monasticism, the blooming of historiography and centralization of power. A compulsive psychological structure (introversion, the urge to order and control) is involved in wall construction twice as much when compared to a violent psychological structure (aggression, asociality, conflict).

The residual 53% are unknown factors.

Great walls arise when external events (raids) meet an inner reality (a compulsive psychological structure). By no means does the construction of a wall logically follow from raids alone. Heroic people like the Aztecs, who respected bravery in hand-to-hand combat as the highest value, would deem it appropriate to attack, while skulking cowardly behind a wall would not occur to them even in a dream. The emperor mentions raids explicitly because that was the immediate, new, external stimulus. He did not speak about the disposition of the Chinese character because that is unconscious and automatic. It can, however, be inferred from the Chinese way of life, but it does not need to be expressed explicitly. The deep, implicit structural cause thus drops out of the written document. Every historical event has both of these two dimensions – the outer and the inner. As the historian is not able to systematically grasp this inner dimension and work with it, he focuses chiefly on the outward aspect of events – and the inner halves of world events are therefore assumed more or less subliminally and arbitrarily. In light of integral sophiology, such historiography is not a science, but rather a half-science.

Let us take the *menhir* as a final example. The menhir is a prehistoric, erected stone about which virtually nothing is known. It is more difficult to date than anything else. We have no information about the faith and social structure of the people who erected them. Outer information is completely lacking and menhirs stand here like a Rorschach figure subject to the projection of manifold

concepts. It has been said that menhirs were funerary steles and part of ancestor worship. But there are no graves beneath menhirs, so this was only a projection of known burial customs that came much later. Any Freudian has an explanation at hand – it is a phallic symbol (along with all other elongated objects in the world). It is a fertility cult. Other conjectures say that a menhir indicated ritual sacrificial sites; that it was a territorial boundary-stone; a prestigious symbol of the mighty and wealthy; it could serve as a calendar or for orientation purposes as a beacon. But there is no evidence for any of these hypotheses that would enable us to judge between them. So what to do about it?

Myths around the globe speak of the creation of man by solar powers. They endowed us with a spiritual spark that made us erect and capable of thinking, self-reflection and moral judgment. The solar gods personify truth, wisdom, and the light of knowledge. According to angelology, Michael, the leader of the solar powers, becomes the major spirit of time every 2500 years. This is intersubjective knowledge because Indians discovered it independently. Buddha, the Awakened or Enlightened One, is identified with the Sun by the Indians. And Gautama Buddha himself says that he is neither the first nor the last Buddha, but Buddhas appear every 25 centuries in those very periods known in Christianity as the time of the Sun archangel, Michael.

By an inner law, rectilinear, upright, radial forms pertain to the Michaelic state of the soul. First, we experience knowledge as an inner light. Second, we know by intuition that the power that makes us erect has to

do with straightness of character. The same power that straightened our backbone inspired us with a moral essence and dignity. The column in various forms has in fact been regularly associated with sun cults, periods of a blooming in philosophy and democratic constitutions that placed the dignity and self-determination of every individual above all else. The obelisk stood in the solar temples of Egypt symbolizing a petrified sun-beam or the sun god Ra himself. The column dominated the architecture of the Greeks during their era of flourishing philosophy and democracy. The Rayonnant Gothic of the Middle Ages was contemporaneous to High Scholasticism and the formation of aristocratic parliaments. Finally, in the last Michaelic age from the end of the 19th century, the obelisk returned in the form of the modern skyscraper. Was it not also that the menhir reminded prehistoric man of his human nature and the dignity that has advanced him beyond the animals?

In this way, the menhir can be understood from what we ourselves are doing here and now. Even this hypothesis is not complete until it matches the outer evidence, which is still missing. But it is preferable to all others because it is not based on sheer arbitrariness. It requires agreement with the inwardly observed shapes of the spirit and formulates an empirical thesis that is falsifiable (it predicts flourishing epochs of this architectural element). So it relies at least on something more than nothing. The menhir, obelisk, and column are actually the spine; or more precisely, they represent that power of the soul, which encourages us to stand erect.

Many things from the history of architecture can be understood in this way from within. The rationalist Enlightenment created neo-classic architecture where everything is strictly bilaterally symmetric – because it is a projection of the nervous system that reflects the bilateral symmetry of the body. The consumerist Baroque appeared together with philosophical materialism and ethical hedonism, and it takes its inspiration from nothing but asymmetric ovals similar to the forms of the abdominal organs. Romanticisms love bright colors that are best represented by gothic rose windows – in the same way as pigments are coupled with sexuality in the body. Spherical, circular shapes can be found where the most intense ossification process in the body takes place – and so rigid bureaucratic absolutisms also enjoy arches and domes. In other words, the history of architecture can be integrated with anatomy.

7 Incentives for pedagogy

Human memory functions by associating things, making connections between them, and engraves them on the mind in proportion to their emotional importance. Things in context and those that are personally meaningful can be easily remembered. You may forget the name *Archibald*, but not if you associate it with the image of a bow and remember that you practiced archery on the day you made the acquaintance of a person with this name. It requires an effort to remember a series of numbers and yet one week later it will be forgotten. But a day spent with your first love will remain etched on your mind forever. It is totally against the nature of memory to

memorize, say, a telephone directory.

Accordingly, memorization drops off whenever things are interconnected by meaningful relationships. This is exactly what sophiology does to the greatest extent. Not only is it unnecessary to remember, but more than that, it is impossible to forget. For I understand the world by means of what takes place here and now and always within my own soul. Understanding replaces memory. One can learn mathematics by memorizing lots of formulae. But a good mathematician does not need memory at all. He remembers no formula, but he can derive it any time he needs. He can deduce it from a kind of inner necessity that is inside him and cannot be forgotten. Imagine that we would be able to understand history or natural science in the same way.

When giving lectures, I find that the audience remembers virtually nothing from their school history, chemistry or biology lessons. In as much as they perceive the issues as a disconnected list of information that means nothing to them personally.

In literature and music appreciation, a pupil may learn that there were great poets and composers around the year 1800; in art education he may see some landscape painting from the same era; in history he may hear about the lives of some national revivalists who rebelled at that time because of something; in psychology he learns about the psychological lability of teenagers; in zoology, that animals signal their readiness to mate by coloration and thus propagate their genes; and finally in chemistry, he troubles himself with the fact that copper is a metal belonging

to the first group in the periodic table, having the atomic number 29. Or in physics that Fraunhofer invented the spectroscope at that time. So much stuff to learn! He may have no idea that he is learning something eight times in eight subjects that is overlapping in content and can be subsumed under a single idea. Neither can he see why this should be of interest to him.

Until he comes to realize that the soul of that era was fuelled by the same ideals, desires and visions from which he is right then experiencing his own personal conflict with his parents and surrounding society. He understands from within of his own soul why they rebelled, what they felt, what motives stirred them. He understands what their poems and songs were about. Through the mirror of history he can get to know his own soul more objectively and learn about other people struggling for the same goals long before him and how it turned out. Without memorization, he can recognize the then style of painting by knowing that strong feelings transpose themselves into deep colors in arts, along with an increased interest in the color spectrum and discoveries in the physics of light. Animals in love also adorn themselves with colors and all the while copper is activated within their physiology.

By combining external facts with inner realities, three things take place. Firstly, facts rearrange themselves and interrelate in a way that can be easily remembered. Secondly, the student is motivated by relating more intimately to facts that cease to be boring. And thirdly, knowledge gains a vertical, moral dimension and becomes a vocation. The student can see

how all social institutions and events stem from the inner world of man, while every era prefers a different type of thought and sentiment. He knows from his own inner life that every power of the soul can be cultivated or can deteriorate through the decision of one's own will. Love can evolve into a just, selfless feeling and artistic creativity, but it can also degenerate into a mean, self-seeking carnal instinct. It will induce accord in the former case and corruption in the latter. It is a moral challenge. Romanticism, as an era borne by the power of love, faced this challenge: some managed to constructively transform it into a rare creativity, while with others it degenerated into mere erotic dreaming and devastating revolutions. As the personality is born in puberty by adopting certain ideals and defining oneself against the authorities, so Europe struggled for personal freedom and respect for the human personality as such. Napoleon came to be a great commander because he allied himself with the mission to spread this achievement of the great French Revolution across the world. The Napoleonic civil code became a lasting component of our law.

The student can see that every era – including the present one – has a mission for which he is co-responsible. A young man or woman cannot complete his or her individuation, cannot healthily develop mentally unless he or she finds a meaningful task to struggle for. If the world operates automatically on the basis of demographic, economic and other external causes, and man is only to slot somewhere into the cycle of production and consumption, so one may simply commit suicide immediately.

The same is true in relation to nature. If it operates automatically as a chemical chain reaction or a genetic machine, I can only worry and pay. Yet I establish an entirely different relationship with my kidney when I understand that it is not a mere excretory organ, but an organ carrying and mirroring my feelings and interpersonal relationships. It starts me wondering about the mysterious process taking place in my renal calyces. Therefore, the health condition of my kidneys passes into my own hands, into the sphere of my own personal freedom but also responsibility. My damaged kidney is not only the job of my physician who has to repair it or replace it like a radiator in an automobile service station.

A graduate in such education acquires awareness about how ethics is embedded within the nature of things. Moral powers literally hold together every atom of our body, as well as every community. He starts to regard total ethical relativists as mentally disturbed, dissociated personalities who have lost connection to the realities of life. Allegedly, opinions differ and we cannot find out which one is better. But the inevitable consequences of these opinions are such that all of us agree whether or not they are good or bad. Every opinion, attitude or state of the soul materializes. Everybody expects the right to have opinions, but some opinions inevitably lead to war and nobody wants to die. Everybody mentally experiences whatever he likes – but some mental states lead to illness and nobody wants to be ill. Say, for example, I will give up mentally, I will stop setting myself future goals that create an inner warmth in me by sacrificing to them – then my immunity

will weaken, tumors will appear and I will die. If I take away the vision from a community, it will decay morally and disintegrate; eventually every member will lose every advantage that was provided through cooperation.

The integrality of education goes hand in hand with the birth of independent individuality and creativity. We have entered a knowledge-based society where the main asset guaranteeing the future is the creative potential of man. The fact that the creativity of great individuals strongly correlates to their versatility is part of the fundamental knowledge of historiometry (Kaufman and Sternberg 2010, 176). Versatile people retain their freshness, interest and developmental capability longer. The promotion of child prodigies and their specialization from an early age is a quite mistaken practice because these children will collapse mentally once they become adults. Versatility has a fertile future, while specialization is the final terminus of evolution. This law applies to the individual and society, as well as nature. Highly specialized animal species succeed in a certain environment, but they are incapable of further development and will soon become extinct. Less specialized species that have retained a more versatile physique are the bearers of future evolution. The same thing applies to nations at the level of the soul. Some nations have achieved extraordinary success by dint of pronounced special faculties, but have therefore also grown old and petrified. Younger, more docile nations outpace them.

We are talking about education for independent judgment, but which is slowly ceasing to be possible in our system of truth.

Namely, we believe that the specialist holds the truth. Small groups of experts understand ever smaller parts of the world. In the end, it holds that no particular thing can be judged by the overwhelming majority of people and the whole can not be judged by anyone at all. Moreover, these experts constantly make mistakes, contradict each other and succumb to corruption. It is necessary to take a different view of the truth. A specialist does not bear the truth, but merely some partial information torn from the whole. The truth is something entirely different – it is a viable synthesis. The truth must be won and earned by every layman in his own effort to arrive at a responsible and meaningful synthesis of particulars. Only through this effort is an independent ability to orientate oneself born, as well as an intuition that indicates when the recommendations of experts are biased and there is therefore no need to follow them. Let us not steer our children away from intuition, but rather let us cultivate and strengthen it, for a man who acts upon external information only and sets himself no goals from within is a vane in the winds of advertisements and propaganda.

To this day, the word *university* resounds with the ideal of universality that the founders of universities in the High Middle Ages believed in. Our education is being Americanized and is distancing itself from this goal. We are educating a single-purpose Fordian man whose task is merely to take over and carry out instructions, not to understand or discover something independently. He becomes spiritually non-self-governing, manipulable and dependent. He cannot be morally responsible for anything. Along with universal-

ity, we are losing our humanity. It is necessary to say frankly: either universal education and democracy – or neither of the two.

References

Black, Edwin. 2003. *War Against the Weak: Eugenics and America's Campaign to Create a Master Race*. New York: Four Walls Eight Windows.

Cardano, Girolamo. 1658. *Metoposcopia*. Paris: Thomas lolly.

Ciampi, Luc. 1997. *Die emotionalen Grundlagen des Denkens: Entwurf einer fraktalen Affektlogik*. Göttingen: Vandenhoeck & Ruprecht.

Cross, Samuel Hazzard, and Olgerd P. Sherbowitz-Wetzor. 1953. *The Russian Primary Chronicle*. Cambridge: The Mediaeval Academy of America.

Čepan, Oskár. 1989. "Romantický mytologizmus Petra Záboja Kellnera-Hostinského." *Slovenské pohľady* 105 (3): 94, 98.

Gordon, Bruce R. 2005. Regnal Chronologies. Accessed April 1, 2005. <http://my.raex.com/~obsidian/regindex.html>.

Habermann, Charles G., ed. 1909. "Interpretation of Dreams." In *Catholic Encyclopedia*. New York: Encyclopedia Press.

Hostinský, Peter Kellner-Záboj. 1847. "Otvorení list p. Ctíbohovi Cochiusovi." *Orol tatránski* 2 (60): 469, 483.

Hostinský, Peter Kellner-Záboj. 1851. "Prvořini vedi slovanskej." *Slovenskije pohľady na vedi, umeňja a literatúru* 4: 122–125, 162.

Hostinský, Peter Kellner-Záboj. *Trentowský a slovanská veda*. Manuscript in the archives of Matica slovenská, signature M45E9.

Hostinský, Peter Kellner-Záboj. *Zápisky*. Manuscript in the archives of Matica slovenská, signature M45D8.

Hurban, Jozef Miroslav. 1846. "Veda a slovenskije pohľady." *Slovenskije pohľady na vedi, umeňja a literatúru* 1 (1): 1–14.

Kaufman, James C., and Robert J. Sternberg. 2010. *The Cambridge Handbook of Creativity*. Cambridge: Cambridge University Press.

Kayser, Richard. 1889. "Über den Weg der Atmungsluft durch die Nase." *Zeitschrift für Ohrenheilkunde* 20, 96–109.

Komenský, Jan Amos. 1924. *Jana Amose Komenského Vlastní životopis ze spisu 'Pokračování v bratrském napomínání Samuela Maresia o mírnění horlivosti láskou'*. Praha: ÚNKUČ.

Komenský, Jan Amos. 1961. *Cesta světla*. Praha: SPN.

Komenský, Jan Amos. 1988. "Přehled fyziky opravené z hlediska principu božského světla." In *Vybrané spisy J. A. Komenského* 5, 92. Praha.

Komenský, Jan Amos. 1992. "Panorthosia." In *Obecná porada o nápravě věcí lidských* 3, 328. Praha: Svoboda.

Páleš, Emil. 2012. *Angelológia dejín 2*. Bratislava: Sophia.

Palouš, Radim. 1992. *Komenského Boží svět*. Praha: Státní pedagogické nakladatelství.

Pearson, Mike Parker. 2012. *Stonehenge: Exploring the Greatest Stone Age Mystery*. London: Simon & Schuster.

Pelikan, Wilhelm. 1981. *Sieben metalle*. Dornach: Verlag am Goetheanum.

Růžička, Radomír. 1999. *Akupunkturní mikrosystémy*. Praha: Nadatur.

Selawry, Alla. 1966. *Silber und Silber-Therapie*. Ulm: Haug.

Singer, Isidore, and Cyrus Adler, eds. 1906. "Dreams." In *Jewish Encyclopedia*. New York: Funk&Wagnalls.

Skácel, Jan. 2005. *Básně pro děti*. Třebíč: Blok.

Solovyov, Vladimir. 2008. *The Philosophical Principles of Integral Knowledge*. Grand Rapids: Eerdmans.

Sorokin, Pitirim Alexandrovich. 1962. *Social and Cultural Dynamics*. New York: Bedminster.

Sošková, Jana. 2005. "Mesianizmus a estetické postoje Petra Kellnera-Záboja Hostinského." *Parerga: Medzynarodowe studia filozoficzne* (1): 133.

Sperry, Roger Wolcott. 1974. "Lateral specialization in the surgically separated hemispheres." In *Third Neurosciences Study Program*, edited by Francis Otto Schmitt, and Frederic G. Worden, 5-19. Cambridge: MIT Press.

Steiner, Rudolf. 1993. *Der Mensch Als Zusammenklang des schaffenden, bildenden und gestaltenden Weltenwortes*. Dornach: Rudolf Steiner Verlag.

Štúr, Ľudovít. 1993. *Slovanstvo a svet budúcnosti*. Bratislava: Gora.

Trithemius, Johannes. 1508. *De Septem Secundeis, id est, intelligentiis, sive Spiritibus Orbes post Deum moventibus*. Sponheim.

Weinfurter, Karel. 1947. *Divy a kouzla indických fakirů*. Praha: Vojtěch Šeba.

Wilber, Ken. 2000. *Integral Psychology*. Boston: Shambhala.

Zoch, Ctiboh. 1847. "Literatúra." *Orol tatránski* 2 (53): 412.

About the author

RNDr. Emil Páleš, CSc. (1966) is the founding member and head of the Sophia foundation for integral studies in Slovakia, School of sophiology and former editor-in-chief of the Sophia journal. He is researching the time-patterns of creativity and paradigm-changes in individual psychology, world history and evolution of nature. His work bridges over ancient religious traditions with modern science. It is a continuation of the Slavic tradition of sophiology – which is an effort to synthesize different sources of knowledge (senses, reason and intuition). His email contact is info@sophia.sk.