

**Time, Elements and the Phoenix Hour in Lives and Poetry  
of Nobel Laureates and their Celestial Twins.**

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*We see that human creativity and innovation can be understood  
as the amplification of laws of nature...*

Ilya Prigogine {NL, Air}

*Abstract.* In our times both the works and the biographies of the Nobel laureates {NL} are accessible to empirical study. Their biographic materials portray distinguished personalities as real people with their faults and weaknesses. Such biographic studies become available mainly because in our epoch the quality and quantity of psychological observation have increased dramatically. By opening the books of their own life stories, the Nobel laureates invite us to witness the circumstances of their growth and to gain a better understanding of the limits of free will and of "Zeitgeist" dynamics. Assuming that poetry is an even more valuable source of authors' attitudes towards life than their respective autobiographies, the Nobel laureates in Literature who were awarded their prizes explicitly for poetry, constitute the most informative group for biographical research. Furthermore, according to Alfred Nobel's will (1895), the poetry of the laureates should be also "the most outstanding work in an ideal direction." The ability of such laureates to inspire entire societies makes them attractive for historical research.

This paper is a pioneer venture into temporology. It seamlessly blends three different types of time: calendar times, the primordial cycles of the elements and the factor of birth-time (the Theta-factor). To make this fusion possible, this essay opens with a brief Introduction written in four parts, each part being a thumbnail sketch of one of the following basic temporal aspects: definitions of time, the four elements, the Effect of the Celestial Twins (ECT) and the model of the Phoenix Clock.

**Introduction: Time Definitions in the Sciences and in Poetry**

*The Times They Are A Changin'*

Bob Dylan {NL, Air}

Time, like poetry, deals with issues which are fundamental, universal and forever thrilling. Although time in the sciences remains a basic undefined notion, in reality a whole web of definitions of time exists, both in the sciences and in poetry. Unfortunately, most of them contradict, rather than complement, one another. For example, while the Newtonian time exists by itself and is evenly flowing forever and ever, for the poet Eugenio Montale {NL, Air} "time is tied to man, is made by man" [163]. For scientists, time units are uniform, but for Montale each moment has its

meanings and it "lasts a shorter or longer time" in different phases, periods or seasons [163].

Whereas in physics each experiment can be repeated numerous times with the same outcome, for St-John Perse {NL, Air} it was crucially important to be born in a specific interval of a historical transition. In his poem "Winds" he exclaimed: "And you have so little time to be born to this instant..." [231]. This poetic line includes a mixture of several different time concepts. While St-John Perse's "instant" echoes Anri Bergson's {NL, Air} "duration," his "time to be born" reminds one of Ilya Prigogine's {NL, Air} "internal" or "age-time," which is, in its turn, related to the factor of the time of birth or the so-called Theta-factor [Levin 2012].

Mathematically, it would be convenient if time in general and the Theta-factor in particular were numeric quantities. In reality such oversimplification is not true. In history it is not enough to project an ineffable nexus of happenings onto a dull austerity of chronological timelines. Analysis of the vast historical data suggests that though time is real in the sense of its identification with logical algorithms existing behind the processes, yet to reflect its complexity we should construct a new scientific model [Levin 2012; 2017]. Such time should have a two-fold complementary nature, qualitative and quantitative, able to describe chronological evolution and cyclic recurrences, internal motivations and external restrictions, colors of the constituting elements and fragrances of the individual moments. The proper model of historical times should reconstruct successions of the past events and anticipate their future outcomes. To make this possible we should implement several complementary types of logic. Jose Saramago {NL, Water} noticed that "only a common sense with the imagination of a poet could have invented the wheel" [226]. Reinventing the historical times would be more effective if we would enrich quantitative chronological approaches with the poetic logic of the four traditional elements – Air, Water, Earth and Fire.

### **The Creativity of the Four Elements**

*For you are you, oh human springtime –  
The earth, the air, the water, fire, all things!*

Juan Ramon Jiménez {NL, Earth}

Since the ancient days the concept of the four elements – Fire, Earth, Air and Water – have formed a basis for regarding the material world as well as describing the four basic human temperaments. The French philosopher Gaston Bachelard regarded the four elements as the "hormones of the imagination." Supposing that poetic metaphors are projections of the nature of their authors, and widening Bachelard's approach, I maintain that there is a temporal connection between one's birth date and the type of images one prefers [*Filosofiya*, 2016]. For each poet or philosopher, there is one major element, be it Air, Fire, Water or Earth, with which one most strongly resonates. It

turns out that such a subconscious preference is not a random choice, but a reflection of the elemental belonging of the Sign associated with one's birth. Indeed, the works of the Nobel laureates in poetry vividly illustrate this idea. For example, Vicente Aleixandre {NL, Earth} wrote that he belongs to the poets who "speak to what is primordial, to what is elemental in humanity" [139]. Born in the element of Earth, Aleixandre was named "a telluric poet" [Cobb]. In his Nobel lecture he described an image of the poet as that of one around whom, "with his two feet planted on the earth, a mighty current forms, gathering beneath his soles, streaming through his body to leap from his tongue. It is thus the earth itself, the deep earth that flames from that furious body."

In sharp contrast, the Air-born poets value mental meanings greater than sensory forms; they seek and admire emptiness of space. To illustrate, St-John Perse {NL, Air}, in his "Winds", claimed that winds are stronger than flesh. Montale {NL, Air}, in his turn, explained that to write poetry he needed "a breath of fresh air" [321]. For Montale, the Western poetry tends "toward a condition of pure art of which total abstraction is the unreachable outer limit" [162].

A different point of view is expressed by the poets of Fire, who are singers of the ardent spirit and aspirations. Such poets prefer, to quote Bjørnstjerne Bjørnson {NL, Fire}, "No anxious shadows clouding, / No languid, lukewarm mist." For them, as for Gabriela Mistral {NL, Fire} in her "Decalogue of the Artists", "Beauty shall not be an opiate that puts you / to sleep but a strong wine that fires you to action" [37].

Water seeks in poetry something else. For example, for Pablo Neruda {NL, Water} in his "Ode to Ironing," poetry "comes from water swathed in drops." In general, the poets of Water are deeply involved with the sea of joys and sorrows. Like Sully-Prudhomme {NL, Water}, they speak from the depth of their hearts, coloring each experience with intense feelings. Declaring an identity between living and feeling, they can even be drowned and become lost in this deep ocean of their emotions, like Hart Crane (one of the greatest poets of the so-called Lost Generation) or like his celestial twin, Ernest Hemingway {NL, Water} [Levin 2009; 2014]. Mentioning these celestial twins (people who were born simultaneously, on the same day of the same year or within an interval of 48 hours) brings us to the next topic of this Introduction.

### **Celestial Twins**

*... the hypothesis that both were born not only on the same day,  
but also at the same hour ... would imply that, as well as seeing  
the light at the very same moment, they would at that very same moment,  
both have experienced crying for the first time too.*

Jose Saramago {NL, Water}

In his novel *The Double*, Jose Saramago {NL, Water} vividly described an instant of grasping a new phenomenon, as his main character understands that a similarity

between him and his double is not bound to a single coincidence or a series of chance events, but is rather a life-long process or a natural law that is difficult to decipher. He suddenly knew "that one of us changes not because the other one changes, but because any change is simultaneous" [20]. Consequently, Saramago even suggested a new kind of "sociocultural" instinct, implying that "any idea that had occurred to one person would necessarily occur to someone else" [190].

*The Double* is a grotesque story, and in reality celestial twins are not identical duplicates. Their resemblance is rather a time-related isomorphism, which is both dictated by Zeitgeist and inspires it. For example, two celestial twins, remembered as the discoverers of the isotopes and pioneers of the atomic age, F. Aston {NL, Earth} and F. Soddy {NL, Earth} felt as if their individual thoughts were shared by some unknown distant people. Hesitating whether to publish or to destroy their far-reaching results, they were nevertheless sure that regardless of their decision, their discoveries would become public knowledge [Levin 2006].

Interestingly, Saramago, as a Water-born writer and poet, invented in *The Double* a watery metaphor to justify the existence of supporting actors, arguing that they are "as essential to the development of filmic action as small tributaries are to the formation of the great rivers" [127]. This poetic image might be seen as an allegoric way to present the Effect of Celestial Twins (ECT), which was discovered in course of systematic studies of well-known celestial twins [Levin 2006; 2012; 2016].

According to ECT, though each person is unique, there is an isomorphic matching between the biographical narratives of celestial twins. During the course of their lives, they might be exposed to similar changes in their environment and they might influence it in more similar ways than people born in other epochs or elements. This seemingly non-causal synchronic correlation of the celestial twins' life paths throughout the entire span of their existence is consistent with the ideas of Wolfgang Pauli {NL, Earth} about synchronicity. Consequently, it was suggested that the Theta-factor is an important temporal factor, which in addition to heredity and environment influences patterns of human development.

*Celestial Twins* explored comparative biographies of 18 groups (15 pairs and 3 triplets) of well-known celestial twins born between 1157 and 1915. This is a total of 39 people, seven of whom were Nobel laureates. As was to be expected, the most informative data for ECT came from the celestially twinned poets. As an illustration I'd like to stress the difference between the story of two poets (Hemingway and Crane) and the two comparative stories of such eminent pairs as the Nobel Peace Prize recipients Louis Renault (1843-1918) and Charles Albert Gobat (1843-1914), or the Nobel Prize recipients in Physiology and Medicine, Dickinson W. Richards (1895-1973) and Gerhard Domagk (1895-1964). Both latter pairs left virtually no personal evidences about their inner lives. Belonging mostly to the world of happenings, their

stories are important for statistical data, but remain of minor value for meaningful psychological observations.

Besides the scarcity of first-hand biographical data, the most problematic stage in the ECT research is the confirmation of the dates of birth. In some cases, such as that of Isaac Bashevis Singer {NL}, birth dates remain unknown. In many cases, there is a discrepancy between close dates (within a week or so). An explanation was given, for example, by Saramago, whose documents showed that he was born on November 18<sup>th</sup>, two days later than he thought. The reason was practical: his parents did not want to pay the fine for the delay in registering him.

Luckily, the exact knowledge of birth dates is of minor importance in historical studies when longer-term time scales are sufficient to establish the "simultaneity." On such scales, ECT illustrates the differences and tensions between the various epochs and elements, confirming T. S. Eliot's {NL, Air} observation that "People experience the world differently at different times" [20]. In that sense, the Theta-factor becomes an important measurable factor in history, which serves as a compass showing the historical changes of the generational potentials [Levin 2012; 2016].

### **The Phoenix Clock**

*No answer for him who does not see  
What you, ye stars, are outpouring.  
Verner von Heidenstam {NL, Water}*

Historical sciences remind one today of a description of a random nexus of events flowing as a chaotic life stream. Yet it is not so when we introduce the new method of the Phoenix Clock [Levin 2013; 2016; 2017]. There are two major differences, which distinguish this method from all the other approaches to chronology.

The first is in constructing a timeline that is based not on corresponding events, but rather on the Theta-factor of individuals behind these events. Such a view also matches Octavio Paz's {NL, Fire} idea that man is not "in history: he is history." In other words, the Phoenix Clock puts in the centre of creation a responsible person and not a blind incident.

The second difference is in replacing short-term solar-lunar calendars with the long-term Neptune-Pluto cycle (named "the Phoenix Year") with periodicity of about 493 years.

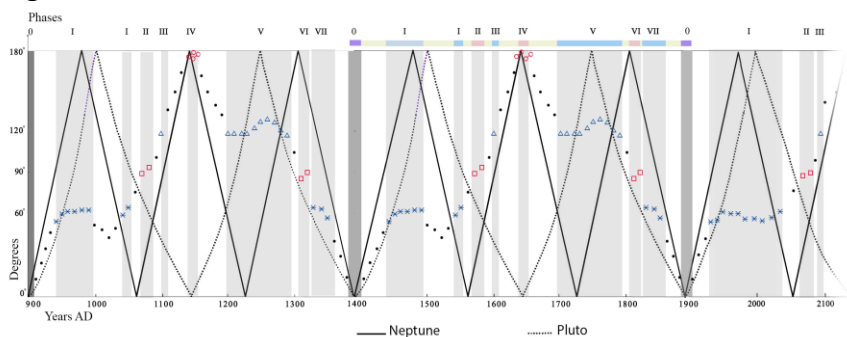
Applying structural analysis to a period covering over three thousand years of world poetry reveals a complex rhythmic temporal pattern. Strikingly, in this period poetic creativity did not flow at an even rate, but had its periods of acceleration and stagnation. Furthermore, striking correspondences were found between the rate of birth of influential poets and the phases of the Phoenix Year.

Astronomically, the beginning of each Neptune-Pluto cycle (the so-called "Phoenix Hour") coincides with the conjunction of these celestial bodies, when the visible angle

between them stays within  $10^\circ$ . Metaphorically, it is associated with eclipses. Historically, it lasts in our epoch about 15-16 years. Culturally, it marks a point of rupture, according to which developmental and social processes of a new era are calibrated.

During each Phoenix Year the changes of the visible angle between Pluto and Neptune are similar to the Metonic cycle – a period of 19 years, after which the lunar phases (defined by the angle between the Sun and the Moon) recur in the same order. Figure 1 shows the quasi-periodic changes of the angles formed in the Pluto-Neptune system since 900 AD. The continuous and dotted lines represent respectively Neptune's and Pluto's movement in respect to the points of their conjunction during the corresponding Phoenix Hour. The discrete points depict the angle between Neptune and Pluto on the ecliptic as it is observed from the Earth.

Fig.1



Due to Pluto's elliptic orbit, the angle between Neptune and Pluto, which can be regarded as an emergent property of the Pluto-Neptune system, is changing unevenly in relation to the usual chronological timelines. It was shown that this peculiarly changing, but measurable variable correlates with the rates of birth of influential poets [Levin 2017].

To glimpse inside the Phoenix Year, one may divide it into eight phases. Astronomically, they are similar to the lunar phases, but are changing unevenly in their relation to the usual calendars. Historically and culturally, they are reminiscent of the traditional stages of human life, reflecting Francis Bacon's belief that ideas, like people, have their age periods – birth, youth, adulthood and death.

The Phoenix Hour or a zero phase is, like a new Moon, a transition phase, a gap, which bridges subsequent cycles. Culturally, it heralds the birth of a new set of paradigms.

The first half of the Phoenix Year is similar to the waxing Moon. This period, which lasts about 247 years, is named a Pythagorean era. Its further subdivision into phases is as follows:

The first or "waxing crescent" phase comes when the Pluto-Neptune angle is about 60°. It is the time of infancy and childhood of an idea.

The second or "the first quarter" phase comes when the Pluto-Neptune angle is about 90°. It is the phase of adolescence, accompanied by various upheavals.

The third or "waxing gibbous" phase comes when the Pluto-Neptune angle is about 120°. It is the phase of early adulthood and flourishing.

The second half of the Phoenix Year, which is called an Epicurean era, resembles the four phases of the waning Moon, beginning with the full Moon and ending with the new Neptune-Pluto conjunction:

The fourth phase comes when the Pluto-Neptune angle reaches 180°. It is a midlife crisis which challenges original paradigms.

The fifth or "waning gibbous" phase comes when the Pluto-Neptune angle is about 120°. It is the period of mature adulthood of the golden age of enlightenment, when initial ideas are proudly entering the academies.

The sixth or "third quarter" phase comes when the Pluto-Neptune angle is about 90°. It is the crisis of the onset of old age, when the initial ideas become weary, but are still refusing to give place to new tendencies.

The seventh or "waning crescent" phase occurs when the Pluto-Neptune angle is about 60°. It is time to drop the initial ideas, while nevertheless preserving their seeds of wisdom for the younger generations.

Following this cycle, the eighth phase should be the next Phoenix Hour, or the zero phase, similar to the previous one but with the meeting point shifted about 5-6° along the ecliptic. Due to this shift and the elliptical orbit of Pluto, all the phases of the Phoenix Year will change their durations from cycle to cycle. This is one of the reasons, why any glimpses inside a Phoenix Year are unavoidably approximate. The boundaries between the phases are porous and they are subject to overlaps. Nevertheless, culturally, the turning points between the Pythagorean and Epicurean eras are so profound that they can be traced over a period of more than 3000 years [Levin 2013]. In short, the cultural innovations during the Pythagorean eras are fast, numerous and dramatic; during the following Epicurean eras, most of the efforts are devoted to polishing, translation and teaching of the ideas which were brought to life in the previous era.

Having in mind these definitions and methods, we may proceed and illustrate them with the help of the poetic images of the Nobel laureates.

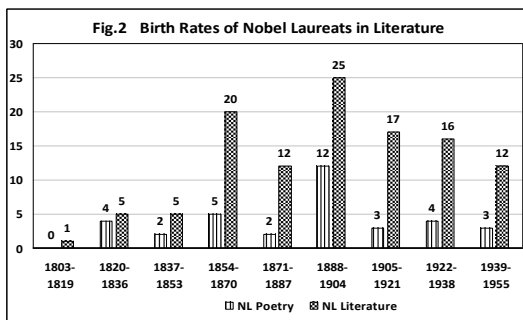
### **Synchronicity and a Few Statistical Hints**

In *The Phoenix Clock* a meaningful simultaneity (in the sense defined by Wolfgang Pauli) was described that repeats itself every cycle: at the end of each Phoenix Year there are multiple exciting ideas in the air, but their proper time has not come as yet.

They are so novel and unusual for the existing generations that their implementation should wait for the birth of the new generation of the coming Phoenix Hour.

In the 1890s, during the Phoenix Hour when the idea of Nobel Prize was conceived, changes were already required and expected in almost all areas of life. To quote St-John Perse {NL, Air, b. 1887}, at such moments "the Poet himself comes out of his millennial rooms" [231]. Indeed, the new Phoenix-born generation entered the world, to quote Pär Lagerquist {NL, Air, b. 1891}, "like a storm wind" [133].

The poetry and paradigms of this generation, both announcing and reflecting the spirit of the future times, were different from every verse written before. Assuming that writers and poets are the most sensitive group among those who respond rapidly to external changes, we might expect that their rate of birth should show its peak in the Phoenix-born generation. We can observe this phenomenon in Figure 2, which shows the number of the Nobel recipients for Literature in general and explicitly for poetry in relation to their years of birth:



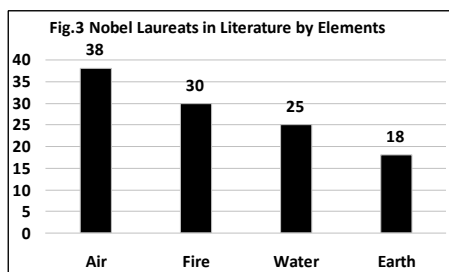
These results show also the difference between a chronological timeline of events and the Theta-factor timeline in the Phoenix Clock Model. Whereas according to the first timeline the Nobel Prizes in Literature are awarded annually, according to the latter timeline, there are barren times during which no poets are born at all, and there are fruitful periods during which the poetic activities are flourishing. It's hard to imagine, but while during a 16-year period of the Phoenix Hour 12 recipients of the Nobel Prize for their poetry were born, during a chronologically similar 16-year period between W. B. Yeats (b. 1865) and J. R. Jiménez (b. 1881), not a single person was born for whom the Nobel Prize was awarded explicitly for poetry! It turns out, that to become a famous poet one should carefully choose one's period of birth [Petrov].

In *The Phoenix Clock*, the comparative analysis of the poetry of 17 Nobel laureates in Literature revealed that in addition to quantitative differences, the spirit of the messages of the Phoenix-born generation was unique. Metaphorically, they were the guiding spirits of the coming Phoenix Year. As a group, these poets were obsessively



dealing with the meanings of life, death and rebirth, thus reminding us of the mythological Phoenix bird.

Additional statistical observation shows the uneven distribution between the elements in which the Nobel recipients in Literature were born. There were 111 laureates with a confirmed element of birth; 38 – more than one third of them – were born in the Air element. Figure 3 shows that they were twice as numerous as the Earth-born recipients. This difference is quite logical. Although poetic visions are often considered as manifestation of emotional or subconscious levels, writers or poets are necessarily involved in the process of finding the right words for their experiences. This is an intellectual process, one which traditionally matches the Air element.



Symbolically, the largest number of the recipients in Literature (15) were born in the Airy Sign of Libra – the birth Sign of Alfred Nobel, followed by Gemini (14) – the Airy Sign in which the current Pluto-Neptune conjunction took place in 1891. It means that 26 % of all the recipients in Literature were born in these two Signs.

40 of the 111 Nobel laureates in Literature with known dates of birth and 21 of 34 Nobel recipients in poetry have well-known celestial twins whose birth data are reasonably reliable. Most of them were known for their literary activities. To take two examples, one of Thomas Stearns Eliot's {NL, Air} celestial twins, James Frank Dobie, was a well-known American folklorist, writer, and newspaper columnist. Like Eliot, he was born in the USA, but spent many years in England teaching in Cambridge.

In the second case, one of Alexandre's {NL, Earth} celestial twins was the founder of the British documentary-film movement, John Grierson. In addition to his career as a producer, he was a sharp and brilliant critic. He is remembered for his poetic vision of reality, for coining the term "documentary film" and for his reviews, which have outlived his first films [Ellis].

It is beyond the scope of this paper even to list the names of all the celebrated celestial twins, let alone to depict their innumerable parallels. In the following sections we shall meet a few pairs, yet here I'd like to sketch just four typical cases in which celestial twins had vague presentiments about their precise contemporaries.

In Saramago's novel *The Double*, the main character's doppelganger was a film actor. In reality, it was Saramago himself who had at least two well-known celestial twins – Janusz Morgenstern and Oleg Nikolayevsky – both, indeed, were film actors, directors and script-writers. It is highly improbable that Saramago was aware of their existence, and it is not even certain whether he ever wanted to be a script writer. Nevertheless, *The Double* became a basis for a 2013 film adaptation, making Saramago a contributor to the film industry. As to the significance of this contribution, let us quote Saramago himself: "We are all more or less public figures, it's only the number of spectators that varies" [177].

The second case is connected with Orhan Pamuk {NL, Air}, who related in his novel *The Black Book* a mystical love story about two celestial twins, a girl and a boy, Hüsn and Ask. In reality, Pamuk has a famous female celestial twin in Russia. Known by her pen-name as Darya Dontsova, she has held, for many years, the first place in Russia among adult fiction authors for the total annual circulation of her books.

The third case presents two poets who felt an urgent need to talk to someone able to understand their innermost thoughts. Pär Lagerkvist {NL, Air} described this state of mind in his "Evening Land": "My friend is a stranger, someone I do not know. / A stranger far far away. / For his sake my heart is full of disquiet / because he is not with me" [119].

Indeed, there was a gifted German poet, Johannes R. Becher, whose poetic visions were coherent with Lagerkvist's. Both celestial twins wrote poems, novels, prose, drama and essays. Both travelled frequently in Europe in their youth, lived for a while in Paris and supported radical modernist views. Belonging to the same Phoenix-born generation, which had to survive the two world wars, revolutions and famine, they, to quote Lagerkvist, were, in spite all the fears, "wandering safely across the abyss on a bridge of stars" [81]. Both poets were true to their Air element: whereas Lagerkvist wrote about "the emptiness of space, a space without morning and evening" [57], Becher in his poem "If I Roared" spoke of: "My sphere timeless and made pure again." Both poets gained international recognition: Lagerkvist received the Nobel Prize in 1951; Becher received the International Stalin Prize in Moscow in 1953.

The fourth story is also connected with two Air-born poets from different countries. Marina Tsvetaeva, who is considered among the greatest Russian poets in the twentieth century, was known for her great sense of words. She believed that "if there is a Judgment Day of the word, at that I am guiltless" [xviii]. In her "Poem of the End," pondering on the meaning of word "separating," she unexpectedly exclaimed: "Wait! Is it even correct in Serbian or Croatian?" [88]. Amazingly, her celestial twin, Ivo Andric {NL, Air}, indeed wrote in the Serbo-Croatian language! Seemingly separated by countries, both poets were united by their love to words. Both lived in countries devastated by hatred, revolutions and wars, both were struggling with despair and acute awareness of the fragility of life. Their comparative biography is

worth a separate paper, yet here we may confine our attention to the prevailing moods of their poetry. Andric wrote: "whatever I touch brings pain" [52]; Tsvetaeva echoed: "My spirit is one uninterrupted wound" [66]. Sometimes their pain was unbearable. In such moments Andric was "Seeking and praising only / Death" [64]. Tsvetaeva could not resist those thoughts. She decided: "to your mad world there is / one answer: to refuse!" [50]. In the end she preferred suicide.

In general, as in the cases described, most celestial twins were playing similar roles in their respective countries; their interests and moods were parallel, but there were differences in the intensity of their expressions.

From statistical hints we should proceed to the journey in different epochs. The following sections are written as a kaleidoscope of the facts or quotes from the lives and poems of the Nobel laureates; together they illustrate the role of the four elements, different Phoenix phases and Theta-factors in our creativity. I'd like to begin this journey with a short story, told by a grandson of Archibald Hill {NL, Air} about his grandfather. The story can be seen in the context of this time-study as a parable.

### **A Story of One Eclipse**

Born in 1886, during the same Phoenix Hour, when Alfred Nobel conceived his idea of the international prize, the British physiologist Archibald Vivian Hill {NL, Air} belonged to the Phoenix-born generation. Like Alfred Nobel, he was born in Libra, and like the majority of the Nobel laureates, he belonged to the Air element. A true representative of his generation, he is praised for his novelty and remembered as one of the founders of the diverse disciplines of biophysics and operations research. Nevertheless, here we shall not consider his works in physiology, but rather his pondering about times and eclipses.

Hill's grandson, Nicholas Humphrey, an esteemed scientist himself, shared this story in his essay "A Family Affair." Nicholas remembered his grandfather as a reasonable person who avoided all metaphysical issues. However, one day the venerated scientist in Hill suddenly was replaced by a lyricist and a mystic, and in this mood he shared with Nicholas one of the strongest impressions from the days of his adolescence.

It happened during Hill's school holidays, as he went to a forest to shoot rabbits. Unexpectedly for him, around midday he saw a developing solar eclipse. He was fascinated by the images of the sun being slowly swallowed by the shadow of the moon, but he did not have smoked glasses to safely watch the eclipse. Being an inventive boy, Hill quickly smeared the glass from his pocket watch with the blood of a rabbit he had just shot.

Many years later he tried to recollect the exact date of his first scientific venture. Usually it is an impossible task, because in the absence of the corresponding documentation, our memories cannot reconstruct the exact dates in the flow of events

and impressions. Yet in this case it was different. Due to the eclipse, Hill could verify in an astronomical almanac the precise moment of his birth as a scientist: May 28, 1900, 2:30 p.m. Thinking back, he concluded that there was a lesson to learn from the coincidences of the celestial phenomenon of an eclipse and the mundane event in his life:

"The sun, moon, and stars have one kind of destiny. Their times and courses are fixed by well-known laws. Newton could have predicted hundreds of years earlier exactly what would be seen at that place and time. But rabbits and boys – yes, and frogs, too – have another kind of destiny. It seems that we know neither the day nor the hour wherein fateful things will happen. What laws, if any, apply to human behavior?" [Humphrey 5].

This idea came to Hill due to sudden coming together of the spotted short lived events (holiday trip and rabbit hunting) and the regular celestial eclipse. Usually such dramatic effects, created by linking recognizable celestial phenomena with certain narrative elements, are met in poetry. We find it, for example, in the poem "Les chaînes" of the first Nobel laureate in Literature, Sully Prudomme: "*Un trait d'or frémissant joint mon cœur au soleil, / Et de longs fils soyeux l'unissent aux étoiles.*" (I'm chained to the sun with a chain of golden rays, / And the stars are connected, like threads, with the soul.) It is not surprising also to find Nelly Sachs' {NL, Fire} metaphorical title "Eclipse of the Stars," but why do we find a poetic logic in scientifically-oriented Hill?

Although Hill's talents did not manifest themselves explicitly in poetry, this event implies that there was a dormant poet inside his psyche. Indeed, to quote *The Phoenix Clock*, the poetic mood was all-embracing among the Phoenix-born generation. Furthermore, there was an interesting coincidence: Hill's Japanese celestial twin, Chikashi Koizumi, was one of the leading tanka poets.

The ECT stresses isomorphism in the narratives of the celestial twins' life stories, but within this common epochal structure it leaves plenty of room for individual choices, for variety and deviation. The celestial twins are different in the motivations to realize their inborn potential. In case of many-sided individuals, they can flourish making different choices and not being limited to a single vocation. However, although at first glance these differences might appear considerable, from a chronological distance they might be seen as different variations of the same major leitmotif, united by the same basic themes.

In Hill's individual timescale, the Sun and the Moon were employed by him as moving clock hands, indicating the most meaningful moment in his adolescence. In the historical time scale, the role of the floating signifiers is played by Pluto and Neptune.

## The Poetry of the Epicurean Era

– *Nothing happens? Or has everything happened,  
and are we standing now, quietly, in the new life?*

Juan Ramon Jiménez {NL, Water}

The earliest Nobel laureates in poetry belonged to the concluding phase of the Phoenix Year. This period is associated either with the golden sunset or with nocturnal darkness. Culturally, it is the time of harvest, which brings either classical perfection or shameful demise.

At the opening period of this phase everything looked still bright. The earliest poet of this generation, Frédéric Mistral {NL, Earth, b. 1830} would have preferred to see all people united, peaceful and contented. For him, all his works were "harvested from the soil" [163]. His songs hailed "the ripening wheat / And the big drink and the joyful harvest" [114]. He exclaimed: "We are the singers of the land!" [159]; "We sing only for you, shepherds and people of the farms" [132].

The Fire-born poets of this phase hoped that the classic period would continue forever. Bjørnstjerne Bjørnson {NL, Fire, b. 1832} believed that "Our future sure foreknown." For him: "It came like ancient story / Or long-lost song's refrain; / What crowned our past with glory/ It made our present gain."

Giosuè Carducci {NL, Fire, b. 1835} observed serenely, "As therein sinks the sun with smiling gladness." He enjoyed the sunset, being sure that "The nightingales will sing the livelong night."

And if there had been a slightest suspicion that something was not so rosy as it should be, Carducci believed that it is possible to ask for forgiveness: "The people's longing eyes cast upward / And the tumult of the sword suspended."

These poets could not imagine that soon much of their dreams and concerns would be all but meaningless. The idea to continue functioning in a more or less uniform mode became untenable for the poets of the second 16-year period of the seventh phase. They often saw the future as a pervasive darkness. Perhaps this darkness signified the end of the life-cycle of the dominant paradigm of the Phoenix Year concurrent with their lives.

Sully Prudhomme {NL, Water, b. 1839} depicted this situation in his famous poem "The Broken Vase." Symbolically, it described the major tendencies of the end of the Epicurean era, saying in touching words that the seeming beauty of the outer world (the vase) is an illusion, because from inside it is already cracked and unable to hold its life (the water) any longer:

Thought to the world our life seems whole,  
The hidden wound is unforgot;  
It grows and weeps within the soul:  
the heart is broken – touch it not. [Giese, 294]

In his other famous poem, addressed to future poets ("Aux poètes futures") he admitted painfully that his generation is unable to produce really great poets – they belong to the future. Nevertheless, Prudhomme did not seek innovations, but rather classical standards of elegance in verse.

The major tendencies of the third 16-year period are vividly depicted by Verner von Heidenstam {NL, Water, b. 1859}, Rabindranath Tagore {NL, Earth, b. 1861} and William Butler Yeats {NL, Air, b. 1865}. They spoke about the same issues of downfall, but each of them was choosing metaphors of their primary elements. The earthy Tagore wrote about preparing his instruments:

The song I came to sing  
remains unsung to this day.  
I have spent my days in stringing  
and in unstringing my instrument.  
The time has not come true,  
the words have not been rightly set;  
only there is the agony  
of wishing in my heart. . .

The watery Heidenstam wrote about "twixt sorrow and joy," about "secret chambers" of our hearts. Looking always inwards, he turned to prayers invoking in his readers the feelings of repentance:

I ask not years when the sun shines bright,  
Nor for golden crops I importune.  
Kind Fate, let the blazing thunderbolt smite  
My people with years of misfortune!

The airy W. B. Yeats found solace in the idea of the receding wave:

Though the great song return no more  
There's keen delight in what we have:  
The rattle of pebbles on the shore  
Under the receding wave.

The very last generation of the passing Phoenix Year was the most pessimistic. Its only prize winner in poetry was Jiménez {NL, Earth, b. 1881}, who bemoaned that "The garden is deserted" [3]. In his "Nocturne" he lamented: "Blackness of day in my country – / Blackness!" [38]. Yet, perhaps, Jiménez's greatest pain was caused by losing his connection with the heavenly spheres: "...It seems that the stars / Speak to me with pity / But are so far away / I cannot understand their words – " [4].

"All is left behind," – sighted Jiménez. Indeed, the major paradigms of the current Phoenix Year came to their fulfillment. The generations of the Epicurean era were at

their best making references to their predecessors, combining all the past styles and blending them into a complex concluding symphony of the entire Phoenix Year. Jiménez wrote in 1935 about his generation: "They were closing the doors / Against the tempest" [131].

Symbolically, two lines in Jiménez's poem "Evening" seem to be addressed directly to St-John Perse {NL, Air, b. 1887} – the second Nobel laureate poet born in this 16-year period, but the first laureate, opening the zero phase of the new Phoenix Year: "To you whom I never reached, even though I hurried – / How sad the space between us!" [81].

Thinking back to the beginning of that Phoenix Year, one might see in the long run that in spite all the differences in moods and styles, the major paradigm remained consistent throughout all the phases [Levin 2014]. Yet on the dawn of the Phoenix Hour it was its turn to leave the scene for a new paradigm, a new tune. The rhythms and music, imagery and contents, intensity and impact of the Phoenix-born poets were unique. To be heard, their tones required basically a different kind of ears. There was an unbridgeable leap, a kind of cessation of the historical flow between the end of the Epicurean era and the beginning of the new Phoenix Year. Prior to entering its Pythagorean era, let us mention a story of celestial twinship related to the heroes of this section.

As the first-ever Nobel recipient in poetry, Sully Prudhomme {NL, Water} became a symbolic figure of his era. He was a person with many interests, and known for his Epicurean philosophy. During the course of his life he studied engineering and worked in a solicitor's office. In his later years he wrote essays on aesthetics and metaphysical works.

"Real Poetry is Real Personality," – wrote John Butler Yeats, who was the father of W. B. Yeats {NL, Air} and Prudhomme's celestial twin. Like Prudhomme, he had a powerful intellect and was a modest and many-sided person, who began his career as a barrister. However, being an intense conversationalist, artist and philosopher, he argued for the supremacy of art over the mundane. Mostly known as an artist, J. B. Yeats was also a witty writer of stories and one of the most engaging correspondents of his time. His brilliant letters to his famous children and friends became a source of inspiration to many writers and artists. The selection of his letters made by Ezra Pound received glowing reviews from the future Nobel recipient T. S. Eliot [Murphy 348]. From J. B. Yeats's letters and memoirs we also learn about his Epicurean philosophy ("Live, have it out with fortune, don't spare yourself") and about his deep frustration, formulated in a poetic metaphor written to his brother about the Yeats family: "they are doomed to be like water spilled on the ground" [Murphy 364]. Significantly, this watery image echoes Prudhomme's "The Broken Vase": "The clear water leaked out drop by drop. / The flowers' sap was exhausted. / Still no one suspected anything. / Don't touch! It's broken."

Strikingly, both celestial twins were connected with the Nobel prizes, but in complementary ways. One of the finest French poets, Prudhomme was awarded his prize mainly due to his first collection, *Stances et Poèmes* published in 1865. For J. B. Yeats, 1865 was the year of the birth of his eldest son and one of the finest Irish poets, W. B. Yeats {NL, Air}.

In 1919, at the end of his days, J. B. Yeats wrote: "What a loss the Irish bar had when I turned artist. Still, had I remained a barrister and become a judge, there would have been no famous poet..." [Murphy 364].

### **The Poetry of the Phoenix Hour**

*We used to be people. We're epochs.*

Boris Pasternak {NL, Air]

History saves its major turning points for the right timings and makes these rare peaks short and countable. Those who are lucky to witness one of these pivotal moments become thereafter a mythological generation. The poetry of such generations is proportional to the enormity of the mythos they are entitled to create and to the size of the happenings they are involved in. Such periods of peril and rebirth are subsequently remembered for their fervent creativity. The poets of a Phoenix-born generation feel themselves messengers of the unavoidable shifts in the collective consciousness and well-being. They change together with their audience, while their poetry tends to reflect these profound simultaneous metamorphoses. To quote Nelly Sachs {NL, Fire, b. 1891}: "I hold instead of a homeland / the metamorphoses of the world – " [103].

An additional important facet of metamorphoses is associated with the issues of life and death. For example, in his novel *The Eternal Smile* written in 1920, Pär Lagerkvist {NL, Air, b. 1891} described a group of dead people sitting and talking somewhere in the darkness. As thousands of years pass they finally rise up demanding from God to tell them the truth.

Historically, the metamorphoses, which take place during a Phoenix Hour, have the greatest and most lasting impacts on the society. Metaphorically, this impact can be described in words of Lagerkvist {NL, Air, b. 1891}: "The spear has been cast and will never fly back. / ... The spear is cast forth for ever and ever" [129].

One of those who were born to cast the spear into the future was St-John Perse {NL, Air, b. 1887}. Born on the threshold of a new Phoenix Year, he became, according to Eugenio Montale {NL, Air, b. 1896} "the new Columbus of French Poetry" [192]. St-John Perse himself believed that the advent of a new passionate generation, ready to conquer the new continents of space and time, had nothing to do with the land where the members of that generation were born. Indeed, the growing interest in hitherto unknown entirely original ideas and inventions became in his generation a universal phenomenon. For comparison, in Greece, Giorgos Seferis {NL, Water, b. 1900] was at



once acclaimed as "the poet of the future," and in Russia, Mayakovsky called Velimir Khlebnikov (b. 1885) "a Columbus of the new poetic continents."

As if answering Jiménez, who complained about the inability to fill the void between the new and old eras, St-John Perse, in his poem "Winds," described his own frustration of being "close-lipped" among those who belonged to the generations of the passing era: "We had a rendezvous with the end of an age / Do we find ourselves with men of another age?" [341]. Complaining on his timing to live among the people of the "passing Year," he waited for "the greeting of things to be reborn on the rubble of wing-sheaths and of shells" [355].

St-John Perse was extremely sensitive to the shortness of duration of the Phoenix Hour. Several times he repeated the refrain: "And you had so little time to be born to this instant..." [351]. This acute sensitivity to times and durations was shared by other talented Phoenix-born people. For example, in 1931 a Russian-American linguist and literary theorist Roman Jakobson (who was also a celestial twin of Eugenio Montale {NL, Air}!) was shocked by the abnormalities of his generation. In his essay "On a Generation That Squandered Its Poets," he described the horrible despair of this generation whose poets found themselves in front of a dark abyss. Feeling unable to cross it, some of them either were killed, like Nikolay Gumilyov, or committed suicide, like Sergei Yesenin and Vladimir Mayakovsky. Lamenting their loss, Jakobson wrote:

"It is our generation that has suffered the loss. Roughly, those of us who are now between thirty and forty-five years old. Those who, already fully matured, entered into the years of the Revolution not as unmolded clay but still not hardened, still capable of adapting to experience and change, still capable of taking a dynamic rather than a static view of our lives" [274].

Jakobson estimated that to belong to this special generation one had to be born between 1886 and 1901. This interval matches well the Pluto-Neptune conjunction and the Phoenix Clock model. Furthermore, Jakobson's article is additional evidence of both the poetic and prophetic inclinations of his generation. On one hand, in 1931 Jakobson foresaw that such deaths would not stop, but would continue to come after his Lost generation. The list of victimized poets, indeed, was growing; to mention but a few: Osip Mandelstam and Marina Tsvetaeva in Russia, Ernest Hemingway {NL, Water} and Hart Crane in the USA, Federico Garcia Lorca in Spain. One could blame wars or the times for those killings and suicides. However, Jakobson, which had never been regarded as a poet, in the epigraph to this article preferred to express his thoughts poetically: "Killed – / Little matter / Whether I or he / Killed them."

Witnessing great transformations, the Phoenix-born poets nevertheless described them differently, preferring the images of their major elements. The airy St-John Perse created a windy image of the transformation: "These were very great winds over the land of me – very great winds at work among us" [353]. This tempest, which was

frightening for Jiménez's generation, was refreshing for the Phoenix-born youngsters, leading them as "new men, to our new ways" [353]. A very similar experience was depicted by Boris Pasternak {NL, Air, b. 1890}, who thought that his generation would "whirl, a tornado of crows, / And be off! But you'll not understand / Till late."

Whereas the Air-born Lagerquist, St-John Perse or Pasternak talked about storms, whirls and winds, Nelly Sachs {NL, Fire, b. 1891} described the indescribable course of the life of her generation as: "Ashes that turned black / or was it a ray of sun?" [79]. In "Fervent Woman" Gabriela Mistral {NL, Fire, b. 1889} also described metamorphoses in fierce images: "I know ways to make a nest of coals / gathering goslings from the ashes" [129].

The Earth-born Aleixandre {NL, Earth, b. 1898} wrote: "An emptiness of God I felt upon my flesh .../ and I kissed only the earth, the dark, solitary, / despairing earth which gave me refuge" [233]. In his poem "Like Moses on top of the mountain" he described metamorphoses by a metaphor of sweeping "the old road dust from his face" [253].

For Water-born Giorgos Seferis {NL, Water, b. 1900}, even the memories will disappear after such a deluge and transformation: "nothing would be left to us, neither the woman drinking sleep at our side / nor the memory that we were once men."

It was common for all the Phoenix-born generation to think that their life was, quoting Nelly Sachs {NL, Fire, b. 1891}, "Like a knife between life and death" [79]. Yet though they "had so little time to be born to this instant," the number of poets born in this "instant" was disproportional to the number born during the other phases. The poetic surge was sweeping all the planet and nations. The authors of this period whose works were translated into English are just a tip of the iceberg, most of which remains in darkness. In *The Phoenix Clock* I wrote about the Phoenix-born poets who came to develop the international language of Esperanto. Here I'd like to mention one of Nelly Sachs' (1891-1970) celestial twins, a Bashkir poet, known by his pen-name as Harif Humer (1891-1974), who was celebrated for his poetic ability to depict the harsh destiny of his people.

In contrast to the short Phoenix Hour, the next phase lasts about 140 years, and perhaps its major poets are still waiting to be born.

### **The Poetry of the Pythagorean Era**

*Forgive me, distant wars, for bringing flowers home.*

Wisława Szymborska {NL, Water, b. 1923}

The first phase of childhood is loosely limited by the spotted periods when the angle between Pluto and Neptune is 60° plus or minus 10°. People born during this phase usually make up a generation of followers and successors. Although in general they diverge from the ideals of their predecessors, they tend to explore the same basic themes.

On a personal note, it is important for me to pay a tribute to one of the spokesmen of this phase, Joseph Brodsky {NL, Air, b. 1940}, to whom I owe the idea of the Phoenix Year. This idea was born when the composer Yuri Edelstein brought to my attention Brodsky's late poem "View from the Hill" (1992). Inspired by Pyotr Vail's insightful interviews with Brodsky, Edelstein suggested that it was no coincidence that the prominent Russian poets of the Silver Age (Akhmatova, Pasternak, Tsvetaeva and Mandelstam) had many parallels with the greatest ancient Latin poets – Virgil, Horace, Ovid and Catullus. This observation together with the corresponding astronomical regularities allowed me to construct a cultural calendar reflecting "seasonal" changes in human societies [Levin 2013; 2016; 2017].

From this standpoint, Brodsky positioned himself as an "echo of the milestones," an echo of the great Golden or Silver ages of poetry. This approach is typical for the poetry of this phase, permeated with the feelings of continuity. The children of the new Phoenix Year were in search of their roots. We find these themes in Czesław Miłosz's {NL, Water, b. 1911} poem "Encounter," where he seeks his roots "not out of sorrow, but in wonder." We find these themes also in the poetry of Miłosz's celestial twin, an American poet Hannah Kahn, who expressed in her poem "Heritage" her longing for the past and her belief that "I am a part of long ago."

In *The Phoenix Clock* it was shown that the search of new dimensions in times was very important for the current Phoenix Year. For example, for Octavio Paz {NL, Fire, b. 1914} the poet's mission was to serve as a pulse in the temples of history. Treating time in his essays and poems in a truly philosophic way, he hardly could know that his celestial twin, an Israeli philosopher Nathan Rotenstreich was developing similar ideas in his monograph *Time and Meaning in History*.

The first phase will continue its course. It is for the future scholars to decide whether first-phase poets remained faithful to the ideas of the Phoenix generation, but an immediate feeling is that they are exploring the same paradigms as their celebrated predecessors.

## Conclusions

*In my end is my beginning.*

T. S. Eliot {NL, Air}

The Phoenix-born poet T. S. Eliot {NL, Air} poetically expressed his experience of the long-term cycles. In the end, I hope that this paper will become a basis for new and more evolved studies of time.

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