ITEMS OF AN INTERDISCIPLINARY CONTEXT

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Abstract: The essence of this study is the acquaintance of an array of knowledge, the Analytical Psychology, with an encompassing of certain assets of modern Physics, to undertake a cultural construction surveyed at the same time, possibly, by glimpses of metaphysical insights.

Keywords: complementarity, arch types, inherited memory

The Analytical Psychology is one of the highest scientific of the 20th Century, its consistent profoundness is based on observation and experiences, wearing also a noble and rich coat of erudition. The sensible operation of exploring the human mind, at first glance untouchable, revealed itself as a mystery if not an abyss that step by step, by its analytical approaches, uncovered evidences, entailing fascinating extensions towards other sciences as well as towards the brilliancy of metaphysics, mythology, alchemy, even astrology, thus bringing into light a knowledge with multiple sides. The huge amount of C.G.Jung's findings is the product of a lifetime research with strata and drawers that once revealed they managed to open a keyboard of evidences capable to fascinate any reader interested on how the universe of the human mind works, in connection with amazing universal portals. There are five main highlights building the articulation of this study :

- the subtle link between Analytical Psychology and modern Physics encoded in a famous phrase of C.G.Jung mentioned in *Letters* (1947) when defining the subconscious as the *smallest space with maximum of mass and gravity*

- with the *complementarity* framework support in terms of N.Bohr and taken from the Copenhagen Interpretation (the twenties of the 20th Century) the idea of complementarity being held and paralleled with the analogical root method of observation and approach of this study, located in a larger philosophical encoding. In fact, apparently two exclusive conceptual frameworks, the Analytical Psychology and modern Physics build a correspondent conjugate description, under a broader understanding of philosophical nature, as well as in a narrower insight, in respect of behavior of sub-atomic particles, as things happened throughout the collaboration between C.G.Jung and W.Pauli, gathered in the famous *Atom and Arch type* The Pauli/Jung Letters, 1932-1958, where atom and arch type intertwines as structure – atom with nucleus surrounded by particles/ consciousness with its double extensive unconscious individual and collective. The two scholars comprehension deals, therefore, with a sub-atomic balance in a stream of the perfect balance of the Universe. We include in this study the general outlook of the complementarity principle, with a focus on its broader epistemological character, defined by Bohr himself and described by Tom Mc.Farlane, B.S. in Physics, Stanford University as it follows : *Niels Bohr's principle of Complementarity is a cornerstone of the Copenhagen Interpretation of quantum mechanics.*[…] *Bohr viewed complementary as a general epistemological principle. Although it originated as a way of understanding the use of incompatible classical concepts, and incompatible experimental arrangements for measuring conjugate dynamical variables in quantum theory, it was much more general than that. For example, Bohr viewed complementarity as applicable in biology,* […] *also experiences of thoughts and emotions as complementary, in the sense that thinking about or analyzing emotions, could be typically incompatible with the direct experience of them.* (https:// www.quora.com/What-is-the-complementarity-principle) As incompatible as

it could apparently appear, the Abyssal Psychology showed consciousness and individual/collective unconscious mirror each other, as things happen also in Q.M. mechanics framework which represent, on the other hand, a more precisely experimental side of the *Copenhagen Interpretation*, belonging to Heisenberg

- with a grid of interpretation support in General Relativity terms,

- mention of a former exegete, Marie Louise von Franz, in *Man and his Symbols* (1964) that of two cardinal domains sub-stretching in a synthesis – Abyssal Psychology and modern Physics – subsequently to the foundation established by the collaboration between C.G.Jung and W.Pauli. We also know M.L. von Franz dedicated long time to understand the reality of this duality of the Psyche, one internal the second external, the latter acting independent of the rationality consciousness stratum. She points a proto-layer of creativity is endowed with impulses conducive to rational discoveries, in Mathematics, Chemistry etc., with a starting point in the twilight zone of timeless arch types, for example. An archiving of data with a common thread of communication with certain remote sensors located in both celestial mechanics and in the human unconscious is the basic theme of the human mind abyssal insight, therefore in psychological, philosophical, cosmological terms, the episteme of a complementarity becomes an explanation of it. It is the adventure of a journey of the most sensible matter as energy capable to travel throughout the universal space time, based on a double inside where the quintessential pattern is queenly crystalized in the celestial ancestry, equally. One can notice the energy of this sensible matter, more precisely its second function of the superior organized matter, shows his double space time how to bend in so far as to receive from it, richness display of information. Immersive information being, in fact, the resonance box of a dilated time, an inherited memory shared with its double from a celestial energy whose commonality is one and the same mirror. The initial conceived nature of the human mind thus appears tuned with its celestial ancestral roots. This reality of a psyche acting independently of the awakened consciousness is the adventure of a journey, of the most sensible matter throughout the celestial matter in full brilliancy and transparence of the cosmic time.

- An emblematic element of convergence and a challenge also, in lineage of an inherited memory, is the vision and experiences of scholars Robert M. Schoch from Boston University and Robert Bauval who brought both geological/ historical, and anthropological accounts about the construction of the Sphinx of Giza by a pre - Pharaonic civilization, subsequently re-carved during the Old Kingdom of Egypt. The seismic studies, natural water weathering and particularly the perfect alignment with Orion and Leo constellations of this possibly greatest antique symbolic legacy – the Sphinx of Giza – turn the tables of generally accepted assets, though bringing their game ball, under an interdisciplinary encompassing. We put this encompassing in connection with the above mentioned and stunning convergence of the ancestors human mind modeled by the energy of a timeless cosmic imprint in connection, therefore, with modern Abyssal Psychology. It is an endeavor to answer not only when but particularly why such iconic alignment between earth and Universe was undertaken by the pre-historic mankind - the presentation of the book *Origins of the Sphinx* : *Celestial of Pre-Pharaonic Civilization* mentions. Professor R. Schoch points and documented Neanderthals besides the fact they were strong, very skillful and adapted, had also holistic medicine, most strikingly, they had artistic, religious impulses and the sense of ceremonies based on a profound assumption of a *dream spirituality.* Therefore they had those memorized rituals that we consider were taken over by successors not only in practice but also as contribution to the *collective unconscious memory formation*, - this study points. The Bauval Orion and Leo constellation alignment with the Egyptian Sphinx is integrated by professor R.Schoch in a larger array of ancient spirituality paralleled with the Carpathian megaliths, particularly the Carpathian Sphinx oriented in a *double* side, one towards the West, the other

generated from the same block towards the North, encoding a perfect line with the sunset. This area is seen by R. Schoch a perfect stage for ceremonies and rituals in convergence with the Sacred embodied in the basic elements of nature, a focal point for gathering of different pre-historic populations pinpointing a taking over of composite terrestrial and heavenly energies thus contouring not only a kind of communication fields between these energies, but a transmission to the successors of the deep feeling of the Sacred in commonality with cosmic energies. One can consider a complementarity that could be seen as proto- layer of the ancestral memory of the collective unconscious birth in an electromagnetic space time field. The Neanderthals dream spirituality and the worship of the basic elements of nature, in the ritualistic place of the Carpathians, is probably the Golden Age of the ancestral Logos and of a lost culturally thread, though the memorized spiritual and even dreamt message imprinted in the timeless collective unconscious was conveyed and stuck into the core of the individual, like a seal. It could be a derivative of the Neanderthals dream spirituality that still lasts in the energetic memory of the moderns, considering also, on the other hand, the evidence of biological nature - moderns still bear in high percent the common genome with the Neanderthals. The primordial artistic and religious impulses sealed equally in the upper layer of the universal unconscious and transmitted into the Universal depths from the places governed by the divine hand of nature like the geological phenomena previously presented, aftermath carved by the hand of man – we have seen, studied by R. Schoch, a scholar in Geology as well as in Ancient and Pre-historic cultures, could have been hypothetically read and deciphered by the Intelligent Design, kept in a timeless Chronicle, an universal book like, patterned in full purity and sent back to those individuals capable to capture them under the shape of certain solar creative arch types. The Sphinx and the megaliths of the Carpathians – we have to remember on the other hand the sculpture called *the Thinker of Hamangia* found during archaeological excavations in the proximity of the Black Sea, the Cucuteni ceramics both dating back 10,000 years or more with their iconic symbolical legacy for this area of ancient civilizations - are analyzed and hermeneutically explained by professor R.Schoch and researcher Oana Ghiocel in a documentary realized in the Carpathians *The Mystery of the Carpathian Sphinx* https://www.youtube.com/watch?V=agBK5jmV2SY. The more time goes by, the higher level of consistency the collective unconscious acquire, bearing the ancestors inherited memory. *Il faut tirer l'homme de l'argile* – André Malraux said pointing one goal of the human condition of the 20th Century, in a desacralized world, a goal that to a primordial extent the Neanderthals had already achieved.

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In the following book, on the other hand, there is an integrative chain directed onward both ancestral and modern roots of metaphysics, sometimes with the support of certain philosophical assets, in the attempt to shed also light of an articulation between ancestral endowments of thought and their messages to modernity.

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This is a fragment of a cultural construct put firstly under doubt, though the foundation of which and its possible solution was fitful, as seen, on the *complementarity* concept borrowed from modern Physics. The main assignment is a Psychophysics area contour based on ancestral memory inherited and located in everyone's hidden strata of the unconscious, though bearing a projection in the celestial mechanics, as space time – that we consider a phenomenon blooming in an analogical root. The method of advancing in research even, the analogical root above mentioned, appears related to the phenomenon itself, for both empirical assets and for those of metaphysical nature, meant to be taken into account, also. More clearly, this will appear to a larger extent in the book whereas in this study a focus is on the idea the scientific hardware of certainty and well contoured evidences intermediate the

scientific software of hypothesis and non-reductionist towering features, in the evolving of the second half of 19th Century and later - the approach having the same respect for both with an accent on the restoration of creativity, taking advantage from the Relativity, the Gauss multidimensional and curved geometries brought in modern Physics, fields also. The complementarities of fields in N.Bohr's vision, indeterminism in probabilistic causation of complex systems, pointed an open gate for what W. Pauli named the interior origin of the scientific concepts, and was a keyboard in building a vision. If accepted the idea of a proto-layer of certain pre –conscious contents subsequently blooming in full rationality but based on a complementarity grid, a concept belonging to modern Physics of Copenhagen interpretation, W.Pauli and C.G.Jung's envisagement of a common sub- stretching of these two crowning achievements of 20th Century science intertwined and made the object of other interdisciplinary researches. This assignment is also in connection with a placement of the generic memory in the space time energy of the celestial mechanics under the pattern of existence of some hidden connection between stars and planets that does not let aside mankind. The main idea focuses round the quintessential concept of Jung *mind and matter*, encapsulated in its full breath expression as a circle, the *Mandala*, the highest arch type, that in this work vision, could be projected in correspondingly a rotating ring mathematical object, but rather in a geometrical pyramid whose items are energy, space-time, in connection and at arch type level with *the smallest space with maximum of mass and gravity* (C.G.Jung, *Letters*, 1947). . This idea mainly appeared in a previous study entitled *Composite Monads, too*. Mathematical calculus for the phenomenon interpretation were held for cultural constructs with an accent on their qualitative status of a fitful role for a kaleidoscopic outlook on a peculiar iconic asset of the *psyche* as maximum of mass and gravity in the smallest space, in fact, an attempt to plant the flag of encompassing modern Physics and Abyssal Psychology in an as extent as possible common array called the *zone* or the *neighborhood area*. Here is a continuation, an attempt to observe and establish some interferences of the complex profound phenomena of life in their analogical roots with other scientific description, as we have seen in the paragraph dealing with the Sphinx. On the other hand, to bring a key of how the human mind works in connection with astral portals at arch type level is to observe how, in Jung's vision, unconscious of the mind parallels with its double of collective unconscious in a process where remote and unattainable realms of the memory become attainable through the articulation of mind and celestial matter. A dream like metamorphosis allows the finding of the profound energetic imprint, the inner core of the soul, without social deterministic shells, in a timeless process called *synchronicity*. There is a connection between the profound layer of an inherited memory, contoured as collective unconscious, instilled with wealthy of historical and mythological contents alongside with immemorial patterns of behavior, the arch types -, and the capability of the brain space to travel in the capsule of a three dimensional time, which take shape both as a cultural concept and also as a space-time embodiment epitomized in a scientific phenomenon. It is a comprehension highlighting a metaphysics of a profane (Blaga,1922), this concept being extensively presented in the future book. Considering the metaphysics of a profane in a sense of an ultimate estate of Physics and, on the other hand, certain items of two sciences in a synthesis, we took from this angle also, the main concern of the research that of an under stretching of Psychology of Analytics towards modern Physics as one unified domain. Picking up and lining clear cut edges of evidence wasn't the first aim of approach, but on the contrary, a thread of slowly observing and surveying possible and probable evidences out of twilight zones of the doubt appeared more handful. A pre-feeling that the doubt can hide a more profound knowledge followed almost every conjecture up to a climax beyond which the author could dare to embrace and run with his main idea, turned from uncertainty to a sort of a punch line, dispatched from jacking a mode of probabilities to jacking a mode of discovery.

Pinpointing a way from noetic phenomena to scientific of celestial is, without saying, a hard assumption that seems to pass through the larger area of metaphysics, in the sense of the above mentioned ultimate estate of modern physics. Apparently a mind blow, the answer in the vision of the book also, consists in bringing at the same table science and psychology with a philosophical encompassing, under the sign that others tried their hand in the same direction.

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A. Einstein made the prediction of the gravitational waves, Jung and W.Pauli pioneered, intertwining and thus applying N.Bohr's principle of the complementarity, the idea of a common area of Psycho Physics, bridging the atom functioning to the arch type one. They all foreshadowed nowadays Ligo Lab's aim to make possible a travel in time in searching and even measuring the kind of phenomena of the very beginning of the Universe based on measuring the gravitational waves. A question appear : If the galaxies have generated life, and if stars have stories to tell, hidden connections between stars include mankind also, is there a connection between how the human mind works with its electric field endowment and the universal energy it receives through, probably, electromagnetism, the fields of torsion also, eventually imprinted with certain gravitational waves? Undergoing an opening of cutting edge knowledge, the Ligo Lab points a miracle like discovery, that of a space time physicality measurement of the initial energy in the very prime second of the Universe up to present, relying on the gravity waves. It operates a sustainable efficiency of Einstein's prediction in respect of the gravitational waves, all of a sudden rendering the key board for a possible driving a capsule of time travel. It contours from far the previous mentioned identity of the human subconscious internal as ancestral memory and external as cardinal item of the abyssal celestial consciousness, because of a correspondence and identity that appears between Psyche, as max. of mass and gravity in the smallest space and the electromagnetic fields / (torsion fields – we know still controversial) of the celestial mechanics in terms of modern Physics. Surprisingly Jung doesn't give a definite location in the celestial matter when highlighting a connection to the huge eternal rich information storage provided by the belt of the human mind unconscious, whereas the same happens in L.Susskind's scientific contours but in terms of not mentioning the idea of certain information content, considered pure metaphysics. Instead the scholar outlines – as St. Hawking did with quantitative mathematical equation – on a well- defined contour of information storage at the event horizon. This is the cardinal cosmic core detaining quintessential information storage brought and circulated through gravity strings on terrestrial worlds. And we remember, also, Einstein pointed the existence of information carried by the gravity waves.

In this light, the maximum of mass and gravity concentrated in the smallest space, takes shape in analogical root, therefore interwoven with its celestial mechanics double. In 1947 it could have been appear metaphysical, but having in mind the above mentioned items belonging to different sciences, it is not of metaphysical nature even if metaphysics is a generous realm embracing in a profound layer the more luminous and highly clear domain of deterministic sciences, and this assignment appears when observing the role played by arch types in the creative resorts conducive to great upheavals and break grounds that pushed forward domains of knowledge. (Poincaré equations or Mendeleev Table logical arrangement of elements, or the wide range of art achievements throughout history). How primordial energy spread throughout the huge lapse of the time and knew such an alchemical transformation in so much that an universal force could be instilled in the sensible highly organized matter of the human brain? And what is the link of the latter one with another huge force of the Universe - information accumulated at the edge and event of the cosmic horizon, in an interplay function, its mysterious complementarity with an energetic thread, supposing of mineral nature? Unconscious and science settled side by side and played a team role to

bloom into evidences? - a temptation but also a profound eye of analysis that Jung and Pauli displayed in their endeavor to find new perspectives in the famous book of synthesis *Atom and Archetype*. In *Man and Symbols* (1964) M.L.von Franz presenting a synthesis of Jung's break ground evidence of the unconscious brain function, makes the assumption of arch types as bricks of knowledge, and we consider it is an answer at these questions. They are rich storages of historical timelessly contents contained in a collective memory- and the author highlights at a certain moment B.L.van der Waerden's vision, who quoted many mathematical intuitions generated by the unconscious.[1] A mutation as an upper crystalized level from a basic hidden unconscious resort, a twist of fate from a dormant but fertile layer generating conditions for mutations at arch type level, turns into reality information of superior scientific clarity, as things happened in Mathematics and not only. If unconscious manifest a flexibility to range itself as part of celestial mechanics and relate itself and operate a *connection* with information located at the cosmic horizon, the key-word is complementarity, in Bohr's terms, and the vector convey is synchronicity process in Jung's terms. One could take this construct as a probabilistic embodiment of a locality driven as taking place in the coordinates of the Special Relativity. We have used also in a previous study,, a de-coherence Q.M. process grid, during the alpha or gama estate of the brain - profound dreams for instance, or OBE, followed by a new coherence – the connection to a timeless dimension with a subsequent gathering of information. This is a process of de-coherence of K frame of coordinates and an entering the K' frame of certain new coordinates. Weaving them in their outstanding aspects in one and the same analogical root for a generative path is operating a gathering of some items in an interdisciplinary correspondence. Is it possible to explain the double of the unconscious through a Q.M. grid, through the brilliant geometrical space time framework of the General Relativity ? How certain astral items - like the 4 basic chemicals feeding the mysterious turning into vivid matter - can be related to the human brain capability to reconnect these stems in an analogical root of both physical and psychological nature? Is it a challenge of deterministic scientific assets delivering areas of redefinition, lifting veils?.

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If we have put on the table both the above mentioned Q.M. grid and the General Relativity assumption in envisaging a better understanding the Analytical Psychology domain, this is conducive to a geometrical object under the shape of a pyramid whose peak line strait on bottom is Bohr's complementarity principle translated in natural phenomenon of psychological nature in order to bring union for the two sides of the unconscious, - and whose four points of the pyramid describe the square dimensional continuum of a Mandala space time synchronized with the brain as the superior organized matter. And this assumption could be also encompassed in Einstein's one of the most verified logical and exact statements of the General Relativity in respect of : *one dimensional line in a square-dimensional continuum brings about a space-time coincidence of two points and expresses itself on Gaussian coordinates through the following concordance* : X1 × X2 × X3 × X4 (A. Einstein, 1992 : 76 **),** in which X1, X2, X3, X4 integrate the Jungian principle of the Oneness – mind and matter in the perfection of square dimensional continuum of Mandala. Consciousness is a

[1] Cf. *Einfall und Überlegung*, p.9 *apud* M.L. von Franz, *op.cit.*p.446. He also points where traditional approaches seek why a phenomenon takes place, Jung brought supports for his findings in seeking the *significance* of those apparently hidden phenomena, through their synchronicity, many modern physicists on the other hand relying on natural *connexions* between them, rather than on causal deterministic ones. Von Franz notices the burst of parallelism between Abyssal Psychology to a certain extent considered of metaphysical nature, and modern Physics, underlined at the same time by Jung himself, foreshadows a possible psycho-physical unity of the life phenomena as a whole. We have subscribed in this work of the concept as fundamental explanation under the name of an analogical root relation

point of the Universe and the Relativity interpretation grid of it, a point of view of the Universe, equally.

BIBLIOGRAPHY

Blaga, L., *Eonul Dogmatic* in Gandirea Review, BCUCLUJ_FP_279479_1931_001-003.pdf,p.105-106

Cunoasterea luciferica in Gandirea Review, BCUCLUJ_FP_279479_1932_012_007_009_pdf , 1922

Bohr.N., *The Copenhagen Interpretation* group of research in the twenties of the 20th Century, *The Theory and Description of Nature*

Einstein.A., *Teoria Relativitatii pe intelesul tuturor*, translated from German by Ilie Parvu, Humanitis Publishing House, 2005

Von Franz M.L.,et alii *Omul si simbolurile sale* C.G.Jung col. Misterele inconstientului colectiv, Trei Publishing House, translated from English by Mirela Foghianu, 2017, Ferguson, (Aldus Book) 1964

Jung.C.G., *Amintiri Vise Reflectii,* edited by Aniela Jaffé,1962, Humanitas Publishing House, Translated from English by Daniela Stefanescu, 2024

Schoch.R et Bauval R., *Origins of the Spinx Celestial Guardian of pre- Pharaonic Civilization*, Rochester, N.Y. Inner Traditions, 2017