

Whitespace Theory

Understanding photography as energy and the photograph as its quantum.

Just as white noise is audible time filling-up space, White Space is vanished space translated into stillness.

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The prevalent perception of a photograph is normally restricted to its pictorial content. Its underlying nature as the result of a complex process of transfer of energies across dimensions is generally ignored. In this process the four dimensions of the continuum (x,y,z,t) are recorded and compressed as two dimensional stillness $(x,y)/t^0$. The transmutation of a continuum moment into a self-contained object could be described with the following axiom:
the space of a photograph exists in the depth of its time.

Photography and its history also played a significant role in the shaping of contemporary society. The process of photographic recording initiated in the early 19th century experienced an aptly named quantum leap when the applied quantum mechanics resulted in the production of electronic technologies that pushed its capacities to a new level. With the new century, the mobile phone and its attached camera in particular triggered an exponential increase in the production of images as well as the speed and outreach of their distribution, a phenomenon termed as *Constant Self-recording Mode* by the photography historian Gilles Massot in 2004¹. Today the prevalence of images in a virtual form throughout the networks of social media and Internet and the often instant impact they have on societies clearly invite us to take into account the energy by which they act on the collective subconscious rather than keep considering them as simple physical iconographic documents.

The first observation above concerns the inborn nature of the photographic image from the day of its invention; the second what it has become as a result of the digital revolution. Taken together these two observations suggest the necessity to now apprehend the too familiar medium of “photography” as a brand new form of energy, and the photograph as its quantum: a precise and finite amount of energy resulting from a compression of the time-space continuum that creates a mirror image *à l'identique* of the original amount of energy recorded.

By proposing to see the photograph as a quantum, we implement a radical change of conceptual perspective that results in the following speculative theory:

¹ Gilles Massot - *To Cut or Not to Paste, that is the Question*, in COS•MO, catalogue of the exhibition by the same title, p. 85-90, 2014, Singapore.
https://www.dropbox.com/s/pvoanflkgr3hpzr/COSMO_PUBLICATION_18FEB.pdf?dl=0

The photographic recording phenomenon is a type of energy yet to be understood and studied as such. This energy acts on time and space in a way similar to the action of Gravity on physical bodies by implementing a curvature on timespace. Its action however is applied in/on the intangible and increasingly virtual dimension hosting experienced emotions, memory, imagination and their combined outcome as individual identity. This dimension, most likely to be a matrix dimension, is designated by the acronym turned neologism "Emmogity".

In his book *Decoding Reality*, Vlatko Vedral gives a definition of "information" that puts the emphasis on the situation of which information is a result of, as opposed to its content, as would be normally expected for such a topic. This tangential approach (definition of the peripheral and not the elemental concern) healthily isolates the concept of information from the influence of its content. By remaining centred on what information is in essence rather than what it says about the world, the definition becomes potentially universal and viable in its sheer neutrality:

Information is a measure of how surprising something is. Unlikely, low probability events contain a high degree of information. Likewise, high probability events contain very little information.²

In other words, the more unexpected an event or a thing is, the more information it will contain. When incorporating this understanding of information into the theory outlined above, it generates a number of extrapolations extending its reach and implications.

It suggests for example that the more unexpected an event is (in its content), and the more unique the recording (in its pictorial quality), the more information the final pictorial quantum will hold. From this one could infer that the stronger the energy/information recorded, the stronger its impact will be on the curvature applied to the continuum. One can then logically expect that the greater the curvature, the deeper will be its intersection with the Emmogity matrix, and thus its penetration into the virtual dimension. This in turn should result in a stronger imprint on the inner levels of the matrix (*emotion* on the outer layer, *memory* in the middle and *imagination* in the deeper level), to finally reach its core in *Identity*. The amount of information generated by the pictorial quantum, in other words the quantification of its energy, is designated as *Ip* (for Identity Probability), an indication that the energy produced by the recording eventually contributes to the development of Identity at the core of the matrix.

If adapted to the nature of the field in which this energy is active, we can say that the higher the energy of both event and recording, in other words the more unique the event and the more unique the resulting image, the higher the probability for this visual recording to become known as "iconic", an image that in time will imprint itself on human nature and identity in a more or less universal manner. Furthermore, the extent to which this potential quality

² Vlatko Vedral - *Decoding Reality, The Universe as Quantum Information*, Oxford University Press, Oxford, 2010.

interacts with Identity can be quantified on a scale ranging from *Individual* to *Universal*.

When quantified as information, the energy of an event is the inverse of the probability for it to happen: the higher the probability the lower the energy. This value is identified as uX .

When quantified as information the energy of the resulting recording will be the expression of its level of pictorial uniqueness: the more unique the image in relation to pictorial history, the higher the energy. This value is identified as uN .

However both recording and distribution of the event in its pictorial form are subject to diverse external societal influences. The impact of the cultural and social contexts prevailing at the time of both operations will be taken into account with two variables reflective of the respective inputs.

The first one, identified as a , will take into account the initial “aura” of the event, how famous it already is or not, quantified by the number of people aware of this subject or content prior to a new recording. As this number constantly fluctuates, it should be a mean average taken over a certain period of time preceding the event (to be defined). Obviously the greater the aura, the more likely is the probability of a wider distribution due to the societal fascination with fame, with no direct relation to the actual importance (or amount of information) of the event. An effective measurement of the pictorial quantum energy should not be the reflection of any pre-existing effect due to the already existing aura, quite the contrary. Therefore a will be used as an inverse proportion of uX and uN .

The second, identified as d , will take into account the effect of the dissemination of the image in the public and will be quantified by the number of persons it will possibly reach after a certain period of time (again yet to be defined).

All these values then come together as the following equation:

$$Ip = \frac{(uX \cdot uN)^d}{a}$$

in which:

Ip is the amount of energy/information produced by the recording and impacting Identity.

uX is the statistical probability of the event.

uN is the comparative uniqueness of the pictorial quality of the quantum, commonly designated as a photograph.

a is a variable taking into account the effect of the initial aura of the event (or subject), prior to its recording.

d is the probable amplitude of the dissemination of this quantum in the public sphere.

The quantification of these values can only be the result of a tremendous amount of data computation to ascertain the probability of the event, the status of the image in regards to global pictorial history, and the number of people concerned before and after the recording. It is hoped that the promises of quantum computation will see the power of the qubit fulfil the calculations and measurements needed to put this theory to test.

ANNEXE

1 - A few words of explanation on the chosen name

The term adopted to designate this outline of a theory, *Whitespace*, is the result of a happy encounter between the axiom in the first chapter of this paper and a haphazard occurrence encountered while creating a cloud folder on my computer to gather this research material. I had intended to create a folder with no name since the theory hadn't found one yet. However, I learned on that occasion that items in the cloud couldn't be left unidentified; they must have an IDENTITY, a name, a number, be differentiated or dissolve into neutral infinity, lost in a dark isolated corner of the virtual cloud. So this folder was automatically given the name *White Space Conflict* by the computer's operating system. Conflict I had none, but besides its evocative poetical touch, the name of the folder also immediately drew connections with the information it was meant to contain. Most importantly, it echoed the fate of the third dimension, depth, playing the part of the untold victim in the complex transmutation of dimension and energies happening during a photo recording:

The space of a photograph exists in the depth of its time.

Whitespace suddenly stood as an apt designation for the lost dimension of spatial depth and the gained eternity of the frozen moment, the vanished space that turns into still time to make a photograph. The name also presented the advantage of building its image by echoing the well-known expression "white noise" and its diverse connotations now relating to society, behaviour, perception, time and space. The result of electroacoustic experimental researches conducted in the 1960s, White Noise is the product of "a random signal of equal intensity at different frequencies"³, which seems to have little in common with the White Space idea at first sight. It effects however draws some interesting parallel since it generates "a constant power of spectral density", a sentence that mirrored at least in a poetical manner the "lost dimension of

³ Wikipedia, https://en.wikipedia.org/wiki/White_noise

spatial depth and the gained identity of the frozen moment". Most significantly, the name "white noise" was derived from "white light", and here we are back to the very light generating "white space". The neologism "white space" thus appears to aptly complete the already existing white light and white (time) noise to replicate the triangle "light-time-space" found at the heart of Einstein's Relativity. It could therefore well be nothing more than a logical step to complete the expression of time and space as forms of non-individuation of reality, a step that was waiting to be taken.

Whitespace is thus the virtual residuum of the entropy generated by the photographic recording process. It is non quantifiable because it vanishes instantly into neutral infinity but it also nonetheless very much exists (for as long as the photograph exists) as a past probability turned to absolute stillness by the action of constant transformation. Whitespace is all these things at the same time albeit it is only perceivable by an observer as an absence: the absence of physical depth in the recording, an absence compensated for by the learned appreciation of the cultural illusion created through stillness.

Arguably photographic recording has been fundamental to the shaping of contemporary society and its fascination for the stillness of pictorial quanta now producing them in countless numbers at all moments and all around the planet as anticipated by the Constant Self-recording Mode. It is probably the ensuing constant accumulation of Whitespace in the interstices generated by the corresponding interruptions of the continuum that eventually triggered a counter reaction now often described as a perceived acceleration of time. While these interruptions of the continuum are far too transient to be observed by human minds, even with the help of their technological extensions, close to two centuries of repeated extractions, transformations and accumulations of pictorial quanta have probably altered the fabric of timespace in a way we are yet to properly notice, let alone analyse. It is hoped that the Whitespace Theory will initiate a concerted exploration of this energy. It is now too visibly and actively at work among us to be ignored; yet thus far it has been too ordinary and taken for granted to receive any proper attention. It is after all just an image, "a photograph".

2 – The matrix Semogid, the resulting Identity and other structural elements

*This text is for a large part a literary interpretation of the seminal paper of J. A. Wheeler *The World as a self-synthesized quantum phenomenon* published in 1981 and which more or less summarised his creative understanding of quantum physics and its philosophical implications.*

The matrix Semogid is a virtual world hosting the process of individuation that allows physical reality to be experienced as individual entities, distinct from one another, whether alive or inanimate. It is made up of a potentially infinite number of matrixes, similar in their basic structure but different in their output and flavour. They gather in different levels of ensembles, in turn contained by a

larger matrix of a higher level and so on. Each of these matrixes being a dimension of its own, it is therefore a world of infinite dimensions.

The individuation results in the development of what is now referenced as *Identity*. The individuation exists as a sequence of transcriptions of events or probabilities into intangible data or effects, the quality of which is dictated by the respective nature of three consecutive processing layers surrounding Identity in the inner core of the matrix. For the convenience of practical description we shall adapt a chronological order. However one should keep in mind that there is nothing such as a defined beginning and end in this sequence that runs on a perpetual loop. The translation from virtual to physical being slightly more difficult to grasp than its reverse, we shall start from the “outside” and progress to the “inside”.

It starts in the outer-most layer as the integration into the matrix of the transcribed sensation of what is happening in the continuum. The sensation is instantly transcribed as *Emotion*, and stored as information in the *Memory* layer. This information can be retrieved at any time by the active element *Imagination* of the third layer whose function is to feed *Identity* with possible becoming and unforeseen probabilities. These will push Identity to evolve and transform by generating new Sensations to feed Emotion and so on. A loop is thus established and running as a self-synthesized succession of causes and effects. All this happens as the result of an on-going instantaneous back and forth exchange of information between the physical form in the continuum and the virtual processing space of Semogid. Experienced and generated by the biological system of the physical form (in the discussed case of human entity) the molecular information is integrated, analysed and used as virtual data in Semogid. The translation from one form to the next is instantaneous and practically without any loss of energy.

The progressive build-up of energy resulting from the combined actions and interactions of these three outer layers of the matrix is collated in its inner core as *Identity*. When combining the inputs of large groups of individuals over a certain period of time the highly sophisticated human Semogid matrix spontaneously engineers a larger identity known as *civilization*, in fact the inner core identity layer of another wider matrix that contains the multitude of individual ones that trigger its formation.

When concerning inanimate things, the layers and the self-sustaining sequences, are exactly the same, albeit taking place at a much lower pace and with noticeable variations in the amplitudes of effects according to the density of their physical structure. A rock will for example experience hot or cold as a sensation that will be manifest as dilatation and contraction of its molecular structure. This physical condition will be in turn transcribed as virtual data into Semogid as a *state of being*, the closest an object can come to *emotion* in the matrix. This *state of being* is then integrated as *memory* into the monolithic virtual narrative that has very slowly evolved with the physical rock ever since it took shape in the course of a specific geological age.

However slow the evolution of the narrative it will nonetheless do so, while the physical rock experiences eons of time, its monotony nonetheless reflective of constant transformations taking place at all times through the effect of environmental elements, with occasional peaks of activity due to the effects of gravity on its mass and other accidental forces, all things contributing to the full development of its Identity: its experience in being a "roc", however puzzling this notion might seem to us as apprehended from the point of view of a sentient being. This fulfils the necessity of a self-induced virtual self-awareness of its existence as an intangible entity existing outside time, a self-awareness without which the physical existence simply cannot take place in time as it will have no conceptual basis for the probability of its existence to be rooted in.

Wheeler effectively illustrated this paradox in his diagram of the U Theory, U standing for universe. The expressive visual shows an uppercase U, one arm equipped with an eye that looks at the opposite end of the curved line that makes it exist, observer and thing observed generating one another in an endless loop.

The rock's Identity develops as a result of the continuous transformation of its physical expression, but this Identity being located in a world of infinite dimensions it is therefore not subjected to time. It thus becomes a concept, virtually self-contained in all eternity from which can be generated at any time an endless amount of new sequences of events manifesting its physicality. The virtual identity of the rock as a concept of that state of being thus becomes an almost endless and unfailing support contributing through its own slowness to the substance of the physical reality for a wide area of events all around it.

Similarly it is quite understandable that an inanimate but living object such as a tree will be defined by a shorter and more fluid sequence of events and effects, while the mobility of animals will lend them a power of direct active influence on their environment, would it be only to answer the need of subsistence. Lastly the identity having the strongest interaction is obviously the human entity whose fully developed imagination allows the possibility of a complete transformation and adaptation of the environment to suit his or her needs in order to generate selected sensations. It has to be stressed here that the human identity hosted at the heart of its Semogid is not to be mistaken with the ego that develops as an outgrowth of the neurological system of the physical being in the continuum. The ego gives a sense of individuality to the entity in society while the Identity makes it unique in the universe. To make this point clearer let's say that a roc will have no ego with which to interact as an on-going source of stimulation, but on the other hand it will have a strong, even monolithic Identity intuitively positioning itself in relation to deep time as a self-induced source of stimulus. In the case of the human entity however, the growth of the virtual Identity is the result of a constant interaction with the ego in the continuum, the two of them alternatively taking the role of active and receptive entities.

Such a transcript of Wheeler's scientific speculation does suggest a form of animist understanding of the world. Clearly this attempt at a rational description of an intangible and eternal Identity can be seen as the equivalent of the Anima in ancient Greece. And if one was to develop further parallels with other ancient

spiritual traditions we could say that the perpetual cycle of interaction that sees identity and environment generating one another is similar in some aspects to the cycle of perpetual transformation of the Yin and the Yang in Taoism. Lastly the three layers of the matrix both nurturing and feeding on its inner Identity core isn't without parallels to the Hindu's structure of the self as offered in the Vedanta in which diverse forms of constituting manifestations (mainly Prakriti, Buddhi and Purusha) combine their actions and essence to form the Atma, *conceived as personality, in the way this manifestation constitute human individuality*⁴.

⁴ René Guénon - *L'Homme et son devenir selon le Védânta*, Editions Traditionnelles, Paris, 1991, 49.