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VISIONS OF AN UNSEEN WORLD. AN AESTHETICS OF SPACE

Abstract: As cubism is the art of space with four dimensions – and whose mathematical laws were established by the mathematician Hermann Minkowski – and its form and implicitly its aesthetics reach the viewer through successive projections, from four to three dimensions and then to two, in the space of the painting, we can also generalize this problem through the art installation. Thus we can either perceive or construct an aesthetic of the Space proper to the artist, through the same indirect ways. Bearing in mind that our life itself takes place within a space, we can identify elements that have led to the essentialization of this artistic field, the art installation, in the various arts and activities such as architecture, dance, practices such as yoga, martial arts, And so on ideally, all this unfolds in a harmonious form conjugated with the space that hosts them. Thus we can indirectly perceive, by clues, the aesthetics of the space. And by extension, all of Nature is created according to harmonic laws in a space itself created according to harmonic laws. The art installation highlights the aesthetics of the space in which our lives unfold. As a form of artistic expression, I consider installation art to be the closest thing to being. I studied with the means of artistic research a part of the connection between the form and aesthetics of the space and the transmission to the viewer through immersion and interactivity, features of the art installation.

Keywords: art installation, immersion, interactivity, space.

As we can pass from one space to another located on a horizontal dimension for example by traveling, or more, entering the space created by a theatrical performance, or as viewers of an art exhibition, reading a book, watching a film even more so much we can access on these paths in synthesized abstract spaces.

And we can exemplify by comparing the way we perceive the material world in relation to its quantum form. If we perceive a surface as smooth and well-defined in space, approaching on an atomic scale we will observe a composition first rough and then, approaching even more, a molecular and then an atomic conglomerate created from nuclei and electrons, supported by electrical and atomic forces. The distances between these elements are comparable, on scale with the cosmic ones. The distance between an atom and an electron is comparable to the Sun and its planets. So we can only say that we are looking at 'miniature solar systems'. The shape of the physical structure of what we perceive changes depending on the scale from which we observe. And along with the evolution of the perception of the unseen, of states, ideas, concepts, intuitions, etc., we shall also observe a change in the form of the concept which governs them. They have a certain form, defined and accepted in the socio-historical-cultural space, and a slightly different form in an abstract mental space. Although there are constants such as love, faith, beauty, etc. that transcend both cultural and synthetic-evolutionary spaces, in continuous movement, there is a differentiation of the form and implicitly of the nuance of the meaning of these notions.

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If we talk about the signature of beauty existing in Creation, we will see that it exists in any of its elements. There is the beauty of a landscape on our Earth and on any planet. There is the beauty of the sinuous flow of a river, there is beauty and balance in the color ranges of the same landscape at different times of the day, there is beauty in the form of flowers and trees, in the rhythms of the seasons, in the movement of the sea waves. There is beauty in the structure of the human being, both physical and mental, of the seen and the unseen. And the existence of the dimension of freedom is also proof of the beauty belonging to the concept by which we exist. And, of course, the responsibility which is also a conjugated aesthetic form of the beauty of freedom. And last but not least, the harmony between our thinking and action, which is our ability to integrate ourselves with Mother Nature.

And, the very host of our being, space, with its multiple dimensions, has the seal of the aesthetics. Between the beauty we perceive in its various forms, if we can say so, from figurative to conceptual, we can perceive the aesthetic feature from the physical forms to the forms of abstract concept and beauty of space. Making a comparison with our physiological functioning, just as we are not aware of the vegetative functions of our organism, we are also not aware of our being in a certain space, for example we take our tridimensional space for granted, we don't have the consciousness of living in it. Habit can hinder understanding, keep us captive, for example in a comfort zone, and prevent us, among other things, from perceiving the beauty of the host space. Interaction with space can be beneficial, we can be at the place and time of an event or we can save ourselves from a dire situation by moving away. The framework of spatio-temporality and freedom offer us these possibilities. Due to the form of our sensory we have only a first access to three-dimensional space, and this sensory also blocks our access to spaces with more than three dimensions, which we can perceive, however through intuition, concept and mathematical laws. In one certain space we can perceive beauty from another through the projections that a concept reflects into the facets of the first one. Due to this exercise of perception we can proof the connection between the spaces as elements of Creation. So, no element is isolated. Though its identity defines it, it is always a part of a more complex structure.

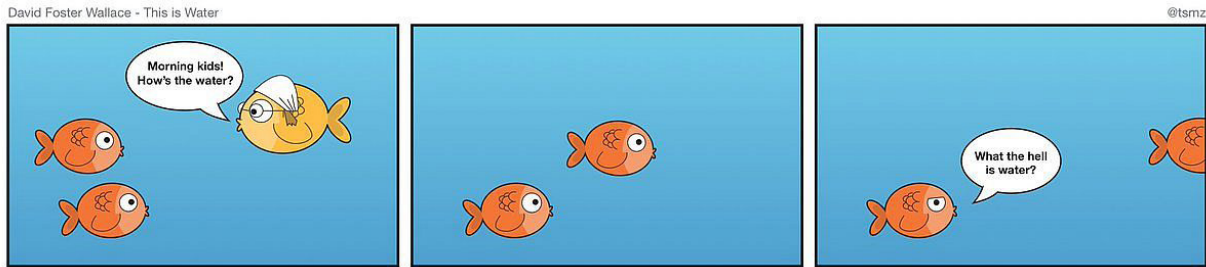
The poet Muriel Rukeyser said: 'The universe is made of stories, not of atoms'. The great historian of religions Mircea Eliade said that he wanted a history of humanity based on myths, and not on wars and trade. Here is that Humanity means much more than the conveniences we are used to as a perception of the conduct of its activities. There is a history of culture, a history of art, a history of music, scientific discoveries, education, religion, etc. Thus we can look at the sum of humanity's activities through its various alternative prisms, including that of the search for beauty, all the more so as it is a constant feature of Creation, and all the more so as Merleau-Ponty said: "History means the others, the relationship we have with them"². That means more than events.

Elaborating my doctoral thesis in the field of installation art, I stated that the difference between the form of artistic expression in this case and the previous forms is similar to the difference between Newtonian physics and quantum physics. Without claiming that the art form of the installation, the conceptual one would contain more aesthetic substance than that of figurative art I am only saying that this new paradigm arose in connection with the evolution of the scientific one, balancing the culture of the society.

And let's not forget the value of the space itself although it is a notion that we are usually not aware of. The existence of multidimensional spaces is by far a non-intuitive concept. Carl Sagan offered a picture of this problem³ we can easily understand. In his presentation, he asked how the intersection of an object, an apple, coming from a three-dimensional space with a two-dimensional would look like. He said that the inhabitants of the two-dimensional space would notice the appearance and then the disappearance of a two-dimensional form that they could not explain because they have no notion of an extra dimension of another space other than their own. Moreover, the awareness of the space of our being is a difficult notion to approach, due to the lack of elements of comparison. Approaching the issue anecdotally, we can invoke the following cartoon:

² *Le primat de la perception et ses conséquences philosophiques*. Lagrasse: Verdier. 1996, Original publication 1947 (pag. 68).

³ *Cosmos – Carl Sagan – 4th Dimension*, <https://www.youtube.com/watch?v=UnURElCzGc0>



The notion of space and being within it also involves a series of problems, of course also through the lens of the human approach. The real motivation for starting wars is to acquire more space. Of course, aggression and conquest is involving the conquered's possessions, associated resources, mineral deposits, agricultural potential, industry, network of communication routes, roads, railways, fleet, ports, airports, etc., trade networks, media networks, human intelligence, strategic position, etc., which we can consider different forms of space. And the conflict also extends into the realm of the spirit, for this too can be defined as space. And in the view of the aggressor, it must be conquered by a certain type of ideas, for example the space of free thinking must be conquered by ideology. And not infrequently ideologies collide, resulting in wars in physical form. And the examples can go on: one faith being conquered by another, or by lack of faith, etc. All these represent forms that the war takes for the conquest of a space.

And like any other notion, we can look at it in relation to different human qualities. There is the uplifting desire to conquer outer space, metaphorically speaking or not. There is, at the opposite pole, amateurism in gaining space, through rude, disturbing behavior. There is empathy, which offers the extension of a mental space, and there is aggression, which narrows it. And the examples can go on, and perhaps an ideologized society is the best example of a war on all fronts, of conquest and imposition, at the expense of freedom. Continuing the reasoning, the professor Michio Kaku said that one cannot crystallize a general picture of physics without taking into account all dimensions: „[...] in [space with] three dimensions there is no place to put all the laws of physics [...] but when go into hyperspace, then all the laws of physics come together like a puzzle”⁴

Space, of which we are not always aware in its abstract makeup, and which, as Einstein said, is finite but boundless is finally a tangible, real element. Constantin Brâncuși said about his art, '(My) art is reality itself. Art is not an escape from reality, but an entry into the truest reality – perhaps the only valid reality.'

And this is how, for the art installation, the space became the object of artistic expression. As the plane of the canvas is the domain of painting, the three-dimensional form, that of sculpture, the fabric of space with its own aesthetics has become that of the art installation. Therefore, the creation of an art installation also involves an art of curatorship, because the work of art is included in the aesthetics of a space.

The dialogue between spaces, in my works

Analyzing my works in retrospect way now, from the point of view of the notion of space, I notice that they still offer different forms of harmony. The development of the concept of the work of art, on which I must confess I elaborate a long time, keeps its quality of synthesis. Thus I can think of my works as being portals to an aesthetic dimension.

We can iterate the reasoning that a certain spatial perception from a space with multiple dimensions can be reconstructed from the projections in the space with fewer ones. In a space, having an extra dimension, for example the fourth dimension which we cannot perceive, the projection of an object represents the proof of the existence of that object. For example, more suggestively, if we have an object in three-dimensional space, we can perceive it in two-dimensional space through its projections. Thus the

⁴ **Michio Kaku.** 'Are there Extra Dimensions?' https://www.youtube.com/watch?v=RUIVFzl_BJs (min. 1:54 – 2:07)

links between the spaces are maintained, even if not directly, also at the level of perception. Evidence of existence does not disappear. Thus the additional dimension, the third, manifests itself in two-dimensional space. Above the level of three-dimensional space, an extra dimension, in relation to our perception, becomes a problem 'of being'. But even this phenomenon is not one that surprises us in the absolute way, because they are notions that we cannot perceive either sensorially or conceptually. And the perception game can continue.

For example, the Indians of South America did not see the gradual approach of the ships of the conquistadors, but saw them only when they stepped ashore, because they did not conceive of anything coming from the endless ocean. This refusal constituted a mental barrier. Here, the phenomenon of lack of perception can be more common and closer than that of not perceiving an additional spatial dimension. If we want to make an analogy, and analyze the process of understanding we will find that it crystallizes most of the time, indirectly, through parables, examples, associations of ideas and not through statements. We can liken this entire process indirectly to the existence of projections in the space of understanding which build a truth, a reality.

The interference of spaces

Just as a dialogue can be held between two people, in a plan of the present time, in which a trivial exchange of information is made, by extension it can be held by an artist between the proximate spaces of being of each interlocutor, between states, intuitions, visions, etc. moreover, it can become as complex and/or nuanced as the message conveyed by the artwork requires, so that understanding is gained.

'Highway'

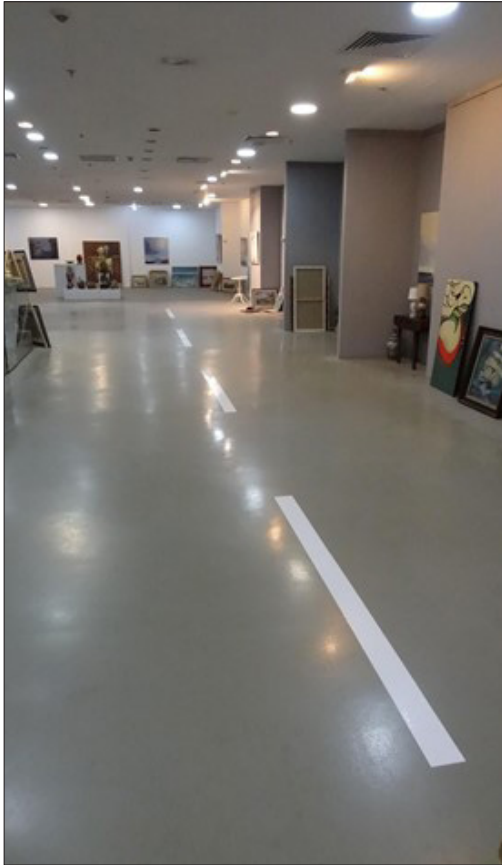
In the work 'Highway', I suggested such a dialogue. I made the art installation in the space of an art gallery, following the contrast between the increasingly alert rhythm of living in contemporary times and the reflective state imposed by contact with a work of art.



'Highway', Trandafir Cătălin, at 'Art Gallery', 2018, Constantza, Romania

Extending the nature of the dialogue, it can also take place between cultural spaces, which have their own dynamics and pace of evolution. For example, Mircea Eliade, in his 'Journal', on May 5, 1963, noted the remark of an Indian writer: '[...] Raja Rao is preparing dinner for us: spicy curry like in Madras. At the table, general discussion. Of note is this observation of Rao's: India was close to the West, partook somewhat of the same culture – but Islam broke the unity of the world and deepened and aggravated the differences. Now, after centuries of isolation, India seems far from Europe, it seems foreign, 'exotic'. [...]'⁵.

⁵ **Mircea Eliade.** Journal, vol. I, Humanitas Publishers, București, 1993, pag. 455.



*'Highway', Trandafir Cătălin,
at 'Art Gallery', 2018,
Constantza, Romania*

Thus, throughout history, we observe the impairment of communication between cultural spaces as a result of the change that took place in their form, of the successive transformations they have undergone. The more distant a cultural space is, the lower the level of intelligibility towards contemporaneity. But this, I believe, is rather a problem of today's society, and not of the one in the distant past, more authentic, more alive and historically closer to the moment of man's appearance.

Constantin Brâncuși also said 'Simplicity is not a goal in art, but you inevitably reach it as you get closer to the real meaning of things.'

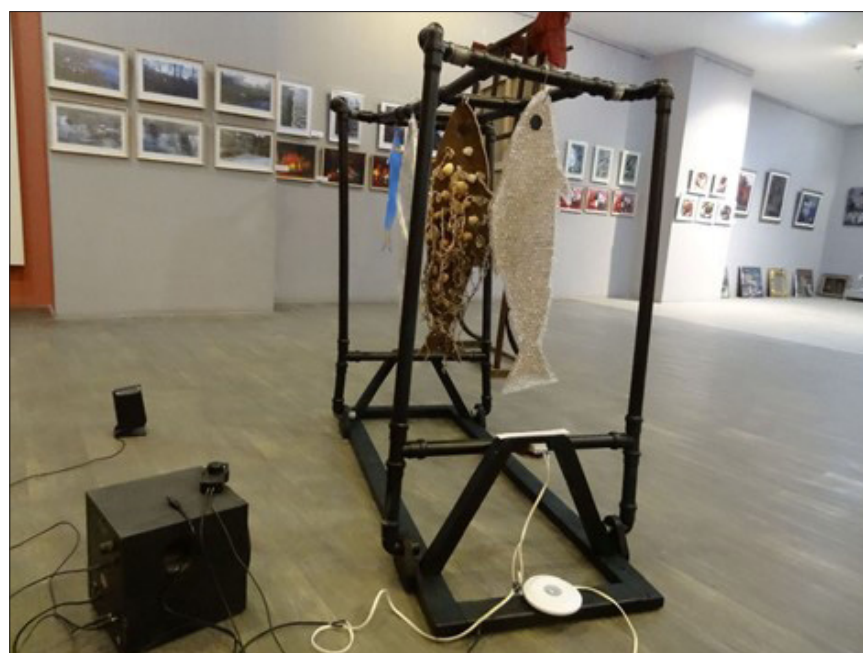
Dialogue, interference, interactivity between the artist's spaces depend on his or hers exercise of freedom. Its capacity to make connections is, just like space, unbounded. Although the correct notation is that of spatio-temporality, and the artist can also operate with the temporal variable, his physical time is limited. The struggle with the vastness and complexity of spatio-temporality is an unequal one.

The dialogue of memory spaces

'Memories from the Fish Truck'

We could represent the dialogue between these memory spaces on a temporal axis. They are at least twice different. Once our own perception is in continuous interactivity with ourselves because we form it, then we can say that it forms us. And in none of the cases can we affirm absolute objectivity. For example, the witnesses of an event may have different, or better said, not identical, perceptions. Immersion in the space of a historical event does not generate either unanimous or equal opinions. Each of us is different, and we manifest differently through the ability to generate our own perceptions. And freedom consecrates this natural process and the dialogue of memory spaces unfolds in accordance with this phenomenon. Thus, a set of dialogues is created between the different spaces of perception, within the same historical time, and another set of links, following successive transformations and syntheses, until contemporaneity. It may seem paradoxical, but the space of memory is also subject to the action of the passage of time. And although it has the role of preserving, it is not immune to the action of erosion of time, both physical, through disappearance, and of the spirit that generated the experience, the emotion.

We can consider the space as being interior and exterior. Its compositions are similar because they belong to the same universal harmony. And that is why we are compatible with the space of our own being, whether we are going through difficult times or not. We have that familiarity of belonging to a space, we have that naturalness of integration. And the source of our problems, dissatisfaction and suffering, does not come from this 'design' of the symbiosis between our own being and the space that includes it, but from ourselves.



*'Memories from the Fish Truck', Trandafir Cătălin, at 'Art Gallery',
2018, Constantza, Romania*

The work is a kinetic sculpture, it has a proximity sensor that triggers the oscillating movement of the frame. The fish, hanging on hooks move independently and unsynchronized following the oscillation of the frame, suggesting the movement in a truck. At the same time, the sensor triggers the sound which is the musical piece 'La Mer' (1946), by Charles Trenet. After the musical piece ends and there are no visitors around, the whole ensemble resumes its resting position.

Memory is also that of emotion because it preserves history better belonging to the being of the work of art.

The machine of eternity (*work in progress, not finished yet*)

Transcendental dialogue, between the space with temporal dimension and the one with timeless dimension.

It is a kinetic sculpture, work still in progress. For the contrast effect I have used two dimensional concepts: the passage of time and the absence of time. The expression is ironic-playful which could fit it, but without insisting, in the metamodernist trend. The kinetic sculpture consists of an hourglass that can rotate around an axis, with its two glass balloons, driven by an electric motor, in turn controlled by a programmed electronic circuit.

The viewer inserts a 1 RON banknote into the collection device, identical to that of coffee machines, etc., mounted in a transparent box. The note falls into the box and will be visible, along with other notes that will be inserted. (*the device and the box not in the picture*)



*'The Machine of Eternity', 2023 –
(work in progress)*

The operation is as follows. At the start of the cycle, the hourglass is upright with the sand in the glass flask at the bottom. A banknote is inserted. The hourglass rotates 180 degrees. The sand begins to flow into the other glass flask. Halfway through the amounts of sand are equal. At this point, being balanced, it begins to rotate effortlessly. Due to the centrifugal force, the sand stops flowing, a sign that time has stopped. After one minute, the rotation stops and the hourglass remains in a vertical position. Eternity has been bought for a minute – notions that are normally mutually exclusive. The sand begins to flow again, until it collects in the glass flask at the bottom. The cycle ends.

In an approach that we wanted to be paradoxical, we equate stopping the flow of sand from the hourglass with passing into a space without a temporal dimension. We can do this because in a post-postmodern society where the unit of measurement is subjectivity, 'everything is possible'. The 'Eternity Machine' stops the cultural flow of time, creates a hiatus in the spatio-temporality of culture and thus raises an alarm signal.

Kinetic sculpture is made like this. The plinth is made of textolite, has rubber supports on which it sits, as well as a flatness adjustment system (*and which does not appear in the photo, at that time*). The electric motor is of the 'stepper' type, the supports of the motor platform are made of brass rods, the

motor support also contains a box made of copper sheet in which is the electronic control board, and the sensors that control the phases of the cycle.

Due to the relatively long duration of the sand flow, the work will contain a Nixie tube meter (*also in the works*) that will measure half the flow time.



Nixie tubes, from the category of those with which the meter will be built

The counter will mark the elapsed time until 'the start of gainint eternity' (half the flow time of the sand). It will start from 8 min. and 22 sec. and will 'flow' to zero. When the counter reads 'zero', the Nixie tubes turn off and the hourglass rotates for 1 min. The flow of time, just like the symbol with multiple meanings of water which can destroy through dissolution but can also be of fertility, of a new beginning, etc., it can be the seeds of the perception of multidimensional spaces.

'Object'

It will be in a very short time, it will be the first personal exhibition. It is an exercise in constructing space. It consists in the immortalization of some objects arranged in ad-hoc statuary groups. The inspiration was immortalized in photographs that I later processed, adding a conceptual level to the already modeled space. These photos are in the form of A0 posters and they, in turn, through the curatorial input will be transformed into a narrative space. Thus, I practice not only the discovery of spaces but also their creation. Although made up of dimensions we cannot perceive, spaces are defined by mathematical laws. And although I am not a mathematician, as an artist I have acquired their intuition, and through my own artistic language I want to believe that I can make them visible through my works of art.



*'Work 37', Trandafir Cătălin,
poster A0*



*'Work 54', Trandafir Cătălin,
poster A0*

Whatever space we discover or create, its existence is subject to mathematical laws that we probably haven't discovered yet.

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