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ATINER's Conference Paper Series
ART2012-0065

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Nawel Sebih
Phd Student
Laboratory of LISAA – EA 4120 –
University of Paris Est.
France

Athens Institute for Education and Research
8 Valaoritou Street, Kolonaki, 10671 Athens, Greece
Tel: + 30 210 3634210 Fax: + 30 210 3634209
Email: info@atiner.gr URL: www.atiner.gr
URL Conference Papers Series: www.atiner.gr/papers.htm

ISSN **2241-2891**
3/08/2012

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This paper should be cited as follows:

Sebih, Nawel (2012) "**The 'Void Spaces' in (between) Cinema**" Athens: ATINER'S Conference Paper Series, No: ART2012-0065.

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Abstract

The word space comes from the Latin word *spatium* meaning an interval of time. Its concept deals with interdisciplinary definitions from philosophy to science, from geometry to architecture etc. However, its various theories emerged and developed through the history of the ancient philosophy and science which raised a series of questions on the existence of void. That is why our first goal will be to discern what the differences and similarities between the definitions of space and void are by studying the evolution of their concepts in philosophy and science. Thanks to this preliminary work, we will analyze the cinematic transcription of this dualistic duo space / void to find how their definitions can be understood in the framework of cinema. At the end of the day, we hope to identify the crossroads, but also the breaking points between their philosophical, scientific and cinematic notions. More generally, we aim at finding out how these many implications of space and void concepts can result in deepening and modifying their meaning in cinema.

Contact Information of Corresponding author: nawel.sebih@hotmail.fr

There is no single antic concept of space from which others theories of spatiality has derived. Indeed, the way in which the ancient Greek philosophers define the concept of space may vary according to the school of thought which they belong to. They put out a series of questions dealing with the relationships between space and matter, the paradoxes of continuity and infinity and also the existence of the void. Indeed, 'in Greek philosophical discussions of the void we encounter basically three different conceptions[1]' as Keimpe Algra points it out. First, void is considered a place, secondly an 'empty space or empty place[2]' and thirdly 'an empty thing and an empty part[3]'. The Pythagoreans were the first to consider space as an empty place, but also to imagine a void that differentiates the nature of both things and numbers, functioning as 'a principle of the unlimited that separates out the limited[4]' as Helen S. Lang explains. Thus, on one hand, space and void become synonymous to define an empty place and, on the other hand, void allows the transformation from a unitary whole to a multiplicity. As Ken Hillis wrote: 'both separation and multiplicity of these units are maintained by the Void that is always everywhere between the surfaces of different bodies[5]'. The spatial void of Pythagoreans could be understood, in cinema, as a diegetic vacant space that separates or brings closer the figures on screen. However, the shot itself can be considered the unitary whole which could be divided into a multiplicity of shots thanks to the editing. Thus, cuts become intervals of void which maintain the unity of the movie by paradoxically dividing the film into different sequences and shots but also by linking the shots together. Moreover, Pythagoreans considered that this spatial void is infinite and can only be divided when it separates things and numbers. By applying this idea to the framework of cinema, cuts would form a kind of infinite interval divided by all the movie shots it contains. At the same time, let's point out that cuts aren't necessary to create a film when considering the movie Russian Ark (2002) directed by Alexander Sokourov and composed only by one 96-minute-long tracking shot. Further, Pythagoreans have also addressed the matter concerning the limits of our world, thanks notably to Archytas of Tarentum. Indeed Archytas describes the space outside our world as an infinite void surrounding our finite world. This concept of a vacant and infinite space which borders our world could again be understood as a void surrounding the whole movie and located before the first shot and after the last one. Moreover, as explained earlier, it could also be considered an interval between sequences and shots when considering them as unities. The Greek Atomism of Leucippus and Democritus which were contemporary of the Pythagoreans, considered the world as only made of atoms and void. According to them, the amount of atoms is infinite and also indestructible. They continually move through an infinite void called kenon and appearing thanks to their movements. Void is the condition of the junction, juxtaposition and dispersion of the atoms. 'The "void" of the atomists is not a single, endless space, but the plurality of interstices which make divisibility and plurality possible[6]' as Walter Burkert points out. Void can therefore be represented in cinema again as what unites, juxtaposes and dislocates shots, i.e. the editing and, to be precise, the transitions between the shots, these micro cuts considered empty intervals.

[1] Algra, K. (1995). *Concepts of Space in Greek Thought*. Leiden, Netherlands: EJ. Brill, 39.
[2] Ibid.
[3] Ibid.
[4] Lang, H. S. (2007). *The Order of Nature in Aristotle's Physics: Place and the Elements*. Cambridge: Cambridge University Press, 132.
[5] Hillis, K. (1999), *Digital Sensations: Space, Identity, And Embodiment In Virtual Reality*. Minnesota: The University of Minnesota, 96.
[6] Burkert, W. (1972). *Lore and Science in Ancient Pythagoreanism*. Harvard: Harvard College, 259.

For Plato, each body has its own location: the chôra, described in Timaeus as a receiver, a place in which the quality appears, and also as an interval in which the forms were originally held. Jean-François Mattéi compares the chôra to the photographic film which has a photo-sensitivity and can be affected by the light. Thus, the chôra can be considered as the negative film of intelligible forms. It's the matrix of the film, i.e. the empty place where pictures emerge but also the material which constitutes the pictures. Plato differentiates it from topos: 'whereas chôra appears to have always denoted a certain extension, topos could also be used just to denote location in relation to the surroundings[1]'. If Plato used the term chôra when talking about space, Aristotle who denied the existence of a void space, i.e. a space containing no substance, use the term topos. The difference is that the Aristotelian term is closer to the notion of place where bodies can be than the platonic concept of an empty space, i.e. the chôra. Indeed, for Aristotle, space is the amount of all places and bodies forming a continuity from which intervals of void are excluded. Like Aristotle, Zéno of Citium, contemporary of Epicurus and founder of the Stoic school of philosophy, and Chrysippus of Soli, also a founder of the Stoic thought after Zeno, deny the existence of a void inside our finite world. However, they believe in the existence of a void located outside of our world and forming a coherent whole. If the world appears limited to them, the void which surrounds it is unlimited and can contract and dilate when the matter needs it to. Like the Atomic one, the Stoic void is absolute. By considering the infinite space as an endless void, the stoics and ancient atomists created the first theory concerning an infinite cosmic space. But if we compare an atom to a framed image that we consider a closed system, what should be considered the infinite void surrounding this atom, i.e. the shot? Perhaps, we should consider the out-of-field? Indeed, we can find some similarities between this infinite void and the Deleuze definition of relative out-of-field which is an unseen but infinite space that he distinguishes from the absolute out-of-field 'by which the closed system opens on to a duration which is immanent to the whole universe[2]'. Deleuze explains that the relative out-of-field 'by means of which a closed system refers in space to a set which is not seen, and which in turn can be seen, even if it gives rise to a new unseen set, onto infinity[3]'. Thus, the Atomic unlimited, continuous, homogeneous void in which atoms can move eternally and which appears according to their movements looks not so different from this infinite space of the relative Deleuzian out-of-field: it remains unseen but can appear on screen when needed.

For the Greek schools of thought which include the existence of void in the concept of space, void is understood as an empty interval which distinguishes one body from another. By contrast, the Aristotelian concept of space rejects any interval's theory because it considers space as not independent from the body. For Aristotle, space is a continuous and closed medium. Thus, the antic concepts of space can be summed up in an opposition between continuity and interval and also between full and empty. In the framework of cinema, these oppositions could be regarded as two different schools of thought: first, according to the Aristotelian idea, the Bazinian way of considering the film as a unity and in favor of cinematic methods which reinforce the continuity of the diegetic world such as the continuity editing techniques, the use of wide shots and the shot in depth. The film is here edited in the most classical way to create, thanks to the mise-en-scène too, a true continuity in a closed world. This conception is opposed to the film theory of the 20's and the 30's which emphasized how cinema can create its own

[1] Algra, K. (1995), 34.

[2] Deleuze, G. (2005). *Cinema, Volume 1.* Paris : Athlone, 17.

[3] Ibid.

reality thanks to the montage and the editing and, thus, thanks to interval and discontinuity. This could be regarded as the cinematic translation of the second antic conception of space, the one in which void exists.

Aristotle's idea that nature abhors a vacuum, or horror vacui, raises upon the philosophical world during centuries. Indeed, Ken Hillis explains: 'his enduring authority, combined with religious opposition, suppressed the conceptual power of the Void until Galileo Galilei revived atomistic theory as a basis for his science and scandalized his pious contemporaries with and infinitely open space[1]'. By abandoning Aristotle's concept of a closed world, Galilei created a notion of space similar to the one developed by Euclidian geometry, i.e. an infinite, three-dimensional, homogeneous, isotropic space not so different from the definition of the Newtonian absolute space or from the ancient Atomic void. Indeed, the English physician Isaac Newton defined the absolute space without referring to the matter but thanks to the existence of the void. In fact, as Milic Capek explains, Einstein himself 'although not a historian, saw it quite clearly when he pointed out, in his preface to Max Jammer's Concept of Space, that the infinite void of atomists is indistinguishable from Newton's absolute space[2]'. In the 19th century, however, the Newtonian absolute space has come under increasing criticism. More and more abstract conceptions of non-euclidian geometries emerged thanks to scientists such as Gauss, Lobtchevski and Riemann. Nowadays, thanks to the quantum physics, we know that void is not totally empty but swarmed with various particles which really briefly appear and disappear thanks to a phenomenon called quantum fluctuations or vacuum fluctuation where energetic particles temporary appear out of nothing. Some scientists even think that these fluctuations may actually be what started the Big Bang off. As Craig J. Hogan explains:

> One hypothesis (…) supposes that the physical vacuum of empty space developed an intensely repulsion gravitational interaction. This repulsion blew the energy of the universe apart, an explosion that started the Big Bang. According to this idea, the thing that started the Big Bang – really all that was needed to get a large expanding universe going – was a microscopic speck of excited vacuum[3].

Therefore, void appears as an underlying environment which makes the creation and disappearance of particles of matter possible. Then, matter becomes an emanation of the void. Thus, quantum ascribes a creator character to the void that has to be kept in mind when studying the cinematic void. Far from being this absolute and passive void of the classical physics, void is defined, in the framework of quantum physics, as an empty space traversed by fluctuations and particles and from which matter pops out. Nowadays, the Atomic conception of void just like the Newtonian conception of space can no longer be taken into consideration. However, one of the key lessons taught by this philosophical and scientist history of space and void is that their concepts which are inextricably linked have a special general resonance in Cinema.

Firstly, there is a spatial void taking place in two dimensions on screen where motion figures appear. There is also the empty space in three-dimensions of the diegetic world in which the characters are moving. On a related matter, Henry Agel distinguishes two manners for the film-makers to use this diegetic space. On one hand, there are the film-

[1] Hillis, K. (1999), 96.

[2] Čapek, M.(1976). *The Concepts of Space and Time: Their Structure and Their Development, Volume 22*. Dordrecht, Holland: D. Reidel Publishing Company, XX.

[3] Hogan, C. J. (1998). *The Little Book of the Big Bang: A Cosmic Primer*. Springer-Verlag New-York: Copernicus,54.

makers of contracted space who prefer to fill every space of bodies, objects and presence. On the other hand, there are the film-makers of the expanded space who show empty spaces more significant than usual. These empty diegetic spaces can be totally depopulated and then appoint the absence of any Human presence on and off the screen. This space of absence and lack corresponds to what José Moure calls the vide-ambiance, i.e. the ambiance-void which is characterized by deserted areas. According to Moure, the ambiance-void is defined by its abnormality because an anomaly breaks its normality. In the context of this theory, void is not only the support but also the sign of this anomaly. Moure identifies all the lonely, isolated, abandoned and haunted spaces as privileged space in terms of ambiance-void, and especially the desert like in the film Gerry (2001) directed by Gus Van Sant. This American movie tells the wandering of two young men both named Gerry getting lost in the desert of Death Valley. The quiet and wide landscapes they moved through in silence share with the narration a same trend towards vacuity. The desert appears as an infinite empty space and could be compared to the antic Atomic concept of void in which atoms, considered here as the two bodies of the protagonists, wander endlessly. Their isolation strains those two human bodies by confronting them to an inhumane space protected from human interventions: an empty, wild and isolated area where nature raises silently but strongly its voice. If Moure distinguishes two poles in the depopulated ambiance-void: a positive one - as a blank and open space, source of life, and a negative one associated to death, Gerry's ambiance-void could clearly be associated to the negative pole dealing with the scarcity of life and threat of death. However, void can also symbolize the disappearance and absence of any forms of reality or human beings without showing deserted areas. Indeed, an empty place within a space full of people or objects can also show by contrast the lack created by the specific absence of bodies or objects. In fact, the void materializes the absence by creating a hole in the space and by paradoxically showing what doesn't appear anymore, i.e. its track. The last sequence shot of the Italian movie Seven Acts of Mercy (2011) directed by Gianluca and Massimilano de Serio clearly illustrates the way the void can be used to point out absence and disappearance. This ending shot shows two of the main characters sitting in the bus. While passengers get on and off the bus, they hide the protagonists for a short while. When the view is finally clear, the spectator realizes that the two protagonists have also left the bus. There is nothing to see but two empty seats, i.e. the presence of their absence 'opening up a space in which absence and presence never work as mere oppositions[1]'. By keeping them on screen but out of sight, the film creates a kind of underground connection between the image in which the characters were hidden by the passengers and the off-screen in which we suppose they disappeared. Thus, these characters are disappearing twice. Hidden by the passengers, they vanished a first time: they are no longer the main topic neither of the shot nor of the film. Then, they faded away a second time by leaving their seats empty, by being out of the bus and, thus, by being off screen. According to Gianluca de Serio, what is important about these two empty seats is that 'the viewers look at this emptiness and start to think not about what we are seeing now but what we are not seeing any more[2]', i.e. the two missing characters. The void, here, substitutes itself for their presence and becomes its mark and also its track. Figure of the absence, the mise-en-scène of the lack by the void silently commemorates the vanishing presence of the protagonists. This hollowed presence tries to overcome and even deny this absence. Indeed, the absence can, here, be considered as a new form of presence. Further, let's remind that, in Cinema, the illusion

[1] Trinh, T. M-H. (1999). *Cinema Interval*. London :Routledge, 39.

[2] De Serio, G. (2012, March). Conference at the FilmForum, Gorizia, Italy.

that allows the presence of bodies and beings to be seen always denotes their real absence. Indeed, there is no body in cinema but only the mark, the sign of its absence. The characters have neither past nor future but only present, the present of the movie. About this, Gianluca de Serio explains that the protagonists disappear 'maybe because we are not able to see them, not in the movie but after, when the movie is ended, in the reality[1]'. They only exist thanks to their representation, i.e. via the sign of their absence. Indeed, every representation embodies what not longer exists, what is missing. Therefore, there is an ontological absence in every representation which can only be the representation of the absence. Thus, the void appearing in the last Seven Acts of Mercy's shots thanks to these two empty seats, which are a representation of the absence, becomes the absence of the representation through which the representation of the absence is achieved.

After addressing the issue of the cinematic vacant space within the diegetic one, we will now focus on its intervallic dimension. First, however, we need to remember that cinematic space depends on a mental construction. Indeed, space in cinema takes shape in our mind thanks to the editing and also to the imagination of the audience which is able to fill the gaps and then reconstruct a global coherent architecture where there are only fragments. 'By making spatial connections between different shot spaces (…) the spectator is able to create clear and elaborative expectations about off-screen space. In this way, the spectator constructs an imaginary or mental spatial layout by which –most important- the spectator seems to be encompassed[2]' as Per Persson explains. Thus, the spectator himself creates the continuity thanks to the different spatial fragments that the film shows. The gaps that the cuts create between shots fragment the movie into several shots thanks to micro intervals, which play their parts in the construction of cinematic space. According to Jacques Aumont and Michel Marie, the term interval, in Russian as in French, can be understood as spatial, i.e. the distance between two points, but also temporal as the time between two moments and, finally, musical too: the range between two notes played. In other words, the term interval can respectively designate a gap, a link of continuity or an abstract relation. Let's note here that the interval of space is similar to what we commonly consider an empty space. Aumont and Marie describe the term interval by referring to the French word béance, which can be translated as gap or void, and that they consider not only as the difference between two successive shots but also as what makes the transition between them possible. Vertov defines it as the passage from a shot to another, creating spatio-temporal transformations. Vertov's interval is not determined to create or maintain the illusion of continuity. On the contrary, the productive gap organizes the shift between shots. For Deleuze, 'you can bring two instants or two positions together to infinity; but movement will always occur in the interval between the two [3]'. Norman McLaren also explains that 'animation is therefore the art of manipulating the invisible interstices that lie between frames[4]'. Thus, intervals between shots cause changes and internal transformations which participate in the harmonization of the film and create sense. They also allow us to reconstruct a mixed space which does not take into account our spatio-temporal laws and can amalgamated some Italian lands to Russian ones thanks to a simple play of shot/reverse shot like in Andrei Tarkovsky's Nostalghia. But can this interval be considered spatial? Here, we could set the Platonic argument by considering that this void must not be understood as

[1] Ibid.

[2] Persson, P. (2003). *Understanding Cinema: A Psychological Theory of Moving Imagery*. Cambridge: Cambridge University Press,132.

[3] *Deleuze, G. (2005), 1.*

[4] McLaren, M. (1995). *Animation Journal*, Spring, 3.

spatial but as an interval with no scope which separates two contiguous things. In that case, the cinematic interval must not be considered a physical space but as the junction point or the split between two contiguous images. However, the repeated use of ellipses in the classic cinema or jump-cuts in the modern one which take place in the plot but also on the roll film seem to indicate these intervals are the places in which metamorphoses and transformations occur. They can even be part of the story as it is for example the case with the last sequence of the movie Doom Generation directed by Gregg Araki. This ending sequence shows how the three protagonists are being attacked by a band of Nazis in an abandoned loft. The scene starts in semi-twilight before plunging into a total darkness when the only light source turns off. There is now nothing to see but an opaque and black shot. Only the sound track informs us about the aggression that the camera could have shown if the room where the action takes place was not plunged into darkness. The content of the images is then emptied of its figures during barely one minute before an unstable light shows the scene in a spasmodic way and reveals the action at very brief and irregular intervals. Every new bright flash allows us to observe the modification of the scales and camera angles. The breaks caused by the light irregularities play the same role as the editing by splitting up a series of actions which constitute an event, multiplying scales and sights and creating rhythm and dynamics. The light follows the same principle as the fade out: it increases then decreases its lighting to make images appear or disappear. The empty interval, here, must be understood as a new form of interval, located not only between shots but on screen. It is a visual void: a lack dug by the images and an absence strengthened by the sound track. The gap between shots is here meant, highlighted, prolonged but also staged and becomes the image itself. Further, this sequence keeps off screen the actions by masking them thanks to the darkness while keeping them on screen thanks to the sound track. Indeed, the actions are located in the frame, strictly speaking, as we see it when the scene is enlightened but when there is no light, the black frame assumes then the same role as the off screen by creating suspense in the way it makes impossible to see the actions. Before deepening the relations between space, void and off screen, let's us just cast a glance back to the absolute and relative out-of-field Deleuzian concepts.

As was said earlier, Deleuze distinguishes two out-of field, the absolute and the relative one. The relative out-of-field is the one by which 'a closed system refers in space to a set which is not seen, and which can in turn be seen, even if this gives rise to a new unseen set, on to infinity.[1]' This relative out-of-field is an infinite reserve of space that can be extended ad infinitum and that echoes the cosmic void of the atomists. Indeed, the out-of-field connected to the frame can be considered an empty, infinite and homogeneous space as the Atomic void because, in some way, if the images are the plenum, i.e. the atoms, off screen has to be the void. Let's illustrate this point with the movie From the Life of the Marionettes (1980) directed by Ingmar Bergman. In this scene, the protagonist Peter tells his psychologist friend the dream in which he kills Katarina, his wife. The dream is described by Peter; his words create the sequence shown on screen. His voice-off allows a quiet and bright place to appear. There is nothing in this shot but this white light and this stabbing voice-off. A peaceful ambient and a serene space constitute the image. The light, which transforms the space into a bright environment, creates a void within the image. Peter and Katarina's white bodies seem to dissolve in the spotless space. The absence of shadows establishes a permanent play dealing with the appearance and disappearance of their figure in this white monochrome. The void surrounding them seems to play a part in the mutation of their bodies. Their skins

[1] Deleuze, G. (2005), 18.

become a quiet surface in adequacy with the space around them. This sequence offers a visual metaphor of the dissolution of the being in an infinite space. The place that Peter describes as closed in which the dream takes place does not possess nevertheless either door or window, either roof or wall and presents an absence of limit. There is no distinction here between the empty void showed on screen and the one surrounding it off-screen. This empty white space establishes a loss of limit between interiority and exteriority, between the internal and the external space. Paradoxically, this infinite space deals with an extreme confinement because when there is only space, there is no more space. The protagonists' bodies surrounded by the infinity of the space are not only dissolved in it but also compacted by it. Furthermore, a closed and compact space can reveal a certain idea of infinity also thanks to the off-screen, like in the movie Buried (2010) directed by Rodrigo Cortés. In this movie, the protagonist is locked in a coffin, i.e. a confined space which paradoxically erases the limit between screen and off-screen by creating an infinite dark whole from which the protagonist appears but which he can't escape. In some way, this empty whole from which the character emerges could also be compared to the platonic concept of the chôra and to the quantum definition of the void as noted earlier, but also to the Buddhist conception of void.

Indeed, the Buddhism considers void as what is unborn and has no origin, no end but also no form. Void is considered the source that gives life to all forms, beings and things. It is the matrix where all the vibrations of the world appears and disappears. If Buddha professed a thought different from his Chinese neighbor, Lao-Tseu, the Buddhism and the Taoism have in common to be two philosophies of the Vacuity. The Taoist Chinese philosophy is based on the text of Lao Tseu, Tao Tö King, in which the world is composed by the being and the non-being, as the atomists believed that the world was composed only by atoms (being) and void (non-being). Indeed, as the Atomist school considered void the condition of movements and existence of atoms, the Taoist void appears to be the condition which makes the movement possible. Lao Tseu describes an effective void which allows things and beings to be, in the way the utility of a vase results from its capacity to contain, which needs void itself to insure its feature. The example of the vase used by Lao Tseu is particularly meaningful when considering the cinema. Like the vase that Lao Tseu describes, the screen on which the movie will be projected but also the film on which the images will be recorded are meant to be filled. But as Lao Tseu does not consider the vase as empty, void exists neither in the space of the white screen nor in the virgin film. Indeed, the Taoist void is a potential waiting for its own accomplishment. It's a space of creation from which all forms will emerge; it is the place that the work of art will fulfill. This potential comes true once recorded on the film and projected on the screen. Thus, the vacuity asserts itself as the matrix of the work of art. It is not considered as the negation of the creation but as its possibility of existence. In that light, void contains the movie to be, i.e. its virtual and possible existence. It is the foundation and the original principle which makes the creation, the realization and the fulfillment of the work of art possible. Thus, as the quantum void allows creations ex-nihilo, void in art can be understood as the origin of every artistic creation from which the emerging immaterial work of art is still experiencing the void fluctuations but is about to appear.

Bibliography

Algra, K. (1995). *Concepts of Space in Greek Thought*. Leiden, Netherlands: EJ. Brill.
Burkert, W. (1972). *Lore and Science in Ancient Pythagoreanism*. Harvard: Harvard College.

Čapek, M.(1976). *The Concepts of Space and Time: Their Structure and Their Development, Volume 22*. Dordrecht, Holland: D. Reidel Publishing Company.
Deleuze, G. (2005). *Cinema, Volume 1*. Paris : Athlone.
Hillis, K. (1999), *Digital Sensations: Space, Identity, And Embodiment In Virtual Reality*. Minnesota: The University of Minnesota.
Hogan, C. J. (1998). *The Little Book of the Big Bang: A Cosmic Primer*. Springer-Verlag New-York: Copernicus.
Lang, H. S. (2007). *The Order of Nature in Aristotle's Physics: Place and the Elements*. Cambridge: Cambridge University Press.
McLaren, M. (1995). *Animation Journal*, Spring, 3.
Persson, P. (2003). *Understanding Cinema: A Psychological Theory of Moving Imagery*. Cambridge: Cambridge University Press.
Trinh, T. M-H. (1999). *Cinema Interval*. London: Routledge.