



25-28 June 2019

PROGRAM

&

ABSTRACTS



Commission on Science & Literature
DHST/IUHPST



25th June Tuesday

16.00-17.30 Registration

18.30 Opening of the Conference

19.00 Plenary Lecture

Prof. Klaus Mecke, Friedrich-Alexander-Universität Erlangen-Nürnberg,
Space-Time-Matter: the world as a process of events

Where does time 'come from'? Why do we 'live' in three dimensions of space? What is 'matter' actually? Such questions are usually asked in philosophy but not in physics. In fact, even the empirically well tested Standard Model of Elementary Particle Physics and the General Theory of Relativity of Cosmology assume answers by postulating that the world consists of a continuous 4-dimensional space-time filled with quantum fields. Here, a number of ontological and epistemic assumptions have already been made that are neither empirically proven nor explicitly challenged in physics. A new geometrical model of the world - consistent with the Standard Modell - could possibly give physical answers and thereby initiate a philosophical reflection on the foundations of being. A process ontology proposed by Alfred North Whitehead in 'Process and Reality' (1929) seems to be more appropriate than any substance ontology with its distinction of matter from space and time.

Based on the differences in the geometry of finitely many points to the mathematically more complicated (real) continuum of points, it can be argued that 4-dimensional space-time is the only possible way to formulate a mathematical model of a world created by events. Space, time and matter appear as the only possible manifestations of events on large scales. Matter appears as a specific geometric distortion and is therefore not to be separated from space-time but a part of it.

In addition, quantum phenomena of matter appear necessarily as a geometric feature in the finite world model, as well as all physical properties of the known elementary particles, in particular, their interaction forces, their masses and charges follow from the geometry of finitely many event points.

This unity of matter, space and time was already searched for by Albert Einstein - as a generalization of his theory of gravitation - but not found, since it is (probably) not possible with the assumption of a continuum of points.

20.00 Welcome Reception

(with a musical travel in Space and Time)



A live performance

by

Nikos Kordellis (guitar) & Lambros Papanikolaou (contrabass)

26th June Wednesday

Morning Sessions

Morning Session A-1 (09.00-11.00)

Aura Heydenreich, Friedrich-Alexander-Universität Erlangen-Nürnberg, *Einstein's Special Relativity Paper „On the Electrodynamics of Moving Bodies“: Scientific Modeling Process and Narrative Strategies*

Einstein's paper „On the Elctrodynamic of Moving Bodies“ (1905) established the special relativity theory. The concept of „spacetime“ was its logic consequence, it proposed a reorganization of spatial and temporal experience. My presentation offers a narratological reading of Einstein's paper and focuses on different narrative techniques as embedding, framing, focalization and perspectivation. The paper analyzes the superposition of scientific modeling practices and narrative strategies and focuses on the epistemic functions of narrative representation in the process of scientific discovery. The paper argues that different textual strategies, e. g. explicative and narrative techniques, can co-exist in scientific publications as they have different epistemic functions.

Allen Olson-Urtecho, Institute for Doctoral Studies in Visual Arts, *Virtual Reality and Space Time*

Space and time fuse together to a four dimensional spacetime continuum which may be simulated with the use of mathematical, geometric, and computational principles. To that end my research focuses on applying those mathematical, geometric, and computational principles within virtual reality with the intention of replicating the lived experience. I will present how temporality and time design is applied within a 3-Dimensional spatial world from the first person perspective. The concepts of temporality are drawn from Edmund Husserl, Henri Bergson, among others. These concepts are converted to mathematical, geometric, and computational principles. The outcome is the simulation of nature, the human experience, and potentially their aspirations in virtual reality immersions. The implication is the understanding of how time designed affects our perception and how properly designed it can have a powerful effect on our lives.

Iouliani Vroutsi, University of Athens, *The on Board Chronotope through an interartistic comparison: «Sinapothanoumeni» (1922) and “Stagecoach” (1939)*

In this paper it is intended to be examined through an inter-artistic comparison the bakhtinian chronotope on board. In this approach the mobile, we could say, universe that is constructed by a chronotope on board is considered comparatively in the literature, an art of time and the intermediary art of cinema. The comparison is between a short story of the famous Greek writer Pavlos Nirvanas under the title “Sinapothanoumeni” (These who are going to die together) (1922) and the classical film of John Ford “Stagecoach” (1939). The paper aims to underline how the construction of this limited space- frozen time in the narration (literary and cinematic)

of a moving coach cutting the chronotope of the journey as for the outside observer reveals the “truth” under the objective “reality”.

Morning Session A-2 (09.00-11.00)

Michaela Giesenkirchen Sawyer, Utah Valley University, “*By the time that it is there*”: *Spacetime in Gertrude Stein’s Work*

Gertrude Stein’s striking treatment of time in her writings—especially the distinctions she herself made in explanatory lectures between the “prolonged present” represented in her early work and “the continuous present” captured in her later writings—was a central interest in studies of her work before the cultural turn in the 1990s. Stein’s equally striking attention to space, as for instance in her enactments and conceptualizations of geography, has been widely noted also by cultural critics, albeit mainly in the context of cultural constructivism. Arguing for a return to the ontological foundations of Stein’s aesthetic, in 2001 Steven Meyer drew attention to Stein’s central idea of her writings as “spaces filled with moving” and compared it to central tenets in Francisco Varela’s and Alfred North Whitehead’s process philosophies. Following this line of argument, this paper will discuss Stein’s conception of her experimental pieces after 1912 as vibratory organisms in which space and time emerge relative to each other. Some of her plays, for instance, could be very aptly described as events in which spacetime is configuring a stage for itself. I argue that, during the second decade of the 20th-century, this writing formed itself concomitantly with Stein’s involvement in George Braque and Pablo Picasso’s cubism as well as her deepening study of William James’s Radical Empiricism.

Peter Henning, Umeå University, *Self-Commentary in Contemporary Poetry: Notes on the Historical Transformations of Aesthetic Space*

This paper will investigate the historical transformations of poetic textual commentary, paying special attention to the changing conceptions of aesthetic space. If commentary long figured as an integral part of the poetic text, poetry would, to an increasing degree, be regarded as an autonomous aesthetic sphere. Whereas contemporary readers of Petrarch, for instance, would find his poems blended graphically with other author’s explications, Eliot’s comments to *The Waste Land*, on the other hand, appeared clearly separated from the poetic text (if also forming an integral part of the work in its entirety).

My focus, however, will primarily be directed at textual self-commentary in contemporary poetry – the use of explanatory footnotes and references being two common examples. These aesthetic devices perform a translation between different languages and spaces: between society and the poetic. However, apart from their elucidating purpose, they also serve a legitimizing one, conferring to the lyric a productive value – for instance by putting forth poetry as a form of research. If commentary has historically been used in order to legitimize texts in religious, aesthetic, or political regards, this paper argues that contemporary poetry’s tendencies

towards self-commentary should also be understood against the background of an increasing academization and professionalization of artistic labor.

Elizabeth Haefs, University of Duisburg-Essen, *Loops, Circles, Cycles: The Story of Time Crystals*

The existence of narrative in scientific prose, models and simulations has been examined by scholars like Gillian Beer, Mary S. Morgan and M. Norton Wise. A less frequently employed method is the narratological analysis of articles and papers from scientific journals. I will further open up this material by focussing on emplotment, tellability and the use of metaphor in a scientific journal article.

Elizabeth Gibney's Nature news feature "A Matter of Time" announced the successful experimentation with 'time crystals' and yields insights on how storytelling elements arrange scientific research regarding space and time. Time crystals are condensed-matter particles which display a somewhat unusual relationship towards spacetime – as already suggested by their name. In physics, time crystals present an anomaly: if manipulated the right way, they repeat their structure in time, rather than in space (as 'regular' crystals do). This fixed rhythmic behaviour is called a breaking of time symmetry. The repetitive nature of time crystals enforces a non-linear, cyclical view of time itself. At the same time, the image of the cycle stands in contrast to more linear notions of scientific progress: this apparent opposition is mirrored in the dichotomy between the crystalline rhythm's rigidity and, simultaneously, its continuity.

In a striking way, I argue, narrativity in these texts relates to the underlying physical and temporal assumptions made in the scientific experiments: the cyclical structure of time crystals fundamentally informs the text's structuring principles. By focussing on Ricoeur's concept of mimesis and Campbell's circular heroic monomyth, among others, I will analyse how the circle and the cycle thus govern all dimensions of the text. A comparative look at the academic papers that provide the groundwork for this news feature will shed light on whether these structures also appear in the scientists' own papers.

Sofia Varino, Humboldt University Berlin, *Multispecies Objects: Towards an environmental model of immunological activity*

In this paper, I propose an immuno-environmental model of biomedical phenomena in which human and nonhuman multispecies entities participate actively in vital material-semiotic assemblages with discursive and material capacity. I use the case study of Multiple Chemical Sensitivity (MCS), an idiopathic environmental syndrome, to examine in detail how immunological assemblages are enacted and materialized. In order to demonstrate my argument, I examine a variety of MCS documents as sociocultural archives of expert and non-expert immunological knowledge practices, including scientific articles and medical studies, fictional and

non-fictional accounts, social media and news reports. My paper is therefore invested both in the ontological and in the epistemological foundations of immunological knowledge, which I contend collapse the boundaries between the self-enclosed, autonomous (human) subject and its physical and social surroundings. Rather than contained, discreet events, the workings of immunological life extend across time and space, expanding and challenging classic spatial-temporal categories.

Coffee& Refreshments Break (11.00-11.30)



Morning Session B-1 (11.30.00-13.30)

Martha Elias, Independent artist, language professional & multilingual poet, *Da Vinci's eye: Infinite SpaceTime Intersections*

Leonardo da Vinci as a historical person and polymath remains as the incarnation of the noble, the eternal, and the ever-giving human being. It all comes from an indomitable will to cultivate the diverse expressions of science and art – where the limit lies within the eye of the beholder, while not in the surroundings. Therefore, Da Vinci encircles the concept of the Renaissance man's ultimate figure – always ahead of his time, pursuing new ideas, always a new angle to intercept; i.e. an illuminated being, a genius. From his scientific superiority, accurate engineering work and his unrivalled use of the golden ratio in his artwork – which was also based on his technological findings - Da Vinci explores and defies space and time perceptions, through an intersection of diversified doors to the world around him: his quest is perfection in the area at hand and during his lifetime – all of this followed by an untamed curiosity. Being a painter, sculptor, musician, writer, engineer, architect, botanist, anatomist, and an inventor he sought to reach out to the highest potential any human being of his time - and of ours - had accomplished – his excellence in science and the arts make his legacy univocal, unprecedented and unmatched.

Marina Koehnen Ludwigs, Stockholm University, *Enthralled by Time: the Narrative "System" and the Two Temporal Flows*

Coming from the perspective of narratology, I would like to focus in my talk on the dynamic of narrative-narratee interaction. My idea comes from a new way of conceptualizing eventfulness in narratives. The traditional definition of narratives states that narratives contain sequences of events, which leads to the question of what constitutes narrative events, especially considering that not all events are interesting or relevant to interpretation. Narratologists agree that an event has to be significant, which would lead one to ask for the definition of a significant event. In my view, we need to turn the definitions around and instead of saying that narratives contain events, say that events contain narratives in their collapsed form, and that it is

precisely the moment of recognition of an event as event that produces an unfolding of the “contained” narrative. Turning things around like this takes the emphasis off the question of what is a significant event. It is not that we need to define it: it is rather that when we saw something that we saw retroactively as an event, we told a story of its significance.

This is a larger “frame” idea around a more specific idea I would like to present. The enfolding-unfolding of an event into narrative contains a paradoxical element. I connect this paradox to a split, convoluted, and counter-directional temporal flow of narrative consciousness, which one could see located on both sides of an event, as it were, so that the two positions, described as “everything has already happened” and “everything is still possible,” are both true, at the same time. What I would like to argue is that both positions, which one could ascribe to the narrator and narratee, belong to the same narrative consciousness or narrative system (we can see the truth of it in the realm of everyday experience where we can be, at the same time, a narrator and narratee of our own life stories). The two positions are oriented toward each other as the narrator “feeds” the story to the expectant narratee. If we bracket the question of whether the story unfold (non)linearly or (non)chronologically or whether some other formal experimentations are used, and reduce the interaction between the narrator and narratee to its bare bones, we can say that the narratee faces the future, anticipating, hoping, rooting for characters, or dreading whatever next bit of information is to come. The narrator, on the other hand, can be said to come from the future because the events of the story have already taken place before they can be narrated. But I want to take this one step beyond noticing that narrative consciousness is split between the past and the future and claim that these two narrative orientations are entangled with each other (in fact, entrained, as two waves might be) in such a way that two flows of time are created. The future-oriented flow takes a leap and plants itself into a point in the future, while the past-oriented flow unrolls from the future as a backward-chaining deterministic sequence, whose end point meets the point of the leap. I will suggest that this is what we mean when we talk about teleological structures and that representation, being immersed in language or symbolic systems, activates narrative teleological patterns of thinking.

**Juan Francisco Campo Echevarría, Carlos Gámez Pérez, Universitat de Girona,
*The Arrow of Time in Literature: Prigogine’s Time Ideas in Time’s Arrow and
“Viaje a la semilla”***

Ilya Prigogine and Isabelle Stengers state in *Order out of Chaos. Man’s New Dialogue with Nature* their ideas through the changes in the conception of temporality in science, specifically through the concept of irreversibility in time postulated by Maxwell Boltzmann in thermodynamics in the 19th century. Irreversibility in time has completely changed the picture in science because, its previous perceptions thought in time as a reversible magnitude. For this reason, “classical science has now reached its limit.” (Prigogine & Stengers 54). Omar Calabrese invokes this aesthetic issue in *La era neobarroca*, in which he attributes his theories to Prigogine’s ideas about temporal irreversibility, and their cultural connections (160-9), creating new and previously

inconceivable relations, such as the relation between science and literature, or the development of the mathematics of chaos which strongly influenced cultural production.

What happens if a literary work tries to break this supposed irreversibility? In this communication, we would try to analyze the dialogue created between mathematics and literature, between time and writing, with the help of the study of two literary works which propose a reversibility of time. The novel *Times Arrow: Or the Nature of the Offence*, by Martin Amis, and the short story “Viaje a la semilla,” by Alejo Carpentier, Our intention is to work on the connections of philosophic concepts such as complexity and the intimate relation of the works with Prigogine’s ideas.

Stefan Benz, University of Manheim, *REALITY IS A POINT, A PLATEAU, A MYSTERY:* (Re-)Visions of Non-Linear Time and Space in Michael McClure’s Poem “Double Moiré for Francis Crick

Emerging out of the poetry circles of the San Francisco Renaissance and the Beat Generation, poet and playwright Michael McClure (born 1932) has produced a significant and yet still understudied body of literature. While his early work was driven by a countercultural agenda, that advocated drugs, broached issues of environmental protection, and announced a (anti)politics that sought to establish that “THERE IS BUT ONE / POLITICS AND THAT / IS BIOLOGY,” the writing McClure has produced and continues to produce has become immensely diversified and sophisticated. Perhaps his magnum opus, the 20-page poem “Double Moiré for Francis Crick” (published 2010) – a significantly elongated version of his 1974 poem “Moiré for Francis Crick” – showcases the versatility of his poetic genius. Appropriating the visual moiré effect as a poetic tool, McClure creates a highly interdisciplinary poem that probes the compatibilities of natural science (biology and physics) with the spiritual cosmologies of Taoism and Zen Buddhism among others. Figures such as Paul Dirac and Dogen Zenji thus appear next to each other so as to negotiate their groundbreaking ideas together, because they all “know some of that.” The goal of McClure’s poem then is to “hur[!] out in a splash of [poetic] ink” what the mathematician and philosopher Alfred North Whitehead, who is also referenced in “Double Moiré,” called a new mode of thought that combines the uninhibited, imaginative insight of mysticism with the rational coordination of scientific thought.

In light of the topic of this year’s SLSA conference, this talk puts particular focus on the multidisciplinary renegotiations of space and time in McClure’s poem. “Double Moiré” refutes Eurocentric/humanist notions of linear time by invoking and blending the findings of quantum mechanics, the theory of dark matter, the Taoist notion of reality as an “Uncarved Block,” and Zen Buddhism’s continuous present. This allows McClure to envision the universe as a stack of reality “PLATEAUS,” each existing in parallel, not governed by the linear temporality of past, present, and future. Thereby, he furthers his general arguments of anti-anthropocentrism and of the deep interdependent interconnectedness that is not only given within the space of the present, but between the spaces of all presents that exist.

Morning Session B-2 (11.30-13.30)

Pernille Leth- Espensen, Aarhus University, *Timepieces: Technological Mediation of Time in Art*

This paper will discuss a number of contemporary artworks that thematise technological mediation of time by literally incorporating timepieces.

In *Harrisons Garden* (2015) the artist Luke Jerram has created an installation from more than 2000 clocks of various kinds, from mantelpiece clocks, grandfather clocks, watches to digital alarm clocks, and so forth. The clocks are all set to different times and thus create a continuous soundscape. The work points to the importance of the auditive component in the history of timekeeping, from bells in clock towers and the tick-tocks of clock hands to the sound of cuckoo clocks and alarm clocks. The name Harrison in the title refers to the inventor of the marine chronometer John Harrison.

In Julietta Arandas work *Two Shakes, a Tiff and a Jiffy* (2009) the clock dial is divided in 10, instead of 12, inspired by the ideas of decimal time during the French Revolution. The work thematises that our way of measuring and dividing time is not natural. The second hand is connected to the artist's heart rhythm and thus turn our attention to the relation (and difference) between the time of the clock and the time of the body.

The paper will address how the artworks interpret the history of timekeeping as well as how they thematise technological mediation of time in contemporary culture.

Kurtis Lesick, Alberta University of the Arts, *Preliminary Conjectures on Indeterminacy and the Dissolution of Time, Space, and Matter as Substance*

In *Being and Time* Heidegger inextricably links human existence to a unity of three temporalities--past, present and future. Critical here is that the ontological status of time, its measure as a obligatory co-constitutor of being, is only a condition for *human* being (*Dasein*)--time is made requisite and determinate only by likewise qualifying (human) being as determinate. True to the traditions of phenomenology Heidegger grounds his analysis within the horizon of human subjectivity. Time, in this regard, is relegated to a precondition for generating the world for *Dasein* .

"Human," is thus exposed as an arbitrary category, that maps *being* into a determinate entity. This "human" qualification, this stand-in or simulacrum of being occludes the original and has overwritten much of philosophy since its beginning. Simply by virtue of being, we are always more than "human": we are animal, we are substance, we are matter, and even in the light of these simplifications, we are indeterminate, ever reconfiguring, finite and infinite. This not only has implications for how we may consider being, but by necessity breaks down reified conceptions of time, space, and materiality.

Using the concept of indeterminacy as a diffraction point this paper tugs at the thread of being, time, and space as requisite "containers" of subjective phenomenology, exploring instead whether "human" might *not* be the only phenomenological condition that we experience. A trajectory of thinking will be drawn between Georg Wilhelm Friedrich Hegel, Jean-Luc Nancy, Karen Barad and others to render indeterminacy as a productive philosophical heuristic.

Lars Erslev Andersen, Danish Institute for International Studies, *Spacetime and the 'Model of Order'*

The basic question in this paper is: What is Order? There are countless publications on the origin and history of (different kind) of order. But very few studies on what order is as such

This paper addresses this question in two steps, first a pragmatic approach and secondly a theoretical. In the pragmatic approach the point of departure is classical Greek thinking on *nomos* and *cosmos*, historiographical studies (Reinhart Koselleck), and epistemological considerations by Albert Einstein. This pragmatic approach leads to a definition of order as an 'intuition' in the Kantian sense and describes this intuition in four dimensions: time, space, border, and hierarchy.

In the second, theoretical part, the paper reconstructs Kant's discussion on 'Synthesis' in intuition, imagination and concept and makes the argument that order is an intuition that structure human thought geometrically. This idea is developed further in a discussion on the concept of 'will' by Schopenhauer and Nietzsche leading to two fundamental and complimentary schemes of order that forms the Model of Order: The Apollonian construction and the Dionysian deconstruction.

This Model of Order is then discussed in three steps: (1) on space, time and spacetime to balance Kant and Einstein, (2) on the idea of 'Quantum Mind' developed by Alexander Wendt, and (3) on 'understanding' as developed by Hans-Georg Gadamer. This leads to the formulation of a Model of Order in four dimensions.

In the final part the paper offers some perspectives on how the Model of Order can be operationalized in the study of 'Social Order'.

Christos Dimopoulos, Aristotelian University of Thessaloniki, *Space as Distance and time as scattering*

The first interpretation of space philosophically is the distance between two points, the interval that separates them. "Space is not a part of the thing, but something that interferes between things" (Aristotle, Physics, D4).

Next big step in Physics was the absolute space (and time) that firstly Galileo, and later Newton established when he had to mathematicise the Law of Gravity. The next person to define differently space and time was Einstein, who radically changed our image for them. He speculated, and was ultimately proved, that space is not absolute, instead it depends on speed, gravity and the observer.

Quantum Field Theory, builds its foundation on space, on whose shoulders supports all of the other fields (forces and particles). In this notion mass is the curvature of space. What if we assumed that space is the separation of mass?

What does modern physics teach us? Mostly identifies the space that we think we occupy as an "empty thing", creating its limits by point like particle dividing repulsions. Theory of Special Relativity reveals that, along with time, space is no more than an unchanging interval between particles. Quantum physics leads us to the conclusion that space is the result of the "antisociality" of particles from the moment they are located-detected.

Thermodynamics through entropy shows us a forced one-way path towards the equal and maximum possible distance between the particles. Space seems to be a division that continually tends to grow through entropy. "Space" tends to be separation between masses and "time" their following scattering.

Lunch Break (13.30- 16.00)

Participants may do their own arrangements



Evening Session C-1 (16.00-18.00)

PANEL I Primal scenes of speciation and ‘the becoming-space of time’

As anthropo-scenes escalate, we solicit critical attention towards speciation not as an end result but as a process that is always out of joint and out of sync with itself. Drawing on deconstruction, psychoanalysis and critical race theory, we ask who ‘we’ are when we are always haunted by others multiplying vectors across sex, race and animality? What spatiotemporalities can welcome differences rather than defend against them?

Lynn Turner, Goldsmiths, University of London, *Raising animals: the becoming-time of space between cellar and kennel*

‘Have you fed the dogs yet?’ This anxious phrase, along with agitated barking, frequently reminds us that somewhere there are dogs close to the country house in which Lucky McKee’s 2011 horror film *The Woman* is set. This house or *The House* - following the definite article of the title - invites a spatial analysis of metaphysics as a gendered oikos, not least since the film’s patriarch-lawyer captures a ‘feral’ woman,

chains her in the cellar and frames her as the family civilization project. Crucially, the film is also shadowed by 'the animal,' the static concept of which dogs this otherwise astonishing revenge narrative. The spatial and conceptual parallel between cellar and kennel substantially structures the film. Classically uncanny, only the 'animal' in the cellar returns to light - when the Woman is finally freed. The key horror surfaces in the penultimate revelation of just what has been going on with the dogs: the family's anophthalmic daughter has been raised as one. Her emergence however, channels not the transcendence of a recuperative humanity but an immanent pethood that raises doubts about the alternative presented by the feminized family at the end.

Hyaesin Yoon, CEU, Budapest, Hungary, *Speciating Humans: the becoming-geography of history in Sylvia Wynter's Homo Narrans*

"But who are we as the human species?" For Sylvia Wynter, the significance of this question parallels that of the "Anthropocene," to which the West's Man (who unfairly stands for the entire human species) has led us. To envision a way to avoid global catastrophe, Wynter offers an alternative theory of human origin: the emergence of homo narrans in Africa, thanks to the human brain's co-evolution with our myth-language capacity. She illustrates this theory through Frantz Fanon's famous moment when he is called a "dirty nigger" upon arriving in imperial France. In this scene, the projection of the White myth institutes the ontogeny of the Black person, who thereby experiences himself as both "normally and abnormally human." While Wynter's theory recasts the Darwinian origin story, it does not simply reverse it but doubles and haunts it through the geographical-historical split of the beginning – the arrival of homo narrans in Africa and the birth of the colonial pseudo-species in 20th-century Paris. This interstice (becoming space-of-time, or becoming geography-of-history) affords a chimeric vision that performatively un/does who we have become and thereby who we will have become as human species in difference.

Astrid Schrader , Exeter University, *Contretemps and animot: the unbecoming-space of time of a (pussy) cat without a name*

One more time, this paper returns with Jacques Derrida's primordial bathroom scene in his zoography *l'animal que donc je suis* to the beginning of time and the naming of the animals, a beginning at the intersection of two times, always already there and yet to come. I need the French title here the English title just doesn't cut it (literally), it rather erases the contretemps of 'je suis' – I am/following - that already says it all, like an anachronic aphorism - contretemps: the death sentence of a living-on, or, the living-on of a death sentence. If thinking begins with the animal, being begins with following. Why does this little female pussy cat with whose gaze all thinking and time begins never receive a name? If that what distinguishes man from a rose is how a name separates from a thing, how does a name separate from a female pussy cat? You need a name to survive as a ghost. Derrida's pussy cat is clearly, not just an animal, but also a female sex; sexual difference is at stake. This paper explores the role of

time in the articulation of the relationship between animal and sexual differences in Derrida's animal autobiography.

Evening Session C-2 (16.00-18.00)

Georgia Pateridou, Hellenic Open University, *The role of space and time in literary movements and genres (from the 19th to the 21st century)*

This presentation aims to explore the role that the notions of time and space play in the creation and evolution of literary movements and different genres in the last two centuries. Since literature is always produced for a specific audience, these major scientific and philosophical notions play a crucial role in its formation and its function as a carrier of ideas. Time and space are fundamental concepts of thought since the beginning of modernity. Modernity is expressed "in" the space and "through" the space. Furthermore, the treatment of time produces literary material with different scope; to cite briefly one example, the long 19th century has been the period where history and the past gained prominence, hence the development of the historical novel and other forms or 'romantic literature' in which the treatment of time was a crucial component. The analysis will focus on these literary developments (exploring the movements of romanticism, realism-naturalism, modernism and post-modernism) by examining the paths which the different views regarding the concepts of space and time allowed to unfold during the last two centuries.

Erik Erlanson, Linnaeus University, *Francis Ponge and the enterprise as a symbolic form*

The main purpose of this paper is to develop the concept of the enterprise as a symbolic form. Building on Elettra Stimilli's work on Max Weber's understanding of the capitalist enterprise as a "finality without end", I propose that much like the linear perspective in Erwin Panofsky's art theory, the enterprise may be considered a historical form structuring human perception of space and time. In the paper, I will develop this concept in a reading of the writings of Francis Ponge.

Unlike Georges Bataille, who has elaborated a stark opposition between the enterprise, or the project, as a governing principle transforming all objects of our perception into means to an end and a non-instrumental inner experience, the writings of Ponge may be used to work through a more nuanced and elaborate model. The properly Weberian understanding of the capitalist enterprise responds, I suggest, to Ponge's understanding of his own poetic endeavour. Like many other 20th-century artists and writers, Ponge's writings resist closure, avoiding in one way or another to be finalised. In the French poet's own words, this unending design of his writings is termed "l'inachevement perpetuel". I argue that in theory and practice, Ponge's writings manifest a structural similarity between the poetic enterprise and the capitalist enterprise, and subject both of them, considered as symbolic forms, to a decisive *detournement*.

Evelina Stenbeck, Lund University, *The Space Time of Resistance in Contemporary Poetry*

Political fascism has during the last decade increased in numbers, spaces and places. In her long poem “A Letter to Europe” (2018), the Swedish poet Athena Farrokhzad addresses the neo-fascist situation in Europe and calls, among many other things, for a collective uprising against oppressive forces.

This paper will take Farrokhzad’s poem as a point of departure to explore the temporal, spatial and tempo-spatial properties of anti-fascist resistance expressed in European contemporary poetry. Is anti-fascist resistance – the person or group conducting resistance– perceived of as a subject perpetually prepared for fighting? What are the implications on such a resisting body over time? Or, is resistance rather a question of timing in which there is a right time and space for preparation, action and reaction? How can we comprehend the cyclic organisation of fascism through poetic figures?

Additionally, my presentation aims to investigate the historical space this type of poetry occupy in terms of historical consciousness, oblivion and recreation of counter-narratives.

Aline Ferreira, University of Aveiro, *Expanding Time, Extending Life: Cryonics and its Vicissitudes in DeLillo’s Zero K and Begam’s Long Life*

The purpose of this paper is to reflect on a particular dimension of time, that pertaining to perceptions of human life extension. The dream of prolonging human existence, mainly with recourse to cryonics, will be examined through the lens of Don DeLillo’s *Zero K* (2016) and Robert Begam’s courtroom thriller *Long Life* (2008). *Zero K* is a novel shot through with references to and reflections on time, present, past and future. Notions of temporality and spatiality are explored in the narrative, metaphorically suggesting alternative cognitive possibilities unlocked by the imminence of undergoing a cryonics procedure. Like *Zero K*, *Begam’s Long Life* also revolves around the legal concept of death and of the legality of pre-mortem suspension. Both novels engage with the concept of cryoethanasia, the process of provoking the death of a terminally ill patient in order to have a better medical chance of extending their life through cryonics, a method described by Francesca Minerva and Anders Sandberg who argue that “administering cryoethanasia is ethically different from administering euthanasia” (Bioethics, 2017). The two novels thus provide challenging visions of posthumanist and transhumanist scenarios.

As a theoretical framework I will engage with the recent work of a number of bioethicists such as Ole Martin Moen and David Shaw on the case for and against cryonics from a bioethical point of view.

Evening Session C-3 (16.00-18.00)

PANEL II SPACETIMES OF (TECHNO)COLLECTIVITY

The panel explores the constitution of collectivity as compositions of spacetime through philosophical, media theoretical, and artistic research practices. The collaborative research at the heart of this panel assumes that collectives are not just social but define complex assemblages that might include humans but are always more than human. Accordingly, the question of material, conceptual and genealogical dimensions of spacetimes afford approaches that move through the sensuous, experiential, and embodied in order to shed light on the relational enabling constraints that give way to specific spatio-temporal compositions, formations and their effects. In various ways the four different presentations

will look at artistic, aesthetic, and activist practices concerned with the composition of percepts and affects as political trajectories in their respective fields: drawing on social movements in Spain and the discourse on technopolitics; exploring feminist video-collectives of Berlin in the 1980s as form of so-called “fugitive collectives”; a relational understanding of history through artistic spatializations of time; and philosophical differentiations of temporality in western and non-western contexts. Our aim is to explore the aesthetic political and constituent role of spacetime as the expressive force that enables specific modes of creation, production and sensation with and through linear and non-linear narratives. By developing a more-than-human account of collectivity we will to inquire the relational ground of aesthetic-political practices through art, media, and activism in their situated and processual yet translocal and transtemporal capacities.

We conceive of our research practice as intrinsically engaged in a collective process through different constellation of co-working, thus the panel will be moderated collaboratively and we will engage in a more general discussion together with the audience around the concern constitutive collectivity.

Christoph Brunner, Leuphana University Lüneburg, *Transtemporal Collectivity – Four Variations: Chronos, Aeon, Kairos, Ends of the World*

The paper will explore the more Western philosophical notions of chronos, aeon, and kairos, foregrounding the latter as a temporality of the event. Based on the works of Gilles Deleuze and Toni Negri time becomes a force of the untimely, allowing for new space-times to emerge in experience. Shot through by a queer account of temporality in the work of Esteban Muñoz and with a final Amerindian twist, the paper will attempt to decenter the Western theoretical framework of concepts of time, opening up a non-western perspective concerned with “ends of the world” and a temporality of ending as immanent potentiation of re-beginnings. Rather than privileging one concept of time over another the paper wants to emphasize the contemporary state of “mondialized” circulation as the entanglement of multiple temporalities and their situated spatializations

Ines Kleesatel, Zurich University of the Arts, *Spatialized Historiography as Collective Storytelling*

The paper presents research-based, historiographic installation art as a dissensual spatialization of time. Installations by artist such as Amar Kanwar, Uriel Orlow or Judith Raum not only constitute a »poetry of evidence« (Kanwar) opposed to instrumental rationalizations. In addition, they forge links between the materialistic historiography of Walter Benjamin's »dialectic image« and more recent posthuman materialisms following Actor-Network-Theory, which are sensitized to more-than-human-violations (and thus meet Rancière's aesthetic-political notion of »dissensus«). The paper discusses how such artistic spatializations of time enable a relational understanding of history, that transverses traditional production-reception-dichotomies and bears far-reaching implications for the perception of such art: Arguing that such installations bid farewell to the single-subject observer in favor of an actualization through a multi-perspectival productive collective, the paper will provide experimental approaches to forms of art criticism that respond to this challenge with polylogical constellations beyond the single-authored essay.

Konstanze Scheidt, Leuphana University Lüneburg, *On the Constitution of Fugitive Collectives*

This paper will explore the spacetime of video collectives with a focus on feminist groups in West Berlin in the 80s. As part of an urban counterculture in those groups questions of subjectivity, emancipation and the body were dealt with through the practice of video art. As Haraway states it is crucial for feminists to reclaim the sense of vision as well as visualizing tools that are always entangled with the body to get to a partial perspective that can defeat the "god trick" of claiming to see everything from everywhere. The notion 'counterculture' was entangled from the beginning with this kind of video activism which was driven by an emancipatory, collective idea: everyone should be able to make films. So, it is not only that video activism is entangled with the dissemination of counterpublic approaches, but also closely linked to the emancipatory discourse on media. It was both about public access to (video) technology, education and experimentation, as well as self-organization, (techno-)collectivity and participation.

Nate Wessalowski, Leuphana University Lüneburg, *Time and Space of Technopolitics*

Through the concept of technopolitics emerging forms of social movements must be understood under the condition of a digital media environment and the possibilities of social platforms. Exceeding the on- and offline divide still inherent within the theoretical implications of cyber activism as well as the study of physical manifestations of pre-digital street action, technopolitics suggest an urgent look at

practices invading and constituting different times and spaces of activist resistant action. Simultaneity, virality (infectiousness) and the (border-)transgressing potentialities of networking actions undertaken by `connected multitudes` will be the focus of this paper. Studies from Latin America as well as the developing theoretical implications from a Spanish-speaking research-community will help approach the vibrant intersection between activism and technology.

Coffee & Refreshments Break (18.00-18.30)



18.30-19.30 General Assembly of SLSAeu

19.30-20.30 Plenary Lecture

Dr. Tefkros Michaelides, Athens College, *Time travel in mathematics, physics and science fiction*

Time travel has been one of the favorite topics of science fiction writers. Back in the romantic period, when three-dimensional Euclidean geometry was the only true, self-evident scientific conception of space, while time followed a simple, straight-line path in one and only one direction, one could be transported to the past or to the future by a mysterious, sophisticated machine, a cosmic ray or mere chance. Times change. Mathematical models of a curved and warped space-time have been studied and are believed to approximate the “real thing” more accurately. Physics experiments have seriously challenged the concept of simultaneity. More broadly, as Stephen Hawking would have put it, yesterday’s science fiction has the tendency to become today’s science fact. Modern science fiction is obliged to play by the new rules. Today’s science fiction fans are generally well informed and expect a sustainable, if not 100% rational, justification of the heroes’ whereabouts in space and time. Over the course of this presentation we will examine how general relativity and non-Euclidean geometries have affected modern science fiction literature and especially the time travel sub-genre.

27th June Thursday

Morning Sessions

(09.00-11.00)

Morning Session D-1

Nina Søs Vinther, Jac Studios/Denmark, *Who decides the form?*

Rethinking narrative form and the notion of protagonist and hero – in working in the field of animal healing. Discussing Frans de Waals question: Are we smart enough to know How Smart Animals Are? And examining what staying with the trouble (Donna Haraway) can mean, when it comes to a practical approach to animals and how can we rethink and experience our notion of time and space when sometimes accepting the unexplainable. The film I am presenting is work in progress, and is about a woman who works to heal an abused pony by telepathy. She can't touch the pony, because it is violent, and some of the main work she is doing is from another room, than the one the pony is situated. There she can have telepathically contact with the horse more at ease, than when she is in the same room. She sees the ponys childhood and communicate with it, to find out, what the next face of the healing process should be. The Pony is telling her what to do in order to progress. The concept of spacetime are almost incomprehensible and hard to accept, but there are people even in our modern society, who work and use some of these abstract concepts of how time and space are either intertwined or concepts, that sometimes are out of the question. I want to talk about aesthetic choices and how to present these questions in the media of film. I will also talk about migration birds and ask the question: Does Icebergs have a story about us?

Brenda Vega, Universidad San Francisco de Quito USFQ, *Long exposure photography from the zero parallel. Pre-Inca conception of time and its relation with Celestial Bodies.*

This paper explores how pre-Incan civilizations pose a challenge to western teleological time (Rundle, 2009). In particular, I engage with the Quito-Caras' temporal imaginaries as a means of thinking with scales beyond the linear temporality of the "meanwhile" (Anderson, 2006). I build a reflection on the relationship between photographic epistemology and these pre-Incan conceptions of time as a means of expanding the scope of the temporal and spatial scales that can be seen, understood and recorded.

The Quito-Caras, who inhabited what is today known as Quito-Ecuador -where I was born -used different time measurements based on astronomical observations to determine factors such as plantings, harvests, social rituals, and their relationship with the stars and the environment. In order to approach these temporal-environmental imaginaries, I conduct a new interpretation of long exposure night photography from the equatorial point of view, exploring the position of the stars in this territory and the effects of light through photography and alternative printing methods such as the

lumen print. In particular, I photograph the Polaris Star and other Celestial Bodies from the equatorial line at Mount Catequilla -an archaeological pre-Inca site of astronomical observation.

This paper discusses a work in progress which will also involve four other archaeological sites in order to create an archive of long exposure photography of Celestial Bodies as viewed from the equatorial line. The objective is to construct new ways of seeing, thinking and representing spatiotemporal insights through a mix of analogue and digital methods of photography.

Anton Kirchhofer, University of Oldenburg, *Layers of SpaceTime in Contemporary Historical and Speculative Science Narratives*

Among the trends in literary fiction, over the past few decades, something like a rise of the science novel may be discerned. A large number of writers have published fiction which invites readers to engage with scientific issues and problems as well as with their practical, cultural and societal dimensions, and new genre terms, such as 'lab lit', testify to the unprecedented degree in which individual angles on realistic and detailed accounts of scientific practice in contemporary society have begun to appear in contemporary novels. A similar trend of representing scientific issues and practices, however, has been observable in recent historical as well as speculative fiction. Remarkably, a significant number of novels uses plots interweaving two or more temporal levels, set at different periods in the past, in the present and also in the future. The spaces in which the several plot and time levels are located are often vastly different, both geographically and culturally. Nevertheless, the various links and connections between these different plots also forge, or make visible, links and continuities as well as breaks and disparities between the various settings. Focusing on two notable examples of multi-layered spatiotemporal structures in contemporary science narratives, Amitav Ghosh's *The Calcutta Chromosome* (1995) and Simon Mawer's *Mendel's Dwarf* (1997), my contribution will seek to explore structures and functions of such science narratives interlinking pasts, presents, and futures in different forms.

Johanna Heil, Philipps-Universität Marburg, *Chôra in/and the Philosophy of Dance: Of SpaceTime and Becoming Movement*

In the cosmogony Plato developed in the *Timaeus*, the chôra plays a significant role in explaining how Matter (sensible and mortal becoming) comes into the world without corrupting Form (eternal and intelligible Being): placed between Form and Matter, chôra moves and communicates between the two. This moving space has long been understood as a feminine / feminized and passive receptacle. Its alleged femininity and passivity had cast the chôra as philosophically insignificant—a point that has been most influentially discussed in feminist theory by Julia Kristeva and Luce Irigaray. While Kristeva, conceptualizes the chôra as a feminine yet empowering concept, Irigaray argues that the feminine has been excluded from philosophy and therefore cannot take an active part within any cosmogony. She instead

uses the chôra to develop a radical critique of the binary systems of form and matter, mind and body, eternal and temporal.

Implicit in these feminist critiques is a new materialist conceptualization of the chôra as becoming (see e.g., Rebekah Sheldon). Based on such a feminist new materialist understanding, this paper will conceptualize the chôra as spacetime, that is, as a space (chôra, choras) that is only spatially possible through its own becoming in movement and therefore in time. This discussion is part of an ongoing project to develop a chôratic reading of dance, a reading that negotiates between Form and Matter / Being and becoming, and that explores the presence of the body in dance (cf. André Lepecki) in spacetime.

Morning Session D-2 (09.00-11.00)

Aleksandra Kaminska, University of Warsaw, *Getting Stuck: Disrupted Futurity and Impasse in the Works of Julia Wertz, Allie Brosh, and Sarah Andersen*

The figure of a girl functions in direct relation to time; girlhood is not a destination, but a journey that should end with reaching womanhood. Several scholars – from Catherine Driscoll to Gilles Deleuze and Felix Guattari – characterize the figure of a girl by its mobility: girls' flexibility and resilience are most often read in the contrast to the stability of the seemingly inevitable adulthood. Yet, as I argue, contemporary self-representations of girls stand in opposition to the imposed futurity of girlhood.

Comics as a medium, according to Hillary Chute, allows turning time into space (on paper), and thus defies traditional understandings of time. That is why it is especially interesting to examine self-representations of girls in graphic narratives, using the framework of unconventional temporalities. On the example of autobiographical comics created by Julia Wertz, Sarah Andersen, and Allie Brosh, I study how prolonged female adolescence intervenes with the vision of an insecure future. Wertz, Andersen, and Brosh frequently draw themselves lying on a couch or a bed, unable to move – this paper argues that the physical impasse they draw and write about is also reflected in their position of perpetual girlhood. I examine how the temporality of girlhood functions in the referenced narratives, arguing that the notion of being “stuck” is central to contemporary self-portrayals of young women, and aim my attention to why the medium of comics seems suitable for narratives defying simple progress.

Julian Priest, *The Green Bench*, *The Weight of Information*

The Weight of Information 2.0 is the second edition of an orbital artwork that was originally launched in 2014.

The work consists of a pico-satellite in Low Earth Orbit, and a ground station in an old observatory in Wellington New Zealand. The work is participatory and people are invited to Meet 2 Delete events at the observatory. *The Weight of Information* imagines that gravitation is caused by information and not mass. The TWOi satellite

is a tragic hero who has escaped into the heavens but is pulled back down to Earth by the Weight of Information.

He collects information from his sensors and immediately deletes it in an attempt to ascend by forgetting. Meanwhile on Earth people are invited to shred their personal documents, at Meet 2 Delete events, to let go of something and make the world a little lighter in the process.

Hedwig Fraunhofer, Georgia College, *Time Travel, Quantum Physics, and the German Netflix Series Dark*

This paper puts the hugely popular German Netflix series, *Dark*, in conversation with the physicist-philosopher Karen Barad's work on quantum physics. *Dark* problematizes centrally -- as part of the series' plot and its dominant affect of horror -- twentieth and twenty-first century discoveries in quantum physics.

Together with time travel, *Dark* thematizes such physical or theoretical phenomena as black holes, wormholes, quantum leaps from one energy level to another, nuclear energy, light, or lunar and solar cycles. Questioning the distinction between nature and culture as well as disrupting conventional notions of causality, *Dark* enacts an ongoing flow of agency and a making of spacetime that cyclically links and continuously reconfigures four intra-connected time periods (from 1953 to 2052), each 33 years apart. *Dark* thus meets Barad's description of iterative "intra-actions" as "the dynamics through which temporality and spatiality are produced and iteratively reconfigured in the materialization of phenomena and the (re)making of material-discursive boundaries and their constitutive exclusions." (Meeting the Universe Halfway 179) In *Dark*, topological questions of boundaries, connectivity, interiority and exteriority abound. For the understanding of time, the issue is thus not merely that time and space are relative in Einstein's sense, but rather that intra-active relations reconfigure space and time. This material reconfiguration is part of the suspense and mystery of *Dark*, posing questions of identity, responsibility, and accountability in an ongoing reconfiguration of the real and the possible.

Connor Pitetti, Ruhr-Universität Bochum, *Erasing Space and Escaping Time in Clifford Simak's City and Frank Lloyd Wright's "Broadacre"*

Clifford Simak's *City* (1952), a classic work of American science fiction, begins with an account of the obsolescence of the city: developments in transportation and agricultural technologies render the city economically unnecessary, and urban populations abandon their homes in favor of isolated family dwellings scattered throughout the countryside. Implicitly, the novel suggests that the collapse of urban centers entails, in turn, the end of the rural, as the two terms refer to mutually exclusive and thus mutually defining spatial spheres. What ceases to exist in the novel is thus not simply the city as a specific mode of dwelling, but an entire geo-social spatial regime: the urban/rural spatial system, in which space can be divided into

distinct realms defined by different social, economic, and ecological structures and activities, gives way to a single universalized space, in which all points of the globe become essentially identical and interchangeable. And given that this new universal space is marked by many of the features traditionally associated with the city— technological sophistication, access to broadly cosmopolitan culture, etc.—what Simak ultimately describes is not the destruction of the city but its universalization. Similar visions of a future in which the city has ceased to exist because it has become ubiquitous also feature prominently in studies in urban design published by working architects of this same period. Reading Simak’s novel alongside one of the most famous of these architectural treatises, Frank Lloyd Wright’s “Broadacre City” proposal, this paper explores the utopian impulses and ideas about space/time that animate these mid-twentieth century American visions of a universal city. The paper argues that this vision is predicated on an understanding of history as a teleological process of spatial unification and, ultimately, erasure, in which the passage of time is marked by the consolidation, simplification, and elimination of spatial systems. The universal city thus represents a utopian escape from both space and time, a final resolution of historical change and geographical complexity into a timeless and undifferentiated whole

Coffee & Refreshments break (11.00-11.30)



Morning Session E-1 (11.30.00-13.30)

PANEL IV Utopia without future

Tue Andersen Nexø, Institut for Kunst- og Kulturvidenskab, *Pollution and atomic bombs: the deformation of energy and utopian longing in the writings of Inger Christensen and Jonas Eika*

The paper will examine the intersection between utopian longing and writing about ecological threats and disasters in two very different Danish authors, the poet Inger Christensen and the young writer Jonas Eika. The modes of utopia in their works turn out to be intimately connected to how they conceive of threats to and degradations of the biological processes surrounding them. Christensen, writing at the height of the cold war, uses the atomic bomb as a kind of negative master image; this leads to a conception of utopia as the extension of the chemical and biological processes of the solar system. In his collection of short stories *After the sun* (2018) Eika, on the other hand, writes under the aegis of pollution; in his writing, utopia points to a fragile alternative to – and perhaps a perversion of – a biosphere that is already broken.

Mikkel Kanze Frantzen, University of Aalborg, *Not all milk and honey, but still a Utopia: Ursula Le Guin's The Dispossessed*

In this paper, I want to trace the image of utopia that Ursula Le Guin presents in her science fiction novel *The Dispossessed* from 1974, most notably in the form of the anarchist society on the planet Anarres. To be sure, there are problems on Anarres, and the utopia is, as the subtitle of the book reminds us, ambiguous, yet the question I want to ask is: Problems, compared to what? I argue that the fact that the galactic experiment in anarchism is not all milk and honey underlines rather than undermines its utopian character. Utopia in Le Guin is not pure, it is not perfect, and it is not a heroic adventure. Instead, it consists in a feminist and ecological project of radical care. To quote Guy Debord, Le Guin is committed to writing about "the problem of the material possibility for existence of a world." This is her utopian business, which is as materialistic as it is speculative.

Iben Engelharld Andersen, Syddansk Universitet, *Just Living and Multiplying: Utopian Kinship in the Era of Extinction*

Just Living and Multiplying: Utopian Kinship in the Era of Extinction"

This paper examines themes of 'bad' motherhood, non-human agency and border regimes in Hiromi Ito's poetry collections *On Territory 2*, 1985, and *Wild Grass at the Riverbank*, 2005. Linking Ito's uncanny multispecies living with Donna Haraway's call to "make kin, not babies" (*Staying With the Trouble*, 2016), I consider utopian and dystopian dimensions of connecting reproductive politics and environmental justice

Morning Session E-2 (11.30-13.30)

Dimitrios Petakos, National and Kapodistrian University of Athens, *The theological reinvention of Newtonian space in the beginning of eighteenth century*

In the beginning of eighteenth century, many British natural philosophers and natural theologians, following Newton's natural philosophy, elaborated different theological approaches, reinterpreted older ones and questioned the self-evident theological truths. Such was the core of the dispute between Samuel Clarke and Joseph Butler, which can be seen as participating in the new intellectual and social context. Their correspondence, which took place between 4 November 1713 and 8 April 1714, is of great importance, if we want to understand the intellectual processes through which Newtonian natural philosophy was appropriated and reinvented in the first decades of the eighteenth century. Newtonian natural philosophy led to specific metaphysical conjectures about the ontological content of the mathematical-physical concepts of absolute space and time, and universal gravitation. This paper explores the concept of absolute space and how it was related to matters not only philosophical, but also deeply theological. Clarke used Newton's concept of absolute space to defend his anti-Trinitarian theology, making a link between God's ubiquity and space. Butler, by contrast, defended the Trinity, but in so doing adopted a relational theory of space.

Emma Previgano, University of Cambridge, *Measuring rods and tables of conversion: On the authority to measure space (1798 -1802)*

Units of measurement are fundamental to the quantification of space. For centuries, units of length were tied to physical objects. Even the metre, ideally conceived to emancipate units of length from anything arbitrary and temporary, was, for a very long time, a rod. At the turn of the nineteenth century, when the metric system was born, it was virtually impossible for two physical exempla of lengths to be exactly the same, especially if made by different artisans and at different times. Such issue was particularly relevant when determining the conversion between the units in use in different areas, and between the old units and the metre. In 1798, when the French government invited allied and neutral countries to join the members of the Institut de France in finalising the length of the metre, foreign delegates were required to bring exact copies of the standards in use in their country. This paper examines the works undertaken for that purpose in the Kingdom of Sardinia, and the criticism with which the results were met in Savoy, a former province of the Kingdom by then annexed to France. This case study allows to engage with the epistemic authority of both the physical exempla and of the individuals charged with making the comparison. Such authority not only was local in nature, but it was dependent on the time and the purpose for which the exempla and the comparisons were made.

Franjo Sokolic, University of Split, *What is Space-time? Physical and Philosophical Questions*

Space-time of the theory of relativity is radically different from the notion of space and time of classical mechanics. Because simultaneity is not the same for different inertial observers, the slices of simultaneity (which represent space) in the space-time are not the same for them. This raises the question of what space and time represent if they are different for observers in relative uniform rectilinear motion, and are they something real or only related to a specific system of reference? Do they represent genuine physical concepts or are they purely metaphysical notions?

Does time represent just the fourth dimension of the space-time, equivalent to the other three dimensions of space? Would that mean that time is geometrized in the sense that there is a given block space-time, which may be sliced in different manners by observers in uniform relative motion? This is related to two concepts of time: presentism and eternalism. Does spatialization of time mean that time travel is possible? Can we travel in time in the same way we are traveling in space?

Another important issue concerns the conservation laws in the theory of relativity. Are they just locally or also globally satisfied? This is related to the question of the global symmetry of the space-time.

These are some of the questions which are raised by the passage from the notions of space and time to the notion of space-time.

Deborah Lawler-Dormer, Museum of Applied Arts and Sciences, Sydney,
Alternative narratives of the scientific measurement and prototyping of the kilogram

Over the last 200 years, standardising the measurement of the kilogram as a physical artefact has been an ongoing pursuit over multiple countries and scientific communities. In the Museum of Applied Arts and Sciences collection is a silicon sphere that was constructed at CSIRO in Sydney as part of the international collaborative scientific investigation known as the Avogadro Project. The project aimed to produce a precise kilogram, defined in terms of the Avogadro constant, that could be reproduced by any laboratory. This pursuit for precision of measurement saw this CSIRO prototype made by Achim Leistner, the Master Optician for the Avogadro project, trial a new polished sphere made of single-crystal silicon. In order to measure the accuracy mass spectrometry and X-ray crystal diffraction were engaged. However, alongside this was the measuring of imperfection through Leistner's touch checking for surface irregularities which proved to be more accurate than machine checking. A critical posthumanities lens will be applied to this process and the pursuit of the perfect kilogram over a 200-year period arriving at this collection item of a silicon sphere manufactured in 1994.

Lunch Break (13.30-16.00)

Participants may do their own arrangements



Evening Session F-1 (16.00-18.00)

Alexandros Teneketzis, Hellenic Open University, *Arts and public space: monuments against oblivion in post-war Europe*

Memory or its antonym oblivion was one of the key factors in the reconstruction and stability in post-war Europe. More specifically, public war monuments were in most

cases the official expression of a memory policy established by political parties, politicians or the state itself, indicating breaks or continuities. Thus, public space became the main field of political and ideological confrontation, especially during the new, Cold War. When European governments had to rule, to confront and come to terms with the past, used public art, especially sculpture, to control and (trans)form public space in order to secure their political visions in both sides of the Iron Curtain.

This paper intends to exam specific war monuments in Cold War Europe in order highlight the use of public space for political purposes. We will see the character and the content of this memory, a struggle about the sovereignty of one memory over another, which finally took an artistic form. In addition, we will see how symbols and memory realms were used to interpret ambiguous and divided historical past in order to succeed social cohesion within critical political and social conditions. Finally we will try to focus on how the Visual Arts, in different times and during periods of crisis, can become part of public life, public sphere and public history, physically with the intervention of State power in artistic production of artworks in public space.

Loredana Filip, Friedrich Alexander University Erlangen, *The SpaceTime of Survival Stories and the Literary Chronotope of NowHere in Margaret Atwood's Oryx and Crake (2003)*

Science fiction is a genre that investigates the various aspects of spacetime as “we step from the airlock of the starship, through the portal of the time machine, exploring all the dimensions of spacetime’s relativistic chart: the x and the y and the z of space, the t of time” (Broderick 11-12). The visionary quality of science fiction has been associated with the genre’s potential to anticipate the future or to imagine future scenarios. Besides mediating post-apocalyptic visions, I will argue that contemporary novels - such as Margaret Atwood’s *Oryx and Crake* (2003) - explore a literary chronotope of NowHere to challenge the predominantly Western conception of time as linear and progressive, on which the evolutionary logic of survival also rests. In their ‘survival scenes,’ these novels enact a spatio-temporal awareness that is more akin to Buddhist practices of mindfulness, which focus on the present moment. Rather than evoking a sense of “timelessness” and “spacelessness” (Ohana et. al.), these ‘survival scenes’ enact an enhanced awareness of spacetime, as time seems to slow down and space dilates. These scenes open up a convoluted spatio-temporal gap that retains the past and anticipates the future, but remains anchored in the present. Accordingly, they also rework the notion of ‘survival’ which is no longer a goal-oriented process or a successive progression, but it becomes more entangled to an acute awareness of the NowHere. Besides negotiating a sense of agency, the emergence of this chronotope is used to offer a critical and ethical perspective on the choices taken by the ‘mad scientist’ Crake. And it signals the importance of literature as an expressive medium which raises spatio-temporal awareness and, implicitly, critical awareness.

**Donatella Germanese, Max Planck Institute for the History of Science,
*Explaining Progress with Dinosaurs***

The efforts to establish mass automobility in postwar Europe were backed by various public relations campaigns centered on cars, highways, and gasoline. Large oil companies such as Royal Dutch Shell and Standard Oil New Jersey published corporate magazines that explained the origin of petroleum in geological space-time terms. The depth of geological space and time was rendered by drawings, diagrams, and texts ranging from scientific terminology to popular slogans addressing dinosaurs. At the same time, images and words invoked the impression of horizontal space as a distance that needs to be overcome – by people driving motor vehicles and oil being pumped through pipelines – and of time as continuous progress in human history, articulating vertical and horizontal spatial dimensions.

My contribution intends to explore the explicit and implicit use of space-time constructions in European corporate publishing of the oil industry during the 1950s and 1960s.

Youssef Farida, British Museum, *Topological History: Towards a Spatial Understanding of Nietzschean Genealogy*

With the Enlightenment, European thinkers considered time as linear which exemplified the continuity of the past and the present as well as illustrated progression. Yet, during the nineteenth century, straight lines have been called into question with the advent of differential geometry, and multiplicities and topology became of interest. This shift also expressed itself in philosophy. In *On the Genealogy of Morals* (1887), Nietzsche examines the history of values and morals unhistorically. In fact, his *Genealogy* is not tasked with tracing a chronology of events, it contains no dates. The aim of this essay will be to understand how Nietzsche's philosophy of history entertains the question of space and topology relevant at the time. Indeed, he distances himself from questions of value and origins in order to see the value of values. Moving from origin to 'value of value' embosses the genealogy with a critical dimension, that of examining the shifts between interpretations, attending to why some last and others disappear. All the more, as this essay will argue, this rejection of linear history and teleology can be seen as an exploration of the difference and distance, hence space, between accounts. Therefore, to further this analysis, this essay aims to show that Nietzsche's genealogical method is a spatialisation of history. The *Genealogy's* critical dimension, looking at the 'value of values', will be interpreted through the question of space. The essay will first look at why and how Nietzsche thinks history is an interpretation, the importance of perspectivism will be central here and, heightened through the role of imagery in the *Genealogy*. Nietzsche's understanding of history as interpretation will be arrived at by relating the genealogy to sight. By seeing differently, or Nietzsche's perspectivism, we will then be in a position to introduce difference to history, in the form of images. Secondly, the essay will see how his genealogy, which borrows from evolutionary theory, intends to draw a topological history, shaped like a network, rather than a line. Here, Riemann's differential geometry will be brought to bear on Nietzsche's

work. The essay will also explain that this spatial presentation of the past is originated by the genealogy itself adopting space as its mode of reasoning. In conclusion, Nietzsche brings to the study of origins the importance of spacing, which we can expand as the importance of space for the theory of history.

Evening Session F-2 (16.00-18.00)

Tom Hollanek, University of Cambridge, *Time of Consciousness: Manufacturing Subjectivity and Manipulating Time in User Experience Design*

Time presupposes a view of time, and this is why Maurice Merleau-Ponty suggests there exists an ‘intimate relationship’ between time and subjectivity, since both prospection and retrospection stem from the same subjective experience of temporality. Edmund Husserl uses the terms ‘protentions’ (anticipations of the future) and ‘retentions’ (retaining elements of perception in our consciousness) to represent the same temporal relationship. More recently, Bernard Stiegler adopted Husserl’s framework to describe how the consumer’s behavior is formatted through

‘temporal objects’ such as films and songs that capture and standardize ‘the time of consciousness’ – so that it can later be sold to advertisers. This conception of the relationship between temporality and consciousness will serve as a frame of reference in my discussion of several distinct strategies of user experience design and the ways in which the interface solicits our attention to reconfigure our sense of time.

While some techniques of manipulation of subjective time incorporated in the interface that can be traced back to earlier mediatic forms (ranging from early cinema to broadcast media), my interest lies in those aspect of contemporary UX design that are specific to the personalized user interface relying on algorithmic curation. Following Stiegler, I argue that by manipulating our experience of temporality, the interface can format our consciousness, and, in effect, challenge our autonomy and inhibit our ability to plan. Stiegler defines films and songs as temporal objects because they are constituted by the time of their passing; consciousness is temporal as it is always in flux. The interface is also a temporal object, but it supplants the looped temporality of cinema with continuous change and neverending updates. As the flux of human consciousness is intertwined with that of the interface, they remain in a reciprocal relationship, in passage together, affecting one another and adapting to each other.

The crisis of time coincides, as it seems, with the crisis of choice: our ability to choose what we do with our time. If choice is essential to autonomy, then the question we are facing today is whether in the age of automated decision-making, optimization of options, and ongoing surveillance of actions, we can still conceive of ourselves as autonomous subjects. I approach the interface as a type of ‘tertiary retention’ (a form of prosthetic memory) one which collects user data, the memory of our selections and preferences, to preempt conscious decision-making – to ponder whether alternative UX design strategies still have the potential to reconnect the user with his or her ‘time of consciousness’ and enable the idea of the project to re-emerge.

Dirk Vanderbecke, Friedrich Schiller University Jena, *A New Look at Space and Time in the Works of James Joyce*

Joyce's works have frequently been analysed with respect to the new developments of physics in the early 20th century and Einstein's Theory of Relativity. More often than not, this research focused on references – e.g. in *Finnegans Wake* where a multitude of references to physical phenomena can be detected or constructed, from “Putting Allspace in a notshall” to the Gracehoper's couplet “Your genus is worldwide, your spacest sublime! / But, Holy Saltmartin, why can't you beat time?” In my paper I want to review some of these approaches and then present an alternative and more empirical look at the way Joyce constructed time and space in relation to experience in *Ulysses*.

Elisabeth Friis, Lund University, *Spacetime in Alice in Wonderland*

In her brilliant book on *Alice in Wonderland – Alice in Space. The Sideways Victorian World of Lewis Carroll* (2016) Gillian Beer reads *Alice* in the context of the speculative discussions on the phenomenon of time that were going on in the natural sciences when the book was written - first and foremost speculations on the range of Euclidian geometry. Beer lists several stimulating examples of how Alice “enacts non-Euclidian insights”. For instance she describes the “growing-time” of Alice as “instantaneous” contrasting it with the child's ordinary experience of “growing-time” as “a secret, creeping expansion”. And this Alicean experience of time as instantaneous instead of being bound to a temporal sequentiality is also what Deleuze in his reading of Carroll in *The Logic of sense* (1969) defines as *la petite fille's* privileged access to what he calls “The pure event” – the act of “devenir”.

My interest here is to try and take Beer's lucid literary analysis of representations of non-Euclidian space in *Alice* beyond its specific historical context and also – under inspiration from Karen Barad's demand for “an understanding of spacetime as a dynamic and changing topology” – to try to ask the following questions: How can literature as such be said to “enact non-Euclidian insights”? And following this: Do we perhaps need to change our usual narratological models based on the discontinuous relation of space and time to be able to better describe these enactments?

Effie Lambropoulou, Hellenic Open University, *The concepts of Time and Space in Pseudoscience*

The term pseudoscience meaning a spurious or pretended science, first entered the Oxford English Dictionary in 1796, to refer to “alchemy”. Distinguishing the difference between science and pseudoscience is not an easy task. The challenge of drawing an objective line between the two, is what in Philosophy of Science is called “the Demarcation Problem”. Till now, there is no essential solution to this problem, that is generally accepted by philosophers and scientists.

The word “pseudo” means fake. The most reliable way to identify a fake is to know as much as possible about the real thing, in our case the science. Knowing science does not mean simply knowing scientific facts. It means understanding the many aspects of scientific methods, that assist us to draw reliable conclusions about the physical universe.

Space and time are widely used concepts. They play a major role and are critically discussed in physics, natural science in general and in philosophy. Theories and sciences like cosmology, geology, theory of evolution and phylogenetics as well as developmental theories in biology or psychology, culture theory and especially history are unthinkable without space and time.

Pseudoscience manage these concepts in a totally different way. It is interesting to allege the way that pseudoscientists incorporate the concepts of time and space in their ideas. In most cases their fundamental claims are not evolving and cannot be transported in to different environments, hence are not universally applicable, which is one of the most distinguishing characteristics of Pseudoscience.

Coffee & Refreshments Break (18.00-18.30)



Evening Session G-1 (18.30-20.00)

Panel III Aesthetics of/in/and Computation

This panel explores the specifically aesthetic entanglement of space and time that is performed in and as computation. Computation is a privileged site of this entanglement in contemporary technoculture, both materially and metaphorically. Materially, this is observable in the spatialization of processual information into discrete binary symbols that themselves make perceptible, in time, scales of action that were previously only diagrammed. Metaphorically, this is the case in the ways that (for example) dynamic global interactivity is at once spatialized in the now standard network form of nodes and edges and made thinkable in its temporal becomings through these same forms.

More than just a site, though, computation also performs this entanglement in ways that cannot be linearly traced to their origins. Simply put, there is something aesthetic in the mix when we take computation seriously as an active force; something

inarticulably strange that operates outside the deterministic causal frameworks that are typically attributed to computers. In different ways, papers in this panel profile these articulations, asking after the social, political, and artistic expressions that are brought together in the weird spatiotemporalities of computers.

David Cecchetto, York University, Canada, *Listening in the Afterlife of Data*

Memory or its antonym oblivion was one of the key factors in the reconstruction and stability in post-war Europe. More specifically, public war monuments were in most cases the official expression of a memory policy established by political parties, politicians or the state itself, indicating breaks or continuities. Thus, public space became the main field of political and ideological confrontation, especially during the new, Cold War. When European governments had to rule, to confront and come to terms with the past, used public art, especially sculpture, to control and (trans)form public space in order to secure their political visions in both sides of the Iron Curtain.

This paper intends to exam specific war monuments in Cold War Europe in order highlight the use of public space for political purposes. We will see the character and the content of this memory, a struggle about the sovereignty of one memory over another, which finally took an artistic form. In addition, we will see how symbols and memory realms were used to interpret ambiguous and divided historical past in order to succeed social cohesion within critical political and social conditions. Finally we will try to focus on how the Visual Arts, in different times and during periods of crisis, can become part of public life, public sphere and public history, physically with the intervention of State power in artistic production of artworks in public space.

Katherine Behar, Baruch College, *What Sense Makes? From Sensors to the Production of Cryptographic Consciousness*

Could it be that what makes sense today, if only because who seems no longer up to the task of sense-making? In ubiquitous computing, nonhuman digital sensors dwarf the capacities and slash time frames of the human sensorium. Simply put, digital sensors might “make more sense” than we do. Deployed throughout contemporary environments, networked digital sensor arrays reproduce the extractive logics of conventional mining practices that also systematically harvest value from the earth. Yet individually, sensors produce raw data as a function of their own isolated umwelts. Ironically, this aspect of nonhuman sense parallels a shift in human sense-making. As human sensibility turns from subject-oriented to object-oriented, intersectional data mining, encryption, and predictive analytics are on the rise. These data practices sequester data production, amplify human dependence on algorithmic decision-making, and displace sensible discourse, leading to a condition I call “cryptographic consciousness.”

Beatrice Fazi, University of Sussex, *An Aesthetics of Discrete Computational Processes*

The relationship between aesthetics and computation is complex. In this presentation, I want to argue for the necessity to approach this relation from an ontological perspective. I will claim that such an ontological perspective asks us to consider aesthetics beyond the traditional terms of a theory of art; crucially, in fact, this ontological perspective requires us to tackle, philosophically, the ontological discrepancy between the continuity of perception and sensation on the one hand, and the discreteness of digital technologies on the other. According to my proposed view, aesthetics concerns creation and reality's potential for self-actualization. In this presentation, I will demonstrate that aesthetics is a viable mode of addressing computing precisely because such potential is inherent to the axiomatic, discrete, and formal structures of computation. Drawing from my recent monograph *Contingent Computation* (Rowman & Littlefield International, 2018), I will contend that an ontological reconceptualization of formal abstraction in computation is necessary, and that through such a reconceptualization it becomes possible to uncover, within the discreteness of computational formalisms, an indeterminacy that would make computing aesthetic qua inherently generative. This indeterminacy, I will claim, can be found by philosophically reconsidering Kurt Gödel's incompleteness theorems and Alan Turing's notion of incomputability. By engaging with computability theory, I will thus show how computation is a process of determining indeterminacy. This indeterminacy that I theorize, however, is internal to the discrete procedures of computation, and a condition for computation's onto-aesthetic production of processes of self-actualisation.

Evening Session G-2 (18.30-20.00)

Manolis Kartsonakis, Regional Director of Secondary Education, Crete, *The confronting of void space in history: Ioannes Philoponos' approach as a key point for innovations*

Ioannes Philoponos lived at the end of the Late Antiquity. Philosophical ideas, after the glory of the Hellenistic Era, seemed to be described by a long-lasting lack of creative conclusions. Natural Philosophy had double faces during that time. On one hand, at Latin-speaking areas of Europe, scholars tried to continue St. Augustine's renovation of the platonic philosophy and on the other hand, two schools of Philosophy, established at territories of the Byzantine Empire - in Athens and in Alexandria - persisted on their work based on neoplatonic principles and can be considered as the twilight of the ancient Hellenic Philosophy. At the school of Alexandria, scholars had tried to conjunct Hellenic philosophical tradition with Christian principles. This method helped them to keep up the school active during that riotous period when Athens' school was closed at 529AC.

Ioannes Philoponos confronted Aristotelian Natural Philosophy with very critic attitude. His objections were placed on basic principles of the Aristotelian cosmology such as the disjunction between the sublunar Cosmos and Heavens, the existence of the ether and the infinite existence of Cosmos. Also, he criticized major points of Aristotelian Dynamics like the non existence of vacuum space, the ratio between motive force and resistance of the medium where a motion takes place and the velocity of projectiles and he raised objections on the theory of violent motion.

The influence of Philoponos' principles on Mechanics was disseminated among the Arab commentators, influenced their works and was well known by the Latin Scholastic Commentators of Late Middle Ages, like Jean Buridan (1295 - 1358) and Nicole Oresme (14th century).

Neil Addison, Japan Women's University, *'No Time, No Space, No Motion': Einstein's Relativity and Hardy's Spacetime*

Various scholars have discussed how Thomas Hardy's later poetry contains references to Albert Einstein and relativity. In his reading of 'Drinking Song' Robert Schweik has viewed Hardy's speaker as relaying how, from Thales to Einstein, humankind's importance has been diminished (2006: 60-61) while Anna Henchman has argued that Einstein's theories helped reduce Hardy's belief in the existence of an external reality (2014: 232). Yet Hardy's reading of Einstein during the early 1920s (Bjork 1985: 544) also had optimistic implications for his poetry, while his imaginative representations of relativity can be understood as reflecting his previous poetic impressions of space and time. In his earlier poetry, such as 'An August Midnight,' published in *Poems of the Past and the Present* (1901), and in the later 'Drinking Song,' published in *Winter Words* (1928), Hardy scrutinized and challenged the notion of an objective reality while accentuating the strange vitality of creatures' relative spatial perspectives. Moreover, in 'In a Museum,' published in *Moments of Vision* (1917), Hardy addressed the hopeful possibility that the past could continually exist while in 'The Absolute Explains,' from *Human Shows* (1925), he appeared to align his understanding of Einsteinian spacetime with his own perceptions of a living past. This paper will therefore discuss how Hardy's representation of Einstein's relativity illustrates his philosophical position, outlined in his 'Apology' preface to *Late Lyrics and Earlier* (1922) as embodying 'a forlorn hope' that humankind is 'drawing back for a spring' (325).

Ksenia Fedorova, Humboldt Universität zu Berlin, *Figuration of Temporal Thought*

The paper addresses issues of perception and representation of temporal relations in today's visual culture and art. Particularly, I am interested in the status of diagrammatic thinking and methods of its analysis, including phenomenological, cognitive and neuroscientific ones. The space of abstract thought and imagination has been discussed in terms of its various functions throughout the history of philosophy

from Aristotle and Kant to Peirce and Wittgenstein. Cognitive and neuroscientists renew the questions, by asking for instance: what happens in our brain when we imagine abstract concepts, particularly such dynamic ones, as time? Inner images of time may differ widely and often are not even representable. A provocative artistic proposal to visualize our thinking about time is a neurofeedback-based interactive installation by Maurice Benayoun and Tobias Klein “The Brain Factory” (2016). The authors claim to “give shape to human abstractions” by recording the brain signals of the participants during their meditation on abstract issues, such as freedom, time, power, peace, etc.; the collected data are then interpreted into a virtual figure that can be 3D-printed into a sculpture. I consider this piece in the context of experimental studies of visual perception, particularly of diagrammatic representations of speculative future scenarios. Positioned in between text and image, the logical and the sensible, the diagram appeals to both rational and aesthetic types of cognition, being also an example of an “operative imagery” (Sybille Krämer). Among different temporal relations I will focus specifically on the iconography of operations of prediction and decision making as both structurally complex and potentially emotionally loaded.

Conference Dinner



The dinner will be based on Cretan (Mediterranean) cuisine with choices for vegetarians and vegans and unlimited wine

28th June Friday

Morning Sessions

Morning Session H-1 (09.00-11.00)

SKYPE SESSION

Alessia Pannese, University of Oxford, *Spatiotemporal distortion in 19th-century literature and physiology of addiction*

In his autobiographical account *Confessions of an English Opium-Eater* (first published in 1821, then, in revised form, in 1856), Thomas De Quincey compares his state of mind under the influence of opium to the spatiotemporal configurations depicted in a set of etchings by Giovanni Battista Piranesi known as the *Imaginary Prisons* (*Carceri d'Invenzione*, first published in 1745, then, in revised form, in 1761). The timeframe between the first and revised versions of De Quincey's *Confessions* (1821–1856) corresponded to a period of growing understanding of human physiology, and in particular of the conspicuous role of the autonomic nervous system in regulating the human bodily functions and behaviour, including its role in explaining the bodily and mental alterations observed in addiction. Drawing on this interdisciplinary connection between literature and physiology, I will present ways in which De Quincey deployed spatiotemporal imagery to portray the phenomenological experience of opium-induced altered mental states, and discuss how this mapping of mental states upon spatiotemporal structures can be related to the physiological mechanisms of addiction, as they were then (in the timeframe between the *Confessions*' first and revised editions) beginning to become understood. Based on this relation, I will suggest that the spatiotemporal imagery in De Quincey's account functioned as a shared reference that highlighted the intellectual osmosis between nineteenth-century literature and physiology.

Mica Hilson, University of Armenia, *The Lifespan of a Corpse*

There is currently a heated ethical and political debate about when human life begins: at conception or when the baby leaves the mother's womb. However, there is relatively little debate over when human life ends. In popular conceptions, when your heart stops beating, then you have reached the end of your life.

Yet such a formulation ignores some important scientific facts. For one, it neglects how human life cannot exist without some symbiotic relationships with other-than-human life; even after the human heart stops beating, the microbes within the body continue their lifespans for a while longer. Furthermore, essential parts of the human body can live on outside of the body. After you die, some of your organs might live on transplanted in a new host, some of your cells might live on in another person's body through microchimerism, and some of your blood and tissue samples might live on in biobanks.

This paper examines how and why we normally adhere to the fiction of the unitary human lifespan, wherein each individual human life can be ascribed a definitive endpoint. One of the key texts it will examine is Rebecca Skloot's popular science bestseller *The Immortal Life of Henrietta Lacks*, which tells the parallel stories of the late Henrietta Lacks and the very lively HeLa cell line that was derived from her cancer cells. It will consider the narrative choices Skloot makes when telling this story, choices that enable her to partly question the fiction of the unitary human lifespan, but which also allow her to gloss over the deeper philosophical implications.

Anna Nacher, Jagelonian University, *Sonification of climate change – re-scaling chronotopographies*

The complex topic of climate change has become one of the most important subject of art at the turn of 20. and 21. century. Although ecological art has much longer genealogy which can be traced back to the 20. century's conceptual art and the practices coalescing around E.A.T. or Fluxus (Weintraub 2012), the understanding of multifarious relationships between nature and art practices in the last decade has significantly changed. From climate artists (Malina 2009) through techno-ecological practice (Smite i Smits, 2011; Kluitenberg, 2012) to meteorological art (Radnerson, 2018) – different categories have been conceived to comprehend such evolution and address the increasing role of non-human agencies. However, it seems that the very core of art practices exploring climate change is constituted by various strategies aimed at grasping both complex chronotopographies (time-space continuum) and the processes of temporal and spatial re-scaling. In my paper I would like to analyse how the sound art projects of Kalle Laar, Andrea Polli, Joyce Hinterding and David Haines contribute to such chronotopographical re-scaling effectuated by the climate change

Morning Session H-2 (09-11.00)

Veronica Jimenez Borja, Universidad San Francisco de Quito, *On Air and in Art: Precarious Space in Anthropocene Times*

This paper explores projects that call forth a sense of co-compositional material vibrancy (Bennet, 2010) between bodies, technologies and environments. The paper centers around two recent works which use vibration as a means of confusing the slippery boundaries between lives, organisms and objects: The multispecies collective Interspecifics and Tomás Saraceno's recent exhibition On Air (2018-19). Both employ technologies of biosonification as a means of creating co-compositional interspecies experiences between spectators and organisms. Sound and vibration, in these interspecific collaborations not only comes to announce the lively presence of seemingly inert or invisible organisms, but does so through a sense of collaboration that displaces human agency. What is revealed is a world made up of spiders, slime mould, dust particles and onlookers — con-spiring (Choy, 2016): breathing in a common world together.

Additionally, I will put these works in conversation with examples from theatre (Chantal Bilodeau's Sila), poetry (Julianna Spahr) and bioart (Paul Rosero), which likewise activate material interchanges in order to produce a sense of transcorporeality (Alaimo, 2016). The effect is a lively challenge to what it means to live in a common world, a space, a city, a relationship, or an ecology. These forms of intimacy unravel a whole world of resonances and resemblances—trajectories and implications that echo and bounce far more than would be possible were the universe to be still and gridded. How, might these works inflect our sense of the interweaving temporal rhythms and scales of human and non-human agencies?

Panagiotis (Takis) Lazos, University of Athens, *The Polar Clock of Sir Charles Wheatstone. Measuring time using the Sun, even when the Sun is not available.*

Time is uniquely involved with man's everyday life and at the same time is one of the most basic physical quantity. The methods developed to measure it are numerous and some are coming from the depths of history. One of the most original and unusual instruments about time is the polar clock presented by Charles Wheatstone at the British Association in 1848.

Its function is based on the phenomenon of polarization of light coming from the sky during the day. The polarization is due to the scattering of sunlight in the molecules of the atmosphere and was first observed by the French physicist Dominique Francois Jean Arago in 1809. The rate of polarization is not constant and it is greatest at the points of the sky that are 90 degrees from the position of the Sun, typically around 80%.

The instrument consists of a tube, usually a conical one, at one end of which there is an eyepiece of nicol prism and at the other end a stationary disk of selenite. The tube is oriented to the north. Looking through the eyepiece the observer will generally see color in the selenite. By rotating the eyepiece the color changes and in two specific positions there is no color. Then a dedicated index shows the apparent solar time on a circular dial, with a maximum theoretical accuracy of around 4 min.

The polar clock was used in the North Pole exploration mission conducted under the orders of Sir George Nares in 1875-1876. The mission was ideal for the instrument, as in the Arctic zone the Sun is for many hours or even days under the horizon, and in these conditions a typical solar watch would be totally useless. It is worthy of attention that Wheatstone had not predicted this use of his instrument, even if he had pointed out other occasions in which the polar clock has advantages over typical sundials.

Konstantinos Tampakis, Institute for Historical Research, National Hellenic Research Foundation, *Darwin's dragon: Darwin and Darwinism in Greek space and past times (1880-1920)*

'J. L. Borges said that "we find the dragon in quite distinct places and times so many places and times that ... it is a necessary monster, not an ephemeral or accidental one." In the same vain, Darwin, Darwinism and evolution has been studied in some many places and times that it has become the necessary monster of science and religion narratives. In the last decades, its appeal has crossed over to discussions of science and literature. I propose that, for the case of 19th and early 20th century Greece, discussions of Darwin and darwinism are the key to untangling how science, literature

and religion interacted with a spatially and temporally transcendental nationalism. Prominent Greek poets used Darwin as a stepping stone to go beyond Orthodox Christianity, Greek scientists wrote polemical articles in popularizing journals to unknowingly defend a hybrid Haeckelian and Darwinian evolution and religious scholars used Darwin as a scarecrow to lament what they saw as an encroaching materialism. Borges remarks "the Greeks seem

to have applied the name Dragon to any considerable reptile". In the end, in the neophyte Greek state, Darwin was himself a dragon, necessary for various discourses, but with his name applied to different underlying themes.'

Aidan Tynan, Cardiff University, *Landscapes of Spatiotemporal Crisis: J.G. Ballard, Robert Smithson, and the Spacetime of the Crystal*

J.G. Ballard's eco-apocalyptic novels from the 1960s present landscapes of spatiotemporal crisis in which subjective and objective states become fused and divisions between inner and outer space break down. Ballard scholarship has generally read these landscapes in psychological terms as states of mind transposed into the external world. However, our 21st century environmental condition—what many people now call the Anthropocene—forces us to take a different view. Spatiotemporal crisis today goes beyond psychological or existential categories via new material entanglements of human and non-human, organic and inorganic, natural and technological. What Ballard called the 'spinal landscape', in which the human nervous system—especially the modern, traumatised one—comes to be figured symbolically in the morphology of the built and natural environment, is coming to define this emerging planetary reality. At the same time as the planet is being 'humanised' in this way, the human is being confronted with deep geological pasts and futures that shatter life's organic spacetimes. The spatiotemporal foundations of subjectivity and aesthetic experience thus need to be rethought. This paper will address these themes by looking at some of Ballard's early work, in particular his novel *The Crystal World* (1966). I show how Ballard influenced the American sculptor, photographer, and land art pioneer Robert Smithson, who like Ballard used the motif of the crystal to explore inorganic spacetimes. I discuss Smithson's fascination with crystalline structures and how the crystal has been seen as a form of life positioned between organic and inorganic by philosophers and scientists such as Schopenhauer, Haeckel, Schrödinger, Simondon and Deleuze. I draw on the latter's notion of 'crystalline narration' to discuss the strange narrative temporalities of Ballard's novel.

Coffee break (11.00-11.30)



Morning Session K-1 (11.30.00-13.30)

SKYPE SESSION

Clea T. Waite, intermedia artist and experimental filmmaker, *The supra-dimensional impulse*

This paper develops the notion of a supra-dimensional, embodied, and peripatetic form of cinema by examining intellectual movements, theoretical underpinnings, and artistic experiments in which the concepts of higher dimensions of time and space play a central role - the supra-dimensional impulse. In this pursuit, we discuss the development of Modernist concepts engendered by the discoveries of non-Euclidean geometry, the Theories of Relativity, and quantum mechanics in the early 20th-century, discoveries that fundamentally altered contemporary culture's relationship to space and time. The immersive, expanded, and post-cinematic moving images that emerge out of this new space-time concept express traits informed by the "new" scientific discoveries: notions of spatial and temporal ambiguity, poly-perspectival spaces, the abandonment of determinism accompanied by the introduction of relativistic correspondences, and the participatory role of the spectator in an unfolding narrative.

Concepts of n-dimensional geometry, hyperspace, and the notion of a fourth dimension played a profound role in the development of the avant-garde. Hyperspace presents a useful model for addressing the artistic concepts of space-time, motion, and the faceting of perspective that evolved out of this period. Cinema, because it is both a spatial and a time-based medium, has a unique capacity to assimilate the evolution of spatiotemporal relationships in the arts and sciences, and to structure narrative according to a nonclassical notion of causality. We examine the interaction between three-dimensional space and immersive cinema using the model-metaphor of the four-dimensional cinematic tesseract. The interplay between motion and the perception of space in the form of proprioception, embodiment, memory, and kinesthesia form both the neurophysiological basis for cognition and the role played by movement in viewing the supra-dimensional film.

Jason Hoelscher, Georgia Southern University, *Information Efflorescence and Aesthetic Space: On the Post-Object Artwork as Differential Field Condition*

Art typically looks different from non-art. Before we can see what a painting or sculpture depicts, for example, we are able to see that it stands out from its surroundings as a painting or sculpture. These are what I call semblant artworks: objects or artifacts that resemble, seem to be, and appear as works of art. It is by differentiating themselves from their spatial and cultural contexts that such semblant artworks communicate and instantiate their existence as art. What about non-semblant art? That is, many immaterial, digital, conceptual and other post-object modes of art do not stand out from their context at all. Such artworks can be difficult to recognize as art if one does not know where or how to seek them out. How do such non-semblant art modes nonetheless exist as art, despite their dense imbrication and dissolution into their local context? In this paper I argue that such artworks are aesthetic information mechanisms that articulate information space, being différence engines that arise from the intersection of two field conditions that I term the post-

object field and the differential field. The differential field is a mechanism by which post-object artworks, lacking art's typical difference-from-the-everyday, are articulated into the condition of art through second-order difference—that is, by differing from the different. As I show, the second-order differentials of this post-object field thus enfold the work and constitute a boundary condition—akin to an engine block that constrains and funnels energy into work—by which the otherwise entropic and efflorescent aspects of postobject art are constrained into the working of the non-semblant artwork.

Paul Rosero Contreras, Nataly Guevara¹, Margarita Brandt, Universidad San Francisco de Quito USFQ, *Dark Paradise: microbes and corals under an acidic ocean*

Evidence suggests that life on Earth began around 3.7 billion years ago, evolving from the most basic of microbes into an extraordinary array of complexity over time. This evidence takes the form of microfossils and ancient rock structures called stromatolites. It is generally agreed that all life evolved by common descent from a single primitive life form [1], but it is still not known how this early form came about. From a number of theories suggesting different origins, this paper focus on stromatolites as the most ancient devices documenting early life on earth and proposes the artificial creation of a fossil-like sculpture by means of a robot-controlled process. Stromatolites are sedimentary structures produced by cyanobacteria that form thin microbial films which trap sediments. Over time, layers of these sediment/microbe mats can build up into a laminated carbonate or silicate rock structure. The cyanobacteria played a major role in the oxygenation of our atmosphere from the Archean eon and on. In fact, it is one of the oldest microorganisms surviving through time and space. This project presents a fictional narrative in which a future fossil is developed over a short period of time. This procedure mimics the layering mechanism by which stromatolites are formed, and it includes notions of exploration, antarctic mythology and new bio-materialism.

Morning Session K-2 (11.30-13.30)

Maria Finn, Institute for Geoscience and Natural Resource Management, *Do Animals Dream of Human Beings?*

Ridley Scott's film *Blade Runner* (1982) presents us with a breathtaking dystopian cityscape where the rain never stops falling. It blends decay with hypermodern elements, and thus creates an ambiguous ambience between a place that is falling apart, and yet is filled with technological achievements. The film is loosely based on Philip K. Dicks novel *Do Androids Dream About Electric Sheeps?* (1968), and some discrepancies between novel and film highlights questions concerning our perception of environmental changes over time. The impact of disrupted ecosystems is increasing the amount of extinct species, and while animals are important for the narration in Dick's novel, they play a lesser role in the film. I will look closer to this element of the novel to explore the ideas in Dick's fiction in a contemporary context. The film is set in 2019, a date that we have reached without fulfilling the film's vision, although the changing climate indicates that it might be closer than we think. Ashley Dawson's

study *Extreme Cities* (2017), explore the coming fate of coastal cities in relation to what he terms environmental blowback. The scenarios described in the study will be examined in relation to the film's attempts to predict the future, in a parallel reading of the spaces in the novel. The novel explores themes concerning authenticity and reality that are highly relevant today, and in the film a visual texture is added that has proven to be profoundly influential.

Youjia Lu, University of Melbourne, *Indeterminate Self*

Does a person possess a notion of his/her Self in order to be free or a person becomes free as a result of not being possessed by a notion of his/her Self? Being free seems to necessitate a Self that can no longer be determined by its subjectivity: an indeterminate Self. My artistic research explores how to evoke an immediate experience of an indeterminate Self in the viewer's spatial/durational encounter of video art.

In a corresponding artistic project, I experiment with a video editing technique which I named 'Super(im)position' to explore the disruption in perception/reception of a video self-portrait. This video technique involves a rapid intercutting between two video tracks resulting in an optical illusion as if the two videos coexist in a superimposition.

Drawing upon moving image studies such as Henri Bergson's notion of 'the cinematographical mechanism of thought' (1911) and Gilles Deleuze's conception of 'Movement-Image' (1986), Super(im)position proposes an '(un)conscious' perception to 'see' the Self in a superposition of coexisting actuality and virtuality. With its capacity to digitally manipulate time, to create illusory superimposed images, and to induce strobe effect in projection space, Super(im)position tests three hypothetical circumstances: 1) shifting perception of time 2) superimposed altered state of consciousness 3) flick-induced hallucination, in which the Self becomes indeterminate through digital video medium and moving image. By testing the three hypotheses, Super(im)position further questions what it means to exist as an indeterminate Self while confronting the immediate experience of a nonthetic spatial/durational 'gap' evoked by the medium of video art.

George N. Vlahakis, Hellenic Open University, *Between absolute and relative time and space in 18th Greek scientific literature*

Though usually not considered as such scientific texts are also a form of literature. In the Greek scientific texts of the 18th century this was more obvious as besides others the issue of the form of language used in them was an important issue.

In the present paper we intend to discuss the notions of space and time in these books related with the two prevailed paradigms at that time, the Aristotelian and the Newtonian one.

Lunch Break (13.30-16.00)

Participants may do their own arrangements



Evening Session L-1 (16.00-18.00)

Elli Gavriil, Independent scholar, *The function of space and time in Tennessee Williams's Suddenly, Last Summer - intersections with Euripides's Bacchae*

The juxtaposition of Euripides's *Bacchae* and Tennessee Williams's *Suddenly, Last Summer* reveals a variety of threads connecting the two theatre plays, in a sometimes visible, sometimes more concealed and suggestive manner.

The paper will focus on the main intersection of the two plays, the violent dismemberment (“sparagmos”) of the hubris perpetrator main character, Pentheus and Sebastian respectively. In both cases the sparagmos, having already taken place somewhere else, in an occult space, away from the audience's gaze, becomes now a narration object on stage, constituting the dramatic climax of the action. The violent death of Pentheus on mount Cithaeron and of Sebastian in Cabeza del Lobo, is reconstructed and revealed to the audience, in the first case through the testimony of the messenger and the recovering from her paranoia Agave, and in the second case through the bizarre psychoanalysis session of Sebastian's cousin Catherine. In each play, the narration of the atrocious incident compresses the parallel deep reflections of Euripides and Tennessee Williams (the former in 407 B.C., the latter in 1958) on repression, hubris, God, Nature, savagery and human civilization.

Ivory Pribram Day, Université Paris 1 Panthéon-Sorbonne, *Fragments: Negative Existential Temporality in Context*

A prominent line of thought in 20th century French existential-phenomenology was that essential existence is negative and temporal, dislocated yet simultaneous with spatial experience. This paper explores how this notion was influenced by the strong presence of negative modality across temporal moods in the French language,

together forming one of the fundamental expressions of existence therein. The paper argues firstly that said moods and modality function together to reveal a particular temporal existence. Secondly that the existential schemata of the French language played an important role in French existential-phenomenology of the 20th century.

The stance here taken is not one of linguistic relativity, but rather of contextualism within new realism. Here, contextuality is seen as the fundamental epistemic and ontological properties of reality and where reality is neither total nor invariable. Norms are our anchorage in reality. The norm of concern here is the normative structure of existentiality in the French language, which itself reveals a context, a fragment of the real.

The method of analysis is interdisciplinary, merging theoretical linguistics, comparative linguistics, philosophy of language, phenomenology, existentialism and new realism.

The first section discusses key francophone linguistic theories of temporality and a brief overview of French mood and modality. The second section compares the conclusions of the first to key fragments in the work of Levinas, Merleau-Ponty and Sartre. The paper concludes that when phenomenology was adopted into the French tradition, existential negative temporality in itself became accentuated. This existentiality, found within the work of all three figures, is manifestly traceable to the very existentiality of the French language.

Helene Jeannin, Orange Labs – Department of human and social sciences, *The Adoption of the Wristwatch: a Matter of Time, Pace and Space*

Nowadays, the wristwatch is a common corporeal object. Some stipulate that it may become obsolete due to the growing use of cellular telephones that provide the precise time. The watch (smart or connected) can also be a wearable phone. It can have a camera, too. With its numerous applications, it is becoming a multifunctional device. One watch can serve many purposes. But accurate time is still imperative today.

The wearing of watches over the century has passed many phases. Looking back at how and why the wristwatch became popular leads us to consider time and space as quite central to its history.

In the 14th century, clocks were big and usually located in a public square. Technical advances, together with miniaturization, contributed to integrating them into the house. They became familiar objects in the domestic sphere, prior to getting closer and closer to the human body. They were worn around the neck or from the waist, on brooches, guard or vest chains. In the 19th century watches were contained in pockets on clothes.

Then they evolved from pocket watch to wristwatch. For centuries, the watch bracelet or wristlet as it was commonly called was considered effeminate. This was a major drawback for wristwatch acceptance. It was only after the Great Depression that it became widely worn.

The wristwatch is more useful and accessible than a pocket watch in times of stress and action. Exact precision proved vital and life-saving to soldiers. The watch has had a close relationship with sport as well. Chronographs play an integral part in the timing of performance and racing.

However, witnessing the major move from watches held in a pocket to the more practical wristwatch until today's smartwatch tells us a bigger history: that of international cooperation, cultural changes and transformations of the society. Representations of time and space evolve: the wristwatch has become a symbol of progress, performance, punctuality, and pace. As an object, it had to adapt to a much wider macrosystem which was developing around it: telecommunication networks, railway transportations, international trade, increase in individual mobility, and implementation of the Universal Time.

That is why its role of time keeper makes it such a peculiar object to study: it tells us about society as a whole on a global scale. We propose an analysis of the different parameters that paved the way for wristwatch adoption. Most of them are closely linked with SpaceTime.

Caroline Dauphin, University Sorbonne Nouvelle, Paris 3, *The Song of Urania: Erasmus Darwin and the poetics of spacetime*

In the late 18th century, writing about deep time was not only revolutionary: it was also dangerous, because it meant an overt opposition to the Biblical chronology. Buffon's manuscripts of his *Théorie de la Terre* (1749) reveal that his first estimations of the age of the earth were several million years, but he reduced the number to a humble 75.000 years in his published works for fear of being hanged. Contrary to Buffon, Erasmus Darwin was not afraid to claim in his long poem *The Botanic Garden* (1792) that the earth had been shaped by an accumulation of sediments for "many millions of years". Though this reference seems to be systematically overlooked, possibly because it was inserted in an additional note on clay, and not in the core of the text, it may be one of the earliest numerical mentions of deep time in scientific literature in English. In his poems, Erasmus Darwin offers yet another vision of deep time by uniting it with deep space and creating radically new poetical images which influenced Romantic poets like Percy Shelley. This paper will investigate into the possible sources of Darwin's reflections on deep time and deep space in his correspondence, in contemporary didactic poetry and in several pioneering geological works (Buffon, James Hutton and William Smith) with a view to reassessing its importance in the history of ideas. It will also compare the representations of deep time and deep space in Darwin's prose with those in his verse in order to show the extent to which poetry is used not only as a mere illustration of Darwin's boldest theories but as a perfect complement and a scientific source of inspiration.

Evening Session L-2 (16.00-18.00)

Ivan Ortiz, University of San Diego, *Romanticism, Transport Modernity, and Science Fiction: Verne and Wells*

This paper traces the debts that Jules Verne and H.G. Wells owe to Romanticism in their formulation of science fiction and fantasy narratives of travel. Romanticism is often considered an especially technophobic literary and aesthetic movement, and this is largely due to the period's singling out of the railways as the straw man for the perils of technological modernity. However, cultural writings about Romantic-era transport modernity—which include responses to ballooning, scrupulously timed coach and railway travel, and steam navigation—reveal that the period contributes significantly the articulation of new aesthetic experiences tied to this revolution in mobility. This is no surprise given the development and popularization of aesthetic language within the genre of Romantic-era travel writing. In this paper I consider Verne's *Around the World in Eighty Days* (1873) and Wells' *The Time Machine* (1895) in relation to early nineteenth century cultural responses to the modernization of travel to uncover the surprising ways in which each writer's idea of space-time is indebted to Romantic experimentation with space, time, and narrative. In particular, I will consider William Wordsworth's poetic device of "spots of time" in *The Prelude*, Thomas De Quincey's sense of narrative time in *The English Mail-Coach*, and Romantic-era writings about air balloon travel. What I will show is that Romanticism exhibits experimentation and play with space-time in narrative partly due to its shared context of transport modernity, which fundamentally transformed man's relationship to both time and space. I argue that Verne and Wells inherit this Romantic flexibility with space-time in narrative and resituate Romantic structures of space-time in their modern tales of science fiction and fantasy.

Epameinondas Zafeiris, Athens College, *From Platonic solids and Dante's Paradiso to the shape of the Universe*

In the *Timaeus* Plato proposes that the body of the universe was constructed by the five regular solids: the tetrahedron, the cube, the octahedron, the icosahedron and the "enigmatic" dodecahedron, which, respectively, represent fire, earth, air, water and aether. 1600 years later, in the *Divine Comedy* Dante Alighieri presents the universe as a 3-sphere without boundaries composed of co-centered spheres.

How close are these two different approaches of the shape of universe?

Leonhard Euler's classification of the solids is based not on geometric features but on the number of vertices, edges and faces. His polyhedron formula signaled the birth of topology. From that point of view, a platonic solid is equivalent with a sphere. But is there a shape "simplest" than a sphere? According to Poincaré conjecture, every simply connected, closed, three-dimensional manifold is topologically equivalent to a

3-sphere. The proof of this conjecture gives us the opportunity to suggest a possible shape of the universe which is close to Plato and Dante's cosmological aspects.

How could we create a map of our universe supposed that its shape is either a platonic dodecahedron (according to what also Poincaré believed) or a Dante's co-centered 3-sphere?

An atlas of the Earth is consisted of two-dimensional maps because human can perceive only three dimensions. But since our universe is multi-dimensional, how possible is for us to create an atlas consisted of three-dimensional maps?

Constantine Canavas, Hamburg University of Applied Sciences, *Intertextual intriguing of time dimensions with space concepts in the novel “Autómata (Desolation Island)” by Adolfo García Ortega*

A characteristic pattern of post-modern novels consists in entangling several precedent narratives in the structure of the novel. In “Autómata (Desolation Island)” (2006) the Spanish author Adolfo García Ortega sets the maritime adventure narrative geographically between Madeira and the Desolation Island, at the straits of Magellan. Whereas the reader is provided with numerous geographical and historical points of reference – places, persons or events, several of them known from the modern or ancient literature – the narrative undermines the reliability of the narrator, Oliver Griffin, by presenting him (in his own words) as somebody obsessed by mapping and inventing islands, slipping into the novel and film figure of The Invisible Man (also named Griffin), and feeling himself associated with figures who have passed by tragically. The attraction node of the several unrolled narratives is a warrior automaton constructed and transferred to Patagonia by order of the Spanish king Philipp II in the second half of the 16th century. This relic, so far the novel, was discovered in 1919 by Graciela Pavic, while she was seeking for the remains of her husband and their two children who apparently perished in a sea accident there.

Following an approach that focuses on intertextuality and perception aesthetics the present study showcases the modes in which the reader extends or multiplies the time coordinates at the bifurcation points provided by the almost-monologue narrative. In such a reading process, time density depends on repetition of narrative topics or of reading attempts. On the other hand, it can be shown that the intensity of spatial references depends on the interpretative options implied or hidden by the narrative during the repetitive itineraries during which the implication that certain events have really happened appears contestable or leaves place for alternative interpretations that might reverse temporal-bounded causality. Regarding the automaton – the mighty technological attraction node without a proper narrative voice – the novel reserves to it the power of reflecting the desires of the human actors, thus inducing a new space-time frame of future narratives.

Argyro Loukaki, Hellenic Open University, *Ancient Greek space-times and present cyberspatialities.*

The paper examines specific instances of ancient space-times from Homer onwards. Exploring their occurrence in poetry, art, architecture and visual communication with the world, the paper highlights such space-times as an expression of a steady, and yet swift, humanizing process. This process prioritized the collective through a compassionate, participatory outlook upon society and space. Through these space-times the ancient Greek world probed the multiple bonds between humanity, the divine, nature, and cosmos in highly refined ways which necessitated, and advanced, the combination of thought-sensitiveness. The paper then briefly focuses on present space-times to show unexpected similarities but also radical differences from the ancient Greek worldview.

Coffee & refreshments Break (18.00-18.30)



18.30 Plenary Lecture

Prof. Efthymios Nicolaides, Institute for Historical Research, National Hellenic Research Foundation, *On the Antikythera Mechanism*

The Mechanism of Antikythera is an Ancient Greek mechanical device with gears dating around the second or first century before our era, which was found together with 40 statues and other valuables in a Roman shipwreck near the island of Antikythera, Greece, in 1900.

From the time of its discovery until today, specialists are trying to decipher its functioning and understand its functions. The most recent technology has been used in 2005 with special IT tomography and surface imaging. This allowed the reading of a big part of the inscriptions on the mechanism which were unknown before and this reading ascertained the hypothesis that the mechanism displayed, excepting Moon and Sun, the five planets known at the Antiquity.

Recent research has also established that this kind of mechanism was mentioned in Ancient Roman literature. In this presentation I will present the history of these 100 years investigations and the most recent findings and also the use and the importance of such mechanisms in the Roman aristocratic milieu.

19.30 Closing ceremony