

INTERNATIONAL  
SOCIETY FOR THE  
STUDY OF TIME

# TIME'S

NO. 40

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# NEWS

## ORIGINS AND FUTURES

The ISST Council's deliberations on possible themes for our 2010 conference entertained several possibilities, but reached broad consensus on "Origins and Futures." In retrospect, I believe that this theme resonated deeply because we find ourselves on the one hand at a historical juncture where our instruments for investigating the past delve into continually further reaches back in time, and, on the other hand, we find it increasingly necessary to demand that we investigate the sustainability of accepted views, presumptions, and practices. In short, questions of Origins on one side and Futures on the other, have become inextricably entwined.

The challenge we Timesmiths face is the dizzying scope of the temporal scales such speculations entail. In light of contemporary cosmology, merely contemplating the phrase "origins and futures" is enough to send me spiraling through time and the universe. Whirling back centrifugally in search of origins, I find myself whipped centripetally back out again—or is it the other way round? Even a glimpse of an origin seems to demand that I plot its temporal path, ending in extrapolations of possible futures. Cosmologists like to voice the aphorism that "We are all made out of stardust." This assertion serves as a reminder that connects us to our cosmic origins. It engages us in a thought experiment whereby we contemplate the fact that the atoms that compose our bodies were formed in the early history of the cosmos. But how, exactly, are we supposed to make sense of this scientific fact?

As always, poets provide eloquent expression of existential dilemmas. Octavio Paz, the Mexican 20th century Nobel Prize winner, offers this condensed formulation of the problem in a poem:

### Brotherhood

Homage to Claudius Ptolemy

I am a man: little do I last  
and the night is enormous.  
But I look up:  
the stars write.  
Unknowing I understand:  
I too am written,  
and at this very moment  
someone spells me out.

Paz articulates our "unknowing" response to a brute, cosmological fact. The face of scientific knowledge of our deepest origins is but a façade, begging us to embrace a tacit need to "understand" that our fate, the destiny of an ever-so-small blip of universal evolution, is "written" in some greater history. Seriously engaging "Origins and Futures," then, both stretches us to our furthest reaches, and at the same time, initiates in our feeble brains a cognitive vortex of sorts.

If thinking about origins and futures opens a yawning gulf of time, the issue might be stabilized or made more accessible by reducing origins and futures to a more manageably, quantitative question: confronted by any phenomenon, we

(continued on page 2)

## MEMBERS VIEWS

INSIDE ON PAGE 6



can ask, when did it start and when will it end? As always, scientists lead the way in such reductions. J. Richard Gott III, a cosmologist and Professor at Princeton, developed a "Principle of Copernican Time," first published in *Nature* in 1993.<sup>1</sup> In Cosmology, the Copernican principle states the Earth is not in a central, specially favored position; its generalized form posits that humans are not privileged observers of the universe.

Gott argued that, without any detailed knowledge of a system, we can expect that its lifetime is unlikely to exceed orders of magnitude larger than the time it has already existed. If some system ultimately survives  $n$  years, Gott reasoned, one is statistically unlikely to encounter it near its genesis or end. Gott first thought of his "Copernican method" of lifetime estimation in 1969 when stopping at the Berlin Wall and wondering how long it would stand. Instead of resorting to world geopolitics to extrapolate a set of developments (an exercise in futurology), Gott used his relative ignorance to his advantage by saying that the Copernican principle is applicable in cases where nothing is known. Unless there was something special about his visit (which he didn't think there was), this gave a 75% chance that he was seeing the wall after the first quarter of its life. Based on its age in 1969 (8 years), Gott left the wall with 75% confidence that it wouldn't be there in 1993  $((8/.25) + 1961)$ . In fact, the wall was brought down in 1989.

Publishing in 1993, Gott applied his "Copernican method" to the lifetime of the human race. His paper in *Nature* was the first to apply the Copernican principle to the survival of humanity. His original prediction gave 95% confidence that the human race would last for between 5,100 and 7.8 million years (yes, scientists allow for a margin of error!). To popularize the Copernican method, Gott gave *The New Yorker* magazine a 95% confidence interval for the closing time of forty-four Broadway and Off Broadway productions based only on their opening dates. He was more or less 95% correct.

Gott's speculations gave rise to a raging philosophical and scientific debate. Rather than recapitulating this debate, Timesmiths might, following Founder J.T. Fraser's work, immediately differentiate different temporal scales being scrutinized. Gott's Copernican method may find successful application to examples

from within the relatively local scale of human history, but it will become increasingly uncertain as it shifts to wider temporal scales, simply because the parameters on those scales constantly changes as scientific knowledge revises the parameters of such speculations. Here we might derive a seemingly simple adage: the further the reach of our temporal speculations, the more our datelines become moving targets, rendering quantitative extrapolations uncertain or subject to constant revision.

Such abstract ruminations lead to self-doubt, and send one in search of support. Happily, an illustrative example presented itself in the particular time that I was engaged in these reflections. Evolutionary biologists have long been consumed by the question of when complex life forms and the origin of animals may have occurred. Just now, evidence found by researchers at MIT, UC Riverside and other institutions shows that the first complex life forms may in fact have appeared much earlier than the rapid blossoming known as the Cambrian explosion. The origin of animals, they contend, may extend back earlier, before a period known as the Ediacarian. Our earliest animal ancestors, it appears, were sponges—multi-cellular animals that feed by passing seawater through a complex system of internal channels. And these earliest sponges may predate the Ediacarian period by as much as 80 million years, new evidence shows. Studying an unusually well preserved long sequence of strata found in Oman, the research team was able to extract from "chemical fossils" a large number of samples spanning a range of tens of millions of years before, during and after the Ediacarian period. The research shows that early animals likely survived during a period known as 'Snowball Earth,' when the entire planet was covered with ice and glaciers.

If the dating of the origin of animals is subject to such substantial revision, the inexpert mind unencumbered by details asks, why should our certainty regarding the origin of humans be any different? And if dating our origins proves to be a moving target, how can we trust in calculated forecasts of our species' futures?

To these admittedly speculative reflections, let me add a final thought. Having surveyed a wide swath of accounts of cosmological time, I have discerned a common thread in their narratives of the place humans occupy in the history of the universe. These accounts thrust upon us the sense that we humans are fragile, unlikely events in

(continued on page 10)

# A WORD FROM THE EDITOR

By this time you have received the call for papers for the 2010 conference in Monteverde Costa Rica. Paul Harris has enticed you above with the speculative engagement “Origins and Futures” encourages. Convincing you to submit an abstract for consideration, and to begin to plan to come with your family to the 2010 conference is my task.

Monte Verde, in a primary cloud forest on the continental divide, belies description. The American Quakers, who founded the community in 1951 in resistance to the draft, became dairy farmers who produced, eventually, the finest cheese in the county. Their Tico born offspring have paid close attention to preservation of their community and its natural assets. With help from world-wide organizations, they developed a protection zone of over 30,000 hectares, most of which is within the Monteverde Cloud Forest Biological Reserve. All of this is open to exploration: the cloud forest and its birds, the hummingbird, orchid, and butterfly gardens, as well as the frog ponds and a serpentario at which you can meet the indigenous snakes. Hiking, zip lining, and night tours can be arranged. For the less hearty, local craftsmen offer jewelry, cheese, coffee, fruit, and chocolate. The hotel has two swimming pools and a bar with the town in walking distance for further distractions. In fine, an unparalleled vacation spot. But more than that, Costa Rica in general and Monteverde especially resonate this meeting’s theme and purpose.

Costa Rica naturalizes notions of origins and futures in its practices. Sustainability is the *élan vital* of the country. It consumes less fossil fuel than any other in the west; wind and water generates its electricity. The roads, largely single lane and



challenging, limit automobile traffic. Developers push constantly to upgrade roads to accommodate the visitors who will spend time in their resorts where little thought is given to conservation. The present government’s commitment to preservation seems serious. In my own Pacific Coast town, work on an almost completed and very high end community in the restricted maritime zone has been shut down and ordered to be dismantled, an admonition to the hubris of multi-national conglomerates. Janus-like the vision of the future encompasses a preservation of the past.

It would be remiss of me not to be sensitive to current economic constraints. The flavor of the Asilomar meeting was so enhanced by the vitality of young scholars that we would suffer a marked loss if they could not be here. I am still negotiating with the conference center, El Establo in Monte Verde, for affordable rates. Expect to pay \$129.00 per person per night, double occupancy for each of the six nights of the meeting, all meals included. The counsel is looking for ways to help with finances, and will keep in touch with you on any ideas it might come up with.

Please do not discount the conference for financial reasons alone. Write a proposal before the deadline and plan to be there with your family for the intellectual and rejuvenating experience of a lifetime. Mark your calendar: July 16, 2010.

## NEW TIME SOCIETY

The newly founded Asociacion Interamericana de Estudios Sobre el Tiempo (AIET) held its first meeting November 10-12, 2008 at the Universidad Nacional Autonoma de Mexico (UNAM) in Mexico City, at the Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades. Its theme was “Tiempos y Mundos,”

The conference was organized and chaired by Prof. Guadalupe Valencia, Garcia, President of AIET, assisted by the Centro de Fisica Aplicada y Tecnologia Avanzada

ISST was represented by J.T. Fraser with a welcome from ISST, “Perspectives upon the 1966 birth of your older sister” and a paper on “Whose past is our prologue?” Also by Carlos Montemayor with a paper on, “Tiempo transcurrido y periodicidad.”

The kindness and enthusiasm of our hosts and the professionalism of the papers were memorable. Working out long-term cooperation between ISST and AIET will be considered by ISST’s Council.

For information about AIET contact its President, Dr. Guadalupe Valencia Garcia at [valencia@servidor.unam.mx](mailto:valencia@servidor.unam.mx)

J. T. Fraser

Knowing what our members are working on stimulates and encourages our discrete productivity. Share your news as these members have done.

MMS.

**ALBERT MAYR** writes:

- in August I had an exhibition "Raum-Zeit-Fenster" (Space-Time-Windows) in the castle Velthurns (Italy);
- recently I have published a small book *Zeitarbeiten - A tempo 1977 - 2007* where I collected some time-related art projects;
- on November 28/29 I participated in the conference "The right to one's own time" of the Deutsche Gesellschaft für Zeitpolitik presenting a short paper "The right to the time of others."

**ANDREW WISTRICH** writes:

An expanded version of the talk I gave at the 2007 ISST Conference has been published. Andrew J. Wistrich, Procrastination, Deadlines, and Statutes of Limitation, 50 William & Mary Law Review 607, (2008).

**ANNA D. EISLER** writes:

I am sending the following references of our present research publications:

Eisler, H., Eisler, A.D., & Hellström, Å. (2008). Psychophysical issues in the study of time perception.

In S. Grondin (Ed.), *Psychology of time* (pp. 75-109). London: Emerald.

Eisler, A. D., and Eisler, H. (in press). Experienced speed of time in durations of known and unknown length. *NeuroQuantology*.

Eisler, H., and Eisler, A. D. (submitted). Scalar Timing (Expectancy) Theory: A comparison between prospective and retrospective duration.

**J.K. BARTHAKUR** writes:

I have just published a book bearing the title "THINK INDIA: AGE TABLE", which is a time related book using age, date, cohort-age as variables of conscious time. (The AtlasBooks of BookMasters of USA will handle the sale of its promotional edition worldwide very soon on completion of certain formalities that are nearing end.)

Two books on time that I wrote earlier, TIME (1999) and GENERAL THEORY OF TIME (2004), were interludes to establishing a sub-discipline of demography, Demochronon, and my present book is a step towards that.

**THOMAS J. BRUNEAU** has sent a copy of a recent paper published in *China Media Research*. (2008), 4(2) pp. 77-85, "How Americans Use Silence and Silences to Communicate." I include the abstract and conclusion and invite you to read the paper and comment:

**Abstract<sup>2</sup>:** This article attempts to outline for the first time how most Americans or U.S. citizens regularly use silence, silences, and silencings to communicate. It is important for people attempting to communicate with Americans to know something about their uses of silences. Silences are understood here to be just as important as what people say because, to let silences in, concerns meanings of many kinds. The study of silence, silences, and silencing concern many new avenues to understanding human communication.

**Summary:** Contrary to stereotypic viewpoints about how Americans communicate, Americans do use silence, silences, and silencings to help articulate their basic nature of reality, socially, as well as a-socially. Americans do use silences and silencings to communicate in ways different than many sociocultural groupings elsewhere. The din of noisy American social groups is not what it may appear to be on the surface. We Americans do talk a lot, but much of this talk is only for maintenance of relationships or to define our selves as unique and special, individually or self-defined. The uses of American spoken language appear to be somewhat excessive, but these uses can also be ways to prevent the acquisition of deeper meanings to be found in one's silence. One's awareness of one's egocentric identity held under the surface of talk can be avoided, if one keeps talking. A great deal of spoken language in America seems to be used to mask one's fragile identity, as this identity experiences rapid changes in the U.S. Americans often experience problems when they go international and place themselves in face-to-face contacts with the more silent people of the world.

**GUS KOEHLER** writes:

I am continuing my work on how a more complete understanding of time enhances autonomous agent computer simulations.

Two publications: "Attending to Temporal Assumptions May Enrich Autonomous Agent Computer Simulations," 2009 in *the International Journal of AgentTechnologies and Systems*; and "Computer Simulations as HiddenTime-Ecologies," in *Simultaneity: Temporal Structures and ObserverPerspectives*, Editors: Susie Vrobel, Otto E. Rössler, Terry Marks-Tarlow, World Scientific, Singapore (2008).

He continues:

I would also like to nominate the Vrobel, et.al., book for the JT Fraser best book on time award.

And concludes:

Time Structures has also been working with California State University at San Bernardino by applying a richer time context for improving actionable intelligence for soldiers in the field. Finally, we are organizing a team from USC, LSU, and a private consulting company, RedFish, to seek NSF funding to look at a new way to simulate disaster responses.

### HERVÉ BARREAU writes:

I published "Aristote pour aujourd'hui et pour demain", *Dianoia*, 2008, diff. PUF, where one can find a paper "Le traité aristotélicien du temps (*Physique*, IV,10-14)," 92-134.

I mention also "Time in the Different Scientific Approaches," Proceedings of the AIPS Colloquium Cerisy-La-Salle 4-9 October 2007, Tilgher-Genova, 2008, where can be found the papers of E. Agazzi, H. Barreau, M. Buzzoni, A. Cordero, A. Fagot-Largeault, J. Faye, F. Minazzi, P. Mittelstaedt, R. Omnès, M. Pauri, G.M. Prosperi, and P. Weingartner

### KEVIN BIRTH writes:

In March, my article "Coevalness and the Dangers of Homochronism" appeared in the *JOURNAL OF THE ROYAL ANTHROPOLOGICAL INSTITUTE*. This article is a critique of Johannes Fabian's book *TIME AND THE OTHER*.

In January, I participated in the Guggenheim Museum's (Manhattan) event "24 Hours on the Concept of Time." My talk was about clocks as cognitive artifacts and was called "Illiteracies of the Imagination, Necromantic Devices, and How Clocks Make Us Stupid."

My present work is inspired by some of my ethnographic material and addresses how time is reckoned without clocks on rainy days.

### LANEI RODEMEYER writes:

I gave a paper at the Society for Phenomenology and Existential Philosophy on "Phenomenology of the Temporal Body: How the Body Expects and Recollects" October (2008). Based on feedback from that conference, I will be writing additional sections to supplement the paper, especially one integrating the question of gender in the temporal body. I will be presenting a version of the newly written portion at Indiana University of Pennsylvania, at the Philosophy Department colloquium there in April. I may also present other aspects of this developing paper at the Husserl conference, if it is accepted. Then I hope to submit it to *Continental Philosophy Review* for publication.

I also have been invited to be the keynote speaker at a conference on "Time, Transcendence, Performance" this coming October, at Monash University in Melbourne, Australia. I have not written the paper yet, but I plan to do an analysis that integrates embodied temporality, dance, and intersubjective time/experience.

### IN MEMORY

#### FAITH (FAY) ELIZABETH TRESILIAN: 1943-2009

I dearly hope this sad message will not by now come as a total surprise to you, but the vagaries of the internet are such that it is difficult to be sure that either of my round-robin bulletins of the past two weeks about Fay's dreadful illness reached everyone whom Arabella, Susannah, Alexander and I so wanted to reach. So to summarise briefly: in the first message we reported that Fay had suffered a very severe stroke, but was fighting back with tremendous courage giving us some hope; in the second with immense sadness we acknowledged that Fay's illness had been completely devastating for her, that she could never have recovered from it to live happily again, and that the injury to her brain was now slowly closing her mind and body down. Somehow Fay still managed to claw back enough consciousness to make her very final and loving farewells to us all, and to her beloved Martin Kinna a friend since the age of 19.

Fay slipped away very peacefully early in the morning of Valentine's day, February 14th, just as some very dear Spanish friends were arriving to be with her. Fay was 65 years old when she died. She and I were half-way through our 40th year of marriage and had been 'united' as the Spanish say for several years longer than that. She had already more than earned her ruby wedding. A glorious wife, an adoring mother, a loving and beloved relative and friend to so many people around the world, Fay was especially proud of her extended families in Great Britain and Chile and of her 'adoptive' family of friends in Spain, where she had conquered the hearts of local people young and old in our 6 summers in Cordoba province.

Nicholas Tresilian

*I wish to thank the contributors to this column for the thoughtful ways they tease us into thought about the complexities of our engagement with the study of time. I invite you to respond to them and continue the dialogue.*

MMS

From **J.K. BARTHAKUR**:

I confess that I do not think about time as an object of unreachable beauty that generates poetry and excellent literature. I endeavor to get at the Time Theory. With the help of the Indian philosophy and borrowing profusely from Aristotle and other Greek and Syrian ancients, I conceive a meta-concept of time that generates conscious time, dream time, imagination time (like that which allows thinking about relativity), and so on. Additionally, conscious time is multiplicity of time variables (as for example, age, date and cohort age of demography).

I am not exactly a stand-alone. There are other members of ISST, who share the idea of reaching the central theme of time. If read him correctly, David Park did express similar thinking on a different time related context.

**MOHAMMED KHAN** speculates about the cause of time:

Time! From the past memories to the present, with its relentless rush towards the future, the feeling of flow of time is part of our human experience. Precise measurement of time keeps overhead satellites in orbit and airplanes flying. Time is part of sophisticated as well as daily mundane use indicating that it is something very real, yet it remains elusive enough to defy any meaningful definition.

Some philosophical as well physical speculations about time give rise to idea of simultaneous existence of past present and future. In one view of time, also referred to as the block universe, time exists like a landscape. In this concept past, present and future exist superimposed together in different dimensions. This view was reinforced by Einstein's General Relativity in which time extends as the fourth dimension from the past to the future.

"People like us who believe in physics know that the distinction between the past, the present and the future is only a stubbornly persistent illusion."

Albert Einstein

Block universe theory is also called eternalism or the static theory of time. This theory presents a few problems and paradoxes that need to be explained. If future is real then it should already exist; therefore, there cannot be a free will. Moreover, in every duration of time there should be infinite number of copies of everything including the universe. If time is static then what causes us to perceive these events and what is moving through this time landscape? Is our consciousness moving across time?

There should be advanced civilizations in the future capable of time travel. Unless there is some law of the universe that prohibits time travel we should have seen some evidence for it. Then there is the possibility of time paradoxes including the grandfather paradox in which a person travels to the past and kills his grandfather thereby changing the future so that the time traveler would not exist and thus not travel to the past to kill his grandfather.

"The Block universe view with a growing past," was probably created to address some of the shortcomings of the static universe theory. In this the present as well past are real; however, future does not exist so there is free will. Absence of future explains the lack of visitors from the future. This, nonetheless, does not prevent someone from present altering the past by traveling back. Also this concept like eternalism would require numerous copies of the universe to be continuously created so that the past can exist.

When we move in space we do not leave behind copies of ourselves smeared all over the place; so why is it necessary to imagine that copies frozen at each instant of time exist in the past or the future? This existence of past or future to satisfy some physicists, philosophers and time travel buffs is a messy affair. The more you dig into it the messier it gets.

Then there are some who believe that every time we sneeze or spit or do anything we make choices and to accommodate those choices (of free will) the universe divides. We cannot even explain how this universe came into being let alone the one that, according to these theories, pops into existence easier than a rabbit out of a hat. For the above mentioned reasons including that of absurdity I do not believe in time travel, the existence of the past or the future, or the flow of time.

There is however this undeniable feeling of the flow of time. Something is happening and we just do not seem to get it. Let us look at the story of an engineer an artist and a blind man who were asked to describe a car. The engineer looks at the tires, under the hood examines the engine the gauges and the gas tank. The artist looks at the shape the design the exterior paint the color and texture of the seats. The blind man experiences the sounds and feels the air pass by and the rush of the acceleration as someone drives him around. Each has a different take on what the car is about.

Our experience with time is more like that of the blind man. We are projecting our known experience of moving in space to describe time despite some notable differences. When we move in space we can go back and forth at will. We decide to move somewhere and off we go. In time we have no such luxury. We are experiencing the present, and without any choice we are being rushed into the immediate future, but we cannot go to the past except in our memories. The common thread between space and time is memory of events and is likely the major source of confusion as we try to explain time from our experiences in space.

To understand time we have to stop playing the blind man or the artist. We have to shed some of the prejudices produced by the way we experience space. We need to follow the approach of the engineer; we have to look under the hood find the gas tank the engine and the tires and that is what I am trying to do in my work in: What is time? And what causes time?

Please visit my website: [http:// www.timephysics.com](http://www.timephysics.com)

**REIMER HINRICHS** writes about time and affect:

Currently I am working on a paper (in German, and just beginning) about affects vs. emotions and moods. The differences are time-related, because affects are somewhat like a short breakout of the more continuous patterns of the other phenomena I just mentioned. All are irrational and have an interesting phylogenetic background. If you think there's interest, let me know, please. The frame is psychoanalysis, as well as theory and a therapeutic instrument.

To which **FRED TURNER** responded:

Interesting stuff. Emotion is a big subject right now, and the distinction between slow-burn and quick onset emotions might be a big window into our phylogenetic strategy for overriding default selfishness.

**ROY MURPHY** addresses the implications of micro- time on issues of causality:

My current time related work is devoted to the philosophical implications resulting from the current quantum physics

particle entanglement experiments going on in several laboratories and the implications of these discoveries to the meaning of "time" as we experience it. The latest results with particle entanglement experiments seem to make us wonder if the concept of "causality" has any reality. This shocking result has serious effects on our, perhaps, naive view of time. The late, great John Archibald Wheeler was so concerned with these experiments and with their implication to "causality," he introduced the concept of "wormholes" in Planck space to explain the existence of these spooky quantum experiments. This seems to be the most rational of several other explanations for the reality of particle entanglements. It appears that micro-time (time at the Planck level) can move both forward and backward and perhaps not move at all!

Do these spooky results have application to macro-time in the space where we all live? Fortunately, due to the law of large numbers, we seem to not suffer from these small zigs and zags of micro-time event observations. On the other hand, how can we handle the philosophic concept of "causality"?

We are seriously disturbed about this. If there is no fundamental reality to "causality," how can we trust any of our statements about the nature of time? I understand that Einstein once said that time must have been provided by God so that we could keep our experiences in order. There is plenty of thought for philosophers to deal with here. We may be just fooling ourselves about the fundamental concept of time! This is clearly a place where we need the cross fertilization of ideas about time, as called for in the mission of the ISST!

**URIBATAN D'AMBROSIO** ([ubi@usp.br](mailto:ubi@usp.br))

thinks about Ethnomathematics:

My early work (in the seventies) on non-associative dynamical systems, in which time is an element of a non-associative structure (very rarely considered in mathematics; see Hadamard's Huyghens' Principle), lead me to ask how the concept of time, how "measuring" it (for example, elaborating calendars), sensing it, subordinating our behavior to it, which are culturally rooted, became a foundational concept for the development of mathematics in different cultures. Thus, time is central in the historical/ cognitive/epistemological strands of the Research Program called Ethnomathematics.

These are all stimulating invitations to the engagement we need with each other to keep the interdisciplinary work of ISST alive in its challenge to the disciplinary hegemony of the academy and the professions. Join in.

# ISST COUNCIL MEETING MINUTES

OCTOBER 11, 2008

STRATHMERE, NJ

10:12 AM Meeting Opened by President (Paul Harris)

In attendance: Harris, Weissert, Schmelzer, Fraser, Daniel, Aultman, Soulsby, Parker, DePryck, Ballard, Steineck, Turner, Gross, Magnus

Welcome and thanks to Mary and John Schmelzer for hosting this meeting in Strathmere.

Founder's report on International Colloquium on Time at the UNAM Center for the Interdisciplinary Research in the Sciences and Humanities in Mexico City

Discovered existence of the 1980 conference on Time, Quality of Life and Social Development held in South America and funded by the United Nations.

Cites the Constitution where we can choose to affiliate with another society dedicated to the Interdisciplinary study of time with respect to the Mexican Society. There will be an exhibit of time related books organized by Carlos Montemayor (ISST Member and winner of the 2007 Young Scholar Prize at Asilomar).

Will be presenting a short paper on the birth of the ISST as a welcome address, "Whose Past is our Prologue"?

Proposes we meet in Costa Rica to allow participation by members of our young sister society above. And suggests a title "The Instant Everywhere: Promises and Problems."

Discussion follows: What is the Intellectual level of the work in UNAM? (Turner), report by DePryck and Turner on previous summer program arranged by DePryck on interdisciplinarity there. They are formal and desire to do it correctly; but the general sense is that they are still developing the strength of their work, but it is still a work in progress. Gross: There are attractive papers on the program but it is too long for a single volume of Kronoscope as a special edition. Fraser: mostly sociologists but they are trying to expand their scope. Harris: looking forward to a follow-up report after the conference next month. Depryck will contact his connections at UNAM to further this connection and report back.

Open discussion of the Costa Rica potential site (Monte Verde, Hotel El Esbablo) for the 2010 conference.

Background (Mary Schmelzer): Quakers moved to MV from Alabama/Arkansas and started making cheese. They don't want the road paved to prevent quick comings and goings; a lot of eco-tourism, spas, baths, zip lines, cloud forest, an excellent site for eco kind of theme tie-in to the theme of the conference. Costs: \$129.51 per person (double occupancy)/per day all meals, conference amenities and taxes included. Mary will be the point person for this site. Rooms lovely, breath-taking site, there is a bar (reference to Asilomar shortcoming). Hummingbird park, cloud-forest tours, panther stalking. Recommend the two middle weeks in July 2010 because of the rainy season. Paul: steepness of grades locally, Mountain resort? (Mary: no problem). Transportation from the airport: It's a two-hour drive and we can arrange to have it set up. One concern is the travel time from Europe and cost. Suggestion by Fred/Sabine can we defer some of the cost? Worry about making those decisions. But is the lower cost of the site enough to defer the longer travel costs? Discussion continues.

Vote is called to settle on Monte Verde Costa Rica as the site for the 2010 conference. The vote is one abstained and 13 for. The motion is passed.

Gross: we need to have a sub-committee; we need to include costs and length of conference info in the CFP to try to reduce surprises when they do find out.

Re-visiting the mission of ISST, redefining out purpose and our niche. (Harris) What do we mean by Integrative Study of Time? Why and so what? We have a sense of all the scales of time and how the study can be used? DePryck: Interdisciplinty itself tends to involve on ly certain disciplines who use that language. How do we find others? Instead of interdisciplinary what about other terms such as fundamental, foundational. Fraser offers to read back through his work to find useful excerpts. Turner: list of topics of hot things. Weissert: propose to set up a study group to analyze successful papers and articles and extract and write about what makes good ISST papers and reach perhaps some statements about what we are and what we do as a society. Gross: Integrative and foundational work, statements inviting people to come to contribute in this sense and with this purpose. Ballard: Transdisciplinary is a possibility. DePryck: people are afraid to cross disciplines publically to avoid looking like a fool. Turner: "disciplinary" itself is a problem. Time is the most fundamental problem in just about every discipline. Steineck: Why is studying time so fundamental to the most important problems in our disciplines? We need to collect statements to answer this

(continued on page 10)



# The International Society for the Study of Time Fourteenth Triennial Conference

## Origins and Futures

Monte Verde, Costa Rica, July 25 – 31, 2010

### Call for Papers

The International Society for the Study of Time (ISST) seeks proposals for presentations at its 2010 conference in the cloud forest of Costa Rica, on the theme of **Origins and Futures**. The ISST, renowned for its interdisciplinary scope, welcomes contributions from all scholarly, creative, or professional perspectives. Synthetic, foundational work is especially welcome.

### The Locale

The conference will take place in Costa Rica, a place uniquely fitted to the chosen topic. At the crossroads of two continents and the world's two largest oceans, it is famous for its astonishing biodiversity—that is, for its role in the origins of many species of life and in the creation of new ecological niches. Its forests—in one of which Hotel El Esbablo, our beautiful conference hotel, is located—have been carefully preserved or restored by its wise and innovative democratic government, and can tell us much about the conditions in which human societies were first created in the Americas.

Costa Rica, moreover, is thought by many scholars to be a model for the future of much of the globe. Its high-tech low-tech ethos, its openness to post-industrial solutions to issues of energy, the environment, social policy, and economics, its political freedom and market savvy, its recognition of the value of its cultural heritage, and its friendliness to science all suggest the possibility of a more hopeful future.

### Background

The human species projects its path forward by understanding its past. The scope of humanity's temporal awareness continues to grow by leaps and bounds. We find ourselves poised between ever-deepening knowledge of our cosmic, evolutionary, and cultural histories, and ever-more varied future scenarios, of both humans and the cosmos. Searching to grasp our origin, we discern what fundamentally defines ourselves, and implicitly chart ways into different futures.

Origins mark moments of mystery, elusive or even unknowable ruptures in time. Origin points anchor lines of subsequent development; origins contain futures, and forecast the emergence of unprecedented processes, properties and entities in the universe. The universe somehow generates true novelties, from heavy elements in stars and species in niches to mating dances in bird species and arches in architectural traditions. There was a moment before which these new things could not be said to exist, and a moment shortly afterwards when they were definitely there. And from these moments, radically new and perhaps different futures arise.

### Possible Topics for Consideration:

Origins/Futures of: cosmos; life; consciousness; language; ethical values; religious belief

What new things might be originated by global society, with what future consequences?

Origins: discrete and continuous concepts of time

Climate change: original causes, future forecasts

Extinction and emergence

Innovation and sustainability

Origins and future effects of risk quantification

Chronometrics: calculating origins, forecasting destinies

If origins occur, does time itself evolve?

Are emergent entities determined or undetermined, contingent or necessary?

### Guidelines and Timeline for Proposals

Presentation/paper proposals (20 – 30 minutes presentation time) are called for from all fields of scholarly investigation and all forms of creative expression. Diverse formats welcome: scholarly paper, debate, performance, overview of creative work, installations, workshop, poster. Proposals for interdisciplinary panels especially welcome; each paper for a panel must be approved by the selection committee. All work will be presented in English, and should strike a balance between area of specialization and accessibility to a general intellectual audience.

Proposals, approximately 300 words in length, are submitted electronically to [ISST@StudyofTime.org](mailto:ISST@StudyofTime.org), with the author's name as file name. The author's name(s) should not appear in the proposal, as the ISST does blind reviewing in selecting papers for its conferences. On a separate page, please include a brief (100 words or less) description of your scholarly/artistic orientation, field/s of interest/research, and (if applicable) institutional affiliation.

The **deadline** for submission is **June 30th, 2009**. Proposals are evaluated blindly (without name and affiliation of author) by the ISST's Council. Decisions will be communicated by November 1, 2009. The Society also seeks session chairs, whose names will be included on the printed program.

Conference participants must be ISST members. For membership information and application procedures, visit our website ([www.studyoftime.org](http://www.studyoftime.org)). Membership includes subscriptions to the ISST circular *Time's News* and *KronoScope: Journal for the Study of Time*.

### About the ISST

The ISST was founded by J.T. Fraser in 1966 as a scholarly society dedicated to the 'interdisciplinary study of time.' The ISST conferences create a unique environment of intellectual exchange, by combining a highly productive conference theme with a location in a suitably memorable environment. Recent conferences include *Time and Uncertainty* (Castello de Gargonza, Tuscany, 2001), *Time and Memory* (Clare College, Cambridge, UK, 2004), *Time: Limits and Constraints* (Asilomar, Monterey, California, 2007). Selected papers from each conference are published in a series entitled *The Study of Time*, with *Time: Limits and Constraints*, (Volume XIII), currently in press. The ISST also disseminates work through the associated publication *KronoScope: Journal for the Study of Time* (Brill Academic Publishers) and *Time's News*, the organization's newsletter for members. For further information: [www.studyoftime.org](http://www.studyoftime.org)

## Minutes

and present them perhaps on the website? Parker: Branding connecting multiple terms: Fundamental,(trans)disciplinary, integrative studies, etc.

Conference Theme (Harris) suggests a bottom-up approach, what are some of the topics on the table, and what kind of papers do we want to get? Prior ideas: Emergence, the future of the past, instant everywhere, sustainability. Site suggest: ecological, transformation, futures, predictions, responsibility, crises and transformation, environmental restoration. Discussion of keywords and themes: Turner: Here are some hot ideas: reversibility, integration of linguistic, archeological, evolutionary, internet studies (of the internet), string and brain theory, time-travel as a thought experiment, without paradox, emotion (of what use in evolution) makes us serve as neurons in a brain bigger than ours, costly signaling, environmental reclamation and restoration, waste in general, artificial matter, evolutionary development, inherited acquired characteristics, quantum computation and quantum logic, emergence and self organization, fundamental principle of the creation and destruction of information, difficulty of a computation as an entity that looks like time, time in computer science, anticipation in psychology and evolution, prediction, game theory as lens in ethics and cultural theory, futures markets. Gross: what kind of papers? Large and ambitious overview or very particular studies. We need to join ideas together so that are counterbalanced in our topics (anticipations and reaching back, local particulars and instant everywhere,) (Ballard)promise and resistance, emergence and resistance, (Parker) Time and memory was the biggest group of papers we got, so we don't want to be too specific in our wording (DePryck) Origins. (Steineck) like to choose a theme that doesn't have the word "time" in it. Likes the future of the past. Suggests history on futurology, where do emergent features come in, intentionality in creating the future, (Aultman) don't like it because it sounds like a pop title, what happened to emergence?

Breaking for lunch 12:51 PM

Returning from lunch, 2:15 PM

Taking a written ballot of two favorite themes in ordering:

- Global instant everywhere, 1
- Futures of the past, 2
- Origins, 1
- World enough and time, presentness time scales and the now, 2
- Future of the past; origins and futures, 1
- Uses of the past: origins and futures 2

- Futures of the past, 1
- Origins and futures, 2
- Resilience, resistance, evolution, 1
- Global Instant (everywhere), 2
- Origins1,
- Just in time, 2
- Origins, 1
- Origins and Horizons, 2
- Global instant everywhere, 1, 2
- The future of the past, 1
- Origins and futures, 2
- Origins and futures, 1
- Evolutions, 2
- Global instant everywhere, 1
- The now and nowless, 2
- Origins an outcomes, 1
- Emergence and stability, 2
- Queuing the future, 1
- Just in Time, 2
- The future of the past, 1
- Origins and Future, 2

Origins and Futures, or Global instant everywhere

More discussion about tying the theme into the site leads to a vote: "Origins and Futures" is unanimous as a stand alone title.

Writing the CFP, Fred will draft, then Paul edits, then passed along to the council for discussion. Call for Papers needs to go out beginning of January, deadline for submissions, July 1 2009. Need a committee to actively disseminate the call: Paul, Raji, and Dawna. For dates, Europeans need to have it in the third week of July.

President will contact Jane Goodall and the president of Costa Rica (Nobel prize winner) for keynote speakers.

Update on the Antwerp Conference (DePryck) See hand-out. How do we affiliate the conference with the ISST? (Harris), special rate for ISST members, publishing the papers in the special issue of Kronoscope, Keyonote (Fred) will tailor his talk as an ISST like talk.

Steineck: another interim conference on the Global Instant Everywhere, 2012 at Monte Verita SZ (two years in advance)

Treasurer's Report is delivered. Ending Balance \$25,421.54 for 2008. 165 Members expected to pay dues in the coming year

Weissert suggests we need a lead person (project manager) to take on KronoScope and Timeline (separately).

### Membership and Continuity of ISST

- (Depryck) ask new members what they expect to get out of the society? Ways of widening the audience of the society outside of Academia. Identify these groups and target them with info on ISST.
  - (Fraser) should we redesign and print the ISST booklet? (Depryck, Harris, Tresillian)
  - (Depryck) can we set up some actual virtual offices in other places in the world.
  - (Raji) Standards must be maintained.
  - (Harris) We're an intellectual society, so quality control can be maintained, control of what is published.
  - On the web site we should change the application to read Discipline/Profession instead of Discipline.
  - Board of [advisors, archivists] to assure the continuity of ISST (Harris)? Everyone agrees on the need to have a group of people to whom we could go to for answers. Fraser agrees to start making a list.
- Meeting adjourned for the evening to reconvene in the morning...

### Sunday Morning Wrap-up, 9:16 Oct 12.

Update on Volume 13 of the Study of Time (Parker)

- Receiving reviews of most of the papers
- Some still need revision
- Approx 18 papers in the Volume
- Expect to have everything in by Jan 10
- Off to Brill Summer 2009
- Maybe publication by Jan 2010

Report on KronoScope (Soulsby)

- New editor at Brill
- Brill has moved its printing locale (and procedure) so proofs come twice instead of once
- Fall issue (8-2) being guest edited by Sabelis (organizational studies)
- Prof. Guadalupe editing papers for 9-2 from the Mexican Conference
- Looking ahead to 10-1 guest edited by DePryck from the Antwerp Conference.
- Still need papers for Spring 9-1 would like to have some more pedagogy materials, deadline in February 2009.
- (Parker) publication meeting suggests we need a real working Editorial Board. Sabine Gross volunteers to continue working. (Ballard) We should make an effort to get KS cited more which will increase its exposure. (Harris) Editors get it free, Editorial Board are members and receive it through their memberships. Publication committee will begin restructuring the editorial board.
- Weissert again volunteers to create KronoScope editorial site.

We need someone to find someone to take the lead on Kronopedia and Timeline. Robert Daniel volunteers to find someone to take the lead on Kronopedia.

Meeting Adjourned 9:44 AM



Meeting in Strathmere in 2008.

## CONFERENCE

The International Society for the Study of Time holds a week long conference every three years. Recent conferences have been held in France, Germany, Italy, Canada and the United States. This triennial meeting is unique in atmosphere with a strong familial feeling. After each day of intense interdisciplinary presentations, members spend meals together and evening hours in small informal groups discussing the day's topics, and enjoy time-related art, music, and/or dance presentations. Each conference generates a new volume of the Study of Time Series, wherein a selection of the papers originally presented at the meeting are worked out in more formal detail, peer-reviewed, and represent the theme and content of the conference.

Right now we are planning the 2010 conference and thinking about Eastern Europe, North Africa, and Central America. Inquiries have been made into meeting at Monteverde, Costa Rica thus far. Any ideas or preferences? The council encourages your input. Contact the executive secretary particularly if you could serve as liaison to a conference center.

## J.T. FRASER PRIZE

The Society is seeking the thoughts of its members as to what books or other works you believe to have made a significant contribution to the study of time. We are interested in books that may have been overlooked because they are focused on a particular discipline, as well as more general works that deal broadly with the subject of time. The Fraser Prize, as most of you know, is awarded by the Society at its triennial conference to books or other works that have made a significant contribution to the study of time. Our purpose in soliciting your thoughts, however,

is twofold: both to find books or other works that are worthy of consideration for the Fraser Prize and to seek books that should be considered for review in *KronoScope*. Please send your suggestions to the ISST listserv or, if you prefer, to Mark Aultman, Chair of the Fraser Prize Committee, at [Aultmanmh@cs.com](mailto:Aultmanmh@cs.com) or to Jo Alyson Parker, Book Review Editor for *KronoScope*, at [jparker@sju.edu](mailto:jparker@sju.edu). If the work is such that its significance might not be understood by those outside a particular discipline, any thoughts as to why the work is of significance and why it should be reviewed will be especially appreciated.

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### President's Column (continued from page 2)

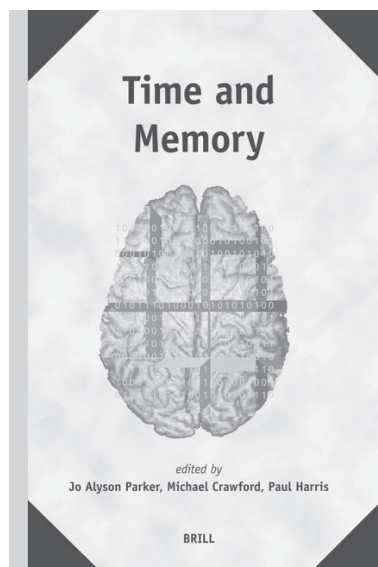
the course of physical events, and that our future is markedly finite. In other words, as our origins recede further back in time, the tenable duration of our future seems to shrink. In the words of baseball sage Yogi Berra, it would appear that "The future ain't what it used to be." Yet, uncertainty opens a light at the end of the tunnel—if the parameters of our very origins are likely to change, then why should not our futures be subject to concomitant revision?

The shifting grounds, then, of the very terms in which we posit questions of Origins and Futures, invite us to express new ways in which to approach the myriad issues that the phrase invokes. I anticipate eagerly the multiplicity of responses to our conference Call for Papers stimulates on this theme, and to renewing acquaintance with you on that stimulating occasion.

1. Gott, R.: 1993, 'Implications of the Copernican Principle for our Future Prospects', *Nature* 363, 315–319.

## Time and Memory

Edited by Jo Alyson Parker, Michael Crawford and Paul Harris



- Published in 2006
- ISBN 90 04 15427 2
- *Hardback*, (xviii, 322 pp.)
- List price EUR 89.- / US\$ 120.-
- Members Price EUR 62 / USD 84 (valid through 31-12-2007). Members price exclusively for members of the International Society for the Study of Time (ISST).
- The Study of Time, 12

The nature of time has haunted humankind through the ages. Some conception of time has always entered into our ideas about mortality and immortality, and permanence and change, so that concepts of time are of fundamental importance in the study of religion, philosophy, literature, history, and mythology. On one aspect or another, the study of time cuts across all disciplines. The International Society for the Study of Time has as its goal the interdisciplinary and comparative study of time. This volume presents selected essays from the 12th triennial conference of the International Society for the Study

of Time at Clare College, Cambridge. The essays are clustered around themes that pertain to the constructive and destructive nature of memory in representations and manipulations of time. The volume is divided into three sections Inscribing and Forgetting, Inventing, and Commemoration wherein the authors grapple with the nature of memory as a medium that reflects the passage of time.

*Readership:* People with an interdisciplinary bent will enjoy this approach to memory as a medium and as tool to manipulate, reflect, and mark the passage of time.

Jo Alyson Parker, Ph.D. is Associate Professor of English at Saint Joseph's University in Philadelphia. She is the author of *The Author's Inheritance: Henry Fielding, Jane Austen, and the Establishment of the Novel* (Northern Illinois University Press, 1998), and she has published essays on narrative and time.

Michael Crawford, Ph.D. (Toronto) is an Associate Professor of Biological Sciences at the University of Windsor. His research currently focuses upon the mechanisms that underlie the "segmentation clock" and that give rise to vertebrae.

Paul A. Harris is a Professor of English at Loyola Marymount University. His specialties include critical theory, interdisciplinary studies, and constraint-based writing.



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# KRONOSCOPE

*Kronoscope* seeks constantly to find ways to make the journal a source of first rate essays on time across the disciplines. In an effort to broaden the range of topics as well as have significant contributions from our own membership, *KronoScope: Journal for the Study of Time* invites you to submit your work for publication. It provides an open-ended platform for the interdisciplinary exchange of ideas by publishing scholarly and scientific articles, essays and other creative work, dealing with the nature of time. If your essay from Asilomar is not scheduled to appear in the conference volume, think about sending it to the journal. Moreover, if you know of colleagues doing interesting time-related work, encourage them to forward their work to us. Remind them that all work is juried and vetted. Presently, we are looking for more expert readers in the discrete (inter) disciplines. We particularly need readers in the hard sciences. Please contact us if you are interested.

In the belief that rigorous interdisciplinarity is fostered by shifting pedagogic technique, *Kronoscope* is looking for essays about or descriptions of courses or practices that incorporate time studies into traditional academic disciplines. If you are doing this, tell us about it.

We are further looking for responses to essays in order to keep the conversation going. Think about a letter to the editor in the next edition.

Our goal is to make *Kronoscope* an organ for disciplinary change, marked by its collaborative nature. We are small enough to know each other's work as well as potentially powerful enough to insert ourselves effectively into the larger dialogue.

Help us. Send your submissions, or letters to Marlene Soulsby at [mps2@psu.edu](mailto:mps2@psu.edu) or Mary Schmelzer at [maryschmelzer@mac.com](mailto:maryschmelzer@mac.com). Use the same addresses if you can help us with second readings in your discipline.

- Renewal of membership and dues forms for the year 2009 should have arrived. Please note that in order to receive copies of *KronoScope* and "Time's News," it is imperative for all members to pay dues on time. These publications will be sent only to those members who have done so.
- You can submit your membership application and pay your dues online at <http://www.StudyofTime.org>.
- Please check the site for updated information on the ISST.
- Please request that your institution's library subscribe to *KronoScope*.
- If you have suggestions for agenda items for the next ISST Council meeting (to be held in September 2009), please contact Executive Secretary Dr. Thomas Weissert at [ISST@StudyofTime.org](mailto:ISST@StudyofTime.org).
- Membership in ISST also gives you access to the ISST listserv. If you do not yet have access to the ISST listserv and would like to be added, please send an email message to that effect to the Executive Secretary.
- And, finally, the newsletter is intended not only to inform members about ISST business but to encourage your active involvement in the Society. If you would like to comment upon some of the items presented here (consider, especially, the discussion of the ISST's future in the Council minutes), please consider starting a discussion on the listserv.

## IMPORTANT REMINDERS



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