

# Julius Thomas Fraser

J. T. Fraser (May 7, 1923 in Budapest, Hungary – November 21, 2010 in Westport, Connecticut) made important scholarly contributions to the interdisciplinary Study of Time and was a founding member of the International Society for the Study of Time.[1] His work has strongly influenced

thinking about the nature of time across the disciplines from physics to sociology, biology to comparative religion, and he was a seminal figure in the general interdisciplinary study of temporality.[2] His work has been particularly influential on the work of Frederick Turner and Alexander Argyros.

Born and raised in Hungary, Fraser was not drafted into the military on account of his partial Jewish heritage. Following the Second World War, he emigrated to the United States. Working as an engineer and an inventor for several years, he registering at least seven US patents between 1958 and 1963. However, he already began to think about the nature of time much earlier, as early as 1945. His early training had been in physics, but he



May 7, 1923-November 21, 2010

completed his Ph.D. in 1969 in the Fakultät für Geistes- und Staatswissenschaften (Faculty of Social and Political Sciences) at the University of Hannover, and his dissertation was entitled: *Time as a Hierarchy of Creative Conflicts*. Although this work provided a template for many of his later

investigations, he had already touched on many of the core ideas in his first articles in 1966, the same year that he founded the www.studyoftime.org (International Society for the Study of Time).

Fraser authored and edited many papers over the next several decades, but following the success of his 1966 edited volume of interdiscplinary articles, The Voices of Time, which remains a regularly cited classic of time studies, he oversaw editing and publication of the first ten volumes of the The Study of Time series through the www.studyoftime.org. More recent contributions include his role as a founding editor of the interdisciplinary Journal *Kronoscope*.[1]

Fraser died on November 20, 2010 in his home in Westport, CT. that he shared with his wife, Jane.

Fred Turner

### REMEMBERING JULIUS FRASER

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# FOR JANE FRASER

John and I met Julius and Jane Fraser along a steep path at Gorgonza the day before the conference convened. He leaned "lightly," as he said, on Jane for support as we introduced ourselves. That moment figures forth for me the terms of a remarkable relationship that has sustained itself as the need for that support intensified.

Jane made Julius possible in ways that few of us were ever privy to, but anyone who has visited Westport knows that the remarkable wide-reaching conversations inside those walls were buttressed by her hospitality and good grace. She kept things in order and knew where things were, not a secondary achievement in so active a household.

She discerned what needed to be done for Julius or the ISST and her fortitude allowed her to do it. She was the travel agent, the driver, the caregiver, but always more. Ever the wise and trusted councilor, she listened, critiqued and suggested and knew when to say little.

Had it not been for Jane, we would not have had Julius at the table and contributing at the October council meeting. It was clear to all that the demands on her had escalated enormously. Julius had a sound mind in a body that was failing him, but Jane was not failing him. We tried to offer some respite, perhaps a few minutes on the beach, but Julius needed her and she stayed there.



My suspicion is that most of us learned something profound about love that weekend.

As Jane left Assilomar in 2007, just outside the meeting hall after the last words had filtered through the air, she worried that it was to be Julius's last conference. Sadly, that was to be the case, and as Remy Lestienne said, we are all now orphans, but not quite, we still have Jane to remind us that ISST is not about power relations, but about human relations, about work that sustains and builds ethical intellectual communities.

Mary Schmelzer

# **Executive Secretary Column**

Twenty two years ago I presented to my dissertation committee the proposal to study the continuous vs. discrete nature of time, based on my readings of J. T. Fraser. My committee of physicists suggested to me that I consider something a bit more traditional. Fifteen years ago I attended my first ISST conference in Quebec, Canada. I was lucky enough to hitch a ride from the airport to the conference site with Jane and Julius Fraser, with whom I immediately found a rapport. Soon I discovered that many people had discovered an equal rapport with the Frasers and, in particular, the loving and exciting personality of Julius Fraser; both brilliant and yet personal in a genuinely old

European gracious way. Totally hooked on the implied respect from this brilliant man, to his endearing elf-like quality and his forceful determination to create a self-sustaining study of time, I lumbered in like the dancing bear, taking whatever role Julius wanted to create for me. I've never looked back. I will forever be a believer: the study of time transcends and undermines disciplinary boundaries. Julius has gone from us in his usual quiet dignified way, but we who were touched by his unique inquisitiveness and his respect, and who count those gifts as part of our treasure, will go forth and continue his work and preserve his memory.

Tom Weissert

### Honoring Dr. Fraser in His Own Words: Julius's Life in the Light of J.T.'s Theory

Since his death this past November, I have spent a lot of time remembering Julius and rereading J.T.'s work, reliving the delights of knowing him, and rediscovering the depth, breadth, originality and power of his thought. As grieving and reading have become more and more inextricably intertwined, it has dawned on me that Julius could, like time, perhaps be most fully 'felt and understood' in terms of J.T.'s theory.

J.T.'s theory of time may be divided into three statements. First, he posits that "Nature comprises a number of integrative levels which form a hierarchically nested and evolutionarily open system along a scale of increasing complexity." Certainly, Julius's life unfolded on many levels, though I am not sure it is possible to arrange them in a hierarchical manner—one might say that in his life it was 'complexity all the way down.' His life could be imagined as an itinerary through amazingly heterogeneous historical and cultural umwelts, including his Hungarian youth with Hoch-Deutsch pedigree, journeys through war-ravaged landscapes, immigration to America. Likewise, one could imagine his mind as containing a carefully nested series of integrative levels or subsystems, including a repository of poetry and song he recited or sang in multiple languages, and an engineer's workshop where ideas and instruments were tinkered with and patents were invented.

The second assertion in J.T.'s theory is that "Processes characteristic of each of these levels function with different modes of causation and must be described in different languages." Julius's life was driven by multiple forms of causation and motivation, and one would have to understand several 'languages' to describe them adequately. On one level, Julius was a very direct causal force in the world—if he wanted something to happen, he would see that it did. Here, two remarks by people who loved and admired him come to mind. Jane Fraser frequently reminded friends that "Julius cannot help being born Hungarian"; David Park (past ISST President), chuckling and shaking his head, once said "Nothing Julius will do will ever surprise me." On another level though, Julius evolved and adapted to more complex and emergent forms of causation. Here, I am thinking of the evolution in J.T.'s role in the ISST. For decades, J.T. was the ISST—the Founder directed the organization, and all communication went through

P.O. Box 815 in Westport, Connecticut. But in the last fifteen years or so, J.T. assumed a much more democratic role in the ISST, and the organization became a cooperative venture. One might say that Julius let the ISST evolve from a primarily noetic level of causation (driven by a singular and single-minded mind) to a socio-historical level of causation, with all the messiness that attends such a change. In doing so, Julius ensured the lasting health of the beautiful collective organism he created and nurtured.

The final component in J.T.'s theory is that "Each level determines a qualitatively different temporality, and each adds new, unresolvable conflicts to those of the level or levels beneath it." Conflict is the engine of change in the hierarchical theory—conflicts cannot be resolved on one level, but are contained by the next emergent level. Julius's life was on one level shaped by conflict—as he attested, being caught between armies in World War II sparked the vision to which he devoted his life. J.T.'s remarkable thought enacts the dynamic his theory describes: his work identifies formative conflicts and generates ideas supple enough to contain them. The hierarchical theory reconciles being and becoming, the sciences and the arts, life and death, time and eternity.

J.T.'s work on time has a timeless quality. He was both traditionalist and innovator. His thinking was firmly rooted in canonical foundations of western knowledge; he trained his mind to master material across the disciplines; he broke new ground by bringing a meta-critical clarity to bear on all that he knew. He operated on a complex, emergent level produced by his own work; only from this richly informed point of view could he invent a sweeping, synthetic theory of time, at once an epistemology and ontology. J.T. was a truly original author who created an integrative, interdisciplinary theory, and then deployed the theory to parse and parcel problems and questions in discipline-specific contexts.

Though he developed a comprehensive philosophy of time, I hesitate to call J.T. a philosopher. He had the philosopher's power of systemic and systematic thought, but combined it with the engineer's structural soundness and the poet, painter or musician's aesthetic sensitivity. His mind was a high-precision instrument that resembled the Optically Pumped Magnetic Resonance Gyroscope

### PRESIDENT'S COLUMN (continued from page 3)

and Direction Sensor he patented—his brain was able to swivel around in all directions while maintaining balance and diagnosing exactly where someone was coming from.

If J.T. was part philosopher, he was also part science fiction writer, part anthropologist, and part ethologist. One of his books is called Time the Familiar Stranger; his work has a provocative power to make the strange familiar and render the familiar strange. For instance, after enumerating the Seven Wonders of the Ancient World, Fraser proposed that the modern icon of wonder was in fact science, which he said "may be represented with an aphorism. It is: an art of conversing with stones, with plants, with animals and with humans. The question-and-answer periods are called experiments. When it involves talking with stones, the language is mathematics" (Time and Time Again 320). J.T.'s theory is also a wonder, a set of thought experiments that probe the limits of the universe and maximize the mind's capacity to both grasp it and gasp at it in wonder.

The element of wonder in Julius was powerful, and part of his ability to charm anyone and everyone. His deep

delight in children was rooted in his inner imp, a wonderfilled child who loved to laugh and was insatiably curious about humans and the world. Sensitive to the charms of the fair sex, he was a sophisticated, incorrigible flirt. His humor and deep humanity communicated themselves to people across the world, winning him friends in a number of languages.

As President of the ISST, I feel immense gratitude towards J.T. Fraser. I am grateful for the vision and leadership with which he founded and fostered an organization uniquely dedicated to interdisciplinary scholarship. I am grateful for the hospitality and humor with which he infused the ISST, making it an intellectual home to a great number and diversity of people over the past four decades. I miss Iulius terribly, and mourning his loss has made me appreciate him in new ways. But I know that J.T. and his work will live on through the ISST, and I pledge to him and to my colleagues in the ISST to carry his spirit forward.

Paul A. Harris, President, ISST

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# KronoScope Journal for the Study of Time

In association with The International Society for the Study of Time (ISST) Founded in 1966

The journal is dedicated to the cross-fertilization of scholarly ideas from the humanities, fine arts, sciences, medical and social sciences, business and law, design and technology, and all other innovative and developing fields exploring the nature of time. Manuscripts of not more than 8000 words, and using The Chicago Manual of Style, may be submitted electronically to the Managing Editor Dr. C. Clausius at cclausiu@uwo.ca. We also welcome review articles. For further submission guidelines, please visit the Brill website at http://www.brill.nl/kron or the International Society for the Study of Time website at http://www.studyoftime.org/



# REMEMBERING JULIUS FRASER

For those of us who have not had the privilege of meeting Julius Fraser, you might find him in these tributes:

#### Michael Crawford:

Claudia and I entered into the embrace of Julius and the Society at the Dartington Hall conference in 1986. His welcoming manner, his patience, and his generosity with aspiring scholars was extraordinary. How many academic careers has he helped to nourish and launch? How many of our respective projects and careers are richer for his enthusiasm and interest?

My favorite memory of Julius comes from a visit that he made with Jane on one of their indefatigable tours. After mind-stretching conversation over dinner, he popped a tea cosy onto his head, looked playfully at my young children, and asked them about what they had been reading lately. His partner in crime, Jane, had already been up to assess the state of their bookshelves, and made her report... Quite the team! I joked that they must be taking their development of prospective ISST members very seriously. In retrospect, I guess that we were neither of us short of the mark - and one regret is that my daughter did not get to commune with the Master Timesmith at the last conference. And isn't that what it always felt like - communing with an extraordinarily humane and warm sage?

Warmest thoughts of support for Jane, his family and his friends.

#### Remy Lestienne:

Hi, fellows orphans,

In this day of sorrow, let me join you in the celebration of J.T. Fraser, the ISST founder and guide of our thoughts about time

We all remember the first time we met him and Jane, is not it? For me, it was in a Paris restaurant, probably in 1990, and I remember very well that at the dessert time Julius and Bernadette (my wife) started singing in duet "La vie en rose".

Progressively and with enough relentlessness, he attracted me in the ISST council were I had the pleasure to work with many of you, and persuaded me to call the suffrages for running for President (of ISST), a position that I attempted to carry out to my best for six years (1998-2004).

By his kindness, his broadmindedness and insatiable curiosity, J.T. Fraser will remain for me a model and for my work a strong source of inspiration. Julius's last email to the council, November 4, 2010:

I have not commented on all the recent exchanges but read everything and am much impressed by their intensity and relevance. ISST's long term future is being constructed: its policies, its structure.

As ever

JT

(I have left the font size exactly as he sent it. MMS)

#### Marlene Soulsby:

I have tried so many times to write about Julius Fraser: the richness of his influence on me extends from work on the integrated levels of time, to editorial collaboration, to the scholarly appreciation of interdisciplinarity. The vastness and depth of ideas, the wonders of intellect, the joys of discovery and the intimacies of memory are overwhelming and well beyond words. Therefore, I have not turned to language as an outlet. Instead, I have gravitated repeatedly to one photo —a photo of Julius, the boy: a photo that

cuts through time, revealing the future in the past. Here one can already see the fire of curiosity, the intensity of thought and the ambition born of personal struggle. I remember talking to him about this photo. I saw mischief in it—a characteristic weighed in with all the others and took its rightful dominant place. He took great in delight this recognition. Therefore, I pass it on to you to see and to know.



#### Peter Hancock:

It is one of the paradoxes of modern times that when a so-called celebrity passes there is an endless outpouring of public emotion, yet when a truly remarkable human being such as Fraser leaves us, so few will actually know. This is exceptionally sad news but especially perhaps for us who are left impoverished by his absence. My condolences to his family and my sadness for all of us today. Time will be less fun without him.

#### Fred Turner:

Histories are stories; stories are complex coherent non-commutative hierarchical reflexive asymmetrical fractal generative feedback structures. The Mandelbrot set, because it is generated by a non-linear algorithm, shows that time is not a precondition of feedback; rather, feedback constitutes and generates time. What gives any particular history its depth and pastness and sequence is the relative difficulty of the calculation to retrieve any given part of it, as compared to the difficulty of retrieving the entire history, any other history, or the interactions of all the histories with which it is in contact.

Perhaps, then, the expansion of the universe "in space and time" is simply the increase in the size of non-overlapping or mutually inconsistent histories; and gravitation is the overlapping of histories.

#### Carlos Montemayor:

I would like to briefly describe an instance of Julius' generosity, sense of humor and intellectual range. Two years ago, in November 2008, Julius and I participated in a conference in Mexico City. All the attendants at the conference were delighted and moved by Julius' keynote speech. Many of them did not speak English and the event was simultaneously translated while speakers presented. Julius was always on time for every talk, smiling and trying to say as many sentences as he could in Spanish. He stopped to say hi to little kids everywhere we went. All the participants, scientists and humanists, wanted to talk to Julius and he was always willing to listen. Towards the end of the conference, one of the organizers asked Julius if he could call him by the Spanish version of his name. Julius said yes immediately, and the way in which this person translated Julius' name reveals the sense of respect and endearment that Julius engendered: Don Julio Tomasito.

My deepest condolences to Jane and our Society.

#### Sam and June Macey:

Our deep condolences to Jane and the family. We remember with gratitude our many happy and productive meetings at Westport with Julius and Jane. At this sad time it must be hoped that we we will all do our best to ensure that Julius's most important creation—namely ISST—goes forward not only from strength to strength but also from generation to generation.

#### Dennis Costa:

Brown and I feel most privileged to have spent two days with Julius and Jane, just a few weeks back, at our executive council meeting. As he had before—first at Gargonza and then at Cambridge—Julius expressed serious interest in and enthusiasm for my work on how time and temporalities are expressed in late antiquity and the Middle Ages. He especially wanted to look at the paper I had read at Monteverde; so I sent it him, just last week. I tried to convey to him how much his dedication to and embodiment of interdisciplinarity had meant to me. He loved practicing his Italian on me. And this time we wound up singing Neapolitan songs together after dinner!!

Brown, very new to the ISST world, took long walks with Jane.

Our heartfelt condolences go out to Jane. Julius remains fixed in memory and in a keen, living sense of intellectual adventure.

#### Dorothy Pere:

I would like to speak to all the wonderful way he encourged my art. He asked for my site, and everytime I added a new piece he would e mail me and say that He greeted the new resident!!! What a kind person he was. I thanked him of course, but I guess he never knew how much his caring meant. There are few words to express how much his time on earth meant to so many people like me.

#### Giovanni Bruno Vacario:

I met Fraser in Tutzing. I was very impressed by his scale of complexity of meaning of the word "time". I quoted that scale everytime I could do: in oral presentations at many seminars, but also in Vicario, G. B. Temporal displacement, in: Buccheri, R., Saniga M., Stuckey, W. M. eds 2003, *The nature of time: Geometry, Physics and Perception*, 53-66, Kluwer, Dordrecht. I pressed him for the introduction of that scale in the physical body of the man, considering the fact that some processes in it are developing in physical time, some other ones in the mental time, and that some human behaviours have sense only if social time has its own reality. My proposal had no reply, and I do not know whether I was not convincing or Fraser did not understand the point. He could make his mark on psychology of time.

#### Gus Koehler:

For me, he was the greatest genius that I had the privilege of knowing. He was my single greatest and most inspiring teacher. Due to JT, my scholarly and even applied work came to realize a whole new focus that

emphasized dynamics, an emphasis that seemed all to obvious once he pointed it out.

To hear him lecture was intoxicating and visionary. For example, his Founder's Speech in the late 90s pointing out the emergence of the techno-primitive who cruised the Borges like library of the net with little more than a thoughtless tasting of ideas foresaw the very reality of what we are living in today. J.T. also was interested in bringing forward opportunities to address Big issues. He did this in his speaking engagements around the world. Here in California we tried to pull together a conference, To See Beyond, that would focus Legislative policy makers on the social, political, and natural issues that were about to confront us in the new Millennium. If only we had been able to bring it off! As to JT's inquisitiveness and drive to know what is new and cutting-edge, I will never forget the experience of introducing him to a computer fractal generating program in my basement study. Questions and observations just flowed out of him and he took a copy home.

Jane and JT were a team. Her warmth and organizing capacity complemented JT's drive. Their contribution as a team to the society cannot be underestimated. I hope that Jane will continue to participate in our meetings, bringing her practical perspective and sound political sense with her.

Personally, while we as a group appreciate what JT created in the past, I still think his work was far ahead of his time. The implications of his multidisciplinary philosophy of time has not yet arrived to fully impact the social, policy, literature and other sciences particularly in an interdisciplinary way. Time, the stranger, still needs the introduction and deep understanding that JT offered. Scholars, artists, and musicians from multiple disciplines from around the world still need to come together to offer unexpected and stimulating thoughts and to share their insights over a wine.

I would like to see a JT Memorial Lecture dedicated to further unfolding his natural history of time, exploring all of its implications, all of its little nocks and crannies. Such a lecture should apply his insights to the social, political and ethnical problems of our time. It should explore the scholarly and performance borders between art and physics for example. This is a deep, deep ocean of knowledge that JT left which continuously reveals new insights and illuminates unexpected paths. This body of knowledge will always be with us.

#### Helga Nowotny:

Remembering Julius is to partake in the sadness that we all feel while celebrating his memory. My heartfelt condolences go to Jane who contributed so much to Julius' radiance and what he came to mean for us. In a mythological universe I would assign to her the place of a

goddess of Time, the inseparable companion of Compassion and Knowledge.

T.S. Eliot's phrase "Time past and time future... point to one end that is always the present" is reversed by Julius. It is the present, the now, pointing to the past and the future. While individual past memories differ, when we got to know Julius and how we remember him, a collective memory emerges at the same time - a tribute to a unique man of learning, humor, warmth and generosity. The first time I had the privilege of meeting Julius and Jane was in Japan at one of ISST's early conferences beneath the splendid height of Mt. Fuij. More ISST conferences followed, including the one that I helped organize in Alpbach, Austria and especially the one in Gargonza. The years before and after I served as ISST President (1992-1995) were filled with correspondence in the old-fashioned, European style we happily shared. And as often as possible I would visit the Frasers in their home during short trips to the US East Coast.

The emotionally moving experience of the present opens the door towards the future. Julius has bequeathed an impressive work of thought and erudition that has inspired a generation of scholars who devote a significant part of their thought to further pursuing the paths he has laid out. May ISST flourish and continue as a vibrant community of time scholars built around the legacy that Julius has left behind.

#### Jo Alyson Parker:

After the 1998 ISST conference in Tutzing, my family joined Iane and Julius Fraser for a holiday at Lake Como. One day, we took a boat across the lake to the town of Cernobbio, where the Villa d'Este luxury resort is located. After his escape from Hungary and before his arrival in the United States, Julius had worked here, and he was eager to see what changes time had made. When we approached the entrance, however, we saw that a guard was installed to keep the public out. approached the guard and, drawing on his rusty Italian, he explained that he had been there at the end of the war. Charmed, as so many were, by Julius, the guard let us pass—a typical instance of Julius working his magic so that we could wander through the palatial buildings and lovely grounds. Such magic moments happened often during our travels with Julius, for people were drawn to him. A last memory—Julius at the October meeting of the ISST Council, making his usual wise suggestions to ensure that the ISST continues to flourish.

#### Joad Elich:

Get your time back! It is an ad for wireless internet on my flight back from San Diego to Amsterdam. Thankfully I did not use it during the flight. During the stopover I read that Julius Fraser had passed away. It fills me emotions.

We first met in 2000 at his home in Westport to start discussions about a journal for the study of time. I have been back many times since, lastly just 4 weeks ago. Julius was in a good mood, although his body hampered him. We talked about the legacy of his materials. We had lunch and he was hungry. Not only for food, but also for thoughts. As ever.

It seems we can get time back, at least according to the advertisement. We cannot get Julius back, but we can keep his work and goals alive. All the best for Jane - I will think of you both hovering over Westport on my way home tonight.

#### Amrit Sorli Bistra:

peace and love for J.T. Fraser, eternity is now yours

#### John Michon:

**Quo vadimus?** 

Obviously, trying to 'define' time is a fool's errand. To define a notion is to find for it an equivalent ideational construct made of some other, usually more primitive, notions [...] Any attempt to define time, therefore, is bound to be ridiculous, since nothing in this world even remotely resembles time.

Masanao Toda, Study of Time III

Reflecting on Julius T. Fraser's scholarly achievements I stand in constant awe for his encyclopedic perspective. He has been able to create an integrative, systematic view on the broad and basically non-unified field of Temporality. Thus, he has provided indispensible surveyor charts and travel guides for many generations of scholars and scientists to come, guarding them from the 'ridicule' signaled by Toda in the opening quote. Such will be indeed be the enduring significance of Fraser's analysis of Time and Things Temporal.

My acquaintance with Julius dates from 1967. Just having completed my PhD I became aware of the fact that less than a year before an "International Society for the Study of Time" had been established. My dissertation work had dealt with a matter of time: how people synchronize with simple temporal patterns. I applied for membership and to my delight I was cordially accepted. I met Julius in person at that unforgettable Oberwolfach meeting in 1969, the First World Conference of the Society. That conference pretty well set the format for all subsequent conferences: a nutritious hors-d'oeuvre varié of mostly unrelated but generally interesting and occasionally brilliant presentations, with a touch of thematic focus added.

In the years that followed I have been involved with the Frasers—both Julius and Jane—enough to acknowledge Julius as the iconic embodiment of scholarly dedication and to appreciate the subtle role of Jane in enabling that unconditional dedication. As a member of the Council and later as President of the Society (1983-1986), I have witnessed the full impact of this exceptional dedication—actually *devotion* may be a better term in this context.

Julius has indeed followed in the footsteps that the great natural philosophers have left in the sands of Time, roughly spanning, I should say, the two millennia between Lucretius and Alfred North Whitehead. And, although a scientist at heart, his insights have eventually become crystallized in a philosophical discourse that speaks primarily to the humanities, especially in his later work.

From the perspective of the Society, we must admit that the membership has never embarked on a concerted effort subjecting the Founder's comprehensive perspective, and the nomology underlying it, to a truly interdisciplinary critical analysis. Failing that, the Society may now find itself on the 'fool's errand' invoked by the late Masanao Toda—once a prominent member of the Society—for the simple reason that few people will be capable of assimilating the vast territory covered by Julius.

Surely enough, a modest attempt or two towards a systematic critique have been made before. This, at least, was what I consider my own contribution to the first Gargonza Conference (1983) to have been. It implied that Fraser's hierarchical levels of temporality could well be considered as quantified cognitive representations, as psychophysical relations rather than physical realities. I know that such attempts were duly recognized by Julius and sometimes assimilated in his thinking, but their potential implications for his grand scheme never surfaced. This tells us something about the power and the internal coherence of Fraser's universe. It is also why his legacy is above all a natural philosophy in the time-honored classical tradition.

What to do with that legacy? Where, as a Society are we going?

Founding the Society has undoubtedly been one of Fraser's most important initiatives. Moreover we should realize that the Society did survive 45 years, largely as a result of the Founder's overwhelming commitment. Now, with that inexhaustible driving force gone, we must ask what it will take to keep the Society alive. Only when we realize how much Julius, alongside with his huge scholarly oeuvre, was the Society, how much he was The Study of Time, and how much he was Kronoscope, we see how modest have been the contributions of the membership to the study of Time as envisioned by the Founder.

Looking ahead, I can see two roads to salvation. Both

options crossed my mind before, first during my presidency and later, as far as I remember, during the second Gargonza conference in 2001... unfortunately with no perceptible results. I now propose them once again, specifically on this occasion because I consider them to be serious options by which the Society may contribute to the recognition of Julius T. Fraser as a focal, original and frugal figure in the history of ideas. The first road to be taken by the Society is to become more programmatic, by not just choosing suitable but ultimately superficial catch themes for the triennial conferences, but by identifying appropriate, interdisciplinary, research questions, by undertaking serious, concerted efforts to answer these questions and by seriously discussing them at the conferences. The second road is for the Society to converge on a critical interdisciplinary analysis of the grand ontological and epistemological vision that the Founder has left us. This should and can be realized without much delay. My suggestion is to attempt such an in-depth review of Fraser's natural philosophy the theme of our 2016 conference at which, incidentally, we will also be celebrating the 50th Anniversary of the Society.

#### Luis delGiudice:

For those of us who never had the honor of meeting JT Fraser, we mourn the fact that we will never again have that opportunity. This is sad indeed. The keynote address in Monteverde, Costa Rica, together with these moving testimonials, better help us imagine this legendary figure. My condolences to all, family and colleagues alike.

#### Steve Ostovich:

How delightful is has been to know Julius Fraser. And how delightful still to read him. Julius was a humane scholar. So often in his writings we have come across the words of a poet we love, the work of a scientist we admire, or a passage from a philosopher who has inspired us; how many new "friends" have we made through him. And all this in service of a way of thinking about time that helps us work through so many problems in trying to understand the world and our place in it.

There also is something more personal I want to share, an experience of Julius that many of you have had as well I'm sure. I first met Julius and Jane at the 2004 conference in Clare College, Cambridge. I was new to the ISST, and after my paper Julius sat me down to talk, to inquire after my work, to encourage me, to offer me direction. He did this for many of us. I came away from

that first encounter surprised. I had turned 50 that year and was well along in my career. But in Julius I realized I had found someone I thought I no longer needed—a mentor. And I was happy.

#### Troy Camplin:

Ten years ago I went to UT-Dallas to work on my Ph.D. I signed up for a class on Existentialism with Alex Argyros. I loved him and the class so much I took him again for Foundationalism and Antifoundationalism. It was there where I first read J.T. Fraser — Time, Conflict, and Human Values — and Fred Turner (who I also met that semester, of course). I had an undergraduate degree in recombinant gene technology with a minor in chemistry, I had been reading about quantum physics and chaos theory and dissipative structures and complex systems on my own, I had just finished a M.A. degree in English, and I was starting my Ph.D. in the humanities. Though I believed that they should all fit together, Fraser's work showed me how they all fit together. I went from a vague postmodernist, multidisciplinary thinker to an integrationist interdisciplinary thinker through Fraser's work (both directly and indirectly, through Alex's book "A Blessed Rage for Order" and Turner's "The Culture of Hope"). I am now a structuralist thinker and the structure is Fraser's umwelt theory. It is behind all of my scholarly work, whether directly stated or not. Fraser is omnipresent in my dissertation, "Evolutionary Aesthetics," and I went to my first ISST conference in Cambridge just to meet Fraser (since I had not submitted anything, and thus was not presenting anything). He was a good and generous man, excited at meeting a budding new scholar interested in his ideas. He was equally generous when I attended my next ISST conference, at which I presented, in Monterey Bay. I was sad that I could not afford to go to the ISST conference in Costa Rica and I am now even sadder I could not attend.

Inspired by Fraser, and seeing how his work fit beautifully into the work of psychologist Clare Graves, I wrote my own book: Diaphysics. He continues to inform my thinking, even as I have moved into doing more scholarly work influenced by Austrian economics (a tradition in which time is central — making it potentially rich soil for Fraser's ideas). My intellectual debt to Fraser is profound (my pantheon of influences: Fraser, Fred Turner, Nietzsche, Aristotle, Clare Graves, Hayek, Milan Kundera). One of the greatest thinkers certainly of the 20th century has passed from us. He will be sorely missed.

# IN MEMORIAM: CLARA CLAIBORNE PARK, 1923-2010

From the New York Times:

Jessy, the 8-year-old daughter of Clara Claiborne Park, would step around a spot of light on the floor for hours, or incessantly run a chain through her fingers. She would sit and stare through people around her as though they were not there. A word she learned one day would fade from her memory the next.

That was more than 40 years ago, when autism was barely understood, much less recognized, as a standard diagnosis. It was considered schizophrenia, or, to some professionals who embraced the term "refrigerator mother," a deep-seated decision to closet consciousness from an unbearable family situation, including an emotionally frigid mother.

Mrs. Park, a college English teacher, wanted to tell her daughter's story, and the book she wrote, "The Siege," published in 1967, did that and more. It was credited with assuaging the guilt that so many parents of autistic children had assumed, and came to be regarded as an important source of insight for psychiatrists, psychologists, educators and advocates.

Mrs. Park died on July 3 in Williamstown, Mass. She was 86. The cause was complications from a fall, her son, Paul, said.

In the first edition of "The Siege," Jessy was called Elly because Mrs. Park, hoping that her daughter would someday be able to read, did not want her to be embarrassed. That concern dissolved, and Elly became Jessy in later editions, as well as in a sequel, "Exiting Nirvana" (2001), which recounted the agonizing but steady progress of the girl and her family.

"She was one of the first parents who had the courage to share their story at a time when autism was poorly understood," Dr. Fred R. Volkmar, director of the Yale University Child Study Center, said of Mrs. Park. "Since she first published her book, wider recognition of autism and early diagnosis have led to new treatments and improved outcomes."

Jessica Park, now 51, can read, is an accomplished artist and has worked in the mailroom at Williams College, in Williamstown, for 30 years. Her mother was a lecturer in English studies at Williams from 1975 until 1994.

"My mother knew early on that something wasn't right," Paul Park said. "Jessy didn't show classic signs of retardation: she was coordinated, there were certain tasks she performed efficiently. She spoke very hesitantly by the time she was 8."

Still, in measured, often poetic assessments, Mrs. Park's books describe how Jessy recoiled when touched, screamed in desolation if a washcloth was missing from the bathroom and performed abstruse mathematical calculations. Mrs. Park told of how difficult it was to find professional care and of the turmoil the entire family faced.

The second edition of "The Siege" says, "I write now what 15 years past I would still not have thought possible to write: that if today I were given the choice to accept the experience, with everything that it entails, or to refuse the bitter largesse, I would have to stretch out my hands — because out of it has come, for all of us, an unimagined life."

Jessica Park graduated from Mount Greylock High School when she was 21. There, an art teacher encouraged her to draw. She now sells paintings — not of people, but mostly of streetscapes that combine precise draftsmanship and wild colors. At Williams College, where she has been employed since high school, a sign on the door of her workplace says, Jessica H. Park Mailroom

Born on Aug. 19, 1923, in Tarrytown, N.Y., Clara Justine Claiborne was the daughter of Virginia and Robert Claiborne. She graduated from Radcliffe in 1944. A year later, she married David Park, who would become a noted physicist.

I encourage you to send me any time related information and announcements, including your own recent work to Mary Schmelzer at maryschmelzer@mac.com.

#### FROM GIOVANNI BRUNO VACARIO:

Here are my latest works:

Vicario, G. B. (2010). About the "velocity" of time (oral presentation to the 9th Alps-Adria Conference 2010, Klagenfurt A), abstract on *Review of Psychology*, 17.2, 161.

Bisesi, E., Gratton, I., Vicario, G. B. (2010) Can the tempo be exactly doubled? (oral presentation to the 9th Alps-Adria Conference 2010, Klagenfurt A), abstract on *Review of Psychology*, 17.2, 162.

Sakai, A., Vicario, G. B. (2010). Temporal aspects of the superposition of tones. (poster at the 9th Alps-Adria Conference 2010, Klagenfurt A), abstract on *Review of Psychology*, 17.2, 198.

Vicario, G. B., Sakai, A. (2010). Temporal segregation of superposed tones. (poster at the Fechner Day 2010, Padova I), abstract on Proceedings of the 26th annual meeting of the International Society of Psychophysics, 549-552. Berchet Centro Copie, Padova.

I am preparing now a book on "psychological present," a critical review of the literature on that topic.

#### **AGIRO VATAKIS**

#### describes an April conference:

TIMELY (EU COST funded Action; www.timely-cost.eu) organized a Training School on the "Psychophysical, Computational and Neuro-science Models of Time Perception" that met from Monday April 4th to Friday April 8th at the University of Groningen, NL and included both hands-on lab sessions and theoretical lectures.

**April 4th-5th:** A two-day intensive hand-on course on EEG methodology combined with lectures on how to measure time perception in EEG.

Lectures by: Niko Busch (Humbolt University, Berlin), Warren H. Meck (Duke University), Trevor Penney (National University of Singapore), Hedderik van Rijn (University of Groningen), Agnieszka Wykowska (Ludwig-Maximilians-University, Munich)

**April 6th-7th:** Presentations on current models of time perception combined with lectures on detailed and contrasting views on the components of those models.

Lectures by: Fuat Balci (Princeton University), Luke Jones (University of Manchester), Jeremie Jozefowiez and Armando Machado (University of Minho, Portugal), Warren H. Meck (Duke University), Niels Taatgen (University of Groningen), John Wearden (Keele University), Dan Zakay (Tel Aviv University), and others.

**April 6th Evening:** Poster presentation by all attending students.

**April 8th:** A one-day intensive hand-on course on creating computational models (using the SET and the Taatgen, Van Rijn and Anderson, 2008, accounts) in ACT-R.

#### FROM ED DEVINNEY

I attended a lecture by distinguished Villanova University grad Sean Carrol, who is now professor at CalTech. He spoke on the topic of his current popular (he hopes) book: "From Eternity to Here: the Quest for the Ultimate Theory of Time." One understands that the concept of the "Arrow of Time" remains highly troubling. One would like to understand why the Universe began from a simple, highly organized state which is becoming increasingly disorganized with time. In fact, this increase of disorganization, measured by Entropy in physics, is identified with Time's Arrow. It turns out that a notion of "Multiverse" is friendly to a Universe that begins in a highly organized state, one reason why cosmologists are pressing forward with theories of the Multiverse, in which our Universe is but one of many. Wild! It seems somehow appropriate that since Quantum Mechanics, the theory of the small, is so outrageous, that there should be a partner theory of the large that is (at least) equally outrageous. The famous Gahan Wilson cartoon, a laboratory door opening directly into outer space, comes to mind! My brain hurts.

#### FROM KATIE SIBLEY:

To make a long story short, I got to act in the role of Florence Harding in a show put on by OSU-Marion's "Harding Symposium," called "The Music of Florence Harding," last week. It was a blast—complete with mourning garments, wig, and all. The show combined music from her era (including songs she loved, like Carrie Jacobs Bond's number, "The End of a Perfect Day,") with a cellist, violinist, pianist, and vocal artist, on one side of the stage, and two actors, Tina Salamone (of Marion's Palace Theatre) playing Evalyn Walsh McLean, Florence's dear friend (and the owner of the Hope Diamond) and myself, as Florence, on the other side. We alternated with the musicians, with Florence recalling her life with Warren, sharing her thoughts with Evalyn, all taking place about a week after his death, in the White House (his funeral, of course, was the topic of my paper at Monterey in 2007!) So it was ISST-inspired! At the end, the entire audience joined us in singing an old Methodist hymn, "Lead, Kindly light,"—utterly spontaneous, I wasn't expecting their joining in so suddenly, it was wonderful.

#### FROM GUNARS BERZINS:

Cinematographically discontinuous consciousness, perceived as discontinuous time.

I have been struggling with a potentially fatal objection to the above hypothesis, put to me in a private communication by a fellow member and outlined in a message I posted on the 22nd of May. Essentially, the problem is that consciousness is associated with various, separate, parts of the brain, and therefore, for conscious awareness to be cinematographically discontinuous, the on/off oscillations at all the different 'sites of consciousness' would have to have the same frequency, and oscillate in phase. Ideally, all would have to fully in phase, or with only negligible phase difference. But the picture that emerges from molecular biology is one where neurons are firing with overall uncoordinated timing. Does this mean that the discontinuous consciousness awareness has to be abandoned? It looked that way, but I then came across a book titled 'Shadows of the Mind: A Search for the Missing Science of Consciousness' by mathematician and theoretical physicist Roger Penrose, where the author argues that movements of atoms and molecules at the micro level (which is the basic picture from molecular biology) don't constitute the most fundamental level as far as the nature of consciousness is concerned. That agrees with my view that the movement of electrons along conductors is not the 'prime mover' of energy - because electromagnetic energy there propagates at velocities of the same order of magnitude as the velocity of light, whereas the drift velocity of electrons is many, many, orders of magnitude slower.

So, what picture emerges? I think that all the cells that are associated with our conscious awareness share a common frequency - all oscillating at the same frequency/ wavelength. How could such uniformity be attained? There would have to be something like an ongoing exchange of photons between the cells, which would almost certainly impose a constraint on what the common frequency might be. This is because the characteristics of the medium in which the local oscillations take place are unlikely to be the same as the characteristics of the space between them, resulting in relative phase shift acquired in the course of transit. And for this to be small, the wavelength of the common oscillation would have to be at least an order of magnitude longer than the maximum distance travelled (about 20 cm from front to back of the brain), and preferably longer. This, then, points to a frequency of oscillation well under one GHz, and so comfortably within the range of present day spectrum analyzers.

How could such a frequency be recognised as 'the frequency of consciousness switching'? It could be expected to have more than one value in the rare 'multiple personality' cases, and alter in some fundamental way when falling asleep.

But it is also conceivable that there might be a 'dominant consciousness switching frequency' and other such frequencies nearby in the spectrum. This is in answer to the question regarding the nature of the large resonant structures that are normally associated with low frequency oscillations, such as long piano strings in the case of the lowest musical notes, long organ pipes, etc. In the case of the brain, there are no such large structures, so what governs the frequency of oscillation of the low frequency brainwaves? In principle, such very low frequencies could arise as 'beat frequencies' - the differences between much higher frequency waves, Such difference frequencies are in fact observable, for example the simultaneous presentation of 90 Hz and 100 Hz generates a 10 Hz brainwave.

Summarizing, in response to the objection put to me last May, I still believe that conscious awareness is cinematographically discontinuous, perceived as discontinuous time, but am not sufficiently familiar with the 'nuts and bolts' of the subject to add much more.

#### TWO FROM PAT ENGLE:

My article "Reprising the Epistemological Function of Narrative: Intersections of Science and Mysticism in Ceremony and Slaughterhouse-Five" will be appearing in an upcoming Editions Rodopi volume entitled Restoring the Mystery of the Rainbow: Literature's Refraction of Science.

#### And:

I am piloting, this semester, with physics and philosophy colleagues, an Integration of Knowledge: About Time course at Bucks County Community College here in Newtown, PA. These Integration of Knowledge courses are our students' capstone courses. Here's our course description, if that helps:

"Students will explore the many ways humans understand and experience time. The nature and meaning of time will be considered through the perspectives of: classical and modern physics; writers and artists who present alternate experiences of time; and historical philosophy and social geography."

The texts we are using for the new course are:

- Dan Falk's In Search of Time: The Science of a Curious Dimension
- Kurt Vonnegut's Slaughterhouse-Five, and
- Leslie Marmon Silko's Ceremony.

#### RECENT PUBLICATIONS FROM ANNA EISLER:

Eisler, A. D., & Eisler, H. (2010). Time perception in children: Empirical studies in a developmental approach. In A. Bastianelli, & G.Vidotto (Eds.). Fechner Day 2010. Proceedings of the 26th Annual Meeting of the International Society for Psychophysics (pp. 585-590). Padua, Italy: International Society for Psychophysics.

Eisler, H., & Eisler, A. D. (2010). Scalar timing (expectancy) theory: A comparison between prospective and retrospective duration. In A. Bastianelli, & G.Vidotto (Eds.). Fechner Day 2010.

Proceedings of the 26th Annual Meeting of the International Society for Psychophysics (pp. 227-232). Padua, Italy: International Society for Psychophysics. At the International Conference of the Society for Psychophysics, the Fechner Day in Padua at the Universitá Degli Studi di Padova, Prof. Hannes Eisler was honored for his outstanding research on time perception. Among other research on time perception he developed a mathematical model, "the Parallel-Clock Model," for the description of the time perception processing mechanism, which elucidates temporal behavior.

# MICHAEL FLAHERTY ANNOUNCES A BOOK RELEASE:

Michael Flaherty is the author of a forthcoming book, The Textures of Time: Agency and Temporal Experience (Temple University Press, 2011). In this book, he examines how we alter or customize our experience of time and formulates a theory of agency. His analysis concerns the etiology of temporal experience through empirical study of the relationship between determinism and self-determination. This study reveals the different strategies we use to manipulate time along six dimensions: duration, frequency, sequence, timing, allocation, and stealing time. Using in-depth interviews with people from all walks of life, Flaherty unearths folk theories and practices, which he calls "time work," that we use to construct circumstances in order to provoke desired forms of temporal experience. As such, time is not just inflicted on us; rather, its various textures result from our agentic intervention or efforts to create different forms of temporal experience. These first-person accounts highlight ongoing tensions between agency and determinism in social groups. The strategies he describes reveal the profound and inventive ways in which we manage our experience of time.

#### **REVIEWERS RESPOND:**

"The Textures of Time features our temporal agency, the everyday tactics we use to manage the most elusive dimension of our lives. Based on hundreds of interviews, it offers us a rare, nuanced look into the various ways we manipulate when, for how long, in what order, and how often we do what we do, highlighting the tension between socially-imposed temporal constraints and individuals' temporal creativity."

Eviatar Zerubavel, author of Hidden Rhythms:
 Schedules and Calendars in Social Life

"Thanks to Michael Flaherty, we can no longer think about 'time' as something that just passes. His work shows us how people shape, organize, and structure time, making an important empirical and theoretical contribution that promises to inform sociology, social psychology, and philosophy. Reading this book will cause you to think more deeply about a subject that you thought you already knew."

- Steven Hitlin,

Department of Sociology, University of Iowa

"In *The Textures of Time* Michael Flaherty builds upon and moves beyond the issues he discussed in A *Watched Pot*. The book is an ambitious and ground-breaking examination of time as both a social construct and an object/resource that people actively and creatively manipulate (a process Flaherty calls 'time work'). Written by one of the most talented and insightful social scientists exploring the sociology of time, *The Textures of Time* is sure to reward those who choose to 'spend time' with it."

Clinton Sanders, Department of Sociology,
 University of Connecticut

### IMPORTANT REMINDERS

#### **■** Kronoscope:

- 1. KS Issue 10:1-2 will be out in April. This will be the final double issue before KS returns to its regular 2 annual issues.
- 2. KS 11:1 will include a Special Topics Section drawn from papers on the conference topics: Origins and Futures.
- 3. Future KS issues will include a Tribute issue to Julius Fraser, selected and reviewed articles from both the Time's Excesses and Time and Emergence conferences.

#### ■ Membership:

Renew your membership for 2011. 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*.

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, please consider starting a discussion on the listserv.

# NOTES FROM OCTOBER 2010 COUNCIL MEETING

Strathmere October 23/24, 2010

Oct. 23, 9:30:

Meeting called to order by President Paul Harris In attendance: Harris, Weissert, Ostovich, Costa, Parker, Turner, Clausius, Schmelzer, Crawford, Fraser

#### Backward view of the Costa Rica conference:

- Plenary session format was well received and should be sought out whenever possible.
- Appreciation expressed for the fact that we adhered to time limits for papers.
- Changes made to the membership process discussed briefly: Going forward the vicepresident handles the admission decision/communication process.
- Claudius: The process of collecting and adding the author's name to the booklet given out at the meeting while making final decision on papers is seen as a good idea and should be continued.

#### Report on Volume 14: Clausius (for Steineck)

- 15-17 papers submitted, expect to have 12-15 accepted.
- Now moving to review process. Could use some names of reviewers.
- Estimated pub date in 2012.

#### Report on KronoScope (Clausius)

- Issue 10 will also be a single issue by Elich's suggestion
  - A special topics section/issue on "Fast Time/Slow Time"; have at least 3/5 papers for that topic.
  - Can the issue come out in 2010?
  - Unknown, but can only try. Origins and Futures would be 11-1 and then we would be back on the two issues per volume.
- Restricting the editorial review board: members will blind review articles
- John Cordes has become an Associate Editor
- Review process: sample of KS Review Request is reviewed and the process discussed
- John Cordes has helped compile a list of relevant association to send the calls for

- papers to on a regular basis, and council is asked to edit and add as necessary.
- Need to have an "Associate Editor" whose job it is to track the timing of sending the CFP to the appropriate people on the list at the appropriate time. Could be a council member; asking for volunteers; no one volunteers; John Cordes is doing the job now and that could continue.
- Review process could be more automated involving the web site tracking features.
- Need for people to help with copy-editing.
- All issue of KS from 2007 will be openaccess. Printed issues will be available only to ISST members. Electronic versions will be available as soon as they're ready.

# Report from Elich presented by Clausius on stats from KS web access.

- Elich offers these suggestions:
- Add information about Kronoscope, Brill, and the Volume on the first page of the ISST Website.
- Trying to get KS onto JSTOR but there are some problems with a privately published journal.
- Book exhibit for 2015 will be headed up by Sabine Gross; the last book exhibit was dismal; process could be automated by contacting publishers of books that pass into our hands for review, etc. could be invited to have their book displayed at the book exhibit.
- On Brill KronoScope page there would be a list of recent articles and publications
- Raising the number of library subscriptions to KS: Harris and Ostovich volunteer to explore ways to get more libraries to subscribe working with Joed Elich and a professional librarian.
- Could also make one article from each volume and one chapter from the Study of Time volume freely available on the Brill website. Perhaps the introduction sections?
- Could we make a complete listing of all the abstracts of all volumes of KS available on the website and linked in to the Brill website.
- Can someone look into exchanging advertising with other journals? Turner and Costa volunteer to take on this task.

• Fraser's book collection needs to go as a whole to a special collection/ university library. How might we make use of that as a society? Once all the papers and books are established in a library, the annotated catalogue should be given a special section in TimeLine. Turner and Costa both volunteer to discuss with their libraries (UT and BU) the possibility of making a special collection for this work.

#### Report on Times News

 Schmelzer has been soliciting short pieces on what people are doing with time, something substantive, try to put on a request list, "here is what we are doing and we could use someone to do this..." in the newsletter.

#### Report on two interim/related conferences (Harris)

- Time Excesses in Music Literature and Art (Normandie) call for papers due in January, conference in May 2011
- Cooperation agreement put forward by university de Caen Basse with the option of creating a KS special issue from papers from the conference. The English papers would go into KS, and the French ones would go into the French journal internal to the university. And/ Or we could publish English translations of some of the French language articles.

#### Discussion:

- Will there be a second peer review or is this an automatic publication (aka conference proceedings?)
- May we suggest that papers in English can be rewritten and submitted to KS for review and possible publication?
- Costa volunteers to be a part of the Conference committee by invitation from the French organizers, Clausius will participate in relation to publication in KS.
- Call for papers would go out on the listserv by Weissert once it reaches him from Harris
- Suggestions for the English title for the conference: "Time's Excesses and Eccentricities in music, literature and art" would be our suggestion.
- Are we willing to or do we need to submit any funds for this conference? Harris suggests we contribute 500 Euros to show our commitment to the project. Council votes to agree to send the money.

# Report on two-day conference in Paris on Time and Emergence (Harris)

Part I: a one-day plenary event on Time and Emergence in Science and Philosophy, run by Lestienne free and open to the public (October 14, 2011).

- Part II: a one-day event at University of Paris 8
   (Ste Denis) (Noelle Batt, Yves Abrioux) on Time
   and Emergence in the Humanities on either
   October 13, or 15.
- We would generate the call for papers for both, but there will also be invited papers by some big people. Turner and Costa offer to generate the call for papers.
- We could also have the council meeting on a third day, but it could be a mini council meeting or no meeting at all, a meeting later in Strathmere. Issues of funding complicate this issue. We can defer this decision until next spring when we find out what the funding situation is.
- We need to better understand how these events are to be structured: will papers be invited, or will an open call be announced, or will both alternatives be in play?
- Can we get this to be a coordinated event? Harris will investigate.

#### Kronopedia

- Weissert will ask Soulsby to work on getting the rights to Macey's *Encyclopedia of Time*.
- Steineck may be able to get some external funding and an assistant.

#### **Next Conference**

 Clausius: Can we try to make a connection with a university for future conferences, such as Zagreb for our next conference were it to be held in Croatia.

# Report of four sites suggested by members for the location of the next conference (Clausius)

- Gargonza, Crete, Croatia, Galway
- Ed Devinney will supply more information shortly for Galway site.
- Schmelzer: maybe we could contact a travel agent to get a better deal on travel if we work in a package deal for ISST.
- Gargonza, we've been there and loved it, it seems a bit pricey and is there new management?
- Discussion to be continued later after we get more info on Galway from Devinney and information on the suggestion of Lisbon (Costa).

#### Discussion of theme for next conference

 "Time and the Timeless" suggested by Fraser; thinking is that it would be attractive to many disciplines

#### Discussion of Outreach

- Proposal by Raji: people on council identify one or two colleagues to inform about the study of time
- Parker interjects that she is going to contact authors of books submitted for reviews to tell them about the study of time
- Council elects to each contact two colleagues and inform them about time
- Costa-more systematically designate a colleague in another country to take on the recruitment of people in other countries. It could be many people.
- Harris—Identify institute or plenary speaker. Then you could get some press.
- Weissert to create a part to the web site to allow regional conveners to input news and information about what's going on in time in their region.
- Weissert to create a page with a mail form to allow interested parties to contact a point person in their discipline about time studies and the ISST.
- Make generic ISST business card or vcard, or

- pamphlet to give to members to spread.
- The Website will have an image of the most recent KronoScope and the most recent volume and links to the KronoScope website.
- Fix the news link.
- Council agrees to look at the web site with a critical eye and write to the council listserv with suggestions.

Meeting adjourned: 4:30 pm

#### October 24, 2010

Meeting reconvened at 9:30

- We are still undecided about whether we will meet in Paris or Strathmere next year, but we agreed that it might be a strain on our funding to do both. Clausius will work with Abrioux, as will Harris and Turner. Abrioux and Noelle Batt in Paris.
- Tasks: CFP (Turner) and paper vetting. Harris will talk with Lestienne about the set-up for his conference.

Editor's note: this was the last council meeting for our founder JT Fraser who was alive to the meeting at every moment, and a joyful companion to all of us. (MMS)

### ISST CO-SPONSORED EVENTS IN CAEN AND PARIS:

Time's Excesses and Eccentricities in Music, Literature and Art International Conference, Caen, France, 27-28 May 2011 Université de Caen Basse-Normandie ERIBIA EA 2610

International Society for the Study of Time

This international conference is intended to explore how time may be represented aesthetically in excessive, eccentric and unthinkable ways. Art appears to have found a means of getting around time's dilemmas by depicting it as irrational or portraying the impossibility of getting a firm grasp of it. In art, time has long been shaped as something out of proportion, excessive, or even violent, which is evidenced by works such as *Saturn Devouring his Son*.

On the one hand, papers may address any aspect of excesses in representing time. Possible contributions could be connected to works that magnify time phenomena and exploit the extremities of time experience. Submissions could focus either on the aesthetics of enlargement, predicated on speed, frequency, and length, or, conversely, on the aesthetics of miniaturization or atomisation of time. Time's excesses also lead us to raise questions about violence, as in artistic representations of shock, collisions, slashes, gaps, or breaks.

On the other hand, as far as eccentricity is concerned, it would be interesting to examine forms related to non traditional ways of depicting time, covering areas of anachronism, discontinuity, verticality, stasis, or any other form of time singularity taken to extremes. One could also consider works presenting us with the exuberance, extravagance and eeriness of time, be it through peculiar formal aspects or ways of conditioning uncanniness.

Finally, time's excesses and peculiarities evoke the unthinkable in works of art that present us with an illogical, absurd or incoherent portrayal of time. Possible studies could incorporate analyses of inconceivable itineraries or durations, overblown time contradictions, or simply incorrect and irrational temporalities.

Is time to be apprehended only through excessive, extravagant and irrational representations? Does art illustrate that time can be perceived exclusively when it borders on madness?

Possible topics in music may include studies related to oversized duration (Wagner, Mahler), miniaturization (Webern, Schoenberg), fragmentation (Stockhausen, Cage) or extensive repetition (Reich, Glass). In literature, proposals may consider time aspects exhibiting excess in traditional genres (diaries, novel sequences), time tensions and imbalances, for instance, between story time and text time, or problematic time-space relationships (Borges, Danielewski). Submissions may also focus on aesthetic perception (painting, architecture, installation art), temporalities related to new technologies (digital literature, interactivity or hypermedia), or any study dealing with time extravagance in cinema or photography.

This interdisciplinary conference will give special consideration to papers grounded in language, literature and cultural studies, musicology, philosophy, aesthetics, arts, history of ideas.

Abstracts between 250-300 words for papers of 20 minutes to be given in English or French are invited by 15 January 2011. Please submit your abstract both to Marcin Stawiarski (marcin.stawiarski@unicaen.fr) and Gilles COUDERC (gilles.couderc@unicaen.fr).

Conference papers will be considered for publication in LISA e-Journal and KronoScope: Journal for the Study of Time (Brill).

**Language:** English or French **Dates:** 27-28 May 2011

### ISST CO-SPONSORED EVENTS IN CAEN AND PARIS:

The International Society for the Study of Time,
The École Normale Supérieure, Paris (Department of Philosophy),
The University of Paris 8 (Center for Research on Literature & Cognition)
are pleased to announce that they will be hosting next fall a symposium on

Time and Emergence

Time and Emergence

This event will take place in Paris, on Friday and Saturday, October 14-15, 2011. The symposium will be strongly transdisciplinary. It will be organized into two strands:

Friday October 14 will concentrate on physics and biology, in relation to philosophy;

Saturday October 15 will be open to psychology, sociology, art and literature, in relation to philosophy. The conference will present a number of guest speakers. Proposals for oral presentations will also be accepted. You are hereby invited to submit a proposal in any of the fields outlined above. Please send a title, along with a one- or two-page abstract in English or French and a short bibliography, by May 1, 2011, to each of the two secretaries of the local organizing committee:

#### Dr. Rémy Lestienne

Dir. Recherche honoraire, CNRS
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No abstracts will be accepted after this deadline.

The organizing committee will answer each submission personally, before June 1, 2011.

The "common sense" of science is that all we see around us in the world must have emerged at some point. At one time there was no French nation, no USA; earlier, there were no human beings; earlier still, no mammals, no living organisms, no stable molecules, no atoms. How did they come to be? Moreover, since time in practical terms is relative to the structure, activity, and organization of the entities that inhabit time, those specific temporalities themselves had an origin and a point of emergence, as J. T. Fraser's hierarchical theory of time's conflicts invites us to understand.

Organized complexity also is evident synchronically in the "layering" of elements in complex systems with different scales of complexity. For example, temperature has no conceptual pertinence with respect to an isolated molecule of gas nor has the concept life merely in the presence of a disorganized accumulation of proteins. Both concepts depend for meaning on the complexity of the systems they describe, just as the concept of mind only appears to be pertinent with regard to the complex brains of superior mammals.

Recent research on the first moments of the universe and/or attempts at reconciling relativity and quantum mechanics have challenged the concept of time as a fundamental parameter in explaining the nature of the universe. In the human sciences, the tangled hierarchies of economic, political, social, cultural or artistic systems have also stimulated interest in the paradigm of emergence.

This set of questions is necessarily interdisciplinary, but it may also help define true disciplinarity. Is emergence fundamentally the same thing if it occurs in the origin of coherent matter during the Big Bang, in the synthesis of a new chemical element inside a massive star, in the self-articulation of an embryonic cell mass, in the invention of a new musical genre, in the origins of powered flight, in the composition of a national constitution, or in the birth of Impressionism or the novel? If emergence differs according to the level of material organization at which it takes place, what makes the difference? What "invisible hand," in Adam Smith's phrase, drives the emergence of such phenomena as a market with mutually adjusting prices, a cyclic catalytic chemical reaction, an ecosystem with a food-chain continually adjusted by feedback, a biological evolutionary event, or a sonnet with its dynamical tensions among meter, grammar, idiom, metaphor, and logic? In the midst of all this there is a growing sense among scientists of the limitations of the reductionist ideal that lies at the heart of traditional scientific methodology.

This conference seeks papers that focus on the event of emergence itself, in its temporal aspects. It will provide the opportunity to evaluate the successes obtained by several decades of work in a variety of transdisciplinary fields, such as chaos and complexity theory, cosmology, or eschatology. It will be even more concerned to explore the questions raised by the ways such disciplines approach issues of temporality. Our ambition is to clarify what is at stake in a whole variety of investigations into the notion of time in relation to emergence.

# **CALL FOR PAPERS:**

This is a call for contributing to the Proceedings Book

### "MULTIDISCIPLINARY ASPECTS OF TIME AND TIME PERCEPTION"

of the COST ISCH TD0904 International Workshop

held in Athens, Greece, on October 7-8 2010

(http://timely-cost.eu/1st-international-workshop-multidisciplinary-aspects-time-perception).

Special Topic

#### INTERVAL TIMING AND TIME-BASED DECISION MAKING

Hosted By:

Valerie Doyere, CNRS, France Agnes Gruart, University Pablo de Olavide, Seville, Spain Warren H. Meck, Duke University, USA

Deadline for submission: 01 Jun 2011

Timing and time perception are crucial for everyday activities, from the sleep—wake cycle to playing and appreciating music, verbal communication, engagement in sports, and value determination. Making decisions about quality and rate of return is heavily influenced for example, by the durations of the various options, the duration of the expected delays for receiving the options, and the time constraints for making a choice. Recent advances suggest that the brain represents time in a distributed manner and tells time as a result of time-dependent changes in network states and/or by the coincidence detection of the phase of different neural populations. Moreover, intrinsic oscillatory properties of pre-motor neural circuits could determine timed motor responses. This special topic will discuss how time in the real world is reconstructed, distorted and modified in brain networks by emotion, learning and neuropathology. The sum reviews the relationship between time and decision-making with respect to the underlying psychological and physiological mechanisms responsible for anticipation and evaluation processes.

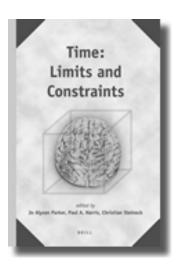
The procedure is as follows:

- 1) submit an abstract to one of the guest editors (Warren Meck: meck@psych.duke.edu, Agnès Gruat i Masso: agrumas@upo.es, or Valerie Doyere: valerie.doyere@u-psud.fr), and mention which category your paper fall in (see guidelines below)????
- 2) if accepted, then, submit the full paper
- 3) review/revision process as usual

### Time: Limits and Constraints

Jo Alyson Parker, Paul A. Harris and Christian Steineck

This thirteenth volume in the interdisciplinary Study of Time series explores the way in which limits and constraints impact upon our understanding of time.



Published in 2010

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The nature of time has haunted humanity 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. How humanity experiences time physiologically, psychologically, and socially enters into the research of the behavioral sciences, and time as a factor of structure and change is an essential consideration of the

biological and physical sciences. This volume presents selected essays from the 13th triennial conference of the International Society for the Study of Time: 'Time: Limits and Constraints.' The essays are grouped around subthemes relating to this theme: Theory and Empirie, The Limits of Duration, Creative Constraints, and Final Questions. The ISST has as its goal the interdisciplinary and comparative study of time.

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#### Readership

All those interested in the interdisciplinary study of time, including historians, literary theorists, musicologists, philosophers, physicists, psychologists, sociologists, and theologians.

About the author(s)

**Jo Alyson Parker, Ph.D.** (1989) in English, University of California-Irvine, is Professor and Chair of English at Saint Joseph's University in Philadelphia. Her publications include The Author's Inheritance: Henry Fielding, Jane Austen, and the Establishment of the Novel (1989), Narrative and Chaos Theory in Sterne, Proust, Woolf, and Faulkner (2007), and, with Michael Crawford and Paul A. Harris, Time and Memory (Brill, 2007).

**Paul A. Harris, Ph.D.** (1991) in English, University of California-Irvine, is Professor of English at Loyola Marymount University in Los Angeles. His publications include, with Michael Crawford, Time and Uncertainty (Brill, 2004), and, with Jo Alyson Parker and Michael Crawford, Time and Memory (Brill, 2007). He is Co-Editor of SubStance: A Journal of Theory and Literary Criticism and President of the International Society for the Study of Time.

**Christian Steineck, Dr. phil.** (1999) in Philosophy, Bonn University, is Professor of Japanology at Zurich University. His main interest is in philosophy of culture, and he has published extensively on mysticism, medieval Japanese Zen Buddhism, and Bioethics.



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## London Workshop

### A Workshop devoted to the « Anatomy of Time »

On Saturday, March 24, 2007, the University College of London's Institute of Cognitive Neuroscience hosted a remarkable workshop, at the initiative of Dr. Penny Lewis, from Liverpool University, and Vincent Walsh, Professor at the Institute.

Under this ambitious title, seven presentations were made and thoroughly discussed during the whole day. I shall briefly present here – in a quite subjective manner – some aspects of those presentations that struck my imagination.

Professor Charalambos P. Kyriacou, from University of Leicester, discussed our present knowledge about the genes that are ruling biological circadian clocks, showing that there exist various forms of them, but well conserved from flies to mammals to humans. These clocks molecules are expressed widely, both in neural and non neural tissues. Recent researches confirm that, in mammals and humans, the suprachiasmatic nuclei are particularly important for the setting of circadian clocks and their adjustment to the daily light and dark rhythms.

Professor Maria Concetta Morrone (Università Vitasalute San Raffaele, Italy) shown convincing evidence that subjective duration estimations in the sub-second domain are compressed, and timing of events may even be inverted, in the immediate vicinity of saccadic eye movements, in accordance with many studies underlying the distance between perception and physical reality, here in the time domain.

Professor Peter Dayan, from UCL, presented and discussed a theoretical model of anticipation of events in time, implying the dopamine system in the brain. Next, Dr. Luke Jones, from University of Manchester, turned our attention onto the possible mechanisms for estimating long durations. Important durations are thought to be stored in some long-term temporal reference memory, but where these reference memories are stored remains a matter of enquiry, although these memories seem to be modality independent. On the other hand, the speed of the ruling clock(s) seems to be affected by dopamine related drugs: thus, these two contributions lend support to the view that this neuromodulator plays a special role in the timing mechanisms of the brain.

Dr. Domenica Bueti, from UCL, discussed further the role of task and modality specificity in temporal processing.

Studies using transcranial magnetic stimulations and magnetic resonance imaging support the notion that in the range of duration considered the neural mechanisms for time perception are not modality specific, and suggest the importance of the intraparietal cortex (particularly on the right cerebral hemisphere) in these mechanisms.

Dr. Penny Lewis (University of Liverpool) shown convincing evidence for the consolidation during sleep of our ability to reproduce exact rhythms in continuation tapping tasks, thus extending to the time domain the previous hints of the possible role of sleep in memory consolidation.

Finally, Pr. Anthony Dickinson (University of Cambridge) questioned the idea that time travels ability is specific to humankind. This by presenting evidence that scrub-jays are able to choose the food to be cached, not in accordance to their present mind state, but in accordance with their foreseen state of mind at the time of recovery. To show this, he conducted experiments where scrub-jays were first fed until satiety with one type of food (pine seeds, or kibbles), then offered the possibility to cache food for later use. Not surprisingly, they prefer to cache the other type of food, until they learn by experience that they will again be fed until satiety with this new type of food immediately before the time of recovery (then they turn to cache preferably the first type of food). This is good evidence against the classical argument that holds that non-human animals behave uniquely in terms of their current motivational state, not in terms of anticipated ones. For me, however, it does not demonstrate yet the capacity of these birds to perform time travel per se, in the sense of performing a metareflection about their future state of mind.

The organizers of the meeting proposed to enlarge their initiative by organizing meetings "Anatomy of Time" in a more or less regular way. I alerted organisers and participants about the existence of our Society and its activity. I believe that in the future a closer collaboration may be achieved with this quite interesting initiative.

Rémy Lestienne

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