

TIME'S NEWS

FOUNDER'S ESSAY:

The Integrated Study of Time: A Call for Reciprocal Literacy

PREAMBLE

This communication sketches a family of time-related problems that characterize the globalizing world. It then recommends that they be explored by employing the skill of critical interdisciplinarity, developed in the integrated study of time.

CRITICAL INTERDISCIPLINARITY LEARNED IN THE STUDY OF TIME

Temporal experience, more than any other aspect of existence, is all-pervasive, intimate and immediate. Life, death and time combine in a dialectical unity which is acknowledged, in many and different words, by all philosophies and religions. For the individual and the community, the human knowledge of time is a powerful weapon in the struggle for survival because long-term memory makes it possible to prepare for future contingencies. But it is an intricate weapon because the knowledge of time brings with it the certainty of an eventual end to the self which, in its turn, is the source of an abiding sense of personal and collective insecurity. Yet and further: many and good reasons have been given in support of the idea that the desire to lessen that insecurity is the primary driving force beneath the creation of civilizations. Combining all this, it follows that the study of the nature of time, if carried out with the help of scientific understanding as well as humanistic appreciation, should help clarify the dynamics of the forces that drive humanity along its self-appointed path.

During the last fifty years these and other time-related thoughts have been examined in great detail in the works of members of the International Society for the Study of Time. Early in that exploration it became clear that our knowledge of the nature of time will remain partly obscured until we learn to benefit from insights that stem from all of man's rational, introspective and experiential knowledge of its world. It follows that a serious study of time demands an interdisciplinary approach. Once that began, a number of clearly identifiable problems were recognized, problems which the study of time had to appreciate and master. Here are some of them.

- Each of the many fields upon which an integrated study must draw has its jargon that is, its specialized vocabulary, as well as its use of common words with meanings that differ from what those words mean to the uninitiated.
- What for one discipline constitutes necessary and sufficient proof, may be judged from the perspective of another field as neither a necessary nor a sufficient demonstration of truth.
- Distinct modes of inquiry display different personalities of knowledge. It is, of course people and not thoughts who have personalities. However, men and women group themselves by affinities of likes, dislikes, tastes and values and, by their very groupings, they select ideas and preferences appropriate for their personalities.
- Another great, pragmatic difficulty also had to be recognized. Namely, the finding of men and women with sufficient humanistic insight as well as scientific knowledge, that is, professional people with a high degree of reciprocal literacy.

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A Response to the Founder's Column

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PRESIDENT'S COLUMN

The Tick's Clock and the Rings of Trees

Pondering the theme for our upcoming conference in Monterey provokes a kind of reflexive reaction—"time: limits and constraints" immediately poses the question of the boundaries of the human temporal *umwelt*,¹ and its relation to other temporal *umwelts*. ISST Founder J.T. Fraser's work, of course, has shown the great heuristic power of thinking about time in terms of *umwelts*. As Fraser points out, humans are (presumably) unique among animals because our *umwelt* is not limited by direct sensory experience. We use technological prostheses and theoretical speculation to "explore aspects of the universe that are not otherwise accessible to any living creature, such as the world of a traveling photon, the motion of distant galaxies, the implosion of a star, or the explosion of the Big Bang."² Pushing the limits of time in order to probe other temporal *umwelts*, then, seemingly entails investigating phenomena at extreme scales: it might send us off to find out how close to the speed of light subatomic particles travel in supercolliders, or how far back in time telescopes are reaching as make visible for us the remnants of the Big Bang 14 billion years ago.

If we return to the source of the term *umwelt*, Jakob von Uexküll's pioneering ethological work, we rediscover the perhaps self-evident fact that we live immersed in and enveloped by extra-human temporal *umwelts*. Uexküll founded the Institut für Umweltforschung at the University of Hamburg in the 1920s, where he investigated the animal environments of organisms including the *Echinus esculentus* (sea urchin), *Rhizostoma pulmo* (jellyfish), and *Ixodes ricinus* (tick). In Uexküll's model, any organism's *umwelt* is shaped by its ability to interact with its environment, which is defined by its *Merkwelt* (perceptual world) and *Wirkwelt* (action world). The animal's *umwelt* is further characterized by *Merkmalsträger* (significant signs), the things of interest to it that bind it to its world.

Uexküll's major work (*Streifzüge durch die Umwelten von Tieren und Menschen*, or "Strolls through the Worlds of Animals and Men") bears the subtitle *Ein Bilderbuch unsichtbarer Welten*, "a Picturebook of Invisible Worlds." In making the strange worlds of animals visible to humans, Uexküll also made visible the anthropocentric nature of human perception and our presumptions about other *umwelts*. While we might think of ticks as greedy bloodsuckers who watch for us

from their perches in trees, for instance, Uexküll's observations and experiments concluded that the blind and deaf tick depends on smell to find prey—it reacts to the odor of butyric acid in mammal sweat—and isn't particularly fond of blood—it will drink any liquid that is 37 degrees Celsius.

His study of the tick intrigues me most because it contains an odd note relevant to *umwelts* and temporal limits. He says that a tick was kept alive for eighteen years in his laboratory in complete isolation from its environment, suspended in a "period of waiting" where it lay in "a sleep-like state." He concludes only that "without a living subject, time cannot exist."³ Philosopher Giorgio Agamben ends his pithy commentary on Uexküll by asking, "How is it possible for a living being that consists entirely in its relationship with the environment to survive in absolute deprivation of that environment? And what sense does it make to speak of 'waiting' without time and without a world?"⁴

I thought a lot about Uexküll, *umwelts*, and temporal limits and constraints on a recent trip my wife and I took to the giant sequoia groves in Kings Canyon and Sequoia National Parks in the Sierra Nevada mountains, about 150 miles east of Monterey. Giant sequoias are part of the redwood family of trees; as those attending the Asilomar conference will see, coast redwoods abound in the Monterey area. Redwoods are like young beanpole cousins to the giant sequoias—they can grow taller, but don't live as long and weigh much less.

Giant sequoias don't defy description, but wrapping your mind around them is almost as impossible as getting your arms around their trunks. These trees grow to heights over 300 feet, live more than 3,000 years, weigh over 2.5 million pounds, have bark up to 30 inches thick, and bases up to 40 feet in diameter. They are the largest living things, the fastest-growing trees, and the third oldest (behind bristlecone pines and the alerce tree). The rarity of these trees makes them all the more singular—there are only 75 groves of them on the earth, all of them scattered over a 260-mile belt on the western slope of the Sierra, at elevations mainly between 5,000 and 7,000 feet—below severe winter climates, above arid lower slopes. These groves of ancient trees are only the conclusion of an astounding history: 20 million years ago, sequoias lived in what is now Idaho and

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Nevada; as conditions cooled and dried with the rise of the Sierra, they migrated through mountain passes to the western slope where they still persist.

Walking through the quiet woods among these giants was humbling. As ecologist Stephen Trimble writes, “the word ‘tree’ cannot convey their authority, cannot communicate their dignified bulk.”⁵ We felt such joy and gratitude that at one point we decided to become literal tree-huggers. Standing in a foot of snow, sensing close up the tree’s sheer vitality, we found the red bark’s soft warmth in the winter sun surprising and even comforting. Much of our hike through the Giant Forest Grove was spent in awed silence.



A Northern California redwood

Inevitably, we then began to try to take measure of these trees. As impressive as their size is, it is their age that makes their presence so powerful. I calculated that roughly speaking “one tree year = 40 human years.” The giant sequoia ‘reach maturity’ at 600 years; 700 year olds are mere adolescents. The venerable elders sprouted during the dawn of western civilization in 5th century Athens.

Trying to correlate the human life span to that of the sequoias, however, proves futile in the end, because their temporal Umwelt is truly alien to our own. Hugging that tree, I felt I had absorbed something of its nature, but the tree wouldn’t have even registered the gesture; essentially durationless, it corresponded to less than an ant’s unnoticed step on my toe. A book at the park museum revealed that “probably no aspect of sequoia life has been so variously interpreted as its antiquity.”⁶ Calculating the age of living specimens is difficult—age estimates for large, older trees could be “centuries off”! Oh, and by the way, it turns out that “the exact age of trees is uncertain even from the ring counts of stumps,” and John Muir was exaggerating when he reported counting more than 4,000 rings on one, a number often cited for the past century.⁷

The book included a packet of giant sequoia seeds. We laughed at the prospect of a giant sequoia growing in our backyard, outlasting us, several generations, and perhaps the human species. Anita said that the seeds unsettled her; it was if we had something like the beans in “Jack and the Beanstalk,” possession of which would end in our leaving this world for other realms. I wondered what our days would be like, where time passes not in clock ticks but concentric rings.

1. I do not capitalize or italicize “Umwelt” because it has become part of general English usage.
2. J.T. Fraser, *Time, Conflict, and Human Values* (Urbana: University of Illinois Press, 1999), p. 24.
3. Cited in Giorgio Agamben, *The Open: Man and Animal*, transl. Kevin Attell (Stanford: Stanford University Press, 2004), p. 47.
4. Ibid.
5. R.J. Hartesveldt et al, *Giant Sequoias* (Three Rivers, CA: Sequoia Natural History Association, 1981), p. 3.
6. Ibid, p. 36.
7. Ibid.

A WORD FROM THE EDITOR

This edition of *Time's News* marks my first real contribution to the ISST as I take the task of managing editor over from the remarkable Jo Alyson Parker who will remain as production editor as I venture forth. I would not be writing this piece right now had I not accepted the invitation to become more active with the society offered by J.T. Fraser at my first conference in Gargonza.

From the inside I see how much work the council does and notice at the same time how many more hands are needed. And so I am issuing my own invitation to you to become more active in the ISST.

The need is real but so are the rewards. The triennial meeting puts us all in touch with some of the brightest people around as it teases us out of the rigid disciplinarity that constrains our professional experience. Each conference asks us to cross lines and find a way to speak to our own strengths from seemingly alien positions. When I encountered the Asilomar theme: "Time: limits and constraints" last year, for example, my first thought was that perhaps I would just listen at the meeting. But I persisted and thought of last things, Shakespeare, the unconscious, and generic limitation and came up with an idea for a paper that explores *The Tempest*, thought to be Shakespeare's last play, its original staging and Peter Greenaway's 1991 film, *Prospero's Books*.

There is as much lip service paid to interdisciplinarity in our institutions as there is wariness of it. ISST naturalizes the practice in ways that enable each of us to expand our sense of our work in ways fundamental enough to, in good time, alter the character of the academy. Reward Number One: we become better scholars.

Kronoscope as well as the conference volumes provide us with the high level, juried, publishing opportunities that we need for tenure and advancement. Many of you do not submit your essays for publication. I encourage you to do that, again for more than the obvious reason. Many of our reviewers mark the ingenuity of our submissions as they allow that they can only comment on strict disciplinary elements of a piece. The more work like what appears in our publications is read widely outside of the ISST and the time study family, the more fertile the field for interdisciplinary work. Reward Number Two: we increase our publications as our readers are encouraged to rethink the work of the disciplines.

Since we do not always have the opportunity to engage ourselves in lengthy projects, I am proposing that we begin to use *Time's News* for shorter pieces, notes on what we have read, descriptions of work in progress, or a piece that strikes you as interesting. I, for example, recently read this poem in *The New Yorker*:

I was the clock face
whose hands bit the fleeting
now,
then silently move on to what is
already no more,
and from what is already no more
life is born in me.

The poem, engaging enough on its own becomes startling when the essay in which it appears reveals that the writer, Minou Drouet, is eight years old.¹ Its internalization of the ineffability of measured time captivated me enough that I wished to offer it to all of you. I invite you to think of this community as you read, talk, write, and experience the real of your world, and to share those time-related experiences with us. We never know what will stimulate productive dialogue. Reward Number Three: the human conversation that cements our relationships as well as a small tick on a vita.

Sometimes work is its own reward. So I conclude with a list of our working committees and the chair of each, and invite your participation. You will find yourself welcome and your work valued:

Committee on Outreach and Recruitment

Chair: Paul Harris

Function:

- Identify and contact interesting prospective members
- Identify and contact other organizations, propose ways to exchange work
- Find academic projects on time and position ISST to contribute

Committee on Website

Chair: Koen dePryck

Function:

- Maintain and update ISST website
- Establish links with/to other organizations
- Find ways for membership to use site regularly

A WORD FROM THE EDITOR (continued)

Committee on Publications

Chair: Jo Alyson Parker

Function:

- Oversee work on Study of Time volumes and Kronoscope
- Regular contact with Brill re delivery of publications
- Newsletter
- Conference programs
- Editorial assistance

Committee on Internal Communications

Chair: Nicholas Tressilian

Function:

- Build and sustain interest in ISST among membership
- Encourage members to contribute their talents and knowledge
- Create atmosphere or identity for ISST and what it means to belong to it

What follows next is another model for the sort of exchanges that the newsletter can lend itself to. Nicholas Tressilian offered a short piece on interdisciplinarity that prompted a continuation of the dialogue from Fred Turner. They have been exchanging ideas for years now. We need more voices.

ISST cannot sustain itself without the constant introduction of new ideas and perspectives. Your input is as vital as it is welcome. Please join us.

Mary Schmelzer

Thanks to Saint Joseph's University for supporting this newsletter and to Saint Joseph's University Press for its production.

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A RESPONSE TO THE FOUNDER'S COLUMN

The last two issues of Time's News have featured brief essays on the interdisciplinary question, and, in this issue, the Founder of the ISST has put forward a call for "reciprocal literacy." Below are two responses to that call. The arguments presented do not represent an official ISST position on interdisciplinarity but are individual and varied responses that, it is hoped, will stimulate further thinking on this important subject.

From Nicholas Tressilian, Vice-President ISST "More on the Interdisciplinary Study of Time"

In this newsletter and on the Society's website (www.thestudy-oftime.org) you will find a remarkable short paper by ISST's Founder, J. T. Fraser, which to my mind sets out a platform for the interdisciplinary study of time in the 21st century. Written early in 2006 it is titled *The Integrated Study of Time: A Call for Reciprocal Literacy*. In his Preamble, Fraser writes:

This communication sets out a family of time-related problems that characterize the globalizing world. It then recommends that they be explored by employing the skill of critical interdisciplinarity, developed in the integrated study of time.

The paper speaks elegantly for itself, is admirably concise and I shall not do it the disfavoured of an attempted summary here. Its core idea – *reciprocal literacy* between specialists versed in discrete disciplines – is besides easy enough to understand. The difficulty, as we all know, lies in effectively delivering that particular quality of open discourse in the real world. Fraser himself enumerates some of the problems

- Each of the many fields upon which an integrated study must draw has its jargon that is, its specialized vocabulary, as well as its use of common words with meanings that differ from what those words mean to the uninitiated.
- What for one discipline constitutes necessary and sufficient proof, may be judged from the perspective of another field as neither a necessary nor a sufficient demonstration of truth.
- Distinct modes of inquiry display different personalities of knowledge. It is, of course people and not thoughts who have personalities. However, men and women group themselves by affinities of likes, dislikes, tastes and values and, by their very groupings, they select ideas and preferences appropriate for their personalities.
- Another great pragmatic difficulty also had to be recognized. Namely, the finding of men and women with sufficient humanistic insight as well as scientific knowledge, that is, professional people with a high degree of reciprocal literacy

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In this context it could be argued that *reciprocal literacy* is not so much a quality to be aspired to as a quest to be lived out across a life-time. The extraordinary diversity of JT Fraser's own life, experienced in war and peace across two continents and a range of disciplines during decades of accelerating globalisation, seems to me present in every line he writes. But that is a unique life awaiting its own biographer and it leads meanwhile to conclusions and convictions very much Fraser's own. It is not necessary to agree line by line with his Malthusian views on sapient evolution (nor to square the circle of hierarchical temporality and Platonic 'timelessness' in Fraser's approach to the arts) to recognise the sweep and force of a language which can bracket issues of biological, cognitive, social and ecological evolution in a single continuous and coherent argument. But the case for *reciprocal literacy* goes beyond the particular instance and raises the question of the general model. *What can be said to be going on?* — as Lenin used to like to ask — in reciprocally literate discourse, that can enable it to transcend the problems Fraser himself identifies? For Fraser, then and now, the solution is to be found in the redeeming concern with the time-dimension.

A welcome realization also emerged. Namely, that a sustained and successful inquiry into the nature of time will have helped identify the intellectual tools that are surely essential for scholarly and scientific inquiries into all themes that demand interdisciplinary work. Such as into the dynamics of our epoch, into the nature of that vibrant, violent, destructive and creative instability that characterizes the process of globalization.

Those far-off days of the late 1960s/early 70s when ISST was in its infancy were one of the great can-do periods of Western intellectual life, when fine minds felt free to generate noble ideas, and when other fine minds flocked round to share in the noble outfall. JT Fraser's burning idea - that the study of time might provide the conceptual basis for a whole new tier of inter-disciplinary discourse - was both radical and timely. After decades when minds had pressed into narrow grooves by Depression and World War, this was the age of fanning out and considering alternatives. In a world wearied by half a century of conflicts about *space*, the idea of *time* was both subversive and delightful: it was no coincidence that the *Voices of Time* and the early ISST conferences attracted some of the most distinguished and adventurous thinkers of their age, Nobel prize-winners amongst them.

The shades have lengthened since then. The interdisciplinary study of anything is no longer an academic 'given'.

The accountability/litigation culture of our post-modern world now militates against the crossing of disciplinary boundaries, which are drawn more narrowly each year as more players crowd onto the pitch. There is a flight from science — now deemed the author of global warming and our coming catastrophe — and a fugue towards recycled religion. Meanwhile we travel hopefully between each others' countries not knowing when we shall be blown to pieces by the love of someone else's God. We take off our shoes at Security because we are all guilty nowadays until proved innocent. These are not times of particular intellectual hope. To this extent the odds are now strongly stacked against ISST.

But these are also times of acute interdisciplinary need. Our globalized world, in its acute inter-connectivity, increasingly takes on the characteristics of a hologram - in which all the relevant information is implicated at every point in its surface. 'Big Science' seeks to address this issue by bringing together diverse specialisms in the hope they can act in concert on such issues as environmental and climate change. But 'big science' itself lacks the binding discipline of an inter-disciplinary understanding which can integrate its arguments into a critical mass, and it is challenged on every front by the relativists of the post-modern movement for whom science itself is just another (mainly phallo-centric) 'narrative'. As for 'Mode 2' — the attempt to fashion an interdisciplinary approach to science to which ISST's own ex-President Helga Nowotny was a distinguished contributor — that seemed quickly to become mired in recursive questions of academic accreditation and assessment. How many disciplines can you indeed fit on the head of a pin?

All JT Fraser's work has been written in refutation of the negative ethos I have alluded to above: he is a world pioneer in the 'hologrammatical' approach to language in which the lion of science and the lamb of the humanities can lie down together — if not in the same sentence, then at least in the same paragraph. In this sense the '*Reciprocal Literacy*' paper is at once a vision and a manifesto for ISST in the early 21st century. It hands on the flame to successor generations. It also points the way to the next phase in ISST's own development. For if ISST is going successfully to *carry on the work which JT Fraser began*, then it needs to become more pro-active in seeking out contexts specifically favourable to the interdisciplinary study of time. Economists have used the phrase 'flat world'¹ for the smoothing effects of globalisation, eliminating the old mountain ranges of economic difference between the 'haves' and 'have-nots' of the former Industrial revolution. They draw attention to the residual 'rough spots' on the world's surface where economic advantage is still to

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be gained. In a similar way, I believe, ISSTers will need to become more acute at identifying *time's trouble-spots* — regions of our collective experience where conventional object-based models of the universe break down, opportunities for the emergence of new models and meta-languages based on a perception of the world as mutually-implicated process. JT Fraser's *time-compact world* has us all inhabiting a single condensed time-trouble-spot which is already notably 'flat' in communications terms and latently threatening to our own species' survival — not to mention the extinction of many other species already accomplished. Osama bin Laden (to go from the profoundly benign to its felt opposite) seems driven still by a terrible nostalgia for the ancient mountain ranges, amongst which he has also chosen physically to live (if still alive) — he offers his own scale of threats to human survival. Both these overviews, in their own very different ways, are essentially Olympian. My own feeling is that we need next to get more down amongst the stuff.

Last year saw a dialogue within ISST which began with the issue of inter-disciplinarity but later mutated into a discussion of temporality *per se* with a recurring emphasis on the Now. In 2007, with a conference on *Time: Limits and Constraints* in the offing, the limits and constraints of time itself as a basis for reciprocal literacy are implicitly under review. Maybe the study of time is not after all the universal cultural solvent it once seemed to promise to be. On the other hand, maybe there are regions of scientific and cultural problematic for the resolution of which it is particularly suited — time's trouble-spots indeed. Or to put it another way, where does the integrated study of time confer a special advantage on the student?...and where for that matter does it not? To debate these issues might in itself significantly extend our own mutual capacities for reciprocal literacy.

From Frederick Turner, ISST Council-Member:

Nicholas, your call for an examination of the question of the relationship of the arts and the sciences is very apposite. Here is a somewhat fiery article I wrote about this a few years ago—I think it still applies. Alex Argyros asked me to deliver it to his class, which is studying me and Derrida, so it's a bit updated:

"In Praise of the Real: Reforming the Arts and Humanities"

In an email one of you (Shellie) asked me to respond to Robert Corrigan's defense of contemporary art. Robert asked us to have patience with the wildness of modernist art, because they were at least facing the truth as their century

saw it. I agree with him; but the new artistic rebels are the new classicists, and they deserve the same consideration. If they are impatient with the errors of their modernist predecessors, their criticism pales beside the furious invective hurled by the modernists at their own artistic predecessors.

Who are the new classicists? A strange clan of independent minds, often cheerfully in disagreement with each other, without membership cards and sometimes with large reputations that they have put on the line. As *The Utne Reader* (a leading avant garde journal) ruefully expressed it, there is "a classical revival that threatens to bury the avant garde."

To understand what the new classicism is up to, we must first recognize the broad outlines of what happened to the arts in the twentieth century, through a hundred years of modernism followed by its postscript, postmodernism. In poetry, rhyme and meter were rejected, as well as the power of storytelling and even the structure of argument and logic. Even in fiction, plotting was demoted to popular entertainment, and for a while the "plotless novel" of Alain Robbe-Grillet and William Burroughs was all the rage. In painting and sculpture, any reference to the real human figure and real landscapes was often discarded, together with the traditional techniques of drawing, perspective, and so on that make possible that marvelous imitation of the inner and outer worlds. In music, melody and tonality became old-fashioned, and the twelve tone row and atonality reigned supreme in "serious" composition. In theater Brecht told playwrights to avoid the dear old corny devices of acting, the conventions of comedy and tragedy that allow an audience to recognize and identify with a character. Playwrights aimed at the "alienation effect" and attacked the audience in the theater of cruelty. In architecture, as Tom Wolfe has pointed out, the Bauhaus aspired to a kind of building that was functional for machines but not for human beings. In all the arts there was a rejection of transcendental morality, a hostility to any reference to a spiritual world, a denigration of American and European history, and a contempt for the so-called classical Western values.

New classical artists realized that Ezra Pound's modernist slogan "make it new" had led to an artistic arms race in which each new shocking novelty could only bounce the rubble of an already devastated culture; the only new thing left to do was, of course, the good old thing. New classicists are aiming to restore the pleasure of the arts.

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One way of defining the new movement is in terms of a return to traditional forms, genres, and techniques in the arts. In “serious” music there is a recovery of the deep pan-human roots of melody, a renewed interest in worldwide folk music, a focus on the immediacy of performance, improvisation, and the context of audience and performer, and a disillusionment with Schoenberg’s theories of seriality and the twelve tone row, with the atonality of Stockhausen and his followers. In architecture and landscape design there is a renewed attention to the classical languages of building, ornament, fittingness to the environment, and humane proportions.

In visual arts there is a return to representation, to landscape and the figure, a rejection of the modernist authority of abstraction, and a turn away from the idea of art as the ideological enemy of ordinary human life. In poetry there is a wave of renewed interest in poetic meter, rhyme, and clear storytelling, a questioning of the role of poetry as therapeutic private expression, and a return to the great public themes of enduring human interest. In theater there is a renewal of the audience’s ability to feel concern about the fate of the characters. In fiction there has been a swing toward storytelling and “moral fiction,” identifiable characters and plot and theme and setting.

In painting and sculpture the new art has been dubbed “visionary realism.” The new art does not make a fetish of exactly representing gritty reality, although many of its landscapes, portraits and still-lives are exquisitely detailed. The realism is rather a revelation of the psychological, spiritual, and cultural meanings that burn beneath the surface of the world.

In poetry there are two highly vigorous movements that represent at least part of the new paradigm. They are known as “the new narrative” and “the new formalism”—named by its enemies, as often in the past. Modernist critics of the new formalism have suggested that versification is elitist, but have been staggered by the rejoinder that it is free verse that is confined to a small group of academic cognoscenti, while meter and rhyme are the normal forms for blues and jazz lyrics, country and western songs, Cole Porter songs, rap, and Broadway musicals.

A central term associated with the new movement is “classicism.” But the movement is not simply a return to ancient European ideas. It has learnt from the extraordinary advances in the sciences that have happened in the last few hundred years; it recognizes that classicism is not an exclusively European property, but a miracle that has happened many times throughout the world in a variety of

societies. Ancient classicisms have proposed fixed and perfect ideals that never change; the new classicism sees the world as evolving into a richer and richer mix of physical and spiritual complexity.

I have proposed the term “natural classicism” for the movement as a whole; our capacity for making and experiencing beauty is part of our nature, beauty is a real property of the universe, and our ability to feel and create it is founded on identifiable brain functions that are as universal as human speech. Thus beauty is not a mere convention but a fundamental human capacity and human need.

The movement is still a minority element within the arts establishments, and is subject to various degrees of formal, informal or covert censorship by the academy, the public and private foundations, and some museums, publishers, critical periodicals, galleries, and the like. But in poetry the new movement is now recognized throughout the academy, and university and college creative writing classes have started teaching the techniques of meter and rhyme again. Composers like Philip Glass, Arvo Pärt, and John Tavener recover melody and tonality; Sting sings the songs of John Dowland, and Yo Yo Ma plays the theme music for Sergio Leone movies. Painters unashamedly paint landscapes, the human figure, and historical and mythical scenes, and picket the Whitney museum; architects get to build buildings like the Bass symphony hall; plays have stories again.

We are in the midst of a remarkable surge of interest in the classics: witness the crowds pushing into Old Master art exhibitions, the craze for serious music, popular TV documentaries on the Civil War and the West, the lines outside Shakespeare and Austen movies, the spread of huge and profitable bookstores.

But at exactly the same time public support for the academic humanities—the institution charged with the preservation and interpretation of the arts and literature—is dwindling. Institutions have no divinely appointed claim to custodianship over the cultural resources they claim. In the seventeenth and eighteenth centuries the Anglican Church was the automatic destination for Englishmen with literary and intellectual gifts; to “get a place” was the preoccupation of every young poet. But by the mid nineteenth century everything had changed. In fifty years the Church somehow rendered itself intellectually and culturally irrelevant; in another fifty years the C of E vicar was a laughing-stock; and in fifty more the seemingly endless financial holdings of the Church had evaporated. I fear that the same thing is going to happen to the academic humanities. Public support, not

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power, is what keeps an institution vital, as the Soviet Union discovered in the eighties; and public support follows whatever combines the imaginatively exciting with the practically relevant.

What does the public want that we are not giving it? I have been canvassing the views of graduate students and ex-graduate students in the humanities—the most discerning and crucial public we have—and the diagnosis is gloomy. The problem is not fundamentally the lack of jobs in the profession; humanities graduates now have no illusions on that score. Students enter the humanities because of love: love for books, for art, for the search for truth, for the play of the imagination, for the serenity of spiritual goodness. What they often encounter is a bitter hostility to all of those things. Many of the best humanities graduates have left the field or adopted corrupting modes of lip-service to their poststructuralist professors. Who can blame them, when Management and Business Administration are sometimes more humane and more realistic, and have a better sense of humor?

Of course I am describing things at their worst; I am constantly amazed by the splendid scholars, the live minds, and excellent human beings who I meet in the profession. But a visit to an MLA annual conference will quickly convince any doubter that the humanities are in deep trouble, and that there is a need for those who love them to figure out where we went wrong, restructure many of our presuppositions, and justify our claim to guard and interpret the enormous riches of the world's cultural heritage.

How we got here is becoming fairly clear. Newton had painted a picture of the world as a deterministic machine, in which physical freedom of choice was impossible and mental freedom at least questionable. Kant argued that freedom was essential to the meaning of both art and ethics, and that freedom could only be achieved by transcending what is natural in ourselves and the world; our bodies, with their deterministic drives, would try to bribe us to betray that freedom. Nietzsche argued that freedom was freedom of the will, and that the only thing that the will could freely will without being bribed by nature would be greater scope of action, that is, power. Foucault argued that even knowledge is just an expression of power.

Meanwhile the reduction of meaning to structure urged by the New Critics and Structuralists diminished works of art to mere texts, orphaned of author and referent, and fatally vulnerable to the corrosive acids of deconstruction. In their fragmented and relativistic state texts could now be

interpreted only in terms of the interests of the regime under which they formed themselves. These developments coincided with the theories of speech acts, performatives, and language games in semiotics, which in turn linked up with the idea of the closed hermeneutic circle to cut language off altogether from any putative real world, and thus to isolate any discourse from the possibility of outside criticism. We were confined to the episteme, the regime of power and knowledge, in which we were programmed. But knowledge itself, declared the likes of Paul Feyerabend, was just a reflection of the political interests of scientists and scholars. Power, in fact, became the only reality in the humanities.

Now power is also the central idea of the scientific discipline of dynamics. For the Enlightenment and the Industrial Revolution science was the realm of cause; force was the way that cause operated, and power was what exerted the force. Newton seemed to show how motion, and thus change, was deterministic and one-way. In theory, a calculator—such as the Laplace Calculator, an ideal prediction machine programmed with the positions and momenta of all particles in the universe—could predict every future event, including all human actions and thoughts. The humanities—*Geisteswissenschaft* as opposed to *Naturwissenschaft*—were instituted at the instigation of such thinkers as Hegel, Kant, and Schiller. Their motive was to preserve a space for the discussion of the uncaused, unpredictable, and free—for the playful, the aesthetic and the moral.

But since that time science has undergone a profound revolution. Though indeed dynamics—and its statistical and time-dependent version, thermodynamics—still hold in isolated locations, they are now seen as idealizations only partly fulfilled in a real universe that is fundamentally unpredictable and free. Cause is now only one of a number of types of connection between events, including quantum coherence and statistical wave harmonics, far-from-equilibrium thermodynamic interactivity, nonlinear bifurcation, evolutionary emergence, self-organization within strange attractors, and rational expectations among multiple-equilibrium game players. The world according to scientists is no longer one of deterministic one-way power, in which A forces B to become C at the thermodynamic cost of D units of loss to friction and E units of entropic decay. It is becoming one much more like the realm of the traditional arts, of creative growth and emergence, of organically shifting frames of reference, of evolutionary development, mutual influence, and continuous retrospectively intelligible but prospectively surprising change.

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A TIMELY DIALOGUE: A RESPONSE TO THE FOUNDER'S COLUMN

Ironically, then, the sciences and the humanities have changed places. The humanities now profess a scientifically obsolete view of events, a power-based account of the world which is as incompatible with the values of human culture as Kant rightly declared the Newtonian universe to be. Meanwhile the sciences, with their rigorous research methods, and beginning with presuppositions just as linear and deterministic as they were accused by the humanities of being, have disclosed to us a universe full of freedom and creativity, fertile ground for art and moral action. For the humanities this reversal is tragic, however understandable the route by which it was reached. If there is a moral it is that we should not have lost faith so soon in the power of human reason and experiment when corrigible by free criticism.

But it is too late now to be drawing morals, and who are we to judge the grand humanistic savants of the nineteenth century? The task now before us is to rescue what we can from over a century of largely misguided theory—and thus partly tainted research—in the humanities, and put the field on a sound footing; so that we can bequeath to the future public an institution in better shape than we found it.

I propose that we reexamine the tenets of scientific realism, correct and modify it in the light of the germane modern and postmodern criticism, and adopt it as the basis for a renewal of the humanities. By realism I mean the position that there is a real world upon whose nature there can be reasonable agreement. Why realism? Why should this position, of all those available, meet our requirements? For various reasons. The first is that realism contains the assumption that there is such a thing as truth, and that truth can be legitimately sought and sometimes, in part, found. The concept of a truth that must be cooperatively inquired after, and which involves a submission of one's private will to evidence and reasoning, is in itself ethically beneficial. It would be so, paradoxically, even in a universe with no inherent reality, subject totally—as in the view of poststructuralism—to individual and group perceptions of it, since it would encourage the self-doubt that breeds tolerance and accommodation. If I believe, as for instance the Nazis evidently did, that there is nothing either good or bad but thinking makes it so, then in Dostoyevsky's words everything is permitted.

But realism is superior to relativism on logical and cognitive grounds as well as moral ones. In evaluating different philosophical positions—even if we assume they have different canons of acceptability for their propositions, different axioms and different standards of proof—we are in a similar case to that of Gödel, confronted with the proposition

“this statement is unprovable.” We can, in fact, with logical consistency declare the statement true but unprovable, thereby solving the paradox; but the solution requires the idea of truth itself. Thus it is reasonable to ask which of two positions is true, even if neither can prove that truth within its own system of axioms. If one system—relativism—contains an axiom that there is no such thing as truth, it will always rightly lose any contest for legitimate acceptance with a system in which truth is a possible term—even a system of absurd beliefs! Relativism is the *only* philosophical system that on its own admission must be less true than any other.

A third reason for the adoption of scientific realism is aesthetic. The universe as revealed by scientific inquiry is so beautiful and so remarkable that a discipline of the humanities which ignored it would be wretchedly impoverished. No cycle of cosmogonic myths, no tribal cosmology, no religious theology of creation, no totemism or animal fiction or artistic Peaceable Kingdom or courtly civilized game by itself can match it in majesty, subtlety of detail, splendor of general design, fractal depth and self-similarity, or gripping suspense of narrative. Speaking as a poet, there has never in the history of the world existed so rich and so unexploited a store of artistic materials as the present body of science. The myths, the cosmogonies, the theologies, the totemisms, the fictions, the utopias, the games—all those cultural worlds studied by the humanities—take on in fact a wildly richer and deeper significance when placed within the scientific narrative; their partial illuminations and local delights resonate into greater grandeur and pathos within the larger spaces of the real.

Indeed, a fourth reason to adopt realism as our foundation is, paradoxically, precisely to protect the integrity of the fantastic, the counterfactual, the surreal, the “imaginative.” If there is no distinction between reality and art, no dividing line between the regimes of power and knowledge and the inventions of the text, then nothing is safe from the totalitarianisms of the right and the left. Only if we accept the existence of the real can we permit the strange and subversive fictions of art. If a real act and an imaginary one are ontologically indistinguishable, then we should punish imaginary crimes just as severely as real ones—or not punish real crimes, and thus permit them. The trend toward the evaluation of texts for political correctness—which, despite the opposition to it by principled intellectuals and the ridicule of the general public, continues apace—is not only the result of mediocrity's hunger for power and philanthropy's well-meaning attempt to legislate human nature. It is also, more fundamentally, the symptom of a sort of cultural psychosis, the inability to distin-

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guish fantasy from reality; and the humanities must share the blame for trying to deligitimize reality. True fantasy can only exist where there is an open frontier, a realm where the writ of the real does not run; but that fantastic "state of nature," that dreamland, absolutely requires that there be a country of waking reality from which we can escape and to which we can return to tell the story.

Related to this advantage is the fifth reason to adopt realism: it is the only worldview that has produced an intelligible account of creativity. Some non-realist worldviews, such as those of Parmenides, Plato, and some contemporary physicists, deny the reality of time, thus rendering creativity impossible. Approaches such as Lucretius' brand of atomism, existentialism, phenomenology, idealism or logical positivism are usually either reduced to randomness as the only explanation of creativity, or else assert that everything is determined and thus that nothing can appear in the universe that is not the causal result of what went before. They thus, like those religions that believe in predestination, turn creativity over to some original unmoved mover. Realism, however, postulates an actual universe changing in time, and thus made possible the theory of evolution, which, in its iterative feedback of mutational variation, selection, and hereditary reproduction, can create new entities and species in the universe, including those human productions that we now know to result from a similar evolutionary process in the human brain. Evolution is the only intelligible account of creativity. Other worldviews contain only one or two of the three necessary ingredients of evolution—the randomness of mutation, the determinism of selection, and the temporality of heredity; none of them has the essential method of combining them, the feedback process of iteration itself. In other words, realism is the only position which affords an explanation of how the subject of the humanities, that is, human creations, could come to be.

The final reason for the humanities to adopt realism is what has driven philosophers away from realism again and again—precisely those elements of heaviness, slowness, friction, clunkiness, death, occlusion, and darkness that bedevil our lives. We would much rather have this world be a miserable illusion from which we will wake, or be revealed to make a perfect inhuman sense under the surface. Worse still, realism does not give us a completely meaningless and disordered world either—it is exactly the most annoying mix of charming emergent meaning and encroaching mess one could imagine. The richest field of information is right where realism suspects it is: between the completely random, in which each element requires its own individual

description, and the completely ordered, in which one formula describes them all. And that richness, that far-from-equilibrium condition, is generative of new forms of order, as Prigogine has shown.

Worldviews such as existentialism and many poststructuralisms, that accept the world as totally meaningless, in urging us either to go with the flow of meaninglessness, or to assert our freedom by means of random gratuitous acts, are just a more sophisticated kind of escapism. Our actual experience always contradicts our revelations of the unity and simplicity of things; but it also gives us tantalizing hints of a reconciling perfection in the very midst of the chaos, and so contradicts any relaxation into the mess. Realism welcomes this most difficult of all possible worlds, and thus gives us the purchase, the resistance, the genuine pressure of otherness, the alienation that inspires the finest works of humankind. Morality requires dignity; killing is only morally evil if what is killed has value. There is no waste in the death of what has no dignity. And dignity comes from the weight we accumulate by the struggle to make meaning out of an only partly ordered world.

But this call for realism is not meant to turn back the clock. Excellent as are their ambitions and their political ethics, such bodies as the National Association of Scholars and the Association of Literary Scholars and Critics have not absorbed many of the gifts of modern humanistic scholarship. The only twentieth century achievement they have fully accepted is the technique of close reading. But though individual members of these institutions may be exceptions, at the institutional level these bodies are essentially reactionary in the intellectual sense. Here are some of the things they have downplayed or would rather not think about in a systemic way.

The discovery of the categories of performative statements and speech acts.

Nonlinear logical systems, of the Gödelian type: self-referentiality and iteration are not just forms of infinite regress.

The powerful analogies between DNA and linguistic coding. Chaos theory.

Information theory.

Games theory.

Neuroscience, endocrinology, immunology, neuropharmacology, and other humanistically-relevant human biological topics.

The study of human and animal ritual.

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A TIMELY DIALOGUE: A RESPONSE TO THE FOUNDER'S COLUMN

The neuroevolutionary basis of language and the arts.
Animal cognition and emotions.
Artificial intelligence.
Science fiction and SF criticism, the cultural effects of prolonged lifespans, space travel, cyberspace, etc.
Sociobiology and evolutionary aesthetics.
The theory and practice of interdisciplinarity in general.
Quantum uncertainty.
The observer effect, including the challenge of Kuhnian “paradigm” theory to all claims of objectivity.
The interesting twentieth-century merging of epistemology with ontology.

Indeed, the realism I am proposing here will have to be profoundly modified, relative to traditional realisms. Since, as it appears, matter itself is a relatively late and not pervasive feature of physical reality, our realism cannot be a materialism. That is, information structures are more basic than matter; though the information structure that is matter is a prerequisite for any advanced development of higher information structures. Moreover, information structures are dynamic phenomena, and cannot exist except in a temporal medium provided by themselves and by their context.

More important, the challenge of paradigm theory, the observer effect, speech act theory, and the collapse of epistemology with ontology, which together have been taken to justify the presently dominant idea of the social construction of reality, is a real one. My suggestion is to accept the idea of the construction of reality, but to insist that we not be species-centered, or even carbon-based-lifeform-centered, in our qualifications for who or what gets to do the constructing. If observers vote on the constitution of the world, I would simply extend the franchise of observerhood to everything else in the universe, from animals and plants to atoms and elementary particles—or rather, recognize that franchise as already in place. Thus for beings like ourselves who like to see things as texts, the universe is to some extent a text, but there are many entities that do not experience the world in those terms, and if we ignore them, we will come to grief. Feyerabend thought that humans constructed atoms; I would reply, yes, and atoms construct us also. Indeed, there are cases, as when Feyerabend's own world-constructing activity entered into contest with that of his and the world's molecules, when human observers lose the vote and must, tragically, die. Reality is consensual, yes; but the consensus rather massively includes all the energy and matter in all the stars and galaxies. Science is nothing more than the method by which we poll the vote of other world-constructors than

ourselves; science is the sum of everything that has ever surprised us by turning out different from what we expected.

Thus we can keep the poststructuralist critique of objectivity with perfect conscience, while remaining able to assert the large truth of scientific laws as they are continuously refined and modified according to the evidence. Radical ethnic and feminist critiques of science remain valid but with a hugely reduced relevance, since the critics are always free to go canvass the nonhuman part of the real universe for themselves, and submit themselves to its arbitration in the form of successful prediction, controlled and replicable experiment, or the successful modeling of inherently unpredictable complex systems. Ethnic and feminist theories are legitimate nitpicking, but nitpicking nevertheless. The new neuroscience shows us how subtly the human and animal brain compensates for any distortions in its perception, how the eye for instance corrects for perspectival errors; and evolutionary science shows how such a bias toward “objective” truth is dictated by the species survival. The world, with its marvellous economy of structure and process, provides nine tenths of our intelligence; the senses are primarily the peripherals whereby we cannibalize that natural intelligence of the physical universe for our own. Mimesis in poetry and art is among other things an enhanced way of doing the same thing, to retrace the child's tuition by nature.

Armed with such an epistemological realism, we will be able to renew the mission of the arts and humanities.

1. *The World is Flat – A Brief History of the 21st Century* – Thomas L Friedman. Farrar Strauss & Giroux – New York 2005

NOTES FROM THE EXECUTIVE SECRETARY

Greetings Time Scholars,

As you well know, this summer will see our thirteenth triennial conference at the Asilomar Conference Grounds in Monterey, California, USA. Plans for this meeting are well underway. The council has already met and selected a venue of very interesting papers on our theme, "Time: Limits and Constraints." By the time you read this, I hope to have all of the abstracts on the website for your perusal. With the number of papers we expect, the format of the conference will most likely be a mixture of plenary and dual sessions.

This will be the first time since 1995 that the meeting will take place in North America, so it may be a good time for you to consider attending even if you are not presenting a paper. If you plan to attend the conference, please register using the online form on our website as soon as possible to give us an idea about numbers of attendees to expect. Also on the website you will find a form to apply for Lodging at Asilomar. This form must be printed, filled out and posted back to Asilomar with your full lodging fees by April 27, 2007. As always, the lodging fees include all meals and the banquet on Thursday evening. You may decide to find lodging off site at one of the many motels in the nearby area. However, there is a walk-on fee for daily use of the facilities at Asilomar and an option for meals. I thus highly recommend the package deal, which is very reasonable.

Once again it is time for our triennial elections. You will find an online ballot form on our website to cast your vote, or you can use the handy pull-out ballot in this newsletter, which

should be mailed directly to me. As in the past, the sitting council works hard to find suitable and willing volunteers to occupy the offices of President, Vice-President, Treasurer, and Executive Secretary. Your approval of these candidates is requested. The true vote comes for the six members of the council for the next three years. Please find their statements in this newsletter and cast your vote for six of these eight willing volunteers.

In our drive to bring more of our society to the internet, the TimeLine bibliography site is serving a wide audience of both members and nonmembers alike with valuable references to published works on time. In the development stages is our very own Wiki Encyclopedia of Time, tentatively called *Kronopedia*. The current plan for this wiki is to have members of the ISST moderate the postings and steer its future. If you would care to be involved in this project, please contact me by email. Finally, behind the scenes, websites are under development to coordinate and extend the collaborative editorial efforts of our two publications: *The Study of Time Series*, and our journal, *KronoScope*.

I look forward to meeting new members and reviving old friendships in Asilomar this summer, and I hope to see you there.

Warm Regards,

Thomas Weissert

Executive Secretary, ISST
Weissert@StudyofTime.org

Special Call

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. *KronoScope* 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. Many of the superb unpublished papers from Cambridge in the sciences and humanities would make ideal articles. If you have something on file waiting to be sent out, think of the ISST and *Kronoscope*. Please direct your submissions to Marlene Soulsby at mps2@psu.edu or Mary Schmelzer at maryschmelzer@mac.com.

THE INTEGRATED STUDY OF TIME: A CALL FOR RECIPROCAL LITERACY

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— A welcome realization also emerged. Namely, that a sustained and successful inquiry into the nature of time will help identify the intellectual tools that are essential for scholarly and scientific inquiries into all themes that demand interdisciplinary work. Such as into the dynamics of our epoch, into the nature of that vibrant, violent, destructive and creative instability that characterizes the process of globalization.

What follows identifies a family of time-related themes that belong to the process of globalization and demand reciprocal literacy among the specialists dealing with them. They will benefit from the methods we pioneered by the practice of critical interdisciplinarity in the study of time. All that was just said amounts to the “restating the value of the interdisciplinary study of time for the . . . perspectives of the 21st century.”

A Nested Hierarchy of Malthusian Principles

The history of our species since the end of World War Two has been characterized by a single, overwhelming economic fact: the needs of people for food, housing and goods, judged in terms of chronic shortages, combined with explosively increasing expectations, outrun the productivity of nations and also outrun what current social systems can and want to deliver. And, if the productivity was available and the means of distribution workable and working, it is unlikely that the earth could keep on offering the necessary raw material and energy and do so in a sustainable manner. These, the socio-economic conditions of the early 21st century demonstrate the sustained validity of the principle of the economist and demographer, Thomas Malthus (1766-1834) concerning relations between population growth and the availability of goods. He noted that populations tend to outrun the food supply and hence lead, inevitably, to poverty and hunger.

These ideas of Malthus were unpopular during the twentieth century because of the belief that his predictions will be negated by advances in science and technology. But, the assumption that increased productivity and scientific advances could, in themselves, without political will and humanitarian guidance right the imbalance, is proved invalid by the socio-economic conditions of the early 21st century. In our days that view is maintained only through, what has been justly described as criminal optimism.

The failure of this optimism, I believe, has been driving the profound political transformations of our epoch, its broad intellectual frustration and the threatening increase in general malaise. Rapid and vast upheavals mix, on the world's stage, with inflexible ideologies that are trying to find

niches for themselves upon a highly interdependent earth, with kaleidoscopic and mostly incompatible values. The vastness of the turmoil suggests that we are not simply witnessing local revolutions but that we are in the midst of fundamental transformations in the texture of human life itself. The massive increase of random and undigested scientific data dumped upon the unqualified marketplace of data, the wild experimentation in the arts and letters, together with extremes in the weights of religious teachings, are not the causes but the symptoms of the underlying malaise.

Bypassing the heavily emotional load and the morally explosive issues raised by the Malthusian thesis, I want to direct attention to conditions analogous to the original Malthusian conditions that is, to conflicting rates of growth that are — and have been — present all along, upon all levels of nature's economics.

- The needs of all forms of life, as organisms multiplying in number, outrun whatever their environments are able to offer to satisfy those needs. This is an organic triage and is at the roots of classical Darwinian selection. “Nothing in the history of science is more familiar than [Darwin's] theory, or than the steps that led him to it by way of the Galapagos Islands and Malthusian political economy.” []
- The needs of human life outrun what the living and inanimate environment of humankind can offer to satisfy those needs. The resulting condition is another triage, recognized under the name, the ecological crisis.
- The needs of human minds, functioning collectively, outrun what any individual mind is capable of handling. This a cultural triage of personal abilities, one that has already led to a radically fragmented division of labor and through it, to threats to the stability of personal identities. Here is an example. If a significant portion of the earth's societies cross a certain threshold of complexity in their communication systems and in their interdependence, the global socialization and evaluation of time will subsume the office of the person as the primary agent in controlling his and her time.
- The broad cultural, and economic transformations of the epoch demand changes in human values, traditionally classed under the headings of the true, the good and the beautiful. The rate at which these changes are called for outrun the rates at which cultural, religious and ethnic traditions can change. This is a global problem which, I believe, bears the main responsibility for what I described earlier as the “broad intellectual frustration and rapidly increasing general malaise” of our age.

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THE INTEGRATED STUDY OF TIME: A CALL FOR RECIPROCAL LITERACY

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Pioneers can have no maps but can contribute experience.

In brutal shorthand: The needs of living species outrun what their environments can offer to satisfy those needs. The result is classical Darwinian selection.

The needs of human life outrun what the living and inanimate environment of human life can offer. This is the ecological crisis.

The needs of civilizations, created by the collectives of human minds and labor, outrun what any individual's mind can comprehend and command and hence guide to nondestructive satisfaction.

These, then, are the "fundamental transformations in the texture of human life itself" I mentioned early in this paper. And it is here that the usefulness of reciprocal literacy – explored and developed through the integrated study of time – will be useful.

What is needed is an integrative effort to organize the Malthusian triages into a coherent system which may then be explored and, hopefully, understood so as to become manageable. That the study of time offers a framework for such a labor was already evident in 1966, when it was noted that the study of time holds "the promise of paving the road toward a new view of reality from which a novel understanding of man, society, and the world could emerge."

This, then, is "the value of the interdisciplinary study of time for the altered perspectives of the 21st century."

To make itself so useful, it will be necessary that its voices of speculation be combined with reverence, somewhat in a manner they were in creating the natural sciences.

J. T. Fraser

- Renewal of membership and dues forms for the year 2007 have been sent. 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 2007), please contact Executive Secretary Dr. Thomas Weissert at 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 start a discussion on the listserv.

IMPORTANT REMINDERS

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

From David Burrows:

I've got a book coming out next year with Brill, *Time and the Warm Body: A Musical Perspective*.

From Dennis Costa

Readers of *Time's News* may be interested to hear about a new, senior-graduate level, Comparative Literature course I'm teaching next semester, a course heavily invested in time-theory. Here's the standard catalogue blurb:

Apocalypse and Literature

Literary responses to the biblical book of *Revelation*, to both its violent and peaceful aspects, from ancient to modern times. Readings from the Bible, Dante, Langland, Rabelais, Blake, Wordsworth, Christopher Smart, Dostoevsky, Holderlin, D.H. Lawrence, Federico Garcia Lorca, Samuel Beckett, Flannery O'Connor and others. Reference to artistic and musical representation of apocalypse.

From Rosemary Huisman:

I'm writing a book on English narrative of different periods (from Old English to so-called postmodern fiction) using Fraser's modelling of different natural worlds and temporalities (unsurprisingly entitled *Narrative Temporalities*). A brief intimation of my approach appears in the text, *Narrative and Media*, p 24 (Helen Fulton, Julian Murphett, Anne Dunn, myself, Cambridge U.P., 2005). Over the last two years I have also given papers on this work to conferences on narrative (Louisville, 2005) and systemic linguistics (Gorizia, Italy, 2006), as well as to various gatherings in Australia. I first encountered Fraser's work at the ISST Cambridge conference of 2003; it was a welcome alternative to the dual Bergsonian modelling dominant in "cultural studies," or the singular understanding of 'time' in traditional narratologies.

From Rémy Lestienne:

Now that I am officially retired, I am concentrating on the writing of my new book *Time, Memory and Affectivity*, which will be a long development of the

ideas presented in my Presidential speech at Cambridge. The manuscript will be ready, I think, at the time of the Asilomar Conference (in which Bernadette and I will participate), but it will most probably not be published yet

From Alexis McCrossen:

I am publishing an article that might be of interest to ISSTers:

"CONVENTIONS OF SIMULTANEITY": Time Standards, Public Clocks, and Nationalism in American Cities and Towns, 1871-1905, *Journal Of Urban History*, Vol. 33, No. 1 (January 2007): 1-34. It is part of a larger work about time-keeping in the United States between 1840 and 1940, that is under contract with the University of Chicago Press. The tentative title for the book is *Marking Modern Times: Americans and Their Timepieces, 1840-1940*.

From Robert Pos:

On October 10th, last, I sent the following e-mail to all people on the list:

"Although the most recent *KronoScope* issue [vol 6 (2006), No1] contains an article about my theory ("A Developmental Theory of Personality Producing Two Time Orientations"), my book, *The Gender Beyond Sex: Two Distinct Ways Of Living In Time*, was published about three weeks ago (see <www.trafford.com/06-0599>). It contains far more specific details about the alpha and beta personality, the theoretical model used, the research involved, as well as potential evolutionary aspects of the theory. The book has 306 pages and costs US \$ 26.04, 14.98 UK Pounds, 21.39 Euros, or Can \$ 29.95."

From Christian Steineck:

Christian Steineck, Bonn, received his *venia legendi* in Japanese Studies by submitting a thesis on Concepts of the human body in Japanese bioethics and delivering and defending a lecture on "Time standing, time fleeting: A medieval Zen Buddhist's notion of time." An elaborated version of this lecture has just been published as: *Fließende und stehende Zeit: Gedanken eines mittelalterlichen buddhistischen Denkers*. In: *Orientierungen* 2/2006, pp. 93-108

IN MEMORIAM

Gert Heinz Müller, President of ISST, 1976-1979, who arranged for the venue for ISST's first conference (1969) in the villa of the German Mathematical Research Society in the Black Forest, died on September 6, 2006 at the age of eighty-three.

A native of what is now the Czech Republic, he studied mathematics, astronomy and philosophy at the University of Graz, Austria, earning his doctoral degree in philosophy in 1947. His interest in and command of philosophy and astronomy remained with him throughout the sixty years of his professional life, not so much for themselves but as serving as perspectives upon the great twentieth-century problems of mathematics. In his earlier years he contributed to set theory, later to mathematical logic. He served as President of the German Society for Mathematical Logic and Foundations of Mathematics, and was Dean of the Faculty of Mathematics at the University of Heidelberg,

His accomplishments were acknowledged by invitations to serve as guest professor at the University of Leeds, (UK), College de France (Paris), University of Jerusalem, (Israel), Tromsø (Norway), Marseille-Kuminy (France), Sophia University (Tokyo), Academy of Sciences, (Prague), Merton College (Oxford), Academia Sinica, (Beijing), University of Nanjing, the Center for Computer Science in Moscow, and the Universities of Canberra and Sydney. Prof. Müller also founded an international group of mathematicians, called the Omega Group, publishing monographs on different issues in the philosophy of mathematics.

His favorite pastime: *Bergwanderung*, walking just for the pleasure of it in the Alps. In the words of his widow Lotte, a psychologist, he collected crystals or just stones, if they looked interesting.

To see the Villa of the German Mathematical Society and the participants of our first conference, visit studyoftime.org, click on "conferences," then "prior conference pictures" then "Oberwolfach, Germany, 1969." In the first row, standing, from left to right: Olivier Costa de Beauregard, Michael Yanase, Milic Capek. J.T.Fraser, Gerald Whitrow, Magda Whitrow, Ingeborg Kern. On her left, Gert Heinz Müller.

EXHIBIT OF TIME-RELATED BOOKS

At the forthcoming conference, as at our past conferences, we shall again hold an exhibit of time-related books. Dr. Dawna Ballard will act as our book facilitator. Books related to the subject of time, from all disciplines, are invited.

Promotional material and ordering information may also be provided. Persons or publishers who wish to make books available for display should send them (one copy only) to the following address:

International Society for the Study of Time
c/o Tricord Tradeshow Services
78 Neeson Rd.
Marina, CA 92933

Materials will be stored for no more than 30 days, so no materials should be sent before June 28th, 2007. They will be delivered to our book exhibit room for display during the conference. No books will be returned; all books will be retained and considered for review in the "Time's Books" column of ISST's *KronoScope*, Journal for the Study of Time.

Books may also be brought to the conference in person. Please hand them to Dr. Ballard. If you do not wish them to be considered for review, you may pick them up when the exhibit closes. We will do all we can to protect the volumes from vanishing, such as keeping the exhibit room either manned or locked. Still, the Society cannot assume financial responsibility for possible losses.

MEMBER VIEWS

This new column intends to encourage contributions of less than essay length that reveal a work in progress or ideas that come from the academic conversation that are the heart and soul of our society. Please think of contributing something for the next issue. Send your copy to Mary Schmelzer at maryschmelzer@mac.com.

Christian Steineck writes:

The previous issue of the German weekly newspaper "Die Zeit" (dec. 28, 2006) had a feature on the experience of not having enough time and on recent attempts to re-capture individual control over one's own time. This feature, by the way, made extensive reference to our member Ivo Muri's endeavors to analyze the relation between the globalized flow of financial capital and the individual loss of time.

At the same time, I was reading the parts of Hermann Cohen's Logic of pure cognition. Now, Cohen had an idea on the primary logical function of the category of time in the construction of scientific knowledge that - in my mind - somehow triggered a connection to the above named article. Cohen says that the primary element in building up the notion of time is anticipation, and that, consequently, the future is, in a way, the origin of time.

I wonder whether what he says also has some psychological truth to it. Could it be that individual experience of time passing more quickly with advancing age or of having less - or no - time are related to what we can or cannot anticipate for the future?

I'd be interested in your opinions and references to relevant literature. The article in "Die Zeit" gave very different explanations, so I hope my question is not trivial.

Ida Sabelis writes:

Re: anticipation – or, anticipation as a core concept (psychologically, socially, economically...). The main literature reference to the concept seems to be Don Miller's (former member of ISST) article from 1998: 'Anticipation', in Australian Book Review February-March, (National Library Australian Essay) - 1998. [36-41]. The article not only treats anticipation as a core human feature, but also in the sense you are asking for: physiologically and with implications for (organizational) politics – anticipation as a dimension discriminating 'winners and losers' in contemporary society.

For questions re 'control over time' I'd like to mention the book 24/7. Time in the network society (Robert Hassan, Ron Purser eds), forthcoming from Stanford University Press. Apart from the groundbreaking work by Allen Blueborn (2002) of course, this new book offers a variety of perspectives on contemporary time use and its restrictions, far broader than Muri's work can offer. My opinion is (not having read the Zeit article) that control over time may have something to do with globalization (as one of the dimensions enhancing ideas of 'control', i.e. organization, especially is relation to insecurity and ambiguity, but that an analysis based solely on time and money is rather limited.

The idea of 'the future' being the origin of time seems to fit to the perspective of cognition – but also here, I find that we should contextualize the matter by looking at what happens to (and by) people from a broader angle: coping strategies, perhaps? – a more nuanced critique of how we are producing and neglecting futures from our current behavior, i.e. the strive for a 'thoroughly organized' life? (for futures, see also Adam, www.cardiff.ac.uk - Cardiff – futures project).

From Herve Barreau Writes:

About K.Birth, "Time and the Embodied, Biological Consequences of Globalization", a comment by H.Barreau

Kevin Birth describes the conflicts between human circadian rhythms and the current time schedule of social life. He shows that these conflicts are not sufficiently recognized by postmodernism, economics, the history of contemporary time reckoning, and the epistemological divide between natural and social science. On all these points, his critics are more often than not pertinent. But at times the contradictions are also overestimated. For example, it is not correct, as the author writes, that clock time is now determined by the averaging of the time indicated by cesium clocks distributed across the world. This averaging supplies atomic time (AT) and AT is only one of the two determinants (AT and GMT-UT) of coordinated universal time (CUT) that is the basis of "standard time." Otherwise we could not use GPS! Similarly the establishment of time zones was, more a century ago, a way in order not to divorce UT (Universal Time derived from Greenwich Mean Time) from "solar time," which remains, as the author is right to emphasize, the frame of our natural rhythms (work/rest) and especially the chief "zeitgeber" (or

synchronizer) of our circadian biological rhythms. On these circadian rhythms the developments of the author are welcome and especially accurate. It was necessary to make these developments in order to show that the prescribed work times in our industrial society have biological effects upon the internal desynchronization of circadian rhythms and their external desynchronization facing daylight cycles. Of course it is only for administrative convenience that China has one time zone merely, and not three time zones, as it was foreseen. The same administrative convenience appears in Martinique, when the candidates for entry in the police force are called together at 3:00 AM to set their tests, in order to coincide with the time of the exam in France. In this latter example, the true reason, which is not given by the author, is to prevent the candidates of Martinique from being informed before their exam about the tests to be performed; but one could prevent this trickery by giving at 8:00 AM other tests of same difficulty. On these two examples and other aggressions against body rhythms, such as night shift work, the author is perfectly right to denounce rigidities, which are useful for dominant people and cities, but damageable for subordinate people. More attention on daylight cycles must be a rule for the schedule of all occupations and human activities. It is scandalous that “the scheduling for the Olympics (Athens, 2004) was anomalous for marathon running, and seemed driven by maximizing the audience that inspired the greatest advertising revenues, namely Western Europe and North America.” The author reports that, on this occasion, “the British runner Paula Radcliffe dropped out of the women’s marathon due to heat exhaustion,” an example of numerous diseases provoked by misplacing activities which demand the full possession of capacities which are only available during a few hours of the body cycles. The author mentions, after Moore-Ede (1993), that “many major disasters caused by human error – the Exxon Valdez oil spill, the nuclear accidents at Three Mile Island and Chernobyl, and the Union Carbide disaster in India – all occurred at night, and were associated with excessive overtime and poor shift-work scheduling.” It would not be surprising that the beginning of the next nuclear war (God prevent us of that!) should occur at night, when some politicians exhausted by day and night discussions would not see other means to preserve their power than to push the releasing a catastrophe button. Man cannot forecast how many errors are possible under mad time conditions.

Must we be pessimistic about the consequences of globalization? The author denounces “a globalization without a globe,” meaning by globe “a rotating globe where each locale has its own cycles of day and night.” It is true that globalization, if not controlled, tends to exaggerate the homogenization of standard time for number of people without attention to their own location on the globe, and to create “space-time compression.” But this tendency is not the consequence of the modern scientific conception of standard time itself. On the contrary, Universal Time and Time

Zones, as I recalled above, are compromises between the regularity of new clocks (first mechanic, then quartz, lastly atomic) and the less regular rotation of the Globe, which is not forgotten but observed. Besides, the very concept of time in all cultures is founded upon natural and cultural “invariants” as I gave an outline of in the review *Time and Society*¹. In face of globalization, all cultures have their own means to accept what is reasonable and to refuse what is contrary to human dignity.

1. H.Barreau, “The Natural and Cultural Invariants of the Representation of Time in face of Globalization”, *Time and Society*, 2.000, Sage, vol. 9 (2/3):303-317

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 or to Jo Alyson Parker, Book Review Editor for *KronoScope*, at 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.

MINUTES OF THE 2006 ISST COUNCIL MEETING

SEPTEMBER 16 AND 17, 2006
STRATHMERE, NEW JERSEY, USA

In attendance: Mark Aultman, David Burrows, Claudia Clausius, Michael Crawford, Robert Daniel, Koen DePryck, J. T. Fraser, Paul Harris, Jo Alyson Parker, Mary Schmelzer, Nicholas Tresilian, Frederick Turner, Thomas Weissert

Meeting convened 9:37 a.m. on September 16 by President Paul Harris

REPORT ON DAN DAVID GRANT (DR. CRAWFORD):

Grant applied for as means to raise the visual profile of the society.

Council-members expressed appreciation of M. Crawford for working toward this goal and writing the grant application. [Subsequent to the Council meeting, the ISST was informed that it had not received the grant.]

REPORT OF STUDY OF TIME VOLUME (DR. PARKER):

Sixteen papers plus Founder's and President's papers. Finished and at the publishers, should be out in the next couple of months. Three sections with introductions by the three editors. New option to have reviewers give a formal response and publish it in the volume.

Thanks to editors (Parker, Crawford, Harris) for making the process efficient and timely. [The volume as since been published; see order form in this newsletter.]

MEMBERSHIP REPORT (DR. CLAUSIUS):

Clear that the call for papers comes out peaks the membership applications with a drop-off after the conference; trends since 2003 reported.

Council-members discussed the importance of a "welcome package" for new members and the possibility of stream-lining the application process. Motion to defer the discussion on the membership process.

REPORT ON THE ANTWERP INTERIM CONFERENCE (DR. DEPRYCK):

One possibility: a two-track conference, a theoretical track and an applied track. Talked with potential interested parties in applied issues of time. Most realistic to have the conference in the spring of 2009 (good recruiting for the 2010 triennial conference). Institute of Knowledge Management might sponsor the conference (the organization part), logistics and staff support, not financial support. Received a pledge by the local school districts for staffing support (adult education). A single person one-half a day per week to work on this conference, as well as student support. A fairly traditional conference, 4 days, perhaps workshops before (applied time use). Need the call for papers early in 2007.

Positive responses on the two-track approach. Discussion points: possibility of getting Chaos/Psych group involved; possible theme of how to deal with future; other possibilities for meetings between the triennial conference.

REPORT ON ITALIAN GROUP (MR. TRESILIAN):

Medium-sized Italian furniture company wants to put something back by having a small interdisciplinary institute (foundation) for pragmatic issues. If there is enough interest, perhaps ISST could look further into trying to get something going with them.

Suggestion that President and Vice-president start a dialogue with the company.

TIMELINE REPORT (DRS. HARRIS AND FRASER):

Dr. Cordes is looking for a replacement to take over TimeLine in the future. Sixty to seventy people from around the world have registered for TimeLine.

Discussion of how to do follow-up contact to registrants. Dr. Clausius volunteers to write an email to these people. Suggestion that there should be two people assigned to TimeLine, one to run it and one to recruit from the list. Suggestion that there be an automated response to registration, but also a longer personalized contact.

J. T. FRASER PRIZE (MR. AULTMAN):

Potential candidates. Discussion of the onerous task of getting books, which has not been working well. Suggestion that the Prize be aperiodic and informal, that

ISST members be encouraged to suggest nominees (perhaps send the book and a written statement). Mr. Aultman and Dr. Turner as serving on the Prize Committee.

Suggestion that a prize be given to an outstanding paper by a graduate student or young scholar at the conference. The young scholar prize would be a new ISST prize. Dr. Crawford volunteers to write up a procedure for awarding the young scholar prize.

CHAOS/PSYCH GROUP CONNECTIONS REPORT (DR. HARRIS):

Their conference overlaps ours, and a joint workshop is no longer possible, but Gus Koehler will be looking to get some sponsoring for such a meeting, perhaps at Esalen.

2007 Conference Discussion

Council-members evaluated the conference proposals and selected those to be presented at the conference. Council-members discussed the format of the conference, including a possible variability in format with some plenary and some parallel sessions. Volunteers to construct the program: Drs. Harris, Weissert, Crawford, and Turner. Suggestion to make abstracts available to the accepted authors for discussion. Need to arrange a lockable space for the book exhibit. Ms. Sarah Spencer agrees to again manage the book exhibit at no cost to the society. Suggestion of possible keynote speaker.

TREASURER'S REPORT (DR. DANIEL):

Report submitted and approved.

Discussion of Dr. Harris's proposal for (Re-)Designing ISST Gist: we need to come up with a regular communication structure to spread out and regularize the work of the Society, including members not on council. We need to bring in the next generation because the society work is not a lifetime project for most of us. We must get the members to be involved and do the work on the committees (task forces). Proposal calls for areas set up on website for use by the committees. We need special areas of task force coverage: Council business, membership, operations, marketing and recruitment, financial, ICT, area innovation (development). We need to agree on a limited number of specific things and to attach names to those jobs, committees.

Adjourn at 7 PM to restart at 8:30 Sunday morning.

Meeting reconvened September 17 at 8:40 a.m.

REPORT ON KRONOSCOPE (DR. HARRIS):

Ad-hoc editorial committee trying to share the load and keep the process going. Dr. Weissert setting up online

database to aid the process of spreading out the responsibilities; eventually plan to set up a true editorial board, where the primary editor (Dr. Soulsby) continues to coordinate the efforts. Weissert to set up an email address for controlling the flow of submissions.

Dr. Weissert and Mr. Aultman will review the construction of the constitution to update it to reflect the current procedures.

ISST MISSION STATEMENT (DR. HARRIS):

Need to develop a mission statement drawn from writings of J. T. Fraser and perhaps the Dan David Grant application; to be worked on by Harris.

REPORT FROM THE NOMINATING COMMITTEE (DR. FRASER):

Discussion: Six elected members of council. Automatic members: chair of the membership committee, editors, treasurer, executive secretary, president, vice-president. Council votes the following officers be put forward to the membership for approval:

Paul Harris as president, Koen DePryck as vice-president, Thomas Weissert as executive secretary, Robert Daniel as treasurer. Statements of nominees will be put on the website for the membership to peruse. [Statements of nominees also appear in this newsletter.]

Resumption of the discussion of the task-forces, now called committees. Suggestions: simplify and recognize what's



The ISST Council deliberates during the 2006 Council meeting.

working and what's not, find someone to take over Timeline at the next meeting at Asilomar; need new brochure with pictures, and the website to be made more inviting; need someone to head up external communications (outreach).

OUTREACH AND RECRUITMENT

COMMITTEE (CHAIR PAUL HARRIS):

Website Committee: Chair Koen DePryck; members: Dr. Weissert, Dr. Crawford, Mr. Tresilian, Dr. Daniel
Publications Committee: Chair Dr. Parker; members: Dr. Harris, Dr. Schmelzer, Dr. Soulsby
Internal Communications and Mailer Committee: Chair Mr. Tresilian; members: Dr. Schmelzer

DISCUSSION OF THE ISST NEW SCHOLAR AWARD:

Suggest a paper submitted to committee by June 15, 2007. Requirements: graduate student or Ph.D. within the last five years. Suggest \$250. Drs. Clausius, Harris, and Schmelzer volunteer to work on this committee.

FINAL DISCUSSION OF ADMISSIONS:

We can change the form on the website to accept information, not necessarily a cv, perhaps a sponsor's name. Decided to not go to open admissions.

President offers fond farewell to departing council members: Mr. Tresilian, Dr. Crawford, and Dr. Burrows.

Meeting Adjourned: 10:30 AM

ANNOUNCEMENT TO ISST MEMBERS

This is an appeal to colleagues who might be willing to help me review and possibly update the Society's introductory brochure, currently titled *The Study of Time has Come of Age* — reflecting a significant birthday of ISST actually achieved some 20 years ago (the Society was founded in 1966.) The brochure was last updated in 2001 and remains an extremely sinewy document, full of JT Fraser's wit and wisdom, summarising the Society's objectives and its key dates and achievements, and flagging up the website to potential new recruits. The question is not whether it 'works' — it certainly sets out ISST's credentials very clearly — but whether it could be made to work better for the particular circumstances of the early 21st century and the varied potentials they offer for the *interdisciplinary study of time*.

If you would be interested in assisting with this project, please e-mail me at nicholas.tresilian@artstation.org.uk and I will send you a scanned copy of the document for your comments.

OR

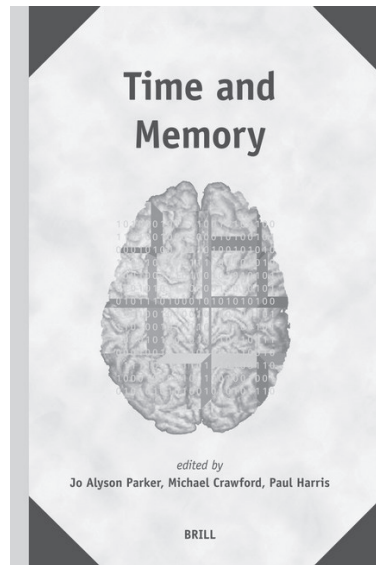
If you would be interested in assisting with this project, please download the scanned copy of the brochure from the ISST website, then e-mail me at nicholas.tresilian@artstation.org.uk with your initial comments.

I would be glad to have all comments in by the end of February or beginning of March, with a view to being able to have an updated version (if we so desire) available for the triennial conference at Asilomar, CA, in July 2007.

NICHOLAS TRESILIAN
Vice-President, ISST

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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ELECTION BALLOT 2007

Election Ballot 2007

The International Society for the Study of Time

Every three years, the ISST elects the council and its officers. The officers are selected by the previous council, and the membership is asked to confirm these choices. In addition, a slate of candidates for the council for the three-year term beginning immediately after the Triennial Conference is presented. Six are to be elected.

The Current Officers:

President: Paul Harris
Vice-President: Nicholas Tresilian
Executive Secretary: Tom Weissert
Treasurer: Robert Daniel

The Current Elected Council:

Frederick Turner David Burrows
Koen DePryck Mark Aultman
John Cordes Michael Crawford

Confirmation of Officers for 2007-2010

President: Paul Harris
Vice-President: Koen DePryck
Executive Secretary: Tom Weissert
Treasurer: Robert Daniel

For each, please choose either:

☐ Agree ☐ Disagree
☐ Agree ☐ Disagree
☐ Agree ☐ Disagree
☐ Agree ☐ Disagree

Election of Council (See Statements)

Vote for SIX:

☐ Mark Aultman ☐ Erich Runge
☐ Dawna Ballard ☐ Christian Steineck
☐ Sabine Gross ☐ Frederick Turner
☐ Erica Magnus ☐ Andrew Wistrich

Vote on-line at www.studyoftime.org
login and go to gnomon zone

or mail this ballot to:

Thomas Weissert
Executive Secretary, ISST
442 Brookhurst Ave
Narberth, PA 19072
USA

Statements by Council Candidates:

MARK AULTMAN is a lawyer practicing in the area of legal ethics in Columbus, Ohio. He has been a member of the Society for over twenty years, serving as Treasurer and Secretary and as a member of Council. He is a frequent contributor to the book review section of *KronoScope*.

DAWNA I. BALLARD (PH.D.), University of California, Santa Barbara) is assistant professor of communication studies at the University of Texas at Austin. Her research examines organizational temporality with particular attention to the ways in which time shapes and is shaped by a range of organizational communication processes. Her published research appears in

edited volumes such as *The Study of Time XII: Time and Memory* and *Research in the Sociology of Work: Volume 17 Work Place Temporalities* and has been presented at numerous scholarly conferences, including the 2004 meeting of *International Society for the Study of Time* and a recent research symposium, *It's About Time: Increasing the Temporal Focus in Organizational Research*, held last summer at the University of Maastricht by METEOR and the Department of Organization & Strategy. In addition to her membership in ISST, she is active in the International Communication Association and Academy of Management, and has published various articles related to organizational temporality in journals such as *Communication Monographs*, *Communication Research*, *Management Communication Quarterly*,

(continued on page 26)

Thomas Weisert
Executive Secretary, ISST
442 Brookhurst Ave
Narberth, PA 19072
USA

Place
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fold and tape at open edge

and *Communication Yearbook* among others. She teaches courses on workplace temporality, the social construction of time, organizational and group communication, and meta-theoretical perspectives (which includes the social entrainment perspective).

SABINE GROSS: Professor of German Literature and Theater at the University of Wisconsin, Madison (USA). Strongly interdisciplinary research interests. Selected areas: contemporary literature, stylistics and narratology, the reading process, image-text relations, cognition, perception, the human experience of time, semiotics, film, and theater. Publications include *Lese-Zeichen* (Bookmarks/Signs of Reading, 1994), and

edited volumes on J. G. Herder and Writing in Images. Currently book review editor of *Monatshefte*, and President of the International J.G. Herder Society until early 2007.

ISST member since 1992, attended every ISST conference from 1992 on. In addition to having been a Council member from 1998 to 2004, served ISST as member of the nominating committee and member of the J.T. Fraser Book Award selection committee. Member of the Editorial Board of *Kronoscope* since inception (2001), also on the editorial advisory board of *Time and Society*.

ERICA MAGNUS received her Ph.D. in Theatre Arts and Performance Studies from the University of Pittsburgh and

earned a dual M.F.A. degree at Bennington College in Acting and Directing. Dr. Magnus is an independent scholar, having recently completed an assignment at Princeton University as Director of Archival Research for author and professor Toni Morrison's Atelier program. She is currently at work on a manuscript extending her doctoral dissertation, *World Enough and Time: A Spatio-Temporal Examination of Theatrical Praxis*. The primary focus of her research is the consideration of historicized theatrical paradigms as chronotopic technologies. Dr. Magnus's work has been supported by such associations as the Andrew Mellon Foundation, the Deutscher Akademischer Austausch Dienst (DAAD) and The American Society for Theatre Research. An Equity actor, professional director and teacher, she has been active in the professional and academic theatre for over 30 years. In addition to The International Society for the Study of Time (ISST) and The Actors' Equity Association, Dr. Magnus is a member of the International Federation for Theatre Research, the Association for Theatre in Higher Education and the American Society for Theatre Research.

ERICH RUNGE is Professor of Theoretical Physics and Vice-Dean of the Faculty of Mathematics and Sciences at the Technische Universität in Ilmenau, Thuringia, Germany. As a physicist with research back-ground in solid-state physics and statistical physics, he is particularly interested in ultra-fast quantum kinetics on the femto-second time scale and its theoretical description. Ultra-fast optical experiments test the interplay and complementarity of Heisenberg's uncertainty relation between energy and time on the one hand and energy conservation on the other. A key concept in time-dependent quantum physics is quantum coherence which is another of his research subjects. He served as member of the executive board of the European College of Liberal Arts, an initiative to renew liberal arts education in Germany and to promote a unified approach to teaching in the humanities and natural sciences.

Short Biography: PhD 1990 at the Max-Planck-Institute for Solid State Research; Post-doc, research scientist and lecturer at Harvard University, at the Humboldt-Universität zu Berlin and at the MPI for Physics of Complex Systems in Dresden, Germany. Carl Scheel Prize 2001 of the Physikalische Gesellschaft zu Berlin. Author of about 100 publications in international peer-reviewed research journals. More detailed information is provided at: <http://www.tu-ilmenau.de/theophys1>

DR. CHRISTIAN STEINECK is currently Adjunct Professor ("Privatdozent") of Japanese Studies at Bonn University. He became engaged in the study of time through his philosophical dissertation "Fundamental Structures of Mystical Thought," in which he explored, among other matters, concepts of time and eternity in European Christian and East Asian Buddhist mysticism. His further research included an elaborate study of the Medieval Japanese Zen Buddhist Dōgen (1200-1253), who criticized what he considered to be eternalistic aberrations among the Zen Buddhists of his time. In recent years, Dr. Steineck was responsible for a research project on Bioethical Conflicts in

Japan. Here, the various levels of temporality pertinent to human life were central to his discussion of bioethical problems, such as brain death (cf. his article in *KronoScope* 3/2 (2003)) or human embryo research. Dr. Steineck has a keen interest in the various aspects of human bodily existence as a primary field where such conflicts of temporality occur. He discussed some of his findings in his presentation "The Body as a Medium of Memory" at the 2004 ISST conference in Clare College, Cambridge (published in *The Study of Time* XII), and is actively engaged in the ISST discussion list.

FREDERICK TURNER is Founders Professor of Arts and Humanities at the University of Texas at Dallas and a former editor of *The Kenyon Review*. He is the author of sixteen books of poetry, criticism and fiction, including *Tempest, Flute and Oz: Essays on the Future*; *Rebirth of Value: meditations on Beauty, Ecology, Religion and Education*. His *The New World: an Epic Poem* is part of Princeton University Press's best-selling poetry series. He is a regular contributor to *Harper's* and to *American Arts Quarterly*.

HON. ANDREW J. WISTRICH is a Magistrate Judge of the United States District Court for the Central District of California. He received his law degree from the University of Chicago Law School, where he was a member of the *Law Review*. He received undergraduate degrees in philosophy and political science from the University of California at Berkeley.

Judge Wistrich is the author or co-author of several articles and book chapters, including "Can Judges Ignore Inadmissible Information? The Difficulty of Deliberately Disregarding," 153 *University of Pennsylvania Law Review* 1251 (2005) (with Jeffrey J. Rachlinski and Chris Guthrie); and "Inside the Judicial Mind," 86 *Cornell Law Review* 777 (2001) (with Jeffrey J. Rachlinski and Chris Guthrie). Three of his articles, "The Puzzling Purposes of Statutes of Limitation," 28 *Pacific Law Journal* 453 (1997) (with Tyler T. Ochoa); "Unraveling the Tangled Web: Choosing the Proper Statute of Limitation for Breach of the Implied Covenant of Good Faith and Fair Dealing," 26 *Southwestern University Law Review* 1 (1996) (with Tyler T. Ochoa); and "Limitation of Legal Malpractice Actions: Defining Actual Injury and the Problem of Simultaneous Litigation," 24 *Southwestern University Law Review* 1 (1994) (with Tyler T. Ochoa), explore aspects of the role of time in law. Judge Wistrich's article, "Inside the Judicial Mind" received the CPR Institute for Dispute Resolution's award for the best article published during 2001. Judge Wistrich is a member of several professional associations, including the American Law Institute, the American Judges Association, the American Judicature Society, the American Psychology-Law Society. He is active in the management of his court, and has experience in managing non-profit institutions.

Judge Wistrich has been a member of the ISST since 2000, presented papers at the 2001 and 2004 conferences, and will be presenting a paper at the 2007 conference.



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5600 City Avenue
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