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LEONARDO

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ARTS, SCIENCES AND TECHNOLOGY

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Leonardo Reviews

Leonardo Reviews is the work of an international panel of scholars and professionals invited from a wide range of disciplines to review books, exhibitions, CD-ROMs, Web sites, and conferences. Collectively they represent an intellectual commitment to engaging with the emergent debates and manifestations that are the consequences of the convergence of the arts, science and technology.

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Big Data, Citizen Science and the Death of the University

As Michael Punt mentions in his editorial in this issue of L|R|Q, a number of commentators have been recently discussing the topic of “big data,” noting the transition that many disciplines are seeing from an age of data scarcity to an age of data plenty. A Google search reveals a burgeoning new IT industry seeking to capitalize on “change as opportunity.” As an astronomer, I was an early participant in the emergence of the era of “big data” in my scientific discipline in the late 1980s, in what NASA then called “tele-science,” and early 1990s, through the establishment of NASA astrophysics data centers that mandated that data from NASA astrophysics satellites be made public.

In a speech to the 1992 World Space Congress,¹ historian of science Daniel Boorstin described this as an “epistemological inversion” with profound implications for the doing of science; he ironically joked that maybe NASA should stop taking more data for a while, and take some time to think about it. At the time I was involved in worldwide programs which started making astronomical data public through what are called Virtual Observatories,² and indeed astronomy has been transformed by open access to scientific data. Not only can scientists analyze each other’s data, but through a variety of crowd sourcing and citizen’s science programs (see for instance Galaxy Zoo³) hundreds of thousands of public citizens have access to the data for their own purposes, scientific or otherwise. In a recent Leonardo Journal editorial Drew Hemment⁴ discusses “participatory mass observation” as an emerging social and cultural phenomenon. Scientists have identified “community remote sensing” as an emerging practice that provides invaluable scientific data;⁵ I have called this “micro-science” as a comparison to “micro-credit.” The age of big data is here in science but also of course in popular culture.

In a very real sense data is no longer ontologically “objectifiable” or “packageable” but can be viewed as a flux or flow. Artists such as Scot Gresham Lancaster,⁶ Andrea Polli⁷ and Peter Torpey⁸ for instance have set up a number of projects which “sonify” flows of data of all kinds as a flux; other artists create immersive environments where one can swim or fly through data. I have argued⁹ that data, in a sense, should be viewed as a fundamental “element,” which like earth, fire, water and air are available to our senses and our perception, but in the case of data it is mediated by interposed scientific instruments; I called for an “erotics” of data as part of the process of developing an intimate science.⁹

The act of e-reading and thinking helps us focus on areas of our environment of interest just as the painter draws our attention to particular parts of our visual environment; hence the need for “synthesizing” communities like Leonardo Reviews to help us focus on parts of the flow.

Data as intellectual property is also undergoing a profound transformation, particularly for the data that is generated with government funding. Traditionally such data is archived in ways that are inaccessible to the public. The astronomers pioneered, through the virtual observatory programs,² but this is systematically spreading through all publically funded scientific disciplines. Recently Reid et al¹⁰ have called for massive efforts to integrate and make public all available data on the earth as a system. They argue that only such systemic approaches will allow coupling between our social systems and culture, and to enable the rapid political decisions driven by the scientific understanding of the global environmental and climatic changes ahead; I referred to this problem in my first L|R|Q editorial¹¹ as the problem of the “hard humanities” and indeed coupling

arts and culture to big data is part of the needed systemic change. I have also summarized some of these deep changes needed in an "Open Observatory Manifesto"¹² which asserted that a) we have a right to all the data taken about us and our environment using public funding and b) we have a duty to contribute open data to the data flow.

As Punt also notes, the changing nature of data has profound implications for universities and libraries, which have held a near monopoly on providing, and controlling, access to certain kinds of specialized data for centuries. Indeed medieval universities' basic business model was based on access to experts and access to libraries on a fee basis (and renting rooms to accommodate them). In a prescient workshop organized by David Peat at Pari in 2000 on "The Future of the Academy"¹³ we outlined the way that universities and academies needed to be rethought in the networked age. More recently the MacArthur report by Cathy Davidson and David Goldberg "The Future of Learning Institutions in a Digital Age"¹⁴ reinforces and advances this reflection. The turmoil in higher education across the western world today is maybe a warning of the death pangs of universities as we have known them for the last 50 years. The "social compact" between higher education and government that was put in place after the Second World War is no longer a widely shared political agreement; science itself is no longer a "regalian" function except ironically in the newly emerging countries where physicists have recently served as presidents. And universities' near monopoly on access to data and experts no longer exists in the new e-culture (in spite of the new "brand" franchising systems being set up by some universities).

This second issue of Leonardo Reviews Quarterly is then a momentary vortex in the data flow; just like scientific data, text becomes flow. Next year we remember Marshall McLuhan a hundred years after his

birth; he would have relished the era of big data where indeed the new e-media carry with them a new embedded cultural transformation. Michael Punt and his review panel of over a hundred are bringing your attention to ideas and developments of interest in the flow. We hope you will stop a while by the data river and drink (on your e-book reader, e-tablet or i-Pad).

Notes

¹ Boorstin, Daniel J. (1994) *Cleopatra's Nose: Essays on the Unexpected*, (New York: Random House). ISBN: 0679435050/

² <http://www.ivoa.net/>

³ <http://www.galaxyzoo.org/>

⁴ http://www.diatrope.com/rfm/leo_thinks/Hemment.pdf

⁵ <http://www.igarss2010.org/CommunityRemoteSensing.asp>

⁶ <http://www.o-art.org/Scot/>

⁷ <http://www.andreapolli.com/>

⁸ <http://web.media.mit.edu/~patorpey/projects/cargo/>
<http://web.media.mit.edu/%7Eparatorpey/projects/cargo/>

⁹ <http://www.diatrope.com/rfm/docs/trond.ppt>

¹⁰ <http://www.leonardo.info/reviews/LRQ/LRQ%201.01.pdf>

¹¹ Reid, W.V. et al, *Science*, Vol 330, 2010, p 916.

¹² http://www.leoalmanac.org/index.php/lea/entry/an_open_observatory_manifesto/

¹³ <http://www.f davidpeat.com/pcnl/academy.htm>

¹⁴ http://mitpress.mit.edu/books/chapters/Future_of_Learning.pdf

Boundaries and Interfaces: Transdisciplinarity and the Big Data Problem

At its inception, Leonardo Digital Reviews was seen as a contributor to the critical diffusion of new ideas and insights at the interface of art, science and technology which depended on printed media for their production and reception. At the same time Leonardo Digital Reviews took its place in the secessionist movement of Leonardo On-line to liberate those ideas from the hegemony of the normal routes of print distribution. International authorities and recognized commentators were encouraged to contribute to a reviews project that was not entirely determined by access to material artefacts and in so doing spread the constituency of participants as widely as possible. Leonardo Digital Reviews took the view that the design of the website and the organization of data should be as simple as possible so that where there were perhaps less reliable or more expensive gateways to the internet the work of the panellists could be accessible. Resisting the temptations and pressures to become more “digital” Leonardo Digital Reviews has retained its fairly basic interface relying on the unique significance of the data to override the style of presentation. It was in my view a fortunate editorial decision as the sheer quantity of material available calls for the greatest investment to be in the economy of the design and the expertise and elegance of the synthesis.

In a recent discussion at The International Network for Transdisciplinary Research, Roger Malina highlighted the issues of big data as a problem in the sciences which he elaborates in his editorial in this issue of L|R|Q. The big data question is an epistemological issue that extends beyond the sciences to the very foundations of the production of new knowledge. In this context it is worth repeating that formerly individual universities held specialist and often unique data—usually in the form of manuscripts, books and journals in archival

and library structures that allowed them to impose gateways for research and teaching. More often than not in order to access the relevant data the student had to have some intellectual, guild or social qualification. In the more enlightened times of the last half of the 20th century the restriction to research material was largely devolved to prior learning and the use of acceptable disciplinary methodologies. In the sciences and technology in particular, the control of access to the springs of research also extended to include scientific instrumentation and quality thresholds for performance overseen by the instructional team. At its worst this kind of knowledge production became a self serving system which perpetuated social exclusion and narrow research, but the system of control had one profound methodological purpose which was the synthesis and contextualisation of new knowledge at more or less the rate at which that knowledge was produced. The exponential growth of scientific journals from the 17th century onwards rather testifies to an expanding but controlled system of knowledge production in which both contribution and access were regulated through a contractual consensus stage managed in the semi-public domain of universities and learned societies. The popularity of public engagement with new research in theatrical and entertainment settings, however, produced its own dynamic that revealed itself most often in the interpretation and novel application of technologies and new publishing initiatives.

This popular reinvention of technology is precisely what happened in 1970 as alternative conduits of distribution became available through networked computers. One consequence was that the contract, which had underpinned the production of knowledge in the sciences, arts and humanities, was destabilised. Some of the

established gateways dissolved and it would be hard for many of us to see that as anything but a good thing. However, once the bargaining chip of the access to specialist data that institutions had held fell, then the contract imposed by the universities collapsed and they became a different kind of institution in which the distinctions between performance and action, talking and listening and publishing and being read are blurred in a circulatory system of self validation substantially based on ubiquity.

The shifting terms of contractual engagement, the sheer volume of publishing opportunities, and the careless relationship established between vulnerable consumers and network service providers (under the indefensible rubric of social networks) has mitigated against the practices of synthesis such that data in all spheres is expanding faster than it is being—or can possibly be—synthesized or assimilated. The big data problem bemoaned in the science is with us all, not because there is too much data but because it is not being processed quickly enough or well enough. The processes of the rigorous synthesis of data in forms that are consistent with the routines of comprehension are no longer supported by the institutional structures founded as disciplinary gateways and a radical rethinking of what those structures should be is called for.

One response to the big data problem is to re-examine the nature of boundaries and emerging new interfaces.

Transdisciplinarity can be seen in this context as an emerging practice contingent on the identification of new opportunities for the production of knowledge and (unlike inter- or multidisciplinary—insists on the readability of its findings to the disciplines it draws upon. Transdisciplinary practice is shaped by the need to feedback its findings to its sources in ways that those sources can assimilate into their own discipline. It is a relatively new practice and finds its best

models in the kinds of cross disciplinary research that Leonardo has encouraged and reported on for over forty years. In this context, now more than ever we need the skills and expertise of our panel as Leonardo Digital Reviews and Leonard Reviews Quarterly hope to play their part in the necessary restructuring of knowledge production through the careful synthesis of new ideas as we all confront the problem of big data.

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Capturing the Criminal Image. From Mug Shot to Surveillance Society

Jonathan Finn
Minneapolis: University of
Minnesota Press, 2009
200 pages, 29 b&w illustrations
\$22.50 paper
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\$67.50 cloth
ISBN: 978-0-8166-5069-9

Revised by Jan Baetens

Jonathan Finn's book is a well-informed and very clearly written contribution to the study of surveillance society and, more in general, the problem of visual knowledge. It helps to bridge the gap between several domains and various types of research that are gathered and combined here in a very efficient and innovative way.

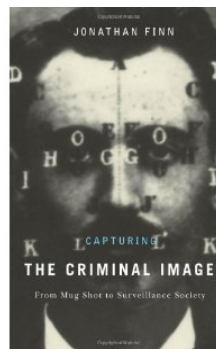
The most important domains tackled by Jonathan Finn are photography and post-photography, as used and discussed in the reflection on law enforcement and criminal investigation. The author relies in a very intelligent manner on the classic essays by scholars such as John Tagg and Alan Sekula, who focused in the 1980s on the use of photography and the archive in the monitoring of the population in a class society. At the same time he enlarges the scope of these works by linking them to the study of more recent tools such as DNA analysis and computer databases. The most interesting aspect of Finn's study is that he manages to demonstrate as well as to disentangle the broad similarities but also the crucial dissimilarities between old and new photographic techniques of crime investigation and law enforcement. For although the new identification tools fingerprinting or DNA analysis

can only become useful once they are combined with photography (in fingerprint analysis, for instance, what the police is using are not the actual fingerprints, but pictures of these prints, and the same applies to all the more recent law enforcement tools based on the use of computers), there are also dramatic differences between the traditional mug shots, which are just photographic images, and the newer images, which are photographs of other types of traces. Technically speaking, photographic images are *representations*, whereas fingerprints and DNA codes, for instance, are *presentations* resulting from an act of *inscription*, i.e. that they are constructed as scientific facts by a whole set of procedures and inscription devices by a community that has to agree on their signification and use.

With this distinction between representations, which can be recognized by the visual relationship between image and model, and inscriptions, which need more complex forms of interpretation, Finn manages to establish a very fruitful relationship between the classic reading of panoptic society along Foucauldian lines and the actor-network theory by Bruno Latour and others. The insistence on the criminal image as presentation and inscription proves that the traditional juxtaposition of seeing and knowing is not strong enough to understand what is really going on in the shift from the 19th century mug shot to newer techniques of envisioning, ranging from late 19th Century fingerprinting and

Bertillon's biometrics to late 20-Century techniques such as DNA analysis and live scan recordings (as used nowadays to monitor incoming US visitors). What really changes is not the photographic character of the images, since in a sense all these inscriptions remain photographs, but the very nature of their reading and the social and political consequences of it. A mug shot 'identifies' the criminal (or attempts to do so), whereas a DNA analysis is something that has to be 'made' into a sign and whose interpretation is far from self-evident. In other words, both the production and the reception of presentational signs entail many elements that are 'black-boxed'. In order to make them meaningful, a lot of interpretive work has to be done. At the same time this work has to be 'hidden' if one wants to have inscriptions that are both 'immutable' (i.e. stabilized after the black-boxing of the numerous procedures that help produce and read the signs) and 'mobile' (and here photographic techniques play a crucial role: as long as the immutable inscriptions cannot be easily reproduced and circulated, their efficiency remains very limited). The Latourian feedback on Foucault's surveillance society is an important new insight of Jonathan Finn's book, which functions also as a missing link between photographic and post-photographic media theory.

Another very appealing aspect of this book is its avoidance of any naïve political overinterpretation of the field under scrutiny. Conspiracy



theory is often just one block away when scholars tackle issues of law enforcement and crime fighting. Jonathan Finn however takes a much more cautious and theoretical stance. He does not claim that every technical innovation increases the impact of Big Brother and has to be fought in the name of liberty, but he clearly demonstrates a shift that may be even more important. With the new inscriptional devices, it is no longer the criminal that is identified, it is any given body that is becoming virtually criminal and that is threatened of being converted one day into the index of a criminal subject. Yet as *Capturing the Criminal Image. From Mug Shot to Surveillance Society* convincingly demonstrates, the production of an inscription is all but a neutral operation and each of many currently black-boxed aspects is a possible threat to both the integrity of the citizen's body and the truthfulness of criminal investigation.

When the Lights Went Out. A History of Blackouts in America

David E. Nye
Cambridge, Mass.: MIT Press,
2010
304 pp., 26 b & w illus.,
\$27.95/£20.95 (cloth)
ISBN-10: 0-262-01374-6
ISBN-13: 978-0-262-01374-1

Reviewed by Jan Baetens

Electrification is a crucial dimension of modern society, and its importance, industrial as well as cultural, has been underlined by many outstanding scholars, among whom the author of this book, a pioneer of the field (together with Wolfgang Shivelbusch, the author of *Disenchanted Night*). In this new publication, David E. Nye studies a phenomenon

that at first sight seems to be just an accident, more or less fortuitous, of the overall electrification process, but whose forms and meanings are much more diverse and above all much more relevant than was long-time supposed.

David E. Nye's basic assumption, which one can only share, is that a blackout is not only a technical failure, but an event that lays bare the larger cultural context in which it appears. This hypothesis explains then the two major orientations that the book is following: first, the historical approach, for the notion of blackout is contextbound, both in its form and in its significance, and this context is inevitably historically shifting; second the taxonomical approach, for the history of the blackout is used also as a way of exploring the various types of blackouts that have

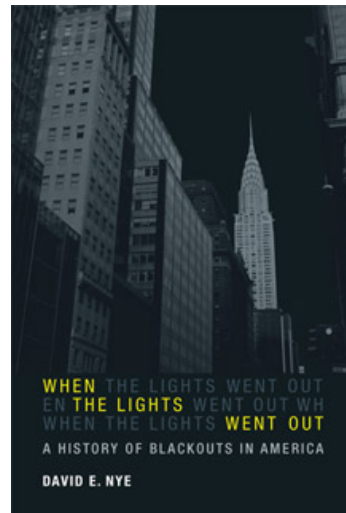
appeared in history, from the very first power failures in the pre-grid era of electrification in the US, when power was still locally produced, to more recent phenomena such as the blackouts that result from a terrorist attack of the willing suspension of integral electrification in the ecologically motivated greenouts, which combine selective use of power and more sustainable forms of power production. *When the Lights Went Out* is therefore an excellent example of what the French would call cultural history of the present (if David E. Nye had been French, his book would certainly have been entitled *The*

Invention of the Blackout) as well as a superb example of interdisciplinary research. The author combines in an exemplary way insights from technology history, green studies, cultural studies, history, and philosophy.

One does learn indeed a lot of things in this book, which could be used as an original alternative to any handbook or course text to American history. The transformation of the blackout accompanies the evolution of society in general. This accompaniment is of course a two way relationship. Blackouts both reflect and generate transformation, as can

be seen very well in the comparison of two apparently comparable blackout: on the one hand the great North-East blackout of 1965 (an "accident" in David E. Nye's terminology), on the other hand the great New York black out of 1977 (which he

rightfully calls a "crisis"). In both cases, the technical causes may have been more or less similar, yet the social and human results were completely different. In the first case, the blackout was a magical moment that provoked astonishing forms of solidarity and communitarization –and, as the urban legends wanted it, even of lovemaking. In the second case, the same cause provoked a grim reaction of rioting and plundering in a general climate that was close to that of civil war. And although it is certainly possible to interpret each of these events as the manifestation of something that was only waiting the best



opportunity to reveal itself, David E. Nye shows quite convincingly that blackouts do also lay bare and probably also create unforeseen and perhaps unforeseeable reactions.

David E. Nye's insistence on the importance of social issues, of human relationships and community life, his emphasis on the limits of the private initiative and corporate culture, his focus on ecological themes and finally his claim for a radical shift in US electrification politics, give this book a strong ethical twist. Given the author's well-balanced approach of electrification and of technology in general, his final remarks in favour of a green power policy are very convincing. Moreover, David E. Nye is not only a great scholar, he is also a great storyteller, and *When the Lights Went Out* is really great reading. The author is capable of summarizing very complex technological issues, while demonstrating with great clarity their social and cultural stakes. A minor aspect of the book, however, is that its different chapters seem to be elaborated too strongly as almost independent units. This makes that the author tends to repeat too often the same kind of information, questions and answers in the introductory parts and the conclusions of each individual chapter. But his minor problem does not jeopardize the overall interest of this publication and the pleasure and excitement it gives to its readers.

Earthrise: How Man First Saw the Earth

by Robert Poole
Yale University Press
New Haven, CT, and London,
2008; 2010
236 pp., illus. 16 b/w
Cloth, \$ 26.00; paper, \$ 18.00
ISBN13: 978-03-001-3766-8

ISBN13: 978-03-001-6403-9
Reviewed by Stephen Petersen

Earthrise has a simple thesis with profound consequences: What the Apollo astronauts discovered when they got to the Moon was, in fact, the planet Earth as they saw it from afar. Their photographs of the Earth in space transformed humanity's idea of itself and of its home planet. No longer was the whole Earth a projection or an abstraction; human eyes had seen it, a sight epitomized in a handful of widely reproduced images that are here put into cultural context.

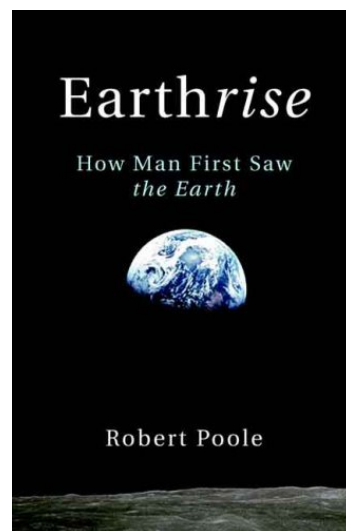
The author is a historian of early modern England who by his own admission is stepping "outside" his "accustomed fields." The result is a refreshingly wide-ranging history with a perhaps unlikely focus, namely the link between the Apollo space project and the back-to-nature counterculture that blossomed in the very same years. Calling itself "an alternative history of the space age," this book resists the typically triumphalist narrative of spatial conquest (as well as the dismissive view, often from the Left, of space exploration as an expensive, technocratic folly) in favor of a nuanced exploration of the rhetoric and imagery that accompanied the Apollo project. Focusing on the brief era of extra-orbital manned flight from 1968 to 1972, Poole maintains it is no coincidence that these years saw the emergence of the modern environmental

movement. The defining moment of the book (and the author argues, of the U.S. space program and indeed of the entire twentieth century) is not Neil Armstrong's first step on the Moon during the Apollo 11 mission but rather the vision from the Apollo 8 Lunar Orbiter, some months before, of the Earth appearing from behind the lunar horizon. Shrouded in a religious aura (it happened on Christmas Eve 1968), the image of "Earthrise" was, ironically, a nod to pre-Copernican thought. Earth was, once again, the center of the universe.

Recounting the conflicting views of astrofuturists, who believed the destiny of humanity was in space, and environmentalists, who saw outer space as a flight from earthly concerns, Poole steps back to show the connection between the two. In its sequence of photographs of the whole Earth, Apollo (along with other NASA projects) effectively provided an imagery for the environmental movement. Moreover, an impetus for the first photographs of Earth from

space seems to have come from countercultural figure Stuart Brand, who in 1967 demanded to know, in a public relations effort, "Why haven't we seen a photograph of the whole Earth yet?" (a notion he had while tripping on LSD

and perceiving the Earth's subtly bulging horizon from a San Francisco rooftop). In turn, the first color whole-Earth image, taken by satellite ATS-III in 1968, would adorn the cover



of Brand's inaugural *Whole Earth Catalogue*, known to some as the bible of the counterculture.

Brand was a follower of Buckminster Fuller, whose notion of "Spaceship Earth" as a self-contained system informed ecological awareness (the first Earth Day flag bore an image of Earth from space). In the wake of the Earthrise photograph, however, the technological metaphor of Spaceship Earth was superseded by James Lovelock's "Gaia" – Earth as a living organism – which would find its ideal representation in the Apollo 17 "Blue Marble" photograph of 1972. This widely reproduced image from the last Apollo mission was, writes Poole, "an abstract composition in blue and white [...] more like an impressionist painting, with [...] the deeper mysteries of nature displayed in a hypnotic blob of color" (p. 95). An image of a living Earth leads directly to the global warming science and politics of today.

As a historian who is dealing principally with images, Poole perhaps wisely steers clear of contemporary photographic theory. But he clearly describes the different photographic techniques and attends to the photographs' multiple channels of transmission. The book gives a vivid sense of how the particular images were made, how they were disseminated, and how they were received. It recreates the circumstances for the taking of specific photographs, connecting them to their "authors" in interesting ways. An unsung hero in the largely unknown photographic history recounted by Poole is Richard Underwood, Apollo director of photography. Underwood encouraged and provided detailed logistical support for the particular views that were ultimately produced. Even though the Apollo

astronauts were not always encouraged to (or scheduled to) look at the Earth or photograph it, they managed to do so anyway. On their return, they spoke most passionately of the effect not of space or the lunar landscape, but of the view back to Earth. Especially affected was Apollo 9 astronaut Rusty Schweickart, who would become involved with the emerging New Age spirituality and planetary consciousness movements of the 1970s, providing perhaps the most direct link between NASA and the counterculture.

If, as Poole suggests, the astrofuturists now appear to have jumped the gun, given the finite span of the Apollo project and the uncertain prospects for out-of-orbit space travel in the near future, the unique challenge of maintaining our Earth's biosphere looms ever larger. The very notion of an Earth at risk derives from—and adds a poignant coda to—the whole Earth awareness of the Apollo era.

Digital Apollo: Human and Machine in Spaceflight

by David A. Mindell
The MIT Press, Cambridge, MA, 2008
456 pp., illus. 54 b/w
Trade, \$22.95
ISBN-10: 0-262-13497-7

Reviewed by Maureen Nappi
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Digital Apollo: Human and Machine in Spaceflight by the historian David A. Mindell is the third book in what the author describes as "an unplanned trilogy" or trajectory of historical scholarly pursuits. Although not thematically identical, each text in the series uniquely revolves around another triad of

concerns: technological invention; associative human identity, control and experience; and war—ranging from the very hot to the very cold. As such, this quintessentially American trilogy follows a chronological timeline with increasing technological complexity. The first in the series is *War, Technology, and Experience Aboard the USS Monitor* (2000), a fascinating study of the Union's USS *Monitor*, a seafaring war vessel fatally utilized during the American Civil War; the second, *Between Human and Machine: Feedback, Control, and Computing Before Cybernetics* (2002), is an historical recalibration of the pre-existence and utility of control systems theory before and during World War II, several years prior to its nominal invention by Norbert Wiener. The third is the aforementioned text, *Digital Apollo: Human and Machine in Spaceflight*, an engaging overview of the digital computer system in the Apollo Space expeditions, considered so intrinsic to the missions that it was named by some to be the "fourth crew member."

For *Digital Apollo*, Mindell received the Eugene M. Emme Astronautical Literature Award, named after the first NASA historian Eugene M. Emme, and granted by the AAS, American Astronautical Society. AAS dualistically acronymizes the organization's mission statement, Advancing All Space, and as such honors AAS Fellows, including the founder of our beloved journal *Leonardo*, Dr. Frank Malina, for his pioneering contributions to space flight. However, this *Rocketman*, one of the original three, is disappointingly not cited in *Digital Apollo* despite the use of his patented hydrazine-nitric acid mixture to propel the engines of the

Apollo Service and Lunar Excursion Modules.

Mindell's account places particular emphasis on the Automatic Guidance System (AGS) contracted to the MIT Instrumentation Laboratory, which has since renamed the Draper Laboratory after its founder Charles Stark Draper, and left the auspices of the MIT, although the Draper Laboratory remains in close proximity to MIT's main campus in Kendall Square. Nonetheless, the MIT historical connections remain strong as the author is not only the Frances and David Dibner Professor of the History of Engineering and Manufacturing, the Director of the S.T.S. Program as well as a Professor of Aeronautics and Astronautics, but he is also an historian of MIT.

With expert agility, Mindell dives into the mass of data surrounding the Apollo missions, hones in on, and skillfully draws out the main plot line of the drama, the primordial struggle for control – man versus machine – as the astronauts were, by requirement, all male, military test pilots. Since the Apollo missions were interestingly synchronic with the launch of the Women's Liberation Movement spanning a time when job descriptions were rigidly codified and classified by gender, thus, severely limiting what women could even conceive of doing or being. I sincerely appreciate and applaud the author's use of the term *Human* in the subtitle of

the book, as "Human and Machine in Spaceflight," and would be offended were he to write otherwise, it still, unfortunately, seems to retrofit history while reminding one who remembers the Apollo missions that the exclusion of women in spaceflight was, then, considered *a priori*. No fault of the author here, however, this clearly remains an historian's dilemma.

Irrespective, Mindell deftly builds upon the technological tug-of-war drama between the astronauts and the design engineers, or rather, more precisely, the amount of control and flying power the astronauts were to have in the Apollo missions versus the design engineers' more automatized vision of their role. The strongest proponent of automation was none other than Wernher von Braun, of Operation Paperclip fame, a fact that the author nimbly averts, yet still remains vestigially reminiscent of more fascistic control.

However, Mindell gives voice to the astronauts, as *Digital Apollo* echoes its origins as a collaborative oral history endeavor entitled the "Apollo Guidance Computer History Project" funded by the Sloan Foundation and the former Dibner Institute for the History of Science and Technology at MIT, which assembled many of the still living participants in the Apollo missions. And as it turned out, the astronauts triumphantly ascended to being more than what they derisively termed *Spam in the Can*. In

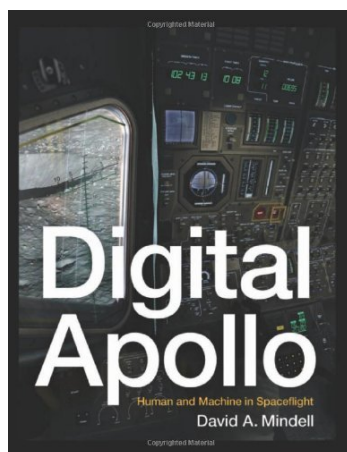
each of the six Apollo lunar landings, the commanding astronaut "took control from the computer and landed with his hand on the stick," thus not only asserting [hu]man power over machine, but making for a great read as well.

North of Empire: Essays on the Cultural Technologies of Space

by Jody Berland
Duke University Press, Durham, NC, 2009
408 pp. illus. 33 b/w
Paper, \$24.95
ISBN: 978-0822343066

Reviewed by Jan Baetens
Written by the editor of *TOPIA: Canadian Journal of Cultural Studies*, this book is a major contribution to the theoretical and methodological innovation of the cultural studies field. Despite the very local focus of the work – Berland's topic is Canada –, one can already be sure that it will play a major role in the reconceptualization of the discipline, curiously abandoned for more or less a decade. Much work has undoubtedly been done in cultural studies in these years, but with very few theoretical and methodological innovations. *North of Empire* is a good example of what a renewed interest for the dialogue between theory and practice in cultural analysis may signify – and why it's a good thing to go back to the basic stance of what cultural studies is standing for.

The specific input it offers is the result of three converging moves. First, the emphasis on the material media properties of the works and practices under analysis. In this regard, one can only welcome with great enthusiasm the great interest for the medium of radio, that most forgotten of



modern media. More generally, however, what matters here is the foregrounding of the technological aspect of culture, not just in those aspects that can only beg for such an approach like for instance the weather forecast or map-making, but also in cultural goods

and uses that seem to downsize the importance of technology, such as jokes and painting. Second, the study of the discursive and other networks in which these media objects are involved. The 'local', that is 'typically Canadian' theoretical insights that Jody Berland will be discussing in this respect are a more than necessary improvement of some 'global', i.e. 'typically American visions of cultural analysis. Third, the critical and very often self-critical and ironical view of what identity mean. Needless to say, this self-criticism is exactly what Berland is missing in much critical thinking in cultural studies. None of these perspectives may be very new in itself, but the way Berland manages to put these strings together in a solid theoretical yet analytically astute knot deserves all our admiration. Moreover, she is also a talented writer, with a great sense of humour as well as a sharp tongue always eager to spit her venom on the 'becoming empire' of her own country. (As a Belgian reviewer who belongs to a country as split as Canada, I regret of course that Berland does not delve a little more in the ongoing cultural wars between the two major linguistic communities, but it would be unfair to claim more from a book that gives us already so much).



The most encompassing innovation of the book is its reinterpretation of the spatial turn in cultural studies (and of which Hardt and Negri's Empire can be seen as a belated example). Contrary to most studies that have foregrounded the tension between

centre and periphery, metropolis and colonies, the East and the West, etc., Berland makes a plea for a much more material and medium-oriented reading of spatiality, emphasizing on the one hand the role of medium technology and on the other hand the importance of material routes, networks, communication tools and services. Rather than indulging in overwhelmingly abstract and generalizing speculations on nations and postcolonial cultures, Berland tries to see how nations are indebted to communication structures and vice versa. In short, space, in Berland's thinking, helps describe 'the connections between politics and culture' (p. 14).

Chapter Two of the book, a critical rereading of the almost forgotten Canadian media theorist Harold Innis, an author perhaps as important although unfortunately less influential, at least abroad, as Marshall McLuhan, should be compulsory reading in all cultural studies classes of the whole world. Thanks to Innis, Berland can articulate a useful innovation of the discipline, with less weight on culture as representation and more room for culture as communication (in the sense of materially realized and performing networks of goods, people, and ideas), while offering also very

inspirational thoughts on allegedly well-known concepts as frontier, nation-building and limits.

With bitter-sweet irony, the author opens her book by explaining the difficulties she had in finding a publisher, and the time and painstaking efforts it took before an 'Empire' press accepted this volume that gathers the best essays she wrote since more or less 20 years. All the essays are still as fresh now as they were at the moment of their first publication, and one can only say that it is a terrible pity that voices like those of Berland have so many difficulties in getting a captive ear in the cacophony of the modern academic debate.

The Moving Earth

A Film by Lars Becker-Larsen
Icarus Films
52 minutes / color
Closed Captioned
Release Date: 2009
Copyright Date: 2008
Sale: \$390
<http://icarusfilms.com/new2009/mov.html>

*Reviewed by Amy Ione
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Lars Becker-Larsen's production of *The Moving Earth* offers a splendid chronicle of the scientific shift brought about through studies of planetary motion during the scientific revolution of the seventeenth century. The name of the film refers to the work establishing that Earth is a moving planet, and the broadly based content tells the story of this discovery. Overall, the narrative highlights the controversy between geocentric and heliocentric perspectives that was a part of

those debates; we learn of how the key thinkers in Renaissance Europe who studied the celestial framework developed the ideas that ultimately moved science away from the Church's doctrine that the earth was the immovable center of the universe. Although the story is well known, this presentation is robust and includes some degree of in-depth analysis. There is a good measure of reference to Plato and Aristotle as well as some extension of the ideas through the nineteenth century when Foucault's pendulum showed the rotation of the earth. Performances in key settings, cultural garb, and insightful commentary provide the viewer with a full sense of the events and how the natural scientists overturned the Aristotelian idea of the "Unmoved Mover." [To oversimplify, this idea is used to explain how the universe was first set into motion and medieval scholasticism later translated Aristotle's "Prime Mover" into the Christian God].

The strength of the film is its multi-dimensional quality. Visual elements such as historical engravings, paintings, animations, and manuscripts aid the presentation immensely and bring a realistic element into play that knits the ideas of several periods of history together into a seamless fabric. Much of this is quite subtle. For example, showing manuscript pages and still artwork might seem mundane, but in this case I found that the variety of these backdrops created a living sense of the cultural life.

Particularly insightful are the discussions of topics involving the clash between science and religion, exemplified by the treatment of Galileo (and the Pope's 1992 apology for the legal process against Galileo). In this case, George Coyne of the

Vatican Observatory points out that the Church's lukewarm admission of responsibility for its persecution of Galileo left much to be desired and that the conflict between science and religion evident at that time is still a part of cultural discussions. [Coyne's candor isn't totally surprising. He is also a vocal opponent of intelligent design theory that often sneaks a Creator God in through the back door. Indeed, some say Coyne was forced out of his Vatican position because of his willingness to speak publicly about his views opposing intelligent design.]

One of the most powerful unstated aspects of this production is the way it brought to mind debates outside of its topic. The producer understood the power of these old manuscripts in conveying the ideas of the thinkers the film presented. Looking at the repeated use of the physical volumes, I wondered how the e-books that are capturing our imaginations today will fare in a few centuries.

In the film, the pages and the outside boards of these very old books serve as more than visual props that helped make the research come alive. Shots of their spines, title pages and internal pages, particularly the notebook pages filled with charts and graphs, effectively demonstrated that ideas that drove the research were not pulled from the air. When the actor playing Kepler is poring over Tycho Brahe's years of collected data, he conveys the intensity of Tycho's observations of the heavens as

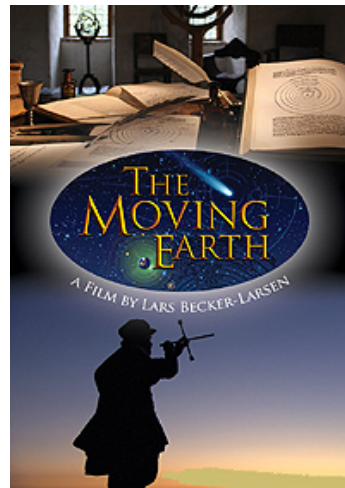
well as Kepler's desire to solve the problem of motion. I was enthralled even though I was familiar with many of the details, and found myself moved to think about things I had previously taken for granted.

Still, it was a marriage of these artifacts with new technologies too. Many of the visuals that accompanied the film were "moving" because of the nature of the work. One good example of how the director used new technologies to his advantage was the animation of the notes on a page of Kepler's *Harmonices Mundi* (*The Harmony of the Worlds*, 1619). Here, the watching the notes as one listens to them succeeds in elevating the discussion of Kepler's work relating the harmony and congruence in geometrical forms and physical phenomena to the harmonic proportions in music.

I believe the portraits of Tycho Brahe and Kepler were the strongest, at least in terms of

presenting new details on their work that stoked my curiosity. For example, I never before thought about whether Kepler conceived all of the images in his publications, or had an artist do this work for him. Many, like his Platonic solid model of

the Solar system from *Mysterium Cosmographicum* (1600), are well known. I had always assumed he did it himself, but I didn't fully conceptualize how many drawings were in the book. Others, like the frontispiece of the *Rudolphine Tables*, seem unlikely to be his.



By extension, I found the abundance of visual material, which added immensely to the script, also left me disappointed in terms of its informational value. Indeed, my one complaint with the production is that so many of the paintings, drawings, and prints, which appeared to be from the period discussed, are not attributed. That said, citing the creator of the work during the script would have been distracting, so perhaps this criticism is unfair. Moreover, when I looked up one myself, a painting of Cardinal Bellarmine (the “Hammer of the Heretics” who served as one of the judges at the trial of Giordano Bruno and concurred in the decision that condemned him to be burnt to death as an obstinate heretic), I found that the painter is unknown.

One of the points frequently mentioned in *The Moving Earth* is that, before the work of these seventeenth century scientists combined the movements of the earth with those of the heavens, it was believed that the Earth was the center of the universe and other objects go around it. In addition, heaven was considered as a domain separate from earth. Listening to quantum theorists explain that the quantum domain is unlike that of our Newtonian reality has always reminded me of the debates that ushered in modern science. At the end of this film, the astronomer Owen Gingerich points out that the actual “proof” of the Newtonian framework was not provided until the nineteenth century (with Herschel’s discovery of Uranus, measurements of parallax, and Foucault’s pendulum showing the rotation of the earth). He then goes on to say that cases like this show that proofs don’t play too strong a role in our understanding of science.

Rather, what we are looking for is a coherent picture and that was provided by the mathematics of Isaac Newton. In effect, this sequence also put its finger on something that kept coming to mind as I watched the film. The sequence on Tycho Brahe, who is known for his accurate and comprehensive astronomical and planetary observations, reminded me that Niels Bohr, another Danish scientist, who did transformative research in physics. Bohr, of course, lived much later and is known for his foundational contributions to understanding atomic structure and quantum mechanics, for which he received the Nobel Prize in Physics in 1922. Yet, both were involved in cosmological frameworks that they propelled forward for others to finish.

Like many, I was introduced to the key figures and events in this production at a young age. Thus, I am aware of this film’s potential as a classroom tool. Having looked at the details from many perspectives over the years, I find it astonishing that this presentation is so refreshing because much of the narrative did not present new ideas or change my thinking. It is how this production is brought to life with manuscripts, paintings, superb animations and dramatic re-creations of key events that sets it apart. The script brings the events to life and captures the scientific creativity as well as a cultural climate governed by a Church that felt threatened by the new ideas of Copernicus, Tycho Brahe, Galileo, Johannes Kepler, Giordano Bruno and Isaac Newton. Another component of note is that the commentary by experts [Simon Schaffer (Cambridge University), John Christianson (Luther College), Owen Gingerich (Harvard University),

George Coyne (Vatican Observatory) and Patricia Fara (Cambridge University)] adds immensely to the performance and carefully chosen visuals. Others, too, have noted the excellence of this presentation. To date, *The Moving Earth* has won several awards. These include the Grand Prix at the 13th AVICOM Film Festival, Turin Italy. February 15, 2010; the Best Documentary Film at the Vedere la Scienza Festival - International Scientific Film Festival, Milano. Italy, April 2009, and the Grand Prix at the 46th International Festival TECHFILM 2009. Prague, Czech Republic, March 2009. If *Leonardo* had a rating system, I would give *The Moving Earth* five stars.

As I was ready to turn in this review it became clear that a postscript is necessary. As noted earlier, this film conveys that the details surrounding the moving earth research are still alive in cultural discourse, particularly when science and religion are discussed in tandem. Even as I write there is a new event to add to the chronology. On May 22, 2010, Polish priests reburied the 16th century astronomer Nicolaus Copernicus and declared him a universal hero. Nearly 500 years after he was put to rest in an unmarked grave, his remains were sprinkled with holy water. The new tombstone, which is decorated with a model of the solar system, identifies this revolutionary astronomer as the founder of heliocentric theory, and a church canon (a cleric ranking below a priest). And so, the chronology has now added yet another event to all that the movie presents.

Art + Science Now

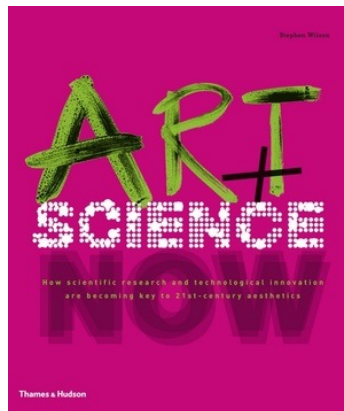
By Stephen Wilson
Thames & Hudson, London, UK,
2010

*Reviewed by Hannah Star Rogers
Science & Technology Studies
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In *Art + Science Now*, Stephen Wilson has provided us with an excellent catalogue of art that engages with science and technology. Ranging from Beatriz da Costa's air quality mapping with pigeons (PigeonBlog 2006) to Haruki Nishijima's butterfly nets which can capture electromagnetic waves (Remain in Light 2001), Wilson's book offers images and descriptions of artwork inspired by science and work that critiques science in some way. There are few comprehensive texts that bring together artworks that deal with difference sciences, so Wilson's book will be of use for scholarly reference and general interest, especially by those in the science community who are wondering about artistic research in their fields. Wilson raises important questions about this type of work. How should we think of art inspired research or science inspired art? What is its future? How much science do audiences need to know to engage with the material? And how should we assess it? Wilson supplies an introduction to each section which helps to orient readers to the artwork. This book succeeds in gesturing at some historical and

contemporary influences without imposing a singular history, specific trajectory, or central set of goals for these artists. The artists and topics are selected and the book only covers works completed between 2000 and 2007. Even so organizing this huge breadth of material must have been a chore, yet this book is both attractive and explanatory. Maybe this is because it must also have been a lot of fun to work with everything from Wim Delvoye's robotic digestion (Cloaca Original 2000) to Austin Richards' performance art with Tesla coils (Dr. Megavolt 2006).

Wilson has organized the volume by science or technology topic: Molecular Biology, Living Systems, Human Biology, Physical Science, Kinetics & Robotics. This allows him to write coherent and interesting overviews of each section and give the novice some sense of the science and technical aspects involved. This



organizational structure will also probably appeal to science-oriented readers who want to find artwork on a particular subject. But it creates a situation in which artists appear in several chapters if their work deals with more than one of the science themes. For example, Natalie Jeremijenko's work appears in three chapters: Molecular Biology, Living Systems, and Kinetics & Robotics.

This may leave readers lost in the scientific categorization, though is not clear that the artists would have divided their work in this way. It is not clear that the organizational divisions

reflect how the artists divide their world, as reflected in the myriad of different types of science and technology individual artists are engaged in, not to mention the variety of scientific topics represented at festivals and even individual shows. While perhaps this division is as good as any other at this moment of considerable foment in the field and practitioners who require similar skills do in many cases seem to gravitate together, scientific or technical categories do not seem to be what is at stake for these practitioners.

In the Introduction, Wilson reminds readers that one way to think about the definition of art is to use its institutions to determine what counts as art. Science-engaged art appears to have built its own sustaining institutions, separate from the traditional art world, though something similar could be said of the French Secessionists and many others. Indeed, the book makes the case for Wilson's conviction that there is value in seeing these works as both art and beyond mainstream art.

Christa Sommerer and Laurent Mignonneau: Interactive Art Research

by Gerfried Stocker, Christa Sommerer, and Laurent Mignonneau, Editors
Springer, Wien, New York,
Austria, USA, 2010
232 pp., illus. with DVD
\$59.95
ISBN: 978-3-211-99015-5

*Reviewed by Rob Harle, Australia
harle@dodo.com.au*

This book is both a visual and intellectual treat. It provides a comprehensive description and detailed discussion on the Interactive Art of two highly talented artist/scientists — Christa Sommerer and Laurent

Mignonneau. They are early pioneers in interactive art and their works are rightly considered to be amongst the best in the world. This success seems to be based on a delicate balance and consideration of both aesthetics and scientific principles. The works honour nature, beauty, and life through complex computer programming and very carefully embedded electronic sensor and feedback devices. Other interactive works often appear too scientific or too difficult for a general audience to engage with. Sommerer and Mignonneau's works have a game-like fun aspect that audiences relate to immediately. "Natural and intuitive interaction with a virtual world is a major goal in our interactive computer installations" (p. 90).

Christa Sommerer and Laurent Mignonneau: Interactive Art Research is lavishly illustrated with quality colour plates —

both photographs and screen shots of the actual works

themselves. The graphic layout is superb which helps the book serve a dual purpose equally well. Firstly, as a

wonderful coffee table presentation and secondly, as a serious investigation and detailed account of the artworks. As an added bonus the book comes with a well produced, user friendly DVD.

Following Stocker's *Forward* there are six chapters followed by an extensive section of *Biographies, Exhibitions & Publications*. The chapters are approximately equally divided between those written by others about Sommerer and Mignonneau's work and those

written by the artists themselves. The chapters by the artists are mainly descriptive and explain in detail, together with early conception drawings, just how they created the artworks. Precision, extreme attention to detail and consideration of the audience are hallmarks of these two creators' process and methodology. The chapters by commentators are generally brief and well written. Some are concerned to place Sommerer and Mignonneau historically, others discuss details of the works, together with audience expectations and reactions. A minor criticism of these essays is that many repeat the description of the same artworks, especially *Interactive Plant Growing* and *A-Volve*, which becomes a little boring after the fifth time of reading the same thing!

One of the duos' first major works was *Interactive Plant Growing*, which in 1993 catapulted them to

international fame in the media art scene. This installation "...remains a major milestone in the history of the then nascent artform; it continues to be one of digital media art's most

frequently exhibited works" (p. 7). The chief aim of these artists was "...to transform the traditionally static and object-orientated character of an artwork into a processual exchange between observer and artwork. The results of this interaction were not to be static, predefined, or predictable, but rather to be traces of a "living system", of art as a living system" (p. 58). I am not normally a "fan" of interactive installation art and much of this type of art I have experienced is banal and

predictable. Sommerer and Mignonneau's works are an extraordinary and notable exception, and I believe should be studied carefully by those artists thinking of working in this particular style. As the various essays suggest these two have set a high standard in interactive installation art that has become a hard act to follow.

Artificial life, both philosophical concepts and actual programming, are important factors in these artworks, as is complex systems theory. Casti in his essay discusses how science has made spectacular advances in complex systems but the humanities have been left behind. He sees this book as helping to remedy this situation, "A major contribution of this book is its internationally visible step to rectify this situation" (p. 60).

Of all the essays I must say Roy Ascott's contribution *Techno-Shinto Beauty* perfectly captures and describes the true essence of Sommerer and Mignonneau's work. All too often installation art emphasises the scientific at the expense of the art, especially such unpostmodern art concepts as beauty. These artist's works honour both. "So much telematic and virtual reality production in the artistic domain has been insistently sociological, tediously procedural or designed simply to distract us with cunning special effects. Beauty is seldom invoked. *A-Volve*, the canonical work of genetically informed art, celebrates the beauty of artificial life, evolution and genetic generation..." (p. 192).

I think I can say without fear of contradiction that this book is the definitive work (analysis, description and catalogue showcase) of Sommerer and



Mignonneau's outstanding artworks. As such it should be a core text in art schools and perhaps also for students in ALife studies as the art-science connection enriches both disciplines significantly.

My Sunshine

Nikola Uzunovski at the Federico Luger Gallery Milan, Italy, January 2010
Gallery website:
<http://www.federicolugergallery.com>

Reviewed by Giovanna Costantini

Heliacal rising occurs when a star or other astral body such as the moon, a planet or a constellation first becomes visible above the eastern horizon in the moments immediately preceding sunrise. Each day the star will rise slightly earlier and remain visible longer before light from the sun causes the star to disappear in a *cosmic setting*. Not all stars have heliacal risings. Some linger just above the horizon permanently, making them always visible in the sky at dawn before becoming eclipsed by the brightness of the sun; others may never become visible at all.

Nikola Uzunovski's photographs at the Federico Luger Gallery in Milan in January call to mind just such a cosmic phenomenon, one important to the ancients in signaling the beginning of a new year, the arch of its zenith and reunion with the earth envisioned well into the Renaissance as a crystal globe filled with distilled water to convey the dazzling radiance of solar light.

Uzunovsky's photographs derive from a project called "My Sunshine," installed in a laboratory created within the

Macedonian Pavilion of the 53rd Venice Biennale last year through which a helium-inflated balloon bisected by a reflective Mylar mirror could be positioned above the horizon as a surrogate of the sun. Inspired by a visit to Finland and an attempt to photograph the arctic tundra on the shortest day of the year, Uzunovski observed that under certain circumstances, the sun's rays appeared to hover above the surface of the earth, never touching the ground, illuminating only upper branches of the trees. In certain points, he noticed, it was possible to touch the light with the tips of one's fingertips. He was further motivated to augment illumination for Laplanders deprived of sunlight in areas in which diurnal light was limited to only 5-10 seconds.

Two years later in a studio in Trieste, Uzunovski collaborated with physicists from the Abdus Salam International Centre for Theoretical Physics and SISSA the International School for Advanced Studies to develop geo-positioning coordinates for a solar replica. Together with Pierdavide Coisson of ICTP, for example, the artist was able to identify December 22nd as a day when a very high logarithmic value (24.000 m) could be assigned to sunrays that would reach the polar circle, after which the altitudinal value decreases. With John Miller of Oxford University he charted the sun's path by means of solar declination equations and measurements of light that could be reflected from the ground. During the same period, Uzunovski accumulated climatological data from Finland on wind speed, temperature and cloudiness during winter in the Lapland region. He constructed a non-flying apparatus during an artist residency at Pollinaria, an

interdisciplinary research center in the Abruzzo region of Italy, where in its rugged landscape he tested the model under varying atmospheric conditions. He later refined these studies through collaborations with students from the University of Lapland and the Art University of Helsinki. As a result he was able to realize a flying, helium-inflated balloon two meters in diameter, controlled by detachable cables capable of creating the illusion of a "second sun."

The installation in Venice included a wealth of data, computational formulae, graphs and technical drawings that emphasized the precision and clarity of the project's scientific research as well as intriguing allusions to sacred geometry. Some of the diagrams reference Platonic solids and Euclidian geometry, while others recall figures drawn from optics and ocular refraction. Here the elegance of mathematic reasoning forms an artful corollary to the delicate arcs and swelling bell curves of computer graphics, with the balloon itself a suggestive 3-dimensional model of Leonardo's proportionality, measurement and design.

At first glance, the aerostat calls to mind the external panels of Bosch's *The Garden of Earthly Delights* in the Prado, where a transparent *grisaille* bubble opens onto fantastical panoramas of sin and debauchery. But Uzunovski's celestial orbs point to microcosmic-macrocosmic correspondences that are as metaphysical, if not mystical, as they are astrophysical and allegorical. These perfect spheres produce rims of haloed radiance from a mirror of the heavens, replicating a cosmic unity comprised of synergistic hemispheres. It is a model of universal dualism that has

inspired artists since antiquity.

Creation myths typically commence with the separation of light from primeval darkness, order out of chaos. Archaic religions from Egypt to Teotihuacan worshiped the sun as the source of life and regeneration. In the west, the association of external illumination with intellectual clarity is most often identified with Plato's Parable of the Cave. But the hermeneutic of light as a metaphor for spiritual awakening appears in virtually all religious traditions from Tibetan Buddhism to the Book of Job, the Torah and the Koran, and from Abbot Suger to African fire-stealers and Hindu goddesses of the rising stars.

Pythagoras' Music of the Spheres envisioned a celestial monochord that extends from above to below to unite creation in symphonic harmony. Dante's *Divine Comedy* conceived of the universe as a series of spheres of varying degrees of light from which the heavens open to reveal the Empyrean in eternal peace and the purity of light.

To encounter Uzunovski's photographs anew beyond its documented history allows one to transcend time and place to an other-worldly space in which beings, as medieval astronomers or lunar astronauts, rotate the mirror, triangulate the light, poised in absolute symmetry between the material world and ethereality. In this space, these stunning photographs convey the quiet grandeur of the cosmos and humanity's humble, mysterious relationship to it. The photographs also remind us of the regenerative power of light and of our universal aspiration to touch infinity.

Findings On Elasticity

by Hester Aardse and Astrid van Baalen, Editors
Lars Muller Publishers, Baden, Germany, 2010
208 pp., \$55.00
ISBN: 978-3037781487
Reviewed by Liz Nicol

This book is intrinsically an object. A 'real' rubber band is around the outside of the book and printed on the front cover is a photograph of a rubber band and a text of the dictionary definitions of elastic. As a consequence, to open the book, it is necessary to remove the band and experience firsthand the physicality of elasticity. Inside the foreword introduces the concept of the book pointing out that 'creative thinkers were invited to share their findings on elasticity' and the openness and playful nature of this intention is intriguing and accounts for much of the book's appeal. Guest advisors were invited to recommend contributors who had to agree to two stipulations: one that each person responds to the notion of elasticity, and, two, that they do so in the language of their profession. The result of this process is a collection of very different perspectives about elasticity not normally found in a single publication. At first glance it is immediately evident that the editors were keen to preserve a creative variety in the design of the book, stretching the concept and the contributions (of which there are over fifty) are stylistically very different in terms of

content, forms of visualisation and page layout.

Findings On Elasticity is a book that (as if often the case with such a fascinating project) I wish I had been a part of. In the foreword Astrid van Baalen describes her personal encounters with rubber bands. The list of contributors is impressive and represent many different perspectives on the topic ranging across the arts and sciences to include designers, journalists, philosophers, mathematicians, poets, economists, artists, zoologists, physicists,

performers, architects, graphic designers and many more. With researchers in more specific fields such as a 'theoretical physicist', a 'traditional Korean tightrope and walker' and an 'economic

theorist' the book becomes a compelling encounter no matter where one starts.

The success of the publication is built on these prerequisites which yields a provocative surreal tone set by the cover which playfully references Magritte's '*ceci n'est pas une pipe*'. The work by Mark Peletier '*A PAGE FROM MY ARCHIVE, CA.2002*' is a good example. The imagery used is varied including mathematical abstract formula, graphic illustration and photographic documents. It begins with a reproduced handwritten mathematical text under which he had written the word <GRIN>. Peletier goes on to talk about his feelings of "pleasure, pride and hope" at solving the problem and later he refers to the 'intuition of the

FINDINGS ON ELASTICITY

PAPE FOUNDATION
LARS MULLER PUBLISHERS



¹elastic /'læstɪk/ *adj* 1) buoyant, resilient 2) capable of being easily stretched or expanded and resuming its former shape 3) capable of ready change; flexible, adaptable --- *ity* *n*

²elastic /'læstɪk/ *n* 1) an elastic fabric usu made of yarns containing rubber 2) easily stretched rubber, usu prepared in cords, strings, or bands

mathematician'. It reminds us that while art and math are often linked, quite possibly many artists have more in common with particular sorts of mathematicians than is often thought. It is particularly encouraging to also read about the practical dimension to his findings on elastic rods as they are applied to the elasticity of materials used to reshape teeth by orthodontists.

Another contribution that draws out some of the tempting paradoxes of elasticity is *SKIN (ELASTICITY) CHANGES AS SKIN AGES*. In this Sophie Seite and Catherine Gerst who are biochemists present a montage of early photographic images of people on their deathbed. The accompanying text describes the pinch test to objectively assess the elasticity of skin in relation to age which is a fascinating if not depressing reminder of the inevitable deterioration of matter – even the forlorn demise of the vibrant elastic band on the cover of the book. With such a fascinating concept and a rich range of contributors *Findings on Elasticity* offers a playful and provocative encounter with a malleable reality of those objects that are bound by the laws of classical physics while also being at odds with them. It provides both a metaphor of, and springboard for creativity across the disciplines.

Liverpool Biennial: International Festival of Contemporary Art

Liverpool, UK September 18th
– November 28th 2010
Festival website: <http://www.biennial.com>

*Reviewed by Edith Doove
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Since its start in 1998, the Liverpool Biennial has grown to be the largest and one of the most visited biennials in the world. Given that today there are about 250 biennials and triennials for contemporary art, basically opening one every other day, that is no mean achievement. This year's sixth edition is the most ambitious with more than 60 national and international artists and more than 45 commissions for new work.

To stay in that league requires a combination of clever marketing and good programming, and with this year's central theme 'Touched' the marketing aspect was covered since it has a good ring to it--and it, thus, will no doubt stand out among the many biennials and triennials going on in the world. Content-wise it is quite a timely theme, too, as it responds to the recent bank crisis and the recession that followed upon it, urging for a more in-depth approach by demonstrating an emotional involvement that comes in a multitude of forms: social-political, poetic, intellectual, humorous, but also quite literally 'touching'.

Of course, a theme like this can be quite hazardous since it can easily slip into the superficial and sentimental. 'Touched' stays clear of that trap most of the time by addressing a general sensitivity for the 'other' in a myriad of guises: an openness to another point of view, for the knowledge of people of old age, of other cultures, and other ways of knowing, etc.

The central exhibition 'Touched' extends over the city occupying several venues, the Bluecoat having a particularly convincing presentation with Daniel Bozhkov's installation 'Music Not Good For Pigeons' as its central focus point. As the result of his research into the difference in experiencing the city of Liverpool today and during his first visit as a sailor in 1986, it couples a personal encounter with a political and poetic approach while avoiding the all too biographical and shallow navel-gazing that the visual arts has delivered us in recent years. He first knew Liverpool mainly as the city of the Beatles, as a historic harbour city, the place where local socialist activists had stood up against the politics of Thatcher and where he saw his first homeless person. Bozhkov now mixes these first

impressions in a replica of the dressing rooms of Liverpool Football Club, with video footage of his interviews with several former Militant Tendency councilors, a

popular YouTube video of a startled panda when witnessing its young born baby moving, a report of exploring an old cargo vessel and attempts of trying to sing Lennon's 'Imagine' in collaboration with local musicians and in different musical styles. It demonstrates how Bozhkov tries to reveal hidden strains of meaning on the basis of months of research and engagement with a certain location, producing another kind of knowledge in a baffling mix that in turn asks to be explored and at the same time is exemplary for what the Liverpool Biennial tries to do as a whole. Although 'Touched' does not back away from the



seemingly sensational, as in Do Hu Suh's Korean house wedged between 84 and 86 Duke Street, it almost always is capable of simultaneously addressing deeper meanings. Do Hu Suh's intervention is surprising and impressive but even more so when the graffiti on the façade of the neighbouring 84 Duke Street are taken into account, asking 'Do you like your neighbours?'

Less political approaches include Sachiko Abe daily creation of a fairy-tale world by cutting extremely thin strands of paper and Annti Laitinen's photographs of him trying to win over the natural elements in boats made of bark with which he also wants to conquer the Mersey at A Foundation. These come as 'touching' surprises in the impressive former industrial surroundings, but the more activist and critical approaches are difficult to compete with. At the former Rapid Store in Renshaw Street the exhibition is as multi-layered as the original decoration with the sub-expo 'Re:Thinking Trade' as a constellation of installations and actions that reanimate the disused shop, having the collective 'freee' transforming the shop windows into a place for debate on public space. Although there has been a critique of the prefix 're' being overused as a way of preventing to produce original art, in this context it is not only still a very usable but even necessary concept that manifestly does produce content.

At the former Scandinavian Hotel annex Europleasure International Ltd the combination of Alfredo Jaar's video-installation 'We Wish to Inform You That We Didn't Know' and Christine Lucas' video 'Touch and Go' is one of the most impressive within the

biennial. Jaar addresses the Rwanda genocide through very gripping testimonies of some of its survivors. Lucas' video is in stark contrast with it: the building in which it is shown and that also forms its subject is one of the warehouses on the edge of a very desolate, Liverpoolian version of Chinatown that stand witness of a once flourishing economy. Combining humour with a political-economical consciousness, Lucas has some former, now octogenarian, unionists throwing stones at the windows of the derelict building with evident delight. The result is far from the bone-dry and sterile social-political orientated art that seemed to rule the past decade.

Liverpool Biennial consists of five other exhibition platforms. Of these S.Q.U.A.T. is a very inspiring collaboration between the New York initiative No Longer Empty and the British The Art Organisation (TAO), using empty commercial spaces for art projects such as Sound Art in Seel Street. Projects like these demonstrate where the Liverpool Biennial can make a difference. As it is all about city marketing, a biennial should make good use of its background. With a reputation of being free-minded, self-confident, and in a humorous way straightforward, building on its formidable economic past, using its architectural history in a critical and innovative way Liverpool Biennial makes for a project in which new and genuinely 'touching' art can flourish. This year's edition is clear proof of that.

ISEA 2010 Ruhr: A High Tech Phoenix Rises From the Rust

Reviewed by Simone Osthoff

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From August 20th to the 29th, the 16th International Symposium on Electronic Art—ISEA 2010 successfully engaged more than two-dozen venues in three German cities: Essen, Dortmund, and Duisburg. The Ruhr region (appointed Europe's cultural capital 2010) transitioning from the coal and steel industry to a post-industrial economy of information, knowledge and creativity, provided the momentous stage for the symposium, itself a model of transnational and intercultural collaboration. The sheer number of events—three cities in ten days—certainly proved the skills of ISEA organizers led by Andreas Broeckmann and Stefan Riekeles, but it challenged participants as well.

In this regard, Brian Massumi's keynote lecture about the connection between distributed events and cognition was not only appropriate to art theory and to the structure of the program, but as he pointed out, it has also been a central topic for military theory in the age of 'netwar.' Massumi examined the complexity of constructing and anticipating trajectories, as well as of the role in this process of synesthesia, language, and archives. He began by pondering: "What makes an event an event when its occurrence is dispersive: when no unified perspective on it or integral experience of it is possible? Does distributed cognition solve the problem, or complicate it further?"

Essen and the first weekend of the program amidst the epic scale of the Zollverein Park

Massumi's lecture was delivered in the new and ingenious SANAA building, designed by the Japanese architecture firm after which the building is named, located in the Zollverein Park. The closed Zollverein mine at the center of the German coke and steel industry was added to the UNESCO World Heritage List in 2001. In 2002, it was redeveloped by among others, Rem Koolhaas, who approached the preservation of this industrial site by putting the former plant structures to new uses. History, memory, and architecture were thus aligned with the future business development of the region. The park houses a large number of buildings and multifunctional areas including museums, restaurants, studios, lecture halls, exhibition and performance spaces surrounded by gardens and promenades for pedestrians, cyclists, and skaters. ISEA installations and performances took place at PACT—Performance Art Choreographic Centre. One of them was Christopher Salter's *Just Noticeable Difference*, a large black cube in which in total darkness, one person at a time, laying on the ground, experienced first a total sensory deprivation, then small variations of touch, light and sounds for a period of about 12 minutes that actually felt much longer. Other works took place outside, such as "Wet Sounds" by Joel Cahen's. In a setting reminiscent of post-industrial sci-fi films, a former factory swimming pool, now a public pool, was turned into a sound art installation with swimmers, mostly local families with children floating while enjoying the combination of different sound tracks under and above the water. On Sunday, elsewhere in Essen a day of sound works took place at the Institute for Computer Music

and Electronic Media (ICEM), Folkwang University of the Arts.

The city of Dortmund and the central five days of the program

The fifty-three panels, main exhibitions, receptions, e-culture fair, workshops, evening concerts, as well as nightclub performances took place over the week in multiple Dortmund venues. Among them, the café and club Domicil became ISEA's informal sidewalk headquarters where the day's events ended with audiovisual performances and analog social gathering. A Wednesday free day was dedicated to excursions to various exhibitions, research centers and tourist sites in the region.

The panel discussions (typically four taking place simultaneously) ranged from stars and satellites to theory and history of media art, from algorithmic topology to climate crisis and eco-activism, from cyborgs and nonhuman performances to archive preservation, from software to the future of education, which, by the way, was also the theme of Roy Ascott's keynote lecture. A new area of focus was the Latin American Forum organized by Andreas Broeckmann and Andres Burbano. It brought together an exciting group of media artists, curators and critics from more than eight Latin American countries in four related panels. The Forum also included the Festicumex night performance, which was a lot of fun for performers and public alike.

Discarding essentialist identities, the Forum explored a number of network nodes and radical experiences. The deep roots of media history in Colonial Latin America were examined by the presentations of Domingo Ledezma and Karla

Jasso, followed by a Siegfried Zielinski's presentation and commentary. Current media art was examined by a number of curators. The project (*Ready*)*media: Towards an Archaeology of Media and Invention in Mexico* was presented by Tania Aedo, director of the *Laboratório Arte Alameda*. Titled *Insulares Divergentes*, the on-going research mapping collaborations, media labs and exhibition spaces, was presented by José Carlos Mariátequi and Victoria Messi in an informal and captivating dialogue. Giselle Beiguelman termed "technophagic emergence" the tendency of the digital culture in Brazil to devour and grind technology into new production models for collective use. She pointed out that in that country, over the last decade eighteen million people rose out of poverty for the first time, along with another thirty-five million from the lower middle class, and now have access to mobile technology, often skipping traditional literacy all together. Living in the poor city outskirts and slums, they are using and combining technology with the same waviness of ISEA's workshops titled "Experimental Electronics," "Hackteria," and "DIY makeaway."

Recent histories of Electronic Culture in Latin America included Enrique Rivera's examination of the beginning of President Allende's socialist government in Chile and the role of Stafford Beer's Management Cybernetics in it (the prototype of Beer's operation room from 1972 is today in Liverpool). Andres Burbano analyzed electronic music in Chile fifty years ago and up to the COMDASUAR—the personal Digital Analog Computer built from scratch by José Vicente Asuar in 1978 in Santiago. Among artists who

document movements they participated in was the Uruguayan Brian Mackern. He delivered a performance full of humor and irony, declaring that “netart is not dead, it just smells funny,” based on his artist’s book *Netart latino database*, 1999. Answering a call on civil disobedience, Alejandro Duque examined uses of technology for survival—some classified as illegal—such as the pirating of satellites by people living in remote locations in Colombia and Brazil in order to communicate and create networks. Open Source was discussed by two separate presentations—Lila Pagoda probed issues of authorship in the context of Argentina and Claudio Rivera-Sequel examined three collaborative projects. Artists presentations included Arcangel Constantini’s *nanodrizas* “pods” that float in the Xochimilco canals of Mexico City; Ivan Puig’s SEFT-1 (Manned Railway Exploration Probe) on wheels, which is mapping eight abandoned Mexican railroads; Lucas Bambozzi’s exploration of technological obsolescence; and Rejani Cantoní’s research and works in interactive cinema.

Another multi-panel presentation was organized around Theory and History of Media Art. In one of them Edward Shanken argued for the need of a hybrid discourse and shared conceptual ground between Contemporary Art and New Media. Perhaps not coincidentally in Dortmund, is the exemplary work of curator Inke Arns, the artistic director of Hartware MedienKunstVerein (HMKV). A key ISEA partner, Hartware has consistently produced groundbreaking exhibitions that include old and new, analog and digital technologies as part of larger conceptual explorations. And the *Arctic Perspective*, curated by Inke Arns, Matthew Biederman, and Marko

Peljhabeing, was no different. Focusing on the Polar region the exhibition displayed research and prototypes for transportation, communication and a mobile habitation system, that at times seem to belong to another planet. The Arctic Perspective Initiative (API) is a non-profit international organization supporting the cultural and ecological significance of the Polar region by combining traditional local knowledge with sustainable developments of science and technology. The exhibition was being showcased at the PHOENIX Halle, a spectacular 1895 factory hall belonging to the giant former steel production plant of Phoenix-West, located in the outskirts of the city, in which Hartware has been based since 2003.

The new Hartware galleries are located downtown in the U building (still under construction), a former brewery redesigned to house multiple cultural institutions. On the top of the building, giant video screens dominate the cityscape day and night with a wonderful selection of site-specific projections. The exhibition *TRUST*, curated by Broeckmann and Rieckes was showcased there. It included works by fourteen international artists who “deal with the trust we put in people, in media and in machines—out of desire for security, for entertainment, or for comfort.” A few artists in the exhibition connected the gallery to the public space. The *knowbotic research* “macghillie_just a void”, 2009, employed a camouflage suit for participatory public performances that keep users visible yet anonymous in the city. In Antoine Schmitt *Time Slip*, 2008, a wall gallery display continuously showed the news in scrolling text. *Time Slip* employed custom-build

software that fed from official news agencies while conjugating every sentence in the future tense, and thus predicting disturbing trajectories such as “A plane will crash in Madrid killing 153 people.” The prediction of events makes us smile but also wonder about invisible forces controlling our lives.

Not far, also in the U was Bill Seaman’s *Exchange Fields*, 2000. This interactive video installation was comprised of three screens side by side and thirteen austere geometric sculptures distributed in front of them, each a case for a body part—say an ankle, an arm, or one’s back—which viewers used to trigger related video images. Aside from the ingenious interface, juxtaposing our flesh to the steel history of the Ruhr, I found the installation disappointing mostly because of its cliché images of dancers. Shouldn’t interactive art be about a less traditional kind of representation and aesthetic experience?

The translation between an input and an output of a different modality was the focus of many of the artworks displayed in the ISEA’s main exhibition titled “Electronic Atmospheres” at the Museum für Kunst und Kulturgeschichte: “the freezing of water translated into sound, the decomposition of leaves made audible, human hairs used as a sound source” were a few among twenty-nine works by thirty-seven artists from sixteen countries, selected by a jury from over a thousand entries. A particular focus of *Electronic Atmospheres* was three artists from Brazil selected by Giselle Beiguelman from the Instituto Sergio Motta in São Paulo. Among them was Lucas Bambozzi’s *Mobile Crash*, an interactive video installation that explored technological

obsolescence. Four large video projections with sound surrounded viewers with images of a sledgehammer repeatedly destroying cell phones, circuit boards and other electronic gadgets. The rhythm and sequences of images responded to viewers' movements and gestures, accelerating in seed and scale of destruction as one continued to engage the work. This cathartic experience of consumer's revenge allowed participants to become conductors, as if leading a Luigi Russolo's Futurist orchestra a century later.

Mobile phones were also referenced by Peter Weibel's keynote lecture. And although they continue to be essential in our lives, Weibel pointed out that the mobile phone represents the end of an era of multimedia still based on the mechanical—and thus on wheels—adding that classical media theory is an extension of the organs and it is therefore analog. Weibel's lecture titled "The Tongue That Sees: Neuroaesthetics, Molecular Aesthetics and Media Aesthetics" focused on synesthesia and cognition, and thus the shift from representation to perception, from simulation to stimulation, as well as the passage from recording technologies to stimuli in the brain.

Across the street from the Museum für Kunst und Kulturgeschichte, at the Dormunder Kunstverein, the exhibition *Exchange Emergences* showcased four artists in collaboration with the Japan Media Arts Festival and the Austrian Coded Cultures Festival. Ei Wada's *Braun Tube Jazz Band* reversed a TV light output into sound input, thus turning a number of TV monitors into performance drums, which the artist played

with talent and flair often accompanied by participating audiences. Nearby, in the Westfalenforum gallery, the exhibition "Heavy Matter: Rethinking the Role of Material and Medium in the Present" showcased a strong selection of works by twenty-two students of the Academy of Media arts Cologne. The last keynote lecture in Dortmund was delivered to a full auditorium. In the Orchesterzentrum Margaret Morse's "Out of Synch" examined the crisis of concepts such as "media" and the gap between how we talk and make "media art."

Duisburg and the second and last weekend of the program

Duisburg is Europe's largest inland port located at the mouth of the Rhine and Ruhr rivers. It has been an axis not just for industrial coal and steel shipping, but also as a connection between Central and Western Europe since the middle ages. Unfortunately, I could not stay for this part of the program focusing on the urban space, and including Charlemagne Palestine's organ concert in the St. Maximilian Church.

In contrast to symposia and festivals located in "non-places," such as convention centers in large cities, ISEA 2010 Ruhr engaged the region bringing about significant change. The strategic articulations between nomad, transnational and site-specific elements characterized the symposium and were central, for instance, to the exhibition *Arctic Perspective* as well as to the Latin American Forum. ISEA 2010, infused with creative thinking and new technologies, highlighted a rebirth in the Ruhr. We look forward to the upcoming collaborations in 2011 in

Istanbul and in 2012 in Albuquerque.

Stance: Ideas About Emotion, Style, And Meaning For The Study Of Expressive Culture

By Harris M. Berger
Middletown, CT: Wesleyan University Press, 2010,
xxi + 167 p.
ISBN-13: 9780819568779
(cloth), 978-0819568779
(paperback)

Reviewed by Jan Baetens

A former president of the US branch of the International Association for the Study of Popular Music and co-editor of the *Journal of American Folklore*, Harris M. Berger has written an interesting study on the way we make meaning of music. The "we" in the previous sentence is highly inclusive, since it entails not just the listener, but also the composer, the performer, the producer, the teacher, the reviewer, the critic, in short all those involved in music as a cultural practice.

Burger's ambition in this book is twofold. First of all, he wants to criticize what he calls the obscurantism of Yeats's famous line on the impossibility of telling the dancer and the dance. What Berger aims to do here, is exactly the opposite: instead of confusing the various roles, positions, objects, actors, and senses in a global approach of some holistic phenomenon (which music also is, of course), he tries to distinguish and to "decompose" (yet not to "deconstruct"! the various aspects of this phenomenon with unusual meticulousity. Second, he also proposes to defend and illustrate a scientific method that has been insufficiently used in the analysis of music: phenomenology – more

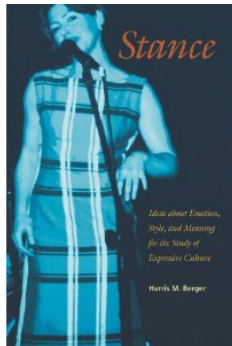
particularly the type of phenomenology represented by philosophers such as Husserl and Merleau-Ponty who were both interested in the dialectics of the *intentionality* of our consciousness (i.e. the fact that our attention is always turned toward something else) and the *noema* (i.e. the physical or non physical objects that we are engaged with).

The first key word is here *experience*, whose various modes can be labelled as perception, imagination, memory, judgment, anticipation and so on, while their corresponding objects can be called things in the world, fantasies, memories, judgments, and anticipations.

The second key word is *stance*, which designates which Burger defines very generally as “the affective, stylistic, or valual quality with which a person engages with an element of her experience” (p. xiv of the Introduction). In a sense, the ambition of the book is not only to demonstrate the validity of this approach, but also to develop an appropriate vocabulary for the analysis of the dizzying diversity of stances that can be discovered while exploring our engagement with music and other forms of expressive culture.

Both aspects of this program are exemplarily performed in this book. From a theoretical point of view, it is important to stress the great clarity of Berger’s writing, who manages to focus on the twin notions of *stance* and *experience* without leaving too much the field of phenomenology. Although the author offers a very rich

description of what the conception of *stance* may entail, he resists the temptation to add to his book a reading of *stance* and *experience* in related fields: his starting point is exclusively phenomenological, and he sticks to it in a way that explains a lot of the pedagogical qualities and merits of the book. One can always regret that Berger does not start any discussion with the American pragmatist tradition; more specifically with John Devey’s notion of *experience* (as developed in his classic book



Art and Experience), or with Simon Frith’s more sociologically oriented readings of the musical experience. Yet this restriction is also what

makes the prize of *Stance*, which is the kind of study that many can only envy him, for its plain and WYSIWIG approach. From a more practical point of view, Berger succeeds in showing the great utility of phenomenology by introducing a wealth of real-life examples from all kind of fields (from heavy metal to boxing or dancing, although with a slight preference for the former rather than for the latter). One feels throughout this book that the author is not only putting in practice what he is defending at a theoretical level, namely the absolute necessity to study expressive culture in a lived, concrete, personal, and material experience, but that this practice and this experience are also his own. It is rare to read a book in which the examples and even more the discussion of these examples feel so authentic, and this makes the reading always illuminating, even in those cases where the

average does not have the field experience of the cases under discussion (not all *Leonardo* reviewers are specialists of the different ways amateurs and would be rock stars without any formal training are changing their techniques of for instance striking a chord when they enter a class room and start taking lessons, yet Berger explains very well how *stance* plays a crucial role in what is happening in this process).

Bringing together folk studies and philosophy, Berger had to meet of course cultural studies and sociology of culture, and his reading of Bourdieu and other theoreticians in the last chapter of his book is also very useful in their typical mix of ecumenism (Berger is not someone who attacks or criticizes other theories) and precision (he knows the art of making other theories accessible and to include other insights and concepts in his own way of thinking, which never indulges in jargon or complexity for the sake of complexity

Art and Artistic Research. Music, Visual Art, Design, Literature, Dance

by Corina Caduff, Fiona Siegenthaler, and Tan Wälchli, Editors
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Reviewed by Jan Baetens

Research in art –also called research through art, practice-led or practice-based artistic research– is now clearly

established as something very different from art *tout court*, on the one hand, and research on art (art history, art theory, art criticism) on the other hand. However, the practical implications of this newly institutionalized area are still under heavy debate. Promoters of this type of research insist on the right of artists to 'do a PhD' (although this is just the top of the iceberg) and to benefit from funding possibilities until now strictly reserved to traditional academic disciplines. Critics will underline the very incompatibility between artistic experience and academic streamlining and managing of research, emphasizing the illusion of giving an added value to real art by theoretical, academic methods and procedures. The first key word in the whole process is 'academization', for, at least in Europe, the reform of higher education has produced (in the UK) or is producing (on the continent) a radical merger of the university and non-university types of education, and this evolution is not something that can be stopped. The second key word is 'arts and sciences', more particularly the 'two cultures debate', which has been dynamized by these changes in artistic training in universities.

As the bibliography listed at the end of this rich volume clearly demonstrates, discussion and publication on research in art have become booming business. The advantage of this sudden flow of conferences, seminars, special issues, books, and courses within the new programs, is that it is no longer possible to start discussing from scratch, innocently repeating the same slogans, fears, hopes, desires and frustrations. One must now taking into account a growing body of knowledge as well as a certain number of landmark

texts, methodological statements, best practices, artists' careers, and even theoretical works that have shifted from the margins to the very centre of the discussion: everybody is now following with great anxiety the wording of the British Research Assessment Exercise (RAE) definition of research in fine arts, just as everyone is rereading the special issue of the *Dutch Journal of Music Theory* (2007, vol. 12-1) on 'Practice-Base Research in Music', after having rediscovered classic voices like those by Christoph Schenker or Christopher Frayling.

What strikes most in this new volume is first of all the importance of the philosophical metadiscourse that is mobilized by the authors to make their point: Danto, Derrida, Foucault, Deleuze for instance, are all over the place, and this overrepresentation of the postmodern art-theoretical *doxa* is a symptom that the field is still far from having constituted its own frame of reference. Moreover, these theoretical authorities seem to be shared by all categories of contributors: administrators, teachers, critics and theoreticians, but also the artists themselves. A second aspect that may come as a surprise is the exemplarily European dimension of the discussion. Contrary to many other disciplines, where the Bologna BA-MA reform has not dismantled national preferences and traditions, research in art is a discipline that seems eager to wipe out as much as possible the local constraints in order to achieve from the very beginning a common ground of what training, teaching and thinking in this new kind of research is supposed to be.

In general, one can only admit that the quality of the ongoing debate is good, and that the strong commitment of the participants to the achievement of a common goal – i.e. the equality between research in art and research on art – does not imply sloppy thinking and hasty, one-dimensional argumentation. The essays gathered in this volume are honest and most of the times quite challenging. They are well documented, they ask often the right questions, they do not provide us with all the answers, and they demonstrate that conference papers do not necessarily produce boring books (most texts in this volume are short, their tone is brisk, their content useful and their horizon clearly indicated). In short, this book is both a good introduction for those eager to catch up with a discussion whose start they missed a couple of years ago and a valuable sparring-partner and echo chamber for those already involved in the field.

As always, some burning questions are not tackled. I am not referring here to financial or institutional issues. I am thinking in the very first place of the homogenizing way in which art is defined. The subtitle of the book goes: *Music, Visual Art, Design, Literature, Dance*, and what at first sight seems a strength might be seen as a huge problem as well. Musical composition, for instance, is a discipline whose methods and theories fit the more traditional research agenda seamlessly, and probably the same applies to design. But what about creative writing? A second issue that the emerging discipline is probably not ready yet to really look into the eyes is the question what to do with students who reject academization. There is a consensus that the future staff should be a mix of people with

and people without PhD's, but what about the students that start their training? Will they all be forced to follow the rule? The prestige of many theoretical references of the new programs and the continuing fascination with deskilling in contemporary art make academization a seductive solution, even for very young students who may have no real interest in doing (academic) research whatsoever?

It would be unfair, however, to use these questions and perplexities as an argument against research in art. The present volume should help at least fine-tune and focus the creative chaos that is still reigning in this field.

Dada in Paris

by Michel Sanouillet; Michèle Humbert, Editorial Consultant
trans. by Sharmila Ganguly
revised and expanded by Anne Sanouillet
The MIT Press, Cambridge MA, 2009
640 pp., \$39.95
ISBN: 978-0-262-01303

Reviewed by Michael R. (Mike) Mosher
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This grand Dada doorstop of book is a narrative of constant action. We are immediately immersed in the War ("to End All Wars", sigh) and intellectual temper of the times, circa 1915. From writings of Mallarmé to Marinetti, Paul Lafargue and Carl Gustav Jung, multiple currents shaped the society and the world of ideas, a world that a certain bristling group of young artists and writers defined themselves against. The Cubism of the previous, prewar decade came to be seen as old news, while

individual cubist artists were accepted or castigated by Dada according to the whim of the moment. Cinema was embraced as a promising new medium and creative vehicle; there's certainly a rousing narrative (Hollywood or indie) screenplay bubbling within this book.

André Breton, ambitious and productive, felt deeply inspired by the postwar spirit of newness and unprecedented possibility, and began to assemble poets around him. Francis Picabia, wealthy and overweight, appeared in Paris to paint, write, pronounce opinions and throw his weight around. Tristan Tzara, born Sammy Rosenstock in Romania, proved an energized bantam of poetry, rhetoric, and organizational ideas and opinions. He sported a monocle, an affirmative affectation of cool much like the "z" in his chosen name; my high school Dada gang envied a classmate named Danny Terrazas for this very reason. Though previously in

communication with Breton, his arrival in Paris in 1918 gave Paris its third great locus of dada energy.

These three and their colleagues involved themselves in a ferment of publications—*Littérature*, 391, *Magnetic Fields*, *Funny Guy*—whose Contents pages defined with immediacy who's in and who's out. Half the time they were inviting each other to participate in journals or exhibitions or events, and the other half of the time they were excoriating

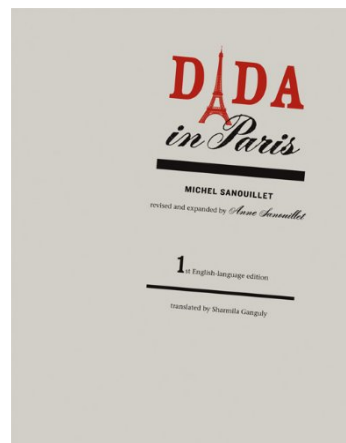
each other in sharp criticism or gossipy invective. Literary Dada in Paris established and defined itself in a contemporary realm that included writers Guillaume Apollinaire, Jean Cocteau, André Gide, Raymond Radiguet, René Crevel, Robert Desnos, and the composer Erik Satie. A "trial" of the older writer Maurice Barrés consumed a lot of energy, a matter of great seriousness to Breton, which Tzara finally turned into farce.

Between 1917 and 1923, the Dadaists published, promoted, went on vacation excursions together, argued, and reconciled. They influenced Russian expatriates in Paris, plus numerous other manifesto-driven bands of artists and writers. They were hotly debated in the popular press, whose outraged reviewers gave them much ink, hence

notoriety and lasting fame. Events like the Salon d'automne 1919, and performances at the Grand Palais, Club du faubourg and various incendiary salons are recounted. Sanouillet sagaciously

laments the greater—more pervasive and lasting— influence of Surrealism, essentially more conservative (and easily assimilated by bourgeois institutions) in its project and products. André Breton can be thanked, or damned, for this accomplishment.

The artist who most maintains his dignity throughout the story is Marcel Duchamp, who kept his distance from the petty rivalries and arguments that consumed others. He



submitted his artwork without comment to let it affirm itself in its droll uniqueness, and otherwise used silence as a strategy (Duchamp abstained from the Dada Salon of 1920). Relocation to New York helped him to achieve this.

Dada in Paris originally appeared in 1965, and was revised and expanded by Anne Sanouillet, and translated, for this first English edition, by Sarmila Ganguly. Beyond the main text is a large appendix of correspondence between the Breton, Picabia and Tzara (alternately effusive, chilly, apologetic), then significant letters to others and some additional texts of historical interest. There follows a useful bibliography of books, articles and exhibition catalogs sorted by decade.

A reader's only regret might be that examples from the short-lived Dada publications discussed aren't present, to illustrate the story of their rambunctious creators, though these works may be readily available elsewhere. This book stands as a formidable piece of serious scholarship, a monument and national archive of the Dada movement in France's capital city in its time. And that's exactly the kind of respectable edifice the Dadaists resolved to disrupt, overturn, burn and eradicate.

Interface Fantasy: A Lacanian Cyborg Ontology

by André Nusselder
The MIT Press, Cambridge MA, 2009
176 pp. Paper, \$18.95
ISBN: 978-0-262-51300-5

*Reviewed by Rob Harle, Australia
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This book is an extremely well researched and detailed

exploration of the psychological nature of cyberspace. If as suggested, cyberspace is a mental space, then applying psychoanalytical theory to analysing its social, cultural, and individual influences makes a lot of sense. Nusselder has undertaken this analysis primarily from a Lacanian perspective, using a notion central to Lacan's thought that, *fantasy* is an indispensable *screen* for interaction with the world at large. The *screen* has many forms, one of which is now the ubiquitous computer screen. "What we cannot have in reality, we can have via the fantasy screen (of the computer)" (p. 11).

Interface Fantasy: A Lacanian Cyborg Ontology is not for the faint hearted, nor for the general reader. Lacan's work is complex enough by itself, coupled with Nusselder's own analysis this work is a highly complex, convoluted intellectual tour de force. This is the nature of the subject, not Nusselder's writing style. Although the writing flows along nicely and is enjoyable to read the book at times gets bogged down saying the same thing from a only a slightly different angle.

The book is divided into six chapters, followed by extensive Notes, an excellent Bibliography and Index.

Chapter 1 – The Question Concerning Technology and Desire
Chapter 2 – The Technologization of Human Virtuality
Chapter 3 – Fantasy and the Virtual Mind
Chapter 4 – Cyborg Space
Chapter 5 – Displays of the Real: Reality as an Effect
Chapter 6 – Mediated Enjoyment, Enjoyed Media

The chapters proceed from introducing Lacan's relevant psychoanalytical theories through to examples of avatars as alter egos in various virtual spaces. Nusselder always keeps his central thesis in mind as he draws on the greats of philosophy, cybernetics, and psychotherapy (Kant, Hegel, Freud, Weiner, Saussure, Shannon, Merleau-Ponty and so on) to support his thesis. "My central thesis is that the computer screen functions in cyberspace as a *psychological* space — as a screen of fantasy. Since the world as a database (the matrix) cannot appear to us (in cyberspace) without media that open it up (interfaces), I claim, has a similar status to that of fantasy in Lacanian theory" (p. 5).

Imagination is an important factor in psychoanalytical discourse that Nusselder discusses at length, showing Descartes' dismissal of imagination as untenable through to its vital importance in cybernetics. Lacan spent much time thinking about cybernetics as is evident from this quote; "At this point we come upon a precious fact revealed to us by cybernetics — there is something in the symbolic function of human discourse that cannot be eliminated, and that is the role played in it by the imaginary" (p. 69). Clearly imagination and fantasy are closely related whether we are conducting psychoanalytical analysis from the perspective of an electronic screen or via speech from the couch. The imaginary is one of the three main factors Lacan uses to analyse human reality. The other two are the symbolic and the real.

The fairly recent phenomenon of *visual* avatars functioning in virtual worlds has added considerable weight to Nusselder's thesis. He

discusses avatars in detail in chapter four, along with the general concept of embodiment and the various notions of what constitutes space or its dissolution. Even from a common-sense interpretation it is not hard to see how one's personal creation of an avatar draws on factors from the unconscious and as such presents as an alter ego. From my own experience observing avatars in *Second Life* it is highly instructive to note how closely an avatar resembles its creator sitting on the other side of the *fantasy screen* in so called Real Life! I believe there is much more room for further research in this specific area.

This book also explores why we are so attracted to and attached to the new media. "Why we love our devices, why we are fascinated by the images on their screens; and how it is possible that virtual images can provide physical pleasure" (back cover). *Interface Fantasy* will prove to be a valuable asset to the libraries of academics working in quite disparate fields, and I believe has significantly extended our understanding of cyberspace, new media and the psychoanalytical importance of media technology.

Cyberculture and New Media

by Francisco J. Ricardo, Editor
Rodopi, Amsterdam,
Netherlands, 2009
312 pp., illus. 16 b/w
Trade, \$93.00
ISBN: 978-90-420-2518-9

Reviewed by John F. Barber
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In his 1984 novel *Neuromancer*, William Gibson described cyberspace as "a consensual hallucination" (67), a different, separate place where computer telecommunication technologies facilitated interactions between and with human beings, vast collections of data, artificial intelligences, and quasi-spiritual mythforms. Since then, cyberspace has come to signify exponential growth in the capacity of computer, intelligence, and virtual reality technologies into a global network of computer hardware and software linked through communications infrastructures that facilitate interactions between distant actors. Cyberspace is inseparable networks within networks that immerse users in interactive, visual, artificial, computer-generated environments. Once an optional extension of digital media, cyberspace has become a central site for online, computer-mediated language, creative, learning, recreational, and political interactions—activities known as cyberculture—which in turn may affect more mainstream culture.

Cyberculture and New Media, edited by Francisco J. Ricardo, examines this changed relationship and how it reshapes new forms of discourse between self and culture beyond what was once called virtual. Originally papers delivered at the Third Global Cybercultures Conference, Prague, Czech Republic, August 2003, these essays articulate, on one hand, the empirical, a portrait of human action through digital media, and on the other, the aesthetic, a look at new media as a field of expressive practices central to human engagement.

The book's first section, The Empirical, offers four essays.

The first, "Formalisms of Digital Text" by editor Ricardo, asks what evidence supports claims that people communicate differently using digital media than through writing, or personal, face-to-face contact. A comparative analysis study of sentence usage in blogs, email, printed text, and speech is detailed. The results show a significant variation in the richness of language across these media and suggest implications for expressive forms and uses of digital media.

The essay "Knowledge Building and Motivations in Wikipedia: Participation as 'Ba'," by Shiezaf Rafaeli, Tsahi Hayat, and Yaron Ariel, suggests that Wikipedia, a collaborative form of creating and sharing content, experiments with co-building of knowledge based on its users' motivation to build community as well as a shared body of knowledge. "On the Way to the Cyber-Arab-Culture: International Communication, Telecommunications Policies, and Democracy" by Mahmoud Eid, speaks to the alleged desire by more and more Arabs to use cyberspace and new media to develop and communicate Arab culture, identity, and values. The last essay in this section, "The Challenge of Intercultural Electronic Learning: English as Lingua Franca," by Rita Zaltsman, is a study of English used in cross-cultural electronic learning contexts that concludes cyberculture can help bridge cultural differences because students feel they are connecting with one another and talking face-to-face in virtual environments.

The essays collected in "The Aesthetic" section will probably have most interest to those using digital media for creative endeavors. For example, the essay "The Implicit Body," by Nicole Ridgway and Nathaniel Stern, argues that interaction in

cyberspace causes an implicit body to emerge alongside an unfinished art work; Interaction begins a bodily process that is always at some point in between the sensory and the expressive. Another essay, "Cyborg Goddesses: The Mainframe Revisited," by Leman Giresunlu, reviews current popular films that incorporate an omnipotent female figure comprised of both good and evil. This approach, argues Giresunlu, incites critical examination of faith, science, technology, self and identity formation from a feminist perspective and as an alternative to more conventional codifications of power. Finally, "De-Colonizing Cyberspace: Post-Colonial Strategies in Cyberfiction," by Maria Bäcke, uses topographical descriptions of cyberspace—striated space (the information highway) and smooth space (the web)—to explore how several female authors explore power, hierarchy and colonization in the fictional digital space their characters inhabit.

Taken together, the essays collected in *Cyberculture and New Media*, speak to a cyberculture constantly supplanted by technological innovation and a restless adaptation, substitution, and convergence of art, craft, and language. The collection seeks to facilitate inter-disciplinary projects and inquiry that are innovative, imaginative, and creatively interactive.

Electronic Elsewheres: Media, Technology, and the Experience of Social Space

by Chris Berry, Soyoung Kim, and Lynn Spigel, Editors
University of Minnesota Press,
Minneapolis, MN, 2010
312 pp., illus. 22 b/w

Trade: \$75; paper, \$25
ISBN: 978-0-8166-4736-1/8

Reviewed by Martha Patricia Nino
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The main chapters are the Reconfigured Home, Electronic Publics, The Voice of Jacob: Radio's Role in Reviving a Nation and the Mediated City. The book is a collection of essays that explains a myriad of topics in regards to the problems of spaces conjured up and experienced through media. The text also explains how this process both constructs and transforms what we understand by home, community, work, nation, and citizenship. It comments on the work of authors such as Beatriz Colomina, who traces the influence of military technologies on visionary architects. It also analyzes the work of a wide range of authors such as Walter Benjamin, Michel de Certeau, Raymond Williams, and Jean Baudrillard in order to consider how the emergence of television, commercial malls, and freeways create instances of simulated modes of public life. The book also highlights the problems caused by the migration of people living as a hybrid diaspora and causing what Chris Berry calls "glocalizations". Thus, geography and history result important factors for the comprehension of current dislocations and deterritorializations. In this context it is convenient to review the apparent disappearance of distance. Satellite television tends to blur the line between the collective and the domestic. The imaginary construction of a global city is also discussed. Another question exposed in the text is what do we understand by public space taking as an example new

documentary in China and satellite television in Algeria. The relation among advertising, the public role of religion, and violence in India is also explored.

In a more private realm, the home is analyzed. The house becomes both a cybernetic metaphor and a construction that can be inhabited in Cyberspace. In addition, Cyberspace becomes itself a virtual geography. For David Morley, it becomes a phantasmagoric place as electronic media allows the realm of the far permeate into the realm of the near. Another concern of the book is the design of smart houses in which electronic devices such as the washing machines, microwaves, refrigerators and televisions that communicate among themselves using special protocols. The radical statement discussed along the book is that places are not represented but created through media. This is the way electronic *elsewheres* are created. The authors that contributed to the book include Asu Aksoy, Charlotte Brunsdon, Ratiba Hadj-Moussa, Tamar Liebes-Plesner, David Morley, Lisa Nakamura, Arvind Rajagopal, Kevin Robins, Jeffrey Sconce, Marita Strurken, and Shunya Yoshimi. It would have been interesting to have a reference to the phenomena of the creation of other shared virtual spaces, such as maps or the virtual and mental ideas that we generate from a physical place. The book is interesting for the persons interested in public television and electronic media in general.

Cybernetics: Art, Design, Mathematics — A Meta-Disciplinary Conversation

C:ADM 2010 — International Conference
July 30 – August 02, 2010,
with surrounding events: July
29-30 and August 03-05
EMPAC: Curtis R. Priem
Experimental Media and
Performing Arts Center
Rensselaer Polytechnic
Institute, Troy, NY, USA

*Reviewed by Claudia
Westermann
Vienna University of Technology,
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Conferences often present a unique chance to become acquainted with the latest research in a specific field. Yet, the focus within the conventional set up is on the presentation of results related to a precedent research. In contrast, the international conference “C:ADM 2010 — Cybernetics: Art, Design, Mathematics” was an experiment in creating a framework capable of shifting the focus from results to process and, thus, in making the conference itself a laboratory for research. The event was held from July 30 to August 2 of 2010 at the Experimental Media and Performing Arts Center (EMPAC) in Troy, New York. Since the EMPAC has become well known for scheduling a unique and innovative program, it presented a good choice to make it the venue for a conference, to which the subtitle “A Meta-Disciplinary Conversation” explicitly suggested an intention to break with convention.

The conference was organized by the American Society for Cybernetics (ASC) in conjunction with the School of Architecture and the above

mentioned EMPAC at the Rensselaer Polytechnic Institute. It is due to the insight and understanding of the conference’s architect and always silently present steersman —Ranulph Glanville — as well as to the engagement of the other organizers¹ who acted on behalf of these various institutional bodies that the experiment in a participatory conference was successful in transferring the conversational model of meetings to a larger scale. A whole series of activities before and after the main conference was important in making the conversational format operate.

Weeks before the main event, the conference initiated online pre-conversations through its social network inspired web presence. The site, devised by Thomas Fischer was conducive in introducing the theme and the participatory framework. Preparations for the conference also included the creation of mobile objects — so called standards — that participants were asked to bring to the event. They were intended to serve as an additional entry to ideas and interests. On site, preceding activities included a business meeting of the ASC, a workshop on the state of cybernetics run by Stuart Umpleby, as well as tutorials in second order cybernetics. The latter were offered by members of the ASC and held in three parallel sessions. A workshop of three days was scheduled to succeed the main event. Participation in the workshop was open to those who were willing to engage in the preparation of a book dedicated to the conference and its outcomes. The framework thus introduced a flow of interactions that became more dense on the official conference days. It presented itself in the conceptual form of a

conversation.

As Gordon Pask described it, and Ranulph Glanville [2] has elaborated on, conversation is non-deterministic interaction. It carries the meaning of learning. The question however is: in which kind of space can it develop? How can this space be framed?

It makes sense to look at this question from the range of overlapping viewpoints that the organizers had defined as art, design and mathematics. Both interested in the borders and possibilities of language, art and mathematics in this context are to be found as counterparts in a space that was once designed to let them meet. Within the transdisciplinary space of second order cybernetics, which is essentially concerned with the inclusion of the observer into a feedback system, questions of designing are not exclusively related to the disciplines that range from architectural to information design. They are at the core of every activity. Accordingly, the aggregate of roughly 80 participants in the conference included researchers with a practice or educational background in mathematics, art and design, yet, also included designers in the wider sense, with a strong relation to other disciplines, such as management, physiotherapy, sociology and anthropology.

A welcome party, followed by a work in progress presentation by EMPAC’s artist in residence Lars Jan opened the main event. It gave a first and impressive idea of how the conference may be related to its site. Speeches including by the local coordinator Ted Krueger and by the EMPAC’s director Johannes Goebel elaborated further on this context on the next morning, and described the role of the

EMPAC as a place of initiation towards practice based research.

The conversational part of the conference began with a vocal rehearsal planned by Aartje Hulstein and Ranulph Glanville, and moderated by the latter. What started out as an exercise in singing changing vowels, and provoked in me for a short moment an allusion to ideas of peace in praise, managed quickly to make clear that this was not intended. With the task to catch the changing vowels of one's neighbor, the exercise evolved into a strange piece of music. Willingness to listen and to give space to the other is seen as an essential condition for conversations to take place and to make them dynamic events to be remembered. The playback of two longer exercises listened/sung in the concert hall of the EMPAC allowed for an astonishing insight into the compositional qualities of conversational activity.

The conversation sessions in principle followed the structure of the introductory exercise. A theme and a set of instructions served to generate a conversation which was followed by the (re-)presentation of the conversation. In variation to the introductory exercise, the conversations took place in smaller working groups, and the conversation-presentation-cycle was iterated once. This series of events was run through twice on the basis of two different themes.

Theme 1 was facilitated by Timothy Jachna, and started a set of questions related to the terms "actual" and "abstract": "Moving from actual to abstract is understood; but how do we move from abstract to actual? What are the relations between models that are conceptual,

computational and physical? How are the differences productive?"

In a short introductory talk, Paul Pangaro elaborated on this set of questions, and situated the theme within the history and theory of cybernetics. Thereafter, participants split into working groups for the afternoon, in order to refine the theme and to develop from it new questions. One or more members of the group were chosen to serve as rapporteur, and the group's results were later presented to all participants. The following morning session re-addressed the theme in the working groups and again the results were reported back to all.

Theme 2, facilitated by Christiane M. Herr, followed the same schedule. A talk by Albert Müller introduced to a set of questions related to "cross-over processes" and the "trans-, inter-, or meta-disciplinary subject".

This was the basic set up. It simulated a surprisingly facile access to a complex task. As a result, it was often astonishing how well the framing helped to generate meaningful conversations. The fact that the themes were not reduced to one basic question was most likely influential in allowing for the group conversations to take very different directions. The themes were well chosen to relate to the concerns of a theory of conversation, and it may be for this reason that they performed as an initiation to conversation. By all means, the framework led to a very intense conference, which engaged people to listen, to contribute, and eventually to change their point of view. Many of the (re-)presentations were entertaining, and theatrical in its best sense. They ranged from dances to decidedly neutral

reports, yet, never failed to communicate some of the groups' experiences. While the group conversations at times had not been without tensions, their presentations transmitted that at the end most groups had learned how to agree to disagree. The keyword "generosity" that Larry Richards once used, might best describe the atmosphere.

It is outside the scope of this review to address the particularities of the many questions and statements that were generated during the sessions. However, both themes generated some recurrent notions. Many questions related to theme 1 were about rules and how to play them. Theme 2 raised numerous notions related to language and metaphor. The material was collected on the conference's online blog and served as a point of reference during the ongoing sessions. In future, it may serve as a basis for further clarification of the means as well as the relevance of cybernetic activity in contemporary times.

The conference also included presentations that followed the conventional conference structure. They took place during the late evenings of the first two conference days, and also during one lunch break. Interestingly, within the context of the conversational event, there was a perceptual shift to the presentations. It seemed almost as if the themes that people engaged with could be regarded as tools to express different kinds of conversational energies. The contextual change made the presentations truly enjoyable as an experience in an altered point of view.

The sessions closed with a tour of the EMPAC, guided by Johannes Goebel. He gave a

detailed account of the building's planning and construction processes that had generated a whole new research related to the implementation of a performance technology, flexible enough to address the needs of the future. The conference dinner was highlighted by a speech of Ernst von Glasersfeld. His well constructed talk provided also for a summary of the past days. If "knowledge", as he says, "is and can only be built of concepts that we gather from our experiential world", C:ADM 2010 international conference provided in fact for a singular opportunity to get to know what Glasersfeld calls a "cybernetic principle": "having no fixed goal but being open to all the possibilities that come along".

The workshop that followed the official conference gathered 20 participants for another three days, in order to re-address the conversations, to discuss the outcomes of the conference, and to develop from the material, what may again become a source of inspiration for further research and experience. People engaged in all kinds of activities that might sound strange to those who did not participate in the conference. These included folding paper boats, as well as prototyping paradoxes, and exercising magic knot tricks with ropes. The latter were facilitated by Louis Kauffman. Lev Ledit used the time of the workshop to edit a movie from the material that had been recorded by Judy Lombardi during the conference. It gives an insight into the playfulness and the attitude of tolerance that guided this conference and made it successful in creating an experimental laboratory for research. Both this video and the dinner speech by Ernst von Glasersfeld, as well as many

other materials are available from the conference website ².

References

¹ See: <http://www.asc-cybernetics.org/2010>

² See: Ranulph Glanville, "And He Was Magic", in *Gordon Pask, Philosopher Mechanic*, edition echoraum, 2007.

Architecture & Biomimetics Series #3

by Dennis Dollens

(1) iPhone App.

BioDesign #3: A Pangolin's Guide to Bio-Digital Movement in Architecture 2010. Available via the iTunes Store \$0.99

(2) Comic Book.

The Pangolin's Guide to Bio-Digital Movement in Architecture 2010

ISBN: 978-0-930829-12-4, p.24
Site Books, Santa Fe, New Mexico

*Reviewed by Rob Harle, Australia
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This review refers to two separate forms of Dollens' latest contribution to the nascent art-science of biomimetic architecture. The first offering is in the form of an iPhone App, the second with similar content, is available in hard copy as a comic style book.

The iPhone is in my opinion a triumph of technology and engineering, the graphic/image manipulation capability is simply astonishing. Even if you are not especially into architecture, the beauty of Dollens' digitally grown images will enhance your iPhone experience, stun your friends and help in the preservation of the endangered little animal – The Pangolin.

The Pangolin is a small animal with beautiful scales, a little like an armadillo's size and shape. They live in Africa and in Asia where they are under environmental stress from

poachers who sell the scales on the black market. This comic book is dedicated to increasing research and protection for Pangolins. In the Pangolin's own words, "Grow Buildings! Reforest the Cities!" (p. 5)

The Pangolin's Guide was inspired by graphic novels and manga, hence the comic book style format. An unusual way to present serious sustainable architecture principles? Perhaps. However, as we are continually coming to understand, ivory tower academic research, locked away from the public's, scrutiny and input, is not the way forward to a sustainable global future. The lesson of a misinformed public, concerning genetically altered food, which resulted in the prevention of some possible benefits of this process should be noted. What better way to inform the general public about sustainable building than through the iPhone medium and comic books? Dollens decided to make his groundbreaking work available via these low cost mediums so as to, "...share proposals, inspire and to trigger future thinking and design discussion for the future development of bioarchitectural systems."

Dollens has been experimenting with bio-generative software, growing buildings and *printing* 3D architectural models for many years now. This has resulted in a number of previous books (1) most of which I have reviewed for Leonardo Reviews (see September 2003; January 2004; June 2005). His main software applications are Xfrog and Rhino. These allow him to experiment with, and generate new structures based on botanic samples, which result in digital hybrid biostructures. The concept behind biomimetic design is to understand how nature has solved problems, for

example utilisation of sunshine (photosynthesis), and then apply this to the built environment to produce truly sustainable buildings. Architectural sustainability has become far more than a band-aid approach. Future buildings must be biologically part of the environment, interacting with it (and humans) in a fundamental and positive way. The planting of deciduous trees on the heavy sun side of a building is a good idea, but BioDesign takes this much, much further. The idea is to create buildings which are living entities which can process environmental information in a similar way to living plants, not just dead lumps of high-energy-input materials. The Pangolin Guides explain and show many of these principles in a most enjoyable way.

Dollens is not only an inspired researcher and experimental architect but a truly gifted pedagogue. He teaches both formally at the University in Barcelona, Spain and widely through his books and publications. He inspires radical "out-of-the-box" thinking in the best possible way. I actually think his work should also be studied in disciplines quite remote from architecture where creative solutions to major global challenges are required. Students (and practitioners) in fields such as economics, engineering, environmental science, medicine and farming would benefit immensely from Dollens' approach and underlying philosophy to problem solving.

The comic book layout is highly enjoyable to read, the combination of text and beautifully coloured images help the message "sink in" effortlessly. Embedded in the visual feast are many truly profound observations of

nature such as the section on spiraling. I'll finish with a quote from page six, "Natural spiralling & twirling (Genetic & Environmental) are growth strategies conceptually understood & sometimes viewed across scales – cosmological to quantum- from galaxies, ocean waves, trees, insect flight paths to shells, & molecular orbits. Spirals are the universe's embedded locomotion."

(1) Exodesic (1999); Genetic Architectures/Arquitecturas genéticas (2003); D-B.A Digital-Botanic Architecture (2005)

D-BA 2 Digital-Botanic Architecture 11 eTrees, Digital Nature, & BioArchitecture

by Dennis Dollens
Lumen Inc./Sites Books, Santa Fe, New Mexico 2009
pp. 72 col. & B/W illus.
Paper \$24
ISBN: 978-0-930829-70-4

*Reviewed by Rob Harle, Australia
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Digital-Botanic Architecture 11 is a follow up volume to DBA-1 which I reviewed for Leonardo in June 2005 (http://www.leonardo.info/reviews/june2005/d_harle.html). This book is similar in layout and subject matter, though it extends Dollens' work since 2005, showing the gradual development and increasing sophistication of the architectural appropriateness of the digital-botanic concept. It is simply a joy to browse through the colour illustrations, and marvel at the complexity of the computer generated forms and 3D models.

Again the book is only a slim volume at seventy two pages, but lavishly illustrated with both black & white and colour plates

of drawings, screen shots and photographs. Some of the screen shots are of the software applications which Dollens and his students use to produce the hybrid digital-botanic-architectural forms. Xfrog, Rhino, ParaCloud, Generative Components and 3D StudioMax (for rendering) are the main applications. Each one does a specialist job so to speak, the evolving forms are exported and imported to each appropriate application. The illustrations are accompanied with short textual explanations and DIY footnote links, typical of Dollens' quirky graphical imagination (the DIY concept is explained in the Addendum), this follows Dollens' main essay, *eTrees, Digital Nature, & BioArchitecture*. (pp. 56 -66) "So why not bio-architectural research from citizen scientists? Why not re-envisioning cities and the materials of cities? Why not DIY digital botanic architecture? I'm serious." (p. 68) Dollens is nothing if not serious, he is committed to creating the future, not wondering what it might be like! Being a psychopathological DIY person since I was four years of age this concept really excites me. "We don't need to wait twenty years for Dupont to develop a stomata panel distributed through Home Depot – one should be DIY-started and tested now." (p. 63) Hear! Hear!

For those who have little familiarity with the digital-botanic concept I will let Dennis explain in his own words. "This series of experiments with simulated digital trees, hybridized into architectural elements, illustrates botanic forms and their morphological and mathematical attributes applied to design systems and structures. Using this generative process demonstrates how the

transference of some biological properties, held in algorithmic notation, such as phyllotaxy, allometry, and phototropism, may be inherited by architectural and design elements derived from plant simulations and their corresponding biological maths." (p. 5)

For me the most amazing building to come out of this research is the *Self-Shading Tower for Los Angeles* (p. 22-28). This project was started in 2007 and is ongoing, it develops the Monocoque concept, which results "...in a load-bearing facade supporting the building and held in compression and tension by the fifteen floor planes." (p. 23) As well as also taking on environmental performance duties these Monocoque panels are stunningly beautiful!

As I mentioned in last month's review of Dollens' *BioDesign #3* iPhone App, and Comic Book. Dollens is not only an inspired researcher and experimental architect but a truly gifted pedagogue. He teaches both formally at the University in Barcelona, Spain (ESARQ - Universitat Internacional de Catalunya) and widely through his books and publications. He inspires radical "out-of-the-box" thinking in the best possible way. See also in this month's reviews my review of ESARQ's latest publication *Arquitecturas Genéticas 111/Genetic Architectures 111*.

I cannot recommend Dollens' work highly enough. The books are suitable for most readers, highly enjoyable even if you don't want to design buildings, and especially relevant — essential reading I would suggest — for both architects, students, environmental science scholars and architecture historians. You may start writing the history of the

future built environment because Dollens' work will surely be a part of it.

The Spam Book: On Viruses, Porn, and Other Anomalies From the Dark Side of Digital Culture

Jussi Parikka and Tony D. Sampson, eds.
Hampton Press, Cresskill, NJ, 2009
320 pp., illus, b/w
Paper \$34.50
ISBN: 978-1-57273-915-4
ISBN: 978-1-57273-916-1

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The editors have set for themselves and their contributors a post-representational task of considerable scope: to overcome the representation of media anomalies through categorization, metaphor, analogy, static structuration and instead forge a new dynamic, technomaterialist orientation that regains the anomalous object (spam, porn, etc.) from its banishment into the exclusionary domain of irregularity. They gather such analyses under the banners of assemblage theory and topological analysis. Anomalous objects and events are expressive of their environments and they are not reducible to mere hindrances subject to filtering. Thus the task is not to control but rather to map their becomings, asking how they work rather than defining what they reflect.

There is probably no more obvious connective energy than contagions, and the post-

representational cultural analysis begins here. Eschewing good-bad virus; light-dark side and authorized-unauthorized distinctions, John Johnston considers that artificial evolution (ALife research) blurs such boundaries and escapes the representation of the organic by the digital for the sake of a more fluidly biological approach to software evolution that imbues the latter with adaptivity, self-organization and repair thereby eluding the command and control paradigm. Johnston would have us rethink the "bug" in a swarm of lower order creatures as "hopefully friendly creepers" (p. 38) rather than targets of extermination. Tony Sampson tackles the problem of modeling contagions by folding system instability over stability therein bringing inside the hitherto externality of the parasite model. He rehabilitates the figure of the juvenile virus writer for technocultural theory and revalorizes a "constitutive anomaly" that makes instability a key factor of stability in a network not given in advance, that is, not frozen, but sensitive to growth, uncertainty, and vulnerability. This idea of the network "in passage" is rich and foregrounds the robustness of the fragile and, as Luciana Parisi adds, the viral in software design. Stripping the fiction from science, Parisi unleashes a veritable swarm of soft, fuzzy, blobby, dusty and rubbery small components all in the name of a variability, discontinuity, and "uncomputable relationality" (p. 73) that may build experience into digital architecture. Roberta Buiani shows how to productively and positively reassess the potentiality of viruses. She puts the emphasis on the unpredictable production of concrete possibilities by viruses across a field of action that induces "individuals to 'become viral' themselves" (p. 100).

An elegant editorial segue into a cluster of papers on bad objects features Parikka's treatment of an Internet art virus as "simulacrum of the general viral discourse" (p. 113) that introduces extra-discursive visualizations of viruses magnified as infotainment and other cultural ephemera (newspaper graphics and t-shirts). Parikka adds aesthesis to calculation in the viral assemblage in order to highlight the important role of finding tools that may be used to reshuffle media archives. Steve Goodman liberates sonic spam in the form of glitch music from arid art spaces into dance music and rhythmic mutation, while Matthew Fuller and Andrew Goffey announce strategems for an evil media studies that is refractory of meaning, sophisticated, seductive, bug-friendly and at home in sub-semiotic registers.

Susanna Paasonen's meditation on porn spam, focusing on record sizes and fucking machines, initiates the porno cluster and reflects directly on the varied associations of 'anomaly' and the post-penile machinic denaturalizing of the heteronormative. Katrien Jacobs pursues the excesses of pornography through realcore, expansion morphs, Japanese hentai and warporn, ultimately seeking ways to escape macho violence through S&M. While Dougal Phillips asks after the economies of desire in porn file-sharing and whether the screens that manifest intensities will survive the earth's implosion in any way other than strictly in theory. The censorship section contains elegant technical articles by Greg Elmer on the robot exclusion protocol, cannily deployed by government and business or ignored by spambots, and Richard Rogers' discussion of Internet censorship research techniques

that pursue more dynamical-circulatory methods of discovery: hyperlink analysis, redistributed blocked content, and re-routing via proxy servers.

The book concludes with a coda by Alexander R. Galloway and Eugene Thacker. If this century will be "the era of standards of identification" (p. 259), then the radical task of post-representational thought is to find ways of disappearing, to exist without representation. To this end a Surrealist conception of narcoleptic operations is proffered. Spam is, it turns out, is poetically liberatory.

Engineering Play: A Cultural History of Children's Software

by Mizuko Ito
The MIT Press, Cambridge MA
USA/London UK, 2009
224 pp., illus. 34 b/w
Trade, \$24.95/£18.95
ISBN: 978-0-262-01335-2

Communities of Play: Emergent Cultures in Multiplayer Games and Virtual Worlds

by Celiia Pearce and Artemesia
The MIT Press, Cambridge, MA
USA/London UK, 2009
336 pp., illus. 67 b/w
Trade, \$29.95/£22.95
ISBN: 0-262-16257-1

Reviewed by Michael R. (Mike) Mosher
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These two books are about two different kinds of game software. The first documents the users of educational games, where kids learn while playing games infused with prescribed curricular content. The second book enlarges a personal story of what adults learned while playing, recognizing and commenting upon their own

behavior and their commitment to their particular virtual neighborhood. Both are welcome additions to the corpus of software studies.

In the first chapter of *Engineering Play*, Mizuko Ito discusses her methodology and research sites, Boys and Girls Clubs in California's Silicon Valley and the San Francisco peninsula, and some in southern California. The second chapter is informed by the many years of experiences of Ann Piestrup McCormick, co-founder of the Learning Company, San Diego and other developers. This reviewer remembers an engaging lecture, about fifteen years ago, to BayCHI in Palo Alto, a regional chapter of the Association of Computing Machinery's Computer-Human Interaction organization. That evening McCormick showed a prototype for adult reading software that memorably included an image of Susan Greene's mural on a San Francisco socialist bookstore.

Subsequent chapters provide astute analysis of the marketing of educational games, and the subtle, often class-based meanings that their advertisements convey. Ito is an attentive observer and recorder of the children's interactions with games like *Magic School Bus Explores the Human Body* or *The Island of Doctor Brain*. Most fun are the instances of kids hacking the system, purposefully creating unnatural disasters to their constructed metropolitan agglomerations in *SimCity*, perhaps as much to provoke consternation in the grad student researchers monitoring them as out of sheer joy at watching things go boom. It's amusing how the kids subvert the pedagogical potential of *SimCity* to shape careful and responsible city planners, as they create

cataclysmic disasters just for the heck of it. This may be as an outlet for inchoate anger at parental and school authority, or an innate human pleasure in explosions and fire.

There aren't de-urbanizing explosions to be found there, but Celia Pearce is the impassioned player at the center of her book, *Communities of Play*. After the multi-player avatar world called Uru: Ages Beyond Myst was shut down, still-loyal players rebuilt it at There.com. She details the concerted migration (their "diaspora") of participants from one commercial online social world to others, after the original owners pulled the plug, leaving only a terse error message onscreen. Player-driven Uru recreations in There.com, and then Second Life, were built upon their shared collective memories, adapting—as exiles always do—to the circumstances of their new home. Sometimes brand loyalty is created and then cavalierly thrown away, for Uru's owners were unaware of the participants' loyalty to the peaceful, convivial, industrious arena. There was a place where players could creatively invent polo games with themselves (hey, you can't hurt an avatar) as the balls.

Pearce contextualizes her anthropological approach to her material, and reads with sensitivity the various contradictions to be found in the study of adult play communities, whether virtual or corporeal. She maps them—MUDs, MMOGs, MMOWs—and their characteristics, with special interest in co-created, open-ended metaverses. Her term "Paidaic" for them intentionally evokes classical public life, whose emergent cultural forms include not only play but also milestone rituals like weddings.

With bemusement she tells of the limited choices in constructing female avatars, whom all seem to come out looking like collegiate Lara Crofts. Pearce peppers her book with postings by Uru participants, whom all bear Tolkienesque monikers like Tristan, Raena and Aria of Katran. The book is well illustrated with numerous black and white screenshots. There is genuine passion, loss, and mourning felt by these wandering Uru players for their online homelands and avatar selves within. Evidence of the personal investment people had in their Uru avatars is how Pearce shares co-authorship with hers, Artemesia. This seems a bit precious, since Pearce doesn't convincingly prove the avatar ever acts independently of her; *surprisingly* sometimes, perhaps. If she's concerned with letting fellow Uru participants know that Artemesia's human wrote this book, "Celia Pearce a.k.a. Artemesia" might've been a sufficient byline.

Authors Ito and Pearce look to ethnography as an immersive methodology of research and participation. Both books are attentive to gender issues in educational game and online recreational participation. Therefore it seems odd that there's little citation of 1990s girls' games researcher-qua-entrepreneur Brenda Laurel (a single mention of *Computers as Theater* in Pearce). Nor is there any of contemporary academic game developer Mary Flanagan. Here the reader resists making snide parental comments about time spent in online game play vs. in the university library.

Now Is the Time: Art & Theory in the 21st Century

by Christel Vesters
(coordinating editor), Jelle Bouwhuis, Ingrid Commandeur, Gijs Frieling, Margriet Schavemaker, Domeniek Ruyters, Editors
NAi Publishers, Rotterdam, 2009
192 pp., illus. b/w
Paper, € 29.95
English edition:
ISBN: 978-90-5662-721-8

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Now Is the Time: Art & Theory in the 21st Century is the result of a series of lectures and debates held at the Stedelijk Museum, Amsterdam, and now published under one cover. The book has seven sections written by European and American scholars and artists, hosted mostly by Dutch moderators. The format is always two speakers on the same topic, with a short published public exchange. In general, the participants are a mix of viewpoints, Marxist to postmodern, which bring together a variety of approaches under the banner of overall social concern. The result is a very effective book for teaching students in the arts and humanities with up to the minute interventions on a variety of important topics.

The book begins with a generally political focus and, then, moves into more specific themes. The span of the essays is quite wide, and it is difficult to bring any order to the rich and thought-provoking collection. Nevertheless, it is possible to isolate certain themes. The beginning essays generally posit art production in a system of global capitalism whose diversity and

inclusiveness conceals inequity, and whose characteristics are shared by distressing elements of contemporary life, particularly terrorism.

Thus, Terry Eagleton and Boris Groys ("Faith") both point in different ways how the image of faith operative today is independent of belief (Eagleton) or science (Groys). Faith, whether in western or Islamic fundamentalist, is content to use repetition of ritual – which fits strangely effectively with digital media – without recourse to reason.

Similarly, W. J. T. Mitchell and artist Sean Snyder show echoes between American and terrorist practices, in Mitchell's case the uses of

"biodigital" practices (iconoclasm and decapitation) while Snyder looks at the hardware and presentation techniques terrorists have used for their recruitment videos. Both argue, at different levels, against regarding acts as savage at the risk of understanding their core logic.

Turning to "Globalization," Julian Stallabrass and Hanrou Hu treat that global transformations of expanded art markets and new biennials is only apparently liberating. New artists and art capitals have emerged but to serve the new global rich and in different ways they expose the backside of spectacularly staged global capitalism. Here, the focus of the section, "Design," well fits in. Although Rick Poyner has more hope for "critical design," a critical, self-initiated kind of design that

resists the industry and embraces gallery and art practices, Camiel van Winkel notes that Art has increasingly since the 1980s assimilated the twin goals of "visibility" and "professionalism." The artist makes art that is easy to understand, presented as an ethical mandate of constructive communication.

The pair of essays on "Canon" – by Robert Nelson and curator Ruth Noack – address issues of "Globalization" in that both seek ways to forefront constructed meaning in the contemporary curatorial scene. Nelson positively considers the role of canons in our understanding of the world, a way of organizing collective

agency. Noack, curator of documenta 12, accepted the historical embeddedness of the contemporary art shown there and she positioned herself frankly as a constructor of a canon. In the end, she and Nelson see canon formation as a social negotiation that individuals should consciously take part in. Turning to "Media," Kaja Silverman and Laura Marks address mediality in historical and contemporary art. Silverman uses a Leonardo exhibition to reflect on media, as Marks does of Islamic art. Silverman is interested in the way in which the clear genealogy of Leonardo and progeny is frustrated in a constant state of metamorphosis, a fact underscored by the postmodern artistic practice of James Coleman, whose ephemeral installation – which

has left no trace – accompanied the Leonardo show.

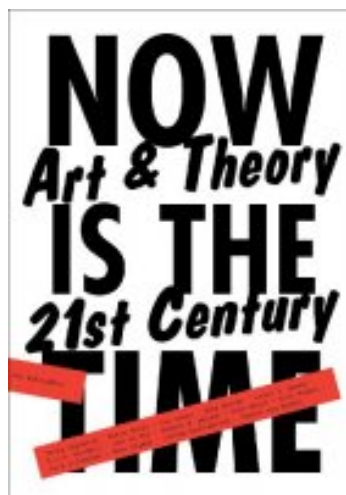
The last section, "Romanticism," is a fitting conclusion to the book, because Romanticism in this sense is another way of saying modernity and Jos de Mul and Jörg Heiser locate our position, "now," in the title of the book. Giving a genealogy of romantic ideas, de Mul endorses Schiller's definition of romantic desire as an "eternal oscillation between enthusiasm and irony." Heiser seeks out more artists to explore a similar opposition between romanticism and conceptualism. Good art combines both. For de Mul, the path between enthusiasm and irony is a "tightrope." For both, instructively, this means that we are neither modern nor postmodern. In light of the global focus of the book as a whole, this suggests that oppositional discursive practices won't save us but those moored in modernity itself that haven't left us and indeed inform the rest of the world's activities.

Photo-texts: Contemporary French Writing of the Photographic Image

by Andy Stafford
Liverpool: Liverpool University
Press, 2010
246 pp., illus. 8 b/w
Trade, £ 65.00
ISBN: 9781846310522

Reviewed by Jan Baetens

Andy Stafford's book is a welcome and attractive publication to the fast-growing field of intermediality studies, and an exciting enrichment of a series that opens new ways in the study of postcolonial Francophony. The qualities of the book, which should concern more readers than just those



interested in contemporary French and francophone culture, can be situated at three levels: the subject in itself, obviously, but also the dialogue that it tries to establish between Anglophone and francophone scholarship as well as the specific accents that are proposed by the author. I will discuss these points in that order.

As far as the subject is concerned, the task of any author writing on the domain of photo-textuality has become a rather difficult one; such has been the almost chaotic development of literature and photography interaction in the last decades. Stafford pays, therefore, a lot of attention to circumscribe his corpus, not always in the most convincing ways, for throughout the book one feels a permanent struggle with the many possibilities of organizing the material. Nevertheless, since the author presents and discusses his own doubts and biases in a very open and self-conscious way, the reader can feel sympathy for his efforts, even if till the end of the book one is left with the impression that other types of classification might have been possible. Nevertheless, the global structure, which leads us from a text inspired by just one picture to a work focused on captioning, is clear and coherent and does certainly not prevent the author from doing what he wants to do. The notion of photo-text is mainly defined by Stafford in terms of "photo-essayism", a term that is both exclusive and inclusive: it excludes the whole field of the photonovel, while it includes all kinds of textual productions (essays in the traditional sense of the words, but also prose fiction, poetry, captions etc.) that establish a dialogue not just with photography, but with specific photographs on the page. This both very narrow and

very open definition allows Stafford to propose a very broad and diverse corpus of nine works, some of them very well known (such as *Errance* by Raymond Depardon), others less known or rarely introduced in discussions on photo-textuality (such as some works written by Tahar Ben Jelloun). What matters here is less the fact that some usual suspects may be missing (there is for instance no chapter on Sophie Calle) than the fact that the selection made by Stafford really innovates the field: the overall impression one gets from his view on phototextuality is really different than the one that is offered by most French studies on the subject, the main difference being the emphasis on postcolonialism.

The difference and usefulness of this book can also be explained by its eagerness to establish a cross-fertilization of Anglophone and francophone scholarship. One of the most paradoxical and painful aspects of globalization is indeed the growing gap between humanist scholarship in these two traditions: Anglophone readers, even very specialized ones, only know of "French Theory" what is available in translation, whereas Francophone scholars like to stress their "cultural exception" to avoid or misread work being done in English (a good example is the long-time refusal or fear of cultural studies in France, a blatant case of cultural blindness which really should have no reason to be). Stafford is doing an important job in this broken dialogue, and he tries to do it in as an objective and impartial way as possible, even if one feels some unease from time to time, not at the level of the theoretical discussions, but at the level of the critical evaluation of some of the

works under discussion (Stafford is clearly reluctant to criticize Tahar Ben Jelloun, for instance, whose work presents a number of features that are criticized elsewhere in the book: this stance can only be explained by the greater openness of Anglophone scholars to postcolonial authors). Once again, this is a detail, for *Photo-Texts* offers many insightful and inspiring confrontations of US/UK and French authors. On the one hand, he carefully demonstrates the interest of the work by WJT Mitchell as well as Martin Parr and Gerry Badger, while at the same time underlining also the limits of their respective approaches. On the other hand, he gives a very sympathetic presentation of authors such as Jacques Rancière, André Rouillé and Hubert Damisch, whose names may be (very) familiar to Anglophone readers but whose writings on photography have not yet received the critical attention they certainly deserve. Here as well, the global sympathy of Stafford's tone does not avert him from making critical remarks, which are dramatically discerning, even for Francophone readers.

The most fascinating aspect of the book, however, is the personal view of photo-textuality that is defended by the author. Four aspects should be stressed here. First of all, Stafford claims that photo-textuality has changed in the 1990s, and he links these changes in a very convincing way to the end of the 'short 20th Century' (i.e. 1914-1989). Photography has changed after 1989 (and will do so even more after 9/11, but the main focus of the book is on the 90s), and the new relationships between word and image is one of the revealing traces of a change that shatters traditional photographic truth claims.

Second, the author underlines in an even more persuasive manner how photo-textuality has become part of postcolonial culture, a point insufficiently made in French scholarship, although Stafford –and I think this is a great quality as well– does not accept the gap between metropolitan and francophone culture. Third, the political turn that underlies the two previous points is strongly linked with the material culture in which photo-textuality appears. The relationship between words in images in this kind of cultural products cannot be separated from certain material conditions such as the book market, to name just one example, and Stafford propose very astute and illuminating readings of the importance of this context, not only for the production of the works but also for their reception (how can one do for instance critical photo-textuality if the work produced is a coffee table book?). Finally, and this might be considered a really important innovation in our thinking on the field, Stafford defends the idea that the relationship between text and image should never ecumenical, but remain as critical as possible. The word critical has to be understood here in its etymological sense of “crisis”: words and images do not only need each other, they also question each other, they break each other open, and in that critical dialogue emerges a third dimension, which Stafford calls “orality”, a dimension that he cleverly relates to the broader field of memory and memory studies.

**Time, Memory,
Consciousness and the
Cinema Experience:
Revisiting Ideas on Matter
and Spirit**

by Martha Blassnigg

Rodopi, Amsterdam, 2009
254 pp., Paper, €50 / \$65
ISBN: 978-90-420-2640-7

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Martha Blassnigg’s *Time, Memory, Consciousness and the Cinema Experience* represents a significant contribution to media philosophy—a field that employs philosophical concepts to understand the function of media technologies. Blassnigg’s primary argument is that cinema provides a way of understanding cognitive processes that closely parallels the theories of French philosopher Henri Bergson, and Bergson’s concepts are particularly relevant today as they offer a valuable alternative to the predominantly materialist approach to cinema employed by contemporary film scholars.

Blassnigg begins by discussing the connections between the cinema experience and the concept of duration. According to Bergson, time is perceived not as a series of isolated moments or “simultaneities” but rather as an accumulation of remembered events. This theory is also the basis of Bergson’s distinction between intellect and intuition: intellect perceives spatial relations, or material objects in the present (simultaneities), while intuition perceives temporal relations, and it is thus linked to the past and to the spiritual (duration). Cinema spectators similarly perceive film as an accumulation of sequential images rather than a series of individual frames, as each image builds on the images that preceded it: “The perceiver’s mind is continually stimulated to draw memory-images from the depth of pure

memory in order to recognize, recollect and recreate in the sense-making of the filmic image sequences” (178). The cinema experience can thus be described as “a deep immersion within time, as an experience of *durée*” (195), and “it is the qualitative dimension of lived duration that facilitates a sympathetic immediacy through which the cinema experience becomes intuitive and ‘spiritual’” (192). By encouraging spectators to draw connections between the present and the past, in other words, cinema effectively stages the interplay between intellect and intuition, matter and spirit.

Blassnigg expands on this theory by examining several other proto-cinematic technologies that similarly reflect a spiritual or intuitive notion of consciousness. Etienne-Jules Marey’s chronophotographs, for example, appear to contradict Bergson’s argument because they only capture discrete moments in time rather than an accumulation of past experiences. While Bergson “saw that the confined conception of time as measurable quantity limited a full understanding of the extensive dimensions of consciousness in the experience of duration” (81), for example, “Marey understood time purely scientifically as a mathematical, measurable and homogeneous quantity” (80). Blassnigg adds, however, that Marey emphasized the limitations of sensory perception, and he attempted to break movements down into single frames precisely because this was a form of perception that was foreign to consciousness. Blassnigg thus concludes that “it is not the figures in themselves, but the invisible movements in between the

states that constitute the very forces that Marey sought to study" (147). While Marey's chronophotographs isolate one modality of time, in other words, his work also reinforces the notion that time is perceived internally as duration, and therefore Bergson and Marey simply "took very different approaches to venture into the unknown and invisible" realm of consciousness, intuition, and spirituality (135).

Blassnigg's third and final example is Aby Warburg's *Mnemosyne Atlas*, a collage of "art reproductions ... newspaper clippings, geographical maps, advertisements, astrological charts, play cards, images of coins, stamps or emblems" (143) that similarly reflects Bergson's notion of consciousness. Warburg was less interested in the images themselves than their relation to each other, so he constantly reorganized his collage in different ways. Like Bergson, therefore, Warburg "understood movement as the very emergence of motion, dynamics and underlying energy of the creative processes of art" (150). Blassnigg refers to this dynamic energy as the "affective power" of images, which "lies in the perceptual tensions of consciousness within the beholder" (167). The key connection between Bergson, Marey, and Warburg, in other words, is that they all recognize how images facilitate mental experiences or cognitive processes by illustrating the constant oscillation between the present and the past, intellect and intuition, matter and spirit: "While Marey acknowledged the underlying dynamism, core to his research, for Bergson the underlying forces could not be described nor expressed, never be measured, but only lived and

relived through experience. This was the ingenious intervention of Warburg's *Mnemosyne Atlas* as a gestural catalogue of an exemplary cultural history; to create a platform for accessing these invisible, intangible forces beyond or rather between the images" (166-167).

Blassnigg's book draws some fascinating connections between Bergson's philosophical concepts and the cinema experience, and Bergson's theories seem particularly relevant to cinema as he employed cinematic metaphors to explain his own notion of consciousness: "Whether we would think becoming, or express it, or even perceive it, we hardly do anything else than set going a kind of cinematograph inside us" (87). It would have been helpful, however, to explain how Bergson's concepts relate to other theories of cinema and consciousness, such as the work of Hugo Münsterberg and the field of psychophysics. Although Blassnigg mentions Münsterberg's work in her discussion of physiological optics, it remains unclear whether psychophysics complements or contradicts Bergson's approach. In her conclusion, Blassnigg suggests that Bergson's theories can also be understood in a "political sense as means for action" (204). This is a compelling claim, but it remains unclear how the foregoing discussion of time, intuition, and spirit might be interpreted in political terms. Blassnigg also claims that Bergson's theories support the "empowering agency of the spectators' active engagement" (12), which is the basis of reception studies, yet she emphasizes that this approach moves beyond "the cultural or socio-economic perspectives of reception studies" (15). It remains unclear, therefore,

how a media philosophical approach would be of any use to the study of cinema audiences. The implication seems to be that cinema extends consciousness, thus enabling spectators to intuitively imagine virtual worlds that offer alternatives to existing political and economic conditions, but this argument is not fully articulated.

Relationscapes: Movement, Art, Philosophy

By Erin Manning
The MIT Press, Cambridge,
London, USA, UK, 2009
pp. 268, illus. b/w
ISBN: 978-0-262-13490-3

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Relationscapes by Erin Manning addresses a wide range of movement analysis and key terms in movement studies (such as elasticity, intensity, inflection, porosity, interval, hesitation, etc.) in the context of a philosophical framework with focus on philosophies of immanence. It exercises a creative synthesis of Whitehead's and Deleuze and Guattari's thought. In particular it builds on Bergson's and James' conception of perception as activity and creative event in the spectrum between what Manning refers to as "objectness" (or Heidegger's terms "worlding") and experience. She introduces the concept of *preacceleration* as a way to address a vocabulary of movement that foregrounds incipience rather than displacement. Through this the author draws on aspects of Bergson's conception of motion as duration (*durée*) prior to the emergence of form, as force or dynamism of qualitative states that underlie

creativity prior to actualization in various forms of expression.

Informed by the works and thoughts of dancers such as Merce Cunningham, William Forsythe, Mark Coniglio, Scott de Lahunta, and Antonio Camurri, *Relationescapes* proposes a thinking and writing of ideas on movement from a practice-led perspective through the filters of sensation and personal reflection. In doing so it addresses phenomena of movement prior to actualization from different disciplinary contexts. These include key figures in 19th century scientific visual movement studies by glossing the innovative work by the French physiologist Étienne-Jules Marey. A similar treatment is applied to the animation films by Norman McLaren, Leni Riefenstahl's films, David Sprigg's Sculptures and examples of contemporary Aboriginal art. Her treatment allows Manning to draw in references to the aspect of neural necessity of causal efficacy in mental health, and to propose a body-emergent technogenetic in the relationescapes of dance in the context of new media technologies.

The deductive modality in the development of the argument for *pre-acceleration* provides the rationale for the choices of the materials discussed, which is a pity, since this concept potentially could have been much more firmly situated and emerged from within the materials presented. Consequently *Relationescapes* does not treat historic material on its own terms or in its specific relational context of the time. This is important since as in the case of Étienne-Jules Marey's work, for example, there is first hand evidence to use. Instead Manning overlays contemporary continental

philosophical terminology, occasionally referenced, onto original creative thinking that informs a number of works, which to some degree are arbitrarily chosen.

Although this way of working might be regarded as a radical interpretation of Deleuze's conception of philosophy, the reader needs to be critically informed about these original works and the philosophical concepts applied in order to detect the subtle moves by the author; a demand made more difficult since mostly they are not clearly demarcated or referenced through established academic conventions. Whilst this might be seen as a lack of academic clarity, however, this is clearly not the foremost concern of the book. Rather it seems to attempt to invent a new kind of language of expression, one that uses words and terms as markers for a dynamic of ideas that is constantly in move and in change. Almost like a new form of expression for dance it holds up a temporary framework of reference in order to grasp an idea in anticipation of its next step – 'pre-acceleration' *ad verbum*.

In order to grasp the meaning of some of the ideas proposed, pre-requisites for a critical reading are both a sophisticated prior knowledge of the terms and philosophical ideas discussed, along with an easy approach to the rigor and original frameworks of these ideas. This is a challenging conflict to balance, and it can be expected that each reader will undergo a slightly different experience depending on her prior knowledge, motivation and ability to let a creative flow overtake sensory perception and reasoning. An exercise, which in this reviewer's experience, fluctuated between informed creative

writing and moments in which ideas take a line of flight. Although insightful, the work, as such, remains inconclusive, since the method applied could potentially be extended to any object, anything alive with movement. As Manning concludes in one chapter: "Relationescapes abound."

Bring on the Books for Everybody: How Literary Culture Became Popular Culture

by Jim Collins
Duke University Press, Durham, NC, 2010
312 pp., illus. 28 b/w.
Trade, \$79.95; paper, \$22.95
ISBN: 978-0-8223-4588-6/7

Reviewed by Jan Baetens

One of the most widespread cultural stereotypes of our postmodern times is undoubtedly the supposed incompatibility of books and electronic media. Just as video killed the radio star (but did it, really?), Internet, the e-book and Kindle are killing the book, hardback or paperback. The countless official reports on the erosion of reading habits and the alarming shrinking of time spent with a book in our hands are all based on that same hypothesis: as soon as other media pop up (yesterday film and television, today games and other digital media), the position of the book is in clear danger, certainly in the case of these groups of readers who are insufficiently educated or lack of cultural capital to resist the temptations of the non-book forces.

The starting point of Jim Collins' timely book (also available as e-book, I imagine) is that this opposition is not what can be observed when we look around. On the contrary: books are now everywhere, including

in places where they had been completely absent until now (small town America, for instance, and this thanks to the spread of chain stores such as Barnes and Noble or Borders), they are heavily promoted (as sexy, seductive objects), and they are also massively sold and marketed (mainly through the Internet, but not without the help of very 'physical' groupings of people such as book clubs or reading groups). In the book business, sales figures are not shrinking, even if the type of books that are sold may no longer be the same as the one academic gatekeepers have always been dreaming of.

The ambition of Collins' study is not just to *describe* this phenomenon, although this is what the author is doing as well, often in very unexpected and refreshing ways, but to try to *understand* it, without condemning or defending the new forms of popular reading as such. In both cases, Collins manages with great acuteness and with a great sense of humor and (self-) irony to make us think differently on matters that don't leave any reader indifferent.

For Collins the most striking features of the recent evolutions of reading in popular culture (the title of the book is an allusion to a ritual sentence that punctuates Oprah Winfreys' Book Club shows), are more complex than it is often assumed. First of all, he underlines the fact that popular reading has dramatically changed in the last two or three decades (actually, since the emergence of the personal computer and the subsequent restructuring of social interaction). Popular reading is no longer the middlebrow attempt to catch up with something that is 'missing' (mainly education, as formerly dispensed by qualified

institutions) and whose 'lack' is considered a major problem, but as a way of self-development. Second, this approach of reading as self-development is no longer governed or determined by the authoritative voice of specialists (professors, national critics, and so on), but organized by the readers themselves, not in a purely individual way (that would be the populist option of the newly discovered readers' agency: I decide all by myself what is good or bad, and my taste is as good as yours) but via an intense dialogue with peer readers (one might call this the interactionist model: readers refuse to rely on the traditional gatekeepers; at the same time, however, they eagerly accept to team up with others in all kind of new social networks to try to find out what is good and what is bad). For Collins this shift from 'old' to 'new' popular reading, i.e. from reading 'guided' by prestigious others to reading in which the readers themselves are taking the initiative, is not simply a shift from one type of reading to another. If today's popular readers have achieved agency, it is because the traditional system has collapsed. There is now, in wide circles of non-specialized and non-professional readers, an awareness that the system has failed, mainly because an excess of theory and formalism has separated reading from life. Therefore university professors and great critics are no longer taken seriously, their advices

are no longer followed, and readers turn toward books with completely different expectations and in a totally different spirit. What popular readers are interested in is not what books mean *in themselves*, but what books can mean *for them*, what they can bring to their life. It is only this crucial shift that explains why people continue to read, and even do it more often and more passionately than before: reading has remained or become so important for non-professional readers, because they find in books something that cannot be given by other media, and this 'something' is socially organized and networked self-help and development of personal taste.

For taste, besides the ideology of self-help, is the second key term of contemporary popular reading, and here as well the author stresses the link between the vanishing of classic taste standards (the ones offered by a classic college education) and the appearance of new attempts to discover, through dialogue and debate with peers in new social networks, which might be the standards that should be followed. Once again: this is quite different from the populist version of

mass culture, which reduces discussions on taste on individual preferences or rather, for these discussions are frequently biased, on manipulation by the mass



media. The aspect of taste is decisive when it comes to book culture: if reading is so important in an age in which nobody is supposed to read any more, and certainly not in those social groups accused of being narcotized by television and other visual media, it is because of the capacity of books to play a role in the shaping and organization of one's own life style – an issue whose importance has not to be repeated.

As Collins argues, it is perfectly possible to consider these new forms of reading, in which books may seem a pure alibi to something else, as 'the end of civilized reading' (as says the title of his first chapter). Yet this viewpoint is too elite, and it certainly despises the vitality of popular culture and its manifold interactions with mass media. Without Amazon, Google, Kindle, and the social interaction enabled by the new media, the new reading culture would have been unthinkable. But this reading culture does not only destroy old forms of book culture (the independent book shop or the independent publisher, as demonstrated by critical voices such as André Schiffrin, whose theses are not discarded as elite or old-fashioned by Collins), it also merges with them and changes them in totally unexpected forms (which makes for instance that a Barnes and Noble book shop is now functioning as a... library, yet a library without well-informed librarians, since the policy of the company is to only hire people with no special knowledge on books, in order to avoid any social distance between sellers and customers!). Deconstructionist interpretations of the digital revolution in literature have been prophesying for many years the progressive blurring of boundaries between reading

and writing: this is clearly not what is happening in serious fiction or scholarship (dear reader, have you ever tried to modify just one single character in an essay by a major representative of French Theory and to publish it as 'your' text?), but it happens daily in these new forms of popular reading, where readers really can write – because what is at stake is no longer the 'text', but the way one absorb it in one's own life.

Since the frontiers between texts and life tend to vanish, it is only normal that literature (in the sense of fiction) is no longer restricted to books only. Literature becomes an experience, which can and must migrate from one medium to another. It is another word for 'something that changes' your life, and that can therefore be perfectly found and realized through, for instance, film but also through a wide range of practices (cooking, wine connoisseurship, interior design, dating, love-making, etc.) that are covered by the notion of life-style. In this regard Collins' book proposes crucial and field-expanding analyses of 'cineliterature', more specifically of the particular forms that are taken by the age-old phenomenon of filmic adaptation of literary materials. Following the defense of a more sociological approach of adaptation made by scholars such as Robert Stam, he argues very convincingly, first that adaptation has become a major force in post-classic Hollywood, and second that adaptation obeys today the same rules as the popular book culture that he analyzes here. Indeed, the books that are being adapted are those who belong to the same universe as the 'typical' books that circulate in the books clubs and reading groups (i.e. books that you can discuss with your community

rather than books that you read, in the old, 'civilized' meaning of the word) and that in addition to this can be perfectly be integrated in the merger of book culture and life style culture. For Collins, the Merchant-Ivory have been paramount in this regard: furniture is the leading actor here, and discussions on good taste fill the screen. The author goes even further, his final chapter suggesting that the exchanges between film and literature cannot be limited to the reuse of literature by Hollywood. They go the other way round as well. The contemporary hype of 'lit lit' (a notion ironically coined after 'chick lit' and referring to the obsessive presence in modern fiction of writers, preferably of writers with a strong interest in life style, and reading, preferably of reading of the same kind as the one practiced by passionate book-clubbers) is for Collins one of the literary answers to the spread of the new popular book culture in which the reading of books is presented as something that can change one's life and that one should therefore crave for at each moment of the day.

Despite his visible sympathy for the phenomenon that he scrutinizes and his overall optimism concerning the future of reading, Jim Collins is far from a naïve defender of popular culture. The stances he takes in his book are not at all populist, but a honest and inspiring attempt to understand new forms of culture that may rightly horrify us (Collins is quite critical of Oprah, as he is of the Miramax adaptations that ruled Hollywood in the 90s), but that is would be a pity to discard as vulgar and stupid. Collins strikes the right chord between left-wing catastrophism of the culture industry and right-wing praise of 'the people's preferences'. With great clarity,

he offers an important mapping and many of the questions that he raises deserve a large and critical debate.

Beyond the Screen. Transformations of Literary Structures, Interfaces and Genres

Jürgen Schäfer and Peter Gendolla (eds.)
ISBN 978-3-8376-1258-5
Bielefeld: Transcript (Media Upheavals series, volume 44),
2010, 568 p.

Reviewed by Jan Baetens

Based on a Siegen conference of 2008, this book is the fruit of a transatlantic collaboration between mainly German and US based scholars in the field of electronic literature. It brings together researchers linked to the ELO (Electronic Literature Organization) and the immersive laboratory called the 'Cave' at Brown University on the one hand and new media and medium theory specialist from various German universities on the other hand, although in a very open and inclusive spirit (of course certain teams and countries are underrepresented, but this flaw is difficult to avoid in such a creative and burgeoning field as e-literature). Moreover, since the book is much more than just the proceedings of the conference, it finds its place in a larger publication program conducted by the two editors, who have been dramatically productive in the last few years, with impressive collective publications both in English and in German with the same publisher).

It is a pleasure to observe that this very heavy book with numerous contributors and a wide range of topics, has nevertheless a clear focus. Its aim is to study the future of

electronic literature following three major lines, on which I shall return immediately. By stressing the notion of electronic literature, the editors make a clear statement on the (relative) autonomy of textual and more specifically literary production within the broader field of new media studies and digital culture studies. Despite its apparent simplicity, such a statement is courageous and refreshing, since it goes against the grain of the current *doxa* of media hybridization and the blurring of boundaries between all the media and sign systems that can be communicated through a digital channel. E-literature is not seen as the integration of the thing formerly called literature in the new heaven of Computerland. Second, by stressing the importance of the future of e-literature, the editors do not only express their belief in the fact, which is far from being accepted by all specialists, that literary writing has a future on the Net (and beyond), they also accept the idea that we now have a solid basis for the study of e-literature and that it is therefore no longer necessary to reopen old discussions on the definition of electronic literature. Rather than reopening the case made by authors such as N. Katherine Hayles in her book *Electronic Literature* (2008; a publication sponsored by the ELO and now broadly implemented in college teaching), the priority is now to see what e-literature represents today and how it shapes our literary mind and expectations.

Beyond the Screen is organized in three sections. In the first section, "Beyond the Screen", the editors have gathered the essays that analyze e-literature's 'expanded field', i.e. the expansion of the text in a temporal and spatial environment that is no longer

limited to the 2D-surface of the computer screen (the very interesting of 'locative media' works, using for instance GPS technology, are among the most speaking illustrations of this new tendency). In the second part, "Beyond Genre", one finds a number of contributions that question aspects of literary taxonomies and genre classifications (most examples here take as their primary focus the question of digital poetry, whereas one would have expected a more thorough discussion of less recognized genres such as videogames). In the last section, "Beyond the Library" – for me the most interesting part of the whole book –, Schäfer and Gendolla make room for very basic but also very essential interrogations on the storage, preservation, archiving, reproduction, editing, disclosing, classifying, and publishing of electronic sources. Often discarded as merely technological, these questions prove however to be so fundamental that one can only accept with great joy the new prominence that is being given to them in debates that aim to be in the very first place cultural and directed toward a broad debate (as is demonstrated by the astonishingly clear language of all the texts of this collection).

In general, the reading of this volume is very rewarding. The cultural, aesthetic, and social stakes of the discussions are clearly marked, and the helpful editorial hand of Schäfer and Gendolla makes that the unusual length of this publication is never felt as a handicap (though the very wealth of the material might have required a general index, which is missing now). The organization of the collection is clever, although slightly out of balance. In this regard, the very presence of the second

question on genre problems comes as a little surprise, for the type of questions that are raised here do not seem very specific of e-writing and e-literature: any form of innovative cultural production since more than a century has had a similar agenda. If the strong insistence on e-writing's 'literariness' should be welcomed, a minor point of the volume is that too many essays, however interesting they may be in other regards, do not respect enough this thematic focus, expanding the scope of research too much in the direction of visual arts, new media arts, performance arts, etc. It is clear that such reframing of digital literature is useful and perhaps inescapable, but it appears a little at odds with the strong claim in front of a more strictly literary approach.

What has bothered me as well is the difficulty of defining literature itself. Time and again, literature is defined in very general terms, which do not really clarify the object that is at the center of the book. Just one example: 'If we do not understand the poetical only as an effect of literary procedures – in Roman Jakobson's sense of "poetic function" – but as a re-projection of socio-historical and technical conditions of the body to its sensual self-perceptions, then (...) ' (p. 56). There may be good reasons to consider Jakobson's definition as insufficient, for instance in its ignoring of the body and the interaction of body and speech technology, yet the alternative that is being formulated here does hardly help solve the question that triggered the very argument of Jakobson, namely the distinction between poetic and non-poetic language and the best ways of describing it. The limits of Jakobson's poetic function are not superseded by the new approach that should accept the challenge to

redefine poeticity in a *formal* manner within the new and more satisfying framework that we are in need of when being confronted with unclassifiable examples of electronic writing. The lack of any real definition of what literature actually may be, makes also that most contributions are more descriptive than evaluative (with some notable and very refreshing exceptions, such as the essays by Noah Wardrip-Fruin and Roberto Simanowski). Yet the need of a critical assessment of what is currently being produced is a real issue – and one should at least raise it, even if one rejects the classic criteria and ready-made arguments that help distinguish between the good, the bad and the ugly. As Joseph Tabbi's article clearly demonstrates, there are even very good reasons to refuse to take part in this aesthetic discussion, but at least his contribution foregrounds in an exemplary matter what is at stake in this kind of debate. Finally, one should notice also that in this volume there is after all not much theory or, to put things more precisely, not much theoretical debate. Of course most authors define very plainly the framework that they are using, but in almost all cases this framework is just mentioned, instead of being critically challenged or discussed as well. ANT, for instance, which runs through the whole book, might have deserved a more thorough theoretical conversation, for after all it is not a method often used in discussions on poetry, in the aesthetic sense of the word – and literary scholars can only take their advantage from this kind of discussions. The same applies to the use of cognitive theories, reading-response theories or theories of knowledge. All these questions are being treated in traditional literary (i.e. print-

oriented) scholarship as well, and the dialogue with the insights, the doubts, and the interrogations of this more traditional body of theory might have been very interesting. It is missing now, but that doesn't mean that there shouldn't be room for it in the continuation of Schäfer and Gendolla's work in progress.

The Readies

by Bob Brown
Edited by and with an
Afterword by Craig Saper
Rice University Press, Houston,
TX, 2009, 96 pp.
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Reviewed by Jan Baetens

Bob Brown's 'The Readies', a 1930 avant-garde manifesto written in the US by a prolific author and published at his expense in a very small copy run in Germany, has longtime been a mythical text, often mentioned, rarely quoted in a more than allusive manner, almost never really read, even by the specialists of Modernism (in this regard, Brown's position is not deprived of analogies with that of the Belgian founder of documentalism, Paul Otlet, whose ideas on the universal library, now rediscovered due to the efforts of his biographer Françoise Levie, came two decades before Vannevar Bush's 'How We Might Think'). A forerunner of all kind of photographic and electronic ways of reading and writing literature, from the microfilm to the iPad and many other devices, Brown's amazing speculations and cultural

thinking can now finally be read and discussed thanks to the efforts of many people: first, scholars such as Michael North, who have recently contributed to the new interest in the figure of Bill Brown (a bigger than life character, whose multiple activities in the field of the publishing industry merit an in-depth analysis in themselves); second, the series editors of the important 'Literature by Design Series' at Rice University Press, Jerome McGann and Nicholas Frankel, who give a new life to literary works of the period 1880-1930 that foreground the book and the visual nature of language (the key role of typography in Modernism has been obscured by contemporary reprints and trade editions, but is now again gaining large critical attention); third, the editor of this volume, Craig Saper, who not only wrote a brief illuminating essay for the book, but who offers on the website www.readies.org an electronic simulation of the machine imagined, yet not realized, by Bill Brown (as so many visionaries ahead of their times, the author of 'The Readies' could only imagine the revolutionary force of his ideas, which have now more or less entered mainstream cyberculture).

The readies, a term coined by Brown in his manifesto, refer to the technical and cultural revolution that has modified both the word and the image in the early 20th Century, when first the cinema and then radio produced new forms of communication that, according to Brown, were about to make the traditional book totally obsolescent. Newer forms, better adapted to the speed of modern life, had to be invented, and the reading machine imagined by Brown was clearly one such example. The readies were imagined as a machine that would print type

microscopically on a transparent tissue roll while enabling the reader to unroll it at his or her preferred speed beneath a strong magnifying glass. At the same time, the readies were also the texts registered on the ribbon put in front of the magnifying glass.

Clearly linked to Futurism's fascination with speed and influenced by Vorticist craving for visual synthesis as well as by Joycean puns (a literary technique that can be seen as the encounter of speed and synthesis), Brown's readies were not only to remain the work of a dreamer or a visionary. If the machine itself was not actually realized by its inventor, the manifesto included a sample story of the new way of writing, heavily featuring the use of so-called "smashum" or condensed words, on the one hand, and of hyphens as a kind of universal typographical sign replacing unnecessary words or reducing overlong ones, on the other hand.

Although quite uneventful in itself and clearly lacking the stylistic firework of Brown's manifesto style (a really great piece of writing, one of the best introductions to the spirit of Modernist writings of that period), this story helps understand how visionary a project 'The Readies' really were and how well they prefigured contemporary forms of electronic writing even in its most daily forms. Brown's relations with the most prominent representatives of Modernist art and culture (Marcel Duchamp, e.e. cummings, Gertrude Stein, for example) give also a rich context to this book, whose publication fills an important gap in our understanding of the articulation of art and technology and the historical

forerunners of electronic culture.

A Mysterious Masterpiece: The World of the Linder Gallery

by Michael John Gorman, Editor
Fondazione Palazzo Strozzi/Alias
135pp. Paper, €12.00
ISBN: 978-8-96532-02-7

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A Mysterious Masterpiece. The World of the Linder Gallery introduces the *Linder Gallery* painting to a broad audience through an *in situ* conversation of six specialists and generalists who discuss the work in the owner's (Ron Cordover's) living room. Thus, it is an unusual book about an unusual painting that was virtually unknown until now. The decision to use a lively conversation instead of a dry, scholarly narrative approach (with all of its annotations, footnotes and a long bibliography), makes the volume accessible and adds a measure of appeal to the ideas as well because the participants draw out each other's knowledge as they talk.

What is perhaps most exciting about the book is the subject matter itself. Although the walk through the details of the piece is rudimentary, this quick survey does expose how many facets of a unique moment in the history of ideas are contained within its parameters. As Gorman and Bradburne note in their introduction:

"This is ... a world looking Janus-like both forward to Boyle's 'chymistry' and Newton's physics, and backward to Nostradamus' astrology and Sendivogius' alchemy. The 1620s was the

world of Rubens, Brueghel, Van Dyck and Galileo, but it was also only recently the world of Shakespeare and Tycho Brahe. It was a world that stood at the threshold of the Thirty Years' War. It was a world alive with experiments and exploration, but also a world that remembered the Wars of Religion and the St. Bartholomew's Day Massacre, the Spanish Armada, and the assassination of Henry IV. This painting is a document that holds the cue to understanding the political, intellectual, artistic and scientific ferment of the first half of the seventeenth century." (p. 12)

What I found particularly interesting is the way this painting speaks of how science added a secular element to paintings that was particularly evident in Northern work. The book proposes that *Linder Gallery* was probably commissioned in the 1620s and offers c. 1622-9 as the painting's date. Since Kepler's *Rudolphine Tables*, one of the objects depicted in the work was published in 1627; I think it is accurate to say the composition itself shows how it is a part of the contemporary scientific conversation of its period. In addition, the painting is representative of a seventeenth century genre that was created in Antwerp, that of the "cabinet painting" or "gallery interior." Typically, these objects were filled with allegorical wall paintings and elements, elegant interiors, people, objects and instruments. As a whole, the conglomerate of images spoke to social, political, artistic, and scientific issues of the time. While images of the contemporary world constantly bombard us with competing ideas, in earlier times works like gallery interiors would bring many competing ideas into focus.

In the case of *The Linder Gallery*, three people conceived the specific theme of the work. One was the unknown painter. One was a wealthy German merchant, Peter Linder, living in Milan in the early 1620s, who commissioned the Linder Gallery. In addition, Muzio Oddi, an Urbino mathematician and architect, played a key role in informing the selection of elements that comprise the pictorial commentary. The composition itself is centered around the intellectual understanding of the cosmos through measurement and mathematics, although there are many other threads evident, particularly in the allegorical works on the wall. Still, it is the cosmological specifics that are most striking because they separate this work from other gallery interiors of the seventeenth century. While the gallery interior genre itself frequently includes scientific instruments, maps, globes, etc., most of the paintings do not include explicit references to the actual cosmological debates of the era.

In *Linder's Gallery*, the central table is particularly alluring in terms of how it accentuates the cosmological theme. Renderings of a large astrolabe by Gualterus Arsenius and the celestial globe, probably by Jodocus Hondius the Younger, are fascinating examples of the period. More compelling from an intellectual standpoint is a paper bearing the three cosmological systems that were competing at that time. These include the earth-centered Ptolemaic view, sun-centered the Copernican framework, and the composite system of Tycho Brahe in which the inner planets orbit the sun and the outer planets revolve around the earth. Beneath the diagram it says "ALY ET ALIA VIDENT," which is translated "Different people see it

differently" or "Others see it differently." The three books on the table further accentuate the importance of the cosmological discussion at this time. Two are by Kepler, [*Harmony of the Worlds* (1619) and *Rudolphine Tables* (1627)]; the third is John Napier's *Description of the Admirable Tables of Logarithms* (1614).

In trying to think of a comparable statement in our time, nothing seemed so comprehensive and enticing. It is not difficult to find correlates for the scientific creativity, like Einstein's five exceptional papers of 1905 or in the work of the quantum physicist. My attempts to think of an artistic commentary that included scientific disputes were less successful. Perhaps the power of objects grows when people look back retrospectively and thus fertile pairings are less evident in their own time. If this is the case, our works today will become more powerful when others look back at how our minds were grappling with the information at hand.

Another aspect of the *Linder* conversation that I found quite illuminating was the discussion of the preparatory drawings, now in the Royal Collection in Windsor Castle. This pen and ink, with wash over graphite, rendering seems to offer a wonderful entry into the paintings evolution. Similarity conceived, yet with striking points of deviation, the possibilities to both make and argue the connection are evocative. For example, the drawing does not have the same vaulted ceiling and has a door on the left side rather than a window. The scale is also different, but some of the paintings on the wall seem to match those in the *Linder* work. As the book's commentator's note, what stands out is that the oddly shaped table in the

painting, which appears out of perspective, is quite unlike the accomplished perspective table of the drawing.

From my viewpoint, one of the most intriguing aspects of the work is that its striking content is matched by an extraordinary story. In this case, the work was a part of the Rothschild collection in Vienna and was confiscated by the Nazis at the beginning of the Second World War. The Nazis kept it in a salt mine in Salzkammergut, where they stored many paintings taken from museums and collectors. We now know means that this work was among those intended for the Führermuseum in Linz. Cordover states that when he and his wife bought the painting much of its history was unknown. He was attracted to its level of detail, its special character (it is executed on a copper substrate), and the subject matter. The discussion in this book shows that much information has been gathered in the last few years. Overall, I liked the conversational tone of the book. It was strikingly rich in ideas and yet created a sense of one of those memorable conversations with friends that come about when discussing a marvelous work that stimulates on many levels. In the book, this conversational tone was often stimulating but a bit trying when some of the smaller works on the wall of the interior were discussed. The illustrations in the book were not always easy to find. Rather than sift through the volume trying to figure out which part of the painting is being discussed and where the best illustration is, I would recommend that readers begin by familiarizing themselves with the list of 74 identified features at the end. Better still is the website, at <http://www.mysteriousmasterp>

[iece.com/](http://www.mysteriousmasterpiece.com/), which allows a reader to zoom in and out. As with many books that decide to focus on readability rather than scholarship, it is fun to read the book and hard to find details afterwards. The lack of an index, for example, left me frustrated many times when I was trying to pull together details for this review.

Finally, and perhaps it goes without saying, it is the contributors to this innovative discussion that are responsible for the breadth of material and looking at the work in a way that remains stimulating to those of us who "listen in" remotely. The credit here goes to Lawrence Wechsler, who has written about Robert Irwin, David Hockney, Athanasius Kircher and *Mr. Wilson's Cabinet*, and is also the Director of the New York Institute for the Humanities). Pamela Smith is a Professor of History at Columbia University and her book *The Body of the Artisan: Art and Experience in the Scientific Revolution* demonstrates how much early modern science owed to artists and artisans. Also present in the room was Alexander Marr, a Lecturer in Art History at the University of St. Andrews, who specializes in early modern art and the history of science and technology. Michael John Gorman, who is now the Director of the Science Gallery, Trinity College, Dublin, edited the volume. He has participated in many projects that bring art and science together. James Bradburne, the Director General, Fondazione Palazzo Strozzi and the owner of the piece, art collector and businessman Ron Cordover, were also involved.

All in all, this is a fine volume for art historians, generalists, students of the history of science, and anyone who is interested in the history of ideas. There are many

reproductions of scientific material of the time that are not included in the painting. These images aid the reader in contextualizing the period's thought and discoveries. In my case, I was impressed with the depth of detail in what is basically a fairly cursory work. For example, in my last *Leonardo* review, on *The Moving Earth* (see http://www.leonardo.info/reviews/june2010/ione_becker.php) I mentioned that I didn't think Kepler did the frontispiece of the *Rudolphine Tables*, but I was not able to find who did the work. Ironically, *The Mysterious Masterpiece* unearthed the information that Georg Celer was the artist. While I don't know that everyone will find a nourishing tidbit like this, I do think this book is a nice supplement to the art/science/technology diet, particularly for those who yearn for more historical information.

Lewis's Fifth Floor: A Department Story

Photographs by Stephen King
Introduction by Deborah Mulhern
Liverpool: Liverpool University Press and Neutral Spoon.
159 pp. Colour with illustrations
ISBN 978-1-84631-246-5

Reviewed by: Aparna Sharma
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Lewis's Fifth Floor: A Department Story is a photo book in which photographer Stephen King revisits the abandoned fifth floor of the landmark British departmental store, Lewis's in Liverpool. The fifth floor of the store was reopened to public in the 1950s after the second world war and got finally shut in the 1980s. During that time the fifth floor was a vibrant place of work with a tightly-knit working culture; and the photo book revisits those years by

juxtaposing interviews of employees who worked there with photographs of the abandoned floor taken in 2009. The book is replete with memories that sensorially evoke the fifth floor in terms of its daily rituals, routines, sounds, textures, colours and smells. Stephen King's compositions are particularly striking in graphic qualities, complementing the art deco aesthetic of the fifth floor. Subtle camera angulation and the use of lighting emphasise the art deco colour scheme of the fifth floor. About the colour

of King's photographs
Deborah

Mulhern in her essay, *Lewis's Fifth Floor: A Department Story* at the start of the photo-book

states: 'One of the most striking things about Stephen's photographs are the colours: bold and unapologetic aquamarine and air force blue, maroon and mustard yellow, as bright and arresting as a restored Renaissance painting.' (2010: 12) Stephen King photographed the floor in early 2009. The effect of the winter light from that time of the year — cold and flattening, mixes with the art deco colours, resulting in a specific rendition of British urban landscapes. This serves in highlighting the difference between the colours associated with art deco in the UK and elsewhere, say for example, the west coast of the United States, where the movement was influential. Mulhern historicises the colour scheme adding: 'The 1950s were a difficult but also hopeful time for people emerging from the restrictions and rationing of wartime, living and working surrounded by bombsites, as many people were in Liverpool. The designs of the 1950s were

an attempt to banish the drab and down-at-heel and celebrate the actual and metaphorical introduction of colour into people's lives.' (2010: 12)

Mulhern points out that the fifth floor's interior designs were influenced by the 1951 Festival of Britain wherein: 'Designers looked to science and technology for inspiration and the designs for furniture, furnishings and fittings were based on magnified atoms and molecules and the crystalline structures of minerals and metals.' (2010: 13) King's



photographs delve on this theme bringing forth the influence of scientific imagination and its amalgamation in

departmental store design. The book can be roughly classified into two sections. One contains photographs that concentrate on physical spaces of the fifth floor such as a cafeteria, two restaurants and a hairdressing salon. The second section contains photographic portraits of former employees. Most of these photographs are taken by positioning the subjects in their workplace, often literally where they stood during the workday. Most portraits are full length with the aim of situating the subject's body within the spatial context of the store. The direct gaze of the subjects towards the camera is complemented by interview quotations through which the subjects introduce themselves and share memories of working at the store. It is evident that the interviews from which the quotations have been selected were conducted in a conversational manner that facilitated spontaneity and intimacy between interviewers and subjects, allowing the latter

to share their personal experiences, impressions and relationship with their workplace. The employee recollections contrast sharply with the ghostlike atmosphere of the abandoned fifth floor in the photographs. This creates a powerful effect of humanizing space — reducing the banality of the fifth floor's present condition and inducing a human element within its narrative. The employees who worked at Lewis's remember there being a distinct working culture at the department store. Interestingly, numerous interviewees draw a comparison between the fifth floor working culture by recalling the famous BBC comedy series, *Are You Being Served* that ran from the early 1970s to the mid-1980s. Often times, employees started at Lewis's during their teens and many had more than one family member already working at the store. The working atmosphere at Lewis's was familial and at the same time formal and cordial. The interviews point at a consumer culture that specifically arose in post-war Britain and was shaped by department stores such as Lewis's. Mulhern terms this as the process of 'democratising luxury': wherein the obligation to buy upon entering a store fizzled as did the assumption that working class customers would necessarily haggle. (2010- 12) This is crucial in historicising British retail practices and culture that allowed for the working classes a claim in the luxury consumer goods sector. The British shopping experience was shaped to be more inclusive rather than exclusionary and this is evident in mass media representations of shopping in British film that are quite distinct from class dynamics as manifest in shopping experiences depicted in Hollywood films. Over the years Lewis's has lost much of

its appeal and now City Council plans are underway to incorporate it into a shopping and leisure complex. English Heritage has listed the Lewis's building as Grade II in 2007 and attempts are underway to preserve the sculpture, décor and artworks in it. British consumer culture too has changed dramatically. Under the present economic crisis stately firms such as Lewis's are becoming clearly a nineteenth and twentieth century phenomena. Presently city centers across Britain are dotted with masses of concrete being mobilized to form inert, homogenous and depersonalized retail complexes. Many artistic projects documenting the rapidly changing cityscapes of Britain have gained momentum over the last two years. *Lewis's Fifth Floor: A Department Story* contributes to this emerging body of scholarship that combines fine art methods with field-based practices. This blurs the boundaries between the humanities and the arts and makes a necessary contribution to the field of urban folklore.

A Body Worth Defending: Immunity, Biopolitics, and the Apotheosis of the Modern Body

by Ed Cohen
Duke University Press, Durham, NC, 2009, 384 pp.
Trade, \$88.95
Paper, \$22.45
ISBN: 978-0-8223-4518-3
ISBN: 978-0-8223-4535-0

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Ed Cohen offers a provocative and demanding account of what he calls the 'back story' of the apotheosis of the modern body through the thought

provoking trajectory of immunity as an unquestioned metaphor which unreflectively incorporates juridico-political assumptions. This unquestioning he argues has led to a disconnect between the body and its environment and the de-legitimizing of other ways of seeing humanness and the models of care and treatment.

This argument is tantalizing for those who may wonder why the 'individual' has become inordinately central to the thinking of the West. As though the individual is a bundle of rights floating 'discreetly' above the planet neither connected to nor responsible for that which pours forth from such thinking.

Furthermore, it empowers advocates in poverty stricken domains with a substantive argument as to why the 'drugs into the body' type campaigns appear to suffer from the blindness of the poverty and conditions which bring about the disease in the first place. Cohen's book therefore can be recommended to be of use beyond the Anglo first world borders of the predominant neoliberal world, to that of those who depend on aid from wealthy nations. However, it is obvious that the author's scholarship is directed at those of the academy and therefore not so accessible in its diction to the non-academic.

Cohen provides four substantive chapters to support his hypothesis. However, both the introduction and conclusion justify a close reading in themselves. The introduction provides a comprehensive overview of the book and a frightening revelation that the Darwinian phenomenon, that is, the dabbling and assumption of one scientist can become the scale by which the humanity of billions can be determined. The

reductionism and individualism of the biomedical approach to health is writ large in this expose.

Chapter 1. Living Before and Beyond the Law, or A Reasonable Organism Defends Itself

This chapter opens with a quote from the famous *War of the Worlds* sci-fi film and then goes on to demonstrate how the influence of such popular media shapes our understanding of germs and immunity. However, who can be blamed if they think germs and immunity come down to some kind of bacterial level of - a shoot out at the ok corral - taking place in our bodies on a daily basis.

The evidence for this argument begins in this chapter and Cohen gives a rather surprising account of the co-opt of the words immunity and defence from the legal and political two thousand year old home into a new form of Natural Law that shaped modern politics and modern science.

Chapter 2 A Body Worth Having, or A System of Natural Governance

This chapter provides an insightful account for those who suffer under the public health system driven by neo-liberal values. The linkage between poverty and population highlights the tendency of the politico-economic arguments to intimate that is the poor who are to blame for declining health standards. And even more sinister, that the poor are a threat to the national politics and economic stability. The notion of Medical police is provocative as a new political conjunction believer physician and the state which increasingly legitimates physician authority as experts about a populations general well being or

'happiness', as living organisms. Furthermore, Cohen takes the reader through historical debates that eventually lead to "As a result, medicine experience begins to assume some of the religion's salvific responsibility." (p. 98)

Chapter 3 *A Policy Called Milieu, or The Human Organism's Vital Space*

This chapter descends the reader into the murky policy prisons of public hygiene and the funding of the holy sanctuary of the laboratory and that which issues forth from this holy of holies has the God given right to determine the truth about our bodies. I would add it is riveting reading to learn the source of the reductionist mentality that sees the human being as a health statistic and the cure for ailments reduced to a script on a piece of paper. Or is it the script from another sci-fi film - *Star Wars* - which we find in the next chapter.

Chapter 4 *Incorporating Immunity or The Defensive Poetics of Modern Medicine*

This final chapter reads like a scene from *Star Wars* in which he presents a bio-political conjunction of immunity as defence gives rise to the apotheosis of the modern body. Just like Anakin rising from the molten remains of the Death Star and his body is apotheosised as Darth Vader, so too does this chapter give us a much needed secret of how 'our bodies in the West' have been refashioned like a Darth Vader of defences against invading bacteria. The notion of immunity atomizes our bodies into the realm of defence - a body worth defending. In that our humanness no longer exists as part of a larger environment, but something we must turn into a fortress in itself - the weapons of defence being those designed by the biomedical fraternity. As Cohen

explains this is not an intentional shift but rather a matter of history.

In conclusion, *A Body Worth Defending* has much to offer the diligent reader, who is interested in tracing modernity's genealogy and its shape-shifting over time in its understanding of the nature of the human and its present manifestation as a biological phenomena separated and distinct from the environment. A separation which has come to dictate not only how we care for the ill and our system of healing but more insidiously our entire political and economic relations. (p. 281)

Arquitecturas Genéticas III / Genetic Architectures III: New Bio & Digital Techniques

by Alberto T. Estévez (ed.)
ESARQ Barcelona 2009
Lumen Inc./Site Books Santa Fe, New Mexico USA
pp. 204 col. & b/w illus.
Paper 2009 \$22 USD
ISBN: 978-0-930829-68-1

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As the title suggests this book is the third publication concerning the research department, Master's degree and PhD program in Genetic Architectures — founded by Alberto Estévez in 2000 at Escola Tècnica Superior d'Arquitectura, Universitat Internacional de Catalunya (Barcelona).

I mentioned in my review of the first book, *Arquitecturas Genéticas*
http://www.leonardo.info/reviews/jan2004/genetic_harle.html
that the ESARQ project represents one of the most advanced architectural research/teaching programs

available. Since that first book ESARQ has gone from strength to strength and gained more acceptance as a leading, bona fide branch of sustainable architectural research and education. "These postgraduate studies are now official, under the title of a Biodigital Architecture Master. (Not without objections being raised by some architects, who, from their "position of power", instead of encouraging and supporting, have failed to understand the importance of the proposed ideas ...). And the Genetic Architectures Consolidated Research Group has achieved also official recognition. All of this is grounds for optimism." (p. 7)

The use of computer technology is an essential and indispensable component of the school's approach. Various software programs such as Xfrog, Rhino, ParaCloud, Generative Components, 3D StudioMax (for rendering) and FormZ are used (and further developed with the software engineers) to extend and develop structures inspired by biology, botanics and genetics. Totally new forms are created, inspired by natural sequences, such as Fibonacci spiralling, these are then saved as STL files which may be "printed" using a 3D Thermojet Solid Object printer. The experimental architectural forms may also be realised as actual 3D objects using the technology known as Rapid Prototyping and recently by a CNC machine which produces 1:1 scale, real building components.

The book is lavishly illustrated with quality colour and black & white illustrations which show examples of the work of both the students and professors. The visual treat of these new forms is extraordinary, and even more so because with a little imagination it is not hard to see

that these experimental, pioneering forms will be commonplace in our built environment in the not too distant future. There are nine main essays, relatively short in length, which discuss both the practical and theoretical issues involved in the overall research program.

- 1 - *Genetic Architectures: New bio & digital techniques* by Alberto Estévez
- 2 - *After parametrics?* by Bernard Cache
- 3 - *Emergent properties of life* by Joseph Corco
- 4 - *The "bio-logical" and the paradigms of the digital age* by Mauro Costa
- 5 - *Digital nature, eTrees generative architecture* by Dennis Dollens
- 6 - *Genetics fundamentals* by Agustí Fontarnau
- 7 - *Performance-orientated design: Reflections on a biological paradigm for architecture* by Michael Hensel
- 8 - *Contour Crafting: A revolution in concrete construction* by Neil Leach
- 9 - *Gaudí-Dalí: Prolegomena of genetic architecture or else* by Judith Urbano

The essays address quite disparate aspects of the overall research program and the important factors that need consideration in developing this radical new architecture. The beautifully grown forms belie the hidden difficulties in turning the theoretical concepts into real buildings. It is easy to get a little carried away with the STL models as ends within themselves. However these issues are discussed in the various essays, in a sense grounding the forms and asking some really hard questions. The essays by Cache, Costa and Hensel, are highly instructive in this regard. The practical applications of the technology described in Leach's essay on

Contour Crafting is literally revolutionary. As with the two previous *Genetic Architectures* this is an engaging and inspiring book and a real pleasure to review. Each image caption and the essays are written in both Spanish and English. I have one very minor criticism and that is there are a significant number of grammatical errors, possibly due to translation from Spanish to English, nevertheless the book could have been improved with the keen eye of an English speaking proof reader.

In the conclusion to the previous book review I posed a rhetorical question. "Reflecting on the magnificence of Utzon's masterpiece, the Sydney Opera House, I wonder if the real buildings which result from the research in the ESARQ school, with all their computer technology, will equal or surpass this building?" If the work presented in this latest publication is any indication I am sure it will.

Greening Through IT: Information Technology for Environmental Sustainability

by Bill Tomlinson
The MIT Press, Cambridge,
London, USA, UK
pp. 210, illus. b/w. \$24.95
ISBN: 978-0-262-01393-2

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Greening through IT is well written, incredibly well researched and most timely. There is no doubt now that the planet is in trouble, and that our present energy consumption levels, waste (both personal and industrial) and pollution levels are far too high to allow life to continue as we know it. How long it will take before

catastrophic changes occur is a matter of speculation, some say ten years some say one hundred! Whichever, these time spans are minuscule compared to the time it has taken earth, and all the various species (including humans) to evolve to the present. One of Tomlinson's main arguments throughout this book is the inability of humans to understand long time spans. As he points out we are going to have to improve this faculty and implement long-term changes, which consider future generations.

This book is almost like a workbook for the development of a truly sustainable future. There are "... numerous opportunities for people to make the way we live more sustainable. Helping people and institutions discover, understand, and act on these and other environmental possibilities is the primary goal of Green IT.", and of course this book. (p. 10) The book is suitable for all levels of readership, including older school children. The arguments presented are based on scientific facts and sound statistics but presented in such a way as to be easily understood by non scientists and non academics. Tomlinson and associates developed a virtual ecosystem in 2006 called EcoRaft which enabled children to work together to restore damaged ecosystems. (p.118)

There are nine chapters, followed by an excellent Reference section and an Index.

Chapter 1 - *Introduction to Green IT* introduces the whole concept of using information technology and devices to help achieve sustainability. A really fascinating example of how IT can work, relates how the fishers in Kerala (Southern India) started using mobile phones to communicate with

each other and their commercial buyers. This resulted in a complete streamlining of the fishing industry, no more wasted fish, more profits for the fishers and lower prices for the consumer. (p. 1) This chapter is a little long winded, tending to repeat information which is then repeated again further through the book.

Chapter 2 – *Environmental Horizons* describes most of the main challenges facing humanity. This chapter deals with facts such as the extinction of species, world population explosion figures and so on.

Chapter 3 – *Human Horizons* looks at how we approach, understand and act on the various challenges facing us.

Chapter 4 – *The Role of Technology* discusses the role of technology, especially computing and communication technologies, and the way this knowledge and its associated devices can help or hinder sustainability.

Chapter 5 – *Survey of Green IT Systems*. As the title suggests this chapter looks at the various ways in which IT, green and otherwise, currently impact on global sustainability. Such devices as smart electronics that control engines to maximise fuel efficiency are discussed. How can IT help deforestation, manage food production more efficiently and many other similar areas are discussed in this chapter?

Chapter 6 – *Green IT and Education*. Perhaps Tomlinson's greatest contribution to sustainability is through his efforts in education. He is Associate Professor of Informatics at the University of California and as previously mentioned has developed IT education systems for children

and also for adults. This chapter discusses these tools and many other facets of educating all individuals in the importance of moving towards sustainability.

Chapter 7 – *Green IT and Personal Change* looks at how all of us have to change the way we live to bring about sustainability. Trackulous a web-based application can help in this regard.

Chapter 8 – *Green IT and Collective Action* discusses how we can get together with others to share ideas, to work in groups, and establish networks to increase the overall awareness of the enormity of the problems facing us so they can no longer be ignored. GreenScanner, another Tomlinson IT tool, is very useful for providing such group information.

Chapter 9 – *Ways Forward* suggest where we are going, where we need to go and generally takes a philosophical approach. "This book has sought to propose tools that can enable people to work together to turn the ideas of researchers into positive environmental change, thereby becoming collectively, a kind of distributed Alexander the Great for the environmental movement". (p. 178)

Many individuals care about the state of the planet but are somewhat at a loss to know how to help the situation in a real, rather than token way. This book will help individuals, institutions and educational organisations take positive action, in both small and larger ways towards achieving a sustainable future for our "Children's, children's children".

Enactive Cinema – simulatorium Eisensteinense

Pia Tikka
University of Art and Design
Helsinki (2008)
Soft cover 338pp.
Illus col., b&w with DVD
\$50 / €38.
www.taik.fi/bookshop
ISBN 978-951-558-272-0
ISSN 0782-1832
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Early cinematographic pioneers established the principles of story telling based on the chemistry and mechanics of the day: the replacement of a single photographic image by another, following sequentially on a physical strip of nitrate film. Sergei Eisenstein, the Russian filmmaker was foremost during the 1920s and 30s in researching the theory and practice of the many ways in which this could be applied to kinema narrative. In this exhaustive book Pia Tikka surveys in great detail the literature of Eisenstein's era, before extrapolating upon Eisenstein's ideas and the possibilities of a motion picture system based not on sequential ordering of the image but on its random production within the affordances of the digital environment.

The book, a lengthy and complete research thesis, is an extraordinary overview of writing produced by artists, philosophers, scientists and others over the last 200 years, exploring, enquiring and investigating human consciousness and our meshing with moving images. As such it is an invaluable compendium of sources for further pursuit by researchers and scholars as there is much that is only outlined, in spite of

the depth to which the work probes; the author moves inexorably onwards making, arguing for and asserting connections between the galaxy of contributors assembled and the principle protagonist, Eisenstein.

Readers not familiar with Eisenstein's films might wonder why he pursued so much obscure research as recounted here and whether it informed the making of his films, or simply gave the recent legions of scholars who study his films and writings much to speculate upon when attempting to connect his theory and practice. Did Eisenstein pursue these various research because, post pluralist Lenin, he was channeled into making films politically acceptable to the Party? Or did he need to keep his (dangerously) active mind busy with private study projects whilst carefully seeking out the wider international community of questioning minds? Or did he just like people, and as a trusted Party member was able to travel to find them? These are the kind of questions about the social context Tikka leaves to Eisenstein's many biographers.

Her aptly named "treatment", moves between recent scientific knowledge of the dynamics of mind, and cultural discourse established in earlier times; contemporary Continental philosophies do not feature much here. The emphasis is on research-based practice, (as proposed by Eisenstein to Soviet filmmakers

in 1935), rather than the more fashionable practice-based research, (practice in advance of findings and conclusions). Having defined the domains in which the literature search will occur – consciousness, emotion theories, cognitive science and neuroscience – her exhaustive searches bring together a plethora of minds from which potentially useful evidence is mined and discussed. Carefully organized into some 50 sections, whilst the analysis is dense the summaries are short; such is the exhaustiveness of the quest, the trusting reader postpones questions about final outcomes.

Has the history lesson, on Eisenstein's notebooks and those of other mostly Russian thinkers at the turn of the 19th Century, helped us understand better where we are at the moment? Put another way, had not the late 20th Century technologists emerged with the microprocessor and its manifestations, could it be that Eisenstein's writings and those of his contemporaries will have



remained simply as historical texts to be picked over by cinephiles, psychologists and philosophers, rather than as here, being subjected to piercing analysis by a cybernaut intent on shaking up the many intellectual fixtures dominating the contemporary scene?

The later sections - only a matter of 30 pages from the total 338 - describe the practice that flowed from the research

and how this was useful to the author. As a homage to the Master, the Simulatorium clearly embeds her workspace, referring to the work of art accompanying the book on DVD as '...the practical outcome of the mental simulation process in which it was created.'

As if this considerable intellectual undertaking was not sufficient as a PhD thesis, Tikka embarks on an equally complex motion picture production. The outcome is in two formats: a 26-minute short film, 'Obsession', the dramatic enactment of incidents in a laundromat, that conclude with a rape scene followed shortly after by a birth scene; and a 7-minute documentary showing the same material transposed as a four-screen 'enactive cinema' installation at Kiasma, the major gallery of contemporary art in Helsinki, Finland. The 'simulatorium' system design monitors heart rate, skin resistance and other data from five viewing chairs in the space; individual responses matched through prepared ontology's and rule-based algorithms are mapped to track 'emotional participation'. The sequence of images and sound experienced are thus joined in the production of the Eisensteinian notion of 'an emotion track' for each 'psychophysiological' spectator.

In a conclusion the author postpones 'ongoing technological elaborations' to a future thesis. There is no reporting on the evaluation of the extremely lengthy, complex and presumably expensive investigations thus far attained, in particular the experiences of each of the audience members who experienced the installation version of the high quality sounds and image. This seems a wasted opportunity for informed development of the precept rather than the

implications that follow based on summarization of the principles elaborated earlier. This would seem to be a shortcoming of a research-based approach that leads with theory, without giving sufficient cognisance to practice and empirical investigation.

Not surprisingly the references are thorough and form a valuable resource. Throughout the book, on most pages, we encounter Rorschach ink blots, shapes in abstraction identified in the early days of neuro-scientific enquiry as appealing to the "dynamics of the organic mind", reminding the reader page by page that at the core of this book is the search for a better understanding of "the embodied dynamics of the authoring process" shared between artist and audience. Other sections are marked with delightful 'squiggles', graffiti-like tags, gathered from the margins and the pages of the Master's notebooks, reinforcing the connections Tikka doggedly searches for, between research and art-making at either end of the 20th Century.

Michael Snow: Wavelength

by Elizabeth Legge
Afterall Books, Central Saint
Martins
University of the Arts, London,
2009
Distributed by The MIT Press,
Cambridge, MA
93 pp, illus. 32 col. Plates,
16 b/w inline
Trade, \$35.00
Paper, \$16.00
ISBN: 1-846380-55-3
ISBN: 1-846380-56-1

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The film, *Wavelength*, is one of the key 20th Century artworks

that connects often disparate groupings: the Modernist tendency in the visual arts with motion picture technologies of the 1960s; the 'New American Cinema' with the European experimental filmmakers (and the often warring groups of artists amongst both groups); and it connects to the Continental structuralist philosophies with the burgeoning field of post-object art theory and criticism. According to the author, 'Wavelength is a lucid, closed-room mystery that evokes and calls the bluff of the preoccupations of an era', and she assiduously pursues the aesthetic preoccupations together with her interpretations of the work and its ramifications.

Elizabeth Legge's book is an admirable documentation of the film and its making within the context of the overall much admired output of the broadly respected Canadian artist, Michael Snow. Now producing sculptural public commissions in his 80s, much of his most influential work was produced in New York City during the late 50s and 60s. Set in a New York loft, the film comprises a 45-minute zoom that ends by framing a photograph attached to the wall between

two windows at the far end of the room; during the time that elapses, events and sounds are seen and heard, that through aesthetic design, highlight the play between the filmmaker's engagement with the creative process and the audience's reflexive viewing as filmic experience of the projected artefact.

Wavelength and artists' films in general are only available

through specialist distributors and though a version sourced from Italian television has been placed on You Tube, much of the film's subtleties are erased, together with the scale and pictorial nature of the large projected image, shared with an audience prepared to actively engage. Eighteen good quality colour plates give some idea of what is seen. Legge's account of the film describes her experience of it which, whilst essential to those who have not seen it, includes the kinds of asides, both hers and others, that many would wordlessly generate during a viewing: associations initially with the place, and the people who from time to time enter and leave, the music they hear, the sounds of the City, the stories and mythologies that resonate. As the zoom and her account progresses, so we learn of the milieu in which Snow worked, some pages from notebooks are evidenced, previous and later films are pulled in; the French presence in writing, theatre and the films of the *nouvelle vague* are accounted for, the other artists, dancers, musicians and experimental filmmakers with



whom he shared 'thots' (thoughts in Canadian).

The 'structuring of time' and 'time-shapes'

are expressions he uses to describe much of his work's involvement and this, Legge points out, '... draws *Wavelength* into the gravitational field of time as it was being recalibrated in philosophy, history, narrative theory, popular science, technology and systems theory'. These topics together with Snow's own interest in phenomenology moves the account inexorably into a

deeper post-viewing interpretation and analysis of the work and its ramifications within the broader context of art history and art historical discourse. As Legge observes, the photograph of the wave at the conclusion of the film presents, 'different options for construing it', options which are dutifully taken.

The book is an enjoyable and lucid account of a major artwork and its context, carefully footnoted. It underlines the bizarre attitude of major collections towards visual artists in general who worked with 16mm film back then (for little more than a decade), who are still largely ignored. Whilst video dominates the offerings of most contemporary art galleries and biennales, the particular qualities of film are rarely seen.

This title brings to 14 the total so far in the One Work series auspiced by the University of the Arts London, who with the financial involvement of the Arts Council of England and distribution by The MIT Press, are setting out to expand in-depth critical responses to individual key art works from the 1960s to the present day. With some 100 monographs planned, other already published titles in the series include a key work by: Andy Warhol, Yvonne Rainer, Hollis Frampton, Ilya Kabokov, Bas Jan Ader, Sarah Lucas, Richard Prince, Joan Jonas, Hanne Darboven, Marc Camille Chaimowicz et al. The precept of a 'key work' as a way of avoiding the using the fusty unfashionable term 'masterpiece' nonetheless and unfortunately will divert attention away from the egalitarian attitudes from which most of the work of the period emerged.

Mapping the Moving Image. Gesture, Thought and Cinema circa 1900

by Pasi Väliäho
Amsterdam University Press,
Amsterdam, NL, 2010
"Film Culture in Transition"
series
256 pp., illus. 12 halftones
Trade, \$83.00
Paper \$41.00
ISBN: 978-90-8964-141-0/3

Reviewed by Jan Baetens

Mapping the Moving Image is without any doubt the most ambitious work on film theory that I have read recently. It opens, I believe, really new perspectives for a better understanding of the medium's history or rather the medium's genealogy, because the theoretical framework that is engaged in this book is not that of empirical historical studies (as illustrated for instance in certain types of audience studies and moviegoing) but that of Foucault's *biopolitics*, Deleuze's *philosophy of becoming*, and Kittler's *medium theory*. The book ends symptomatically with a dialogue with Sean Cubitt's postmodern film semiotics (see his work *The Cinema Effect*, 2004) and its last sentence, before the concluding remarks, is a critical homage to Stanley Cavell "Cinema, then, is the world viewed anew" (p. 181, a clear allusion to Cavell's masterwork *The World Viewed*, 1979, in which he defends a powerfully yet quite traditional realist stance on cinema, in the tradition of André Bazin). All these references, to which one should add a permanent conversation with the best that has been said around the notion of cinema as *cinema of attraction* and around the *cultural history of cinema*, make clear that the stakes of this publication are very high and

that Väliäho has the aspiration to make it all anew. Perhaps not all the ideas discussed in this book are totally new in themselves, but their gathering and synoptic presentation certainly are. And perhaps not all the hypotheses are automatically convincing as well, but the sharpness and intelligence of the book's argumentation will seduce the most reluctant reader. In short, the impressive depth and breadth of Väliäho's work makes *Mapping the Moving Image* a true event, which may become an important stepping-stone in the history of film theory.

In his reading of the film's genealogy, Väliäho is defending a certain number of hypotheses that imply a dramatic reinterpretation of how we see the emergence of the film medium. The most important, perhaps, is the idea that the basic context of film is neither *optics*, nor *theatre*, but *recording*. For Väliäho, cinema is not an expanded version of previously elaborated forms of optical-mechanical reproduction or, to put it more simply, it is not (only, or mainly) a remediation of photography as animated or moving photography (this shift also implies why *Mapping the Moving Image* does not dwell very much on the notion of *gaze*). Correspondingly, cinema is not the encounter of moving and projected images with the existent culture of theatrical and non-theatrical entertainment and performance, as a narrow interpretation of the concept of cinema of attraction may have suggested. Without rejecting of course the historical importance of these two aspects, Väliäho emphasizes on the contrary the relationship between the moving image and other recording techniques of "life" (such as illustrated for

instance in the first attempts to establish psychology laboratories or the first examples of visual inscription of what is beyond the reach of our eyes and the normal use of our senses). Most importantly, what all these innovations disclose is a major crisis in the relationship between subject and object, whose frontiers become blurred, and in the age-old distinction between knowledge and self-knowledge, whose parting becomes questionable as well. The cinema is part of a larger cultural shift in which the Western starts realizing that the division between inside and outside, the former knowable through mental introspection, the latter knowable through sensory perception and the link between both being guaranteed by the concept of representation, does no longer hold (in this regard, one could say that Väliaho's is radicalizing Jonathan Crary's work on *Techniques of the Observer* (1991), although he does so in a framework that is broader than the biopolitical stance taken by Crary). Cinema is a crucial aspect of this change, for the filmic moving image exemplifies a new way of thinking that is no longer that of classic mimesis. Cinema as a recording techniques shows that the self, i.e. the way in which we define and experience ourselves, is no longer a retrospective self, but a produced self, more specifically a self produced via the media that disclose discontinuous, unpredictable, automated, ghostlike, haunted, both spatialized and temporalized forms of life. The perception of "reality", as perceived through the traditional Kantian aprioristic categories of time and space, and the experience of "oneself", as a given essence and accessible as a steering conscience, are not only modified by the appearance of

all kind of new recording techniques, of which the cinema is just the most "popular" one, they are also and deeply reshaping each other. The self is no longer experienced as a knowable whole, but is both dissolved and reinvented by its contact with a newly recorded outer world, and vice versa. A second major innovation put forward by *Mapping the Moving Image*, besides the reinterpretation of cinema of attraction in relationship to the traditions of recording techniques, has to do with its very broad cultural approach, which reminds the work on cultural history by Edwin Panofsky (and perhaps psychologically compensates, in its strongly synthesizing efforts, for the very disintegration that is at work in Väliaho's material). Apparently, what is lost on one side (a traditional view of self and the world) is re-established on the other one (a new Grand Theory). Indeed, what Väliaho proposes in his book, is a breathtaking synthesis of (almost) everything that was changing in late-19th Century and early-20th Century Western modernism: everything fits so nicely together, that it becomes almost suspect. By making a clever distinction between *cinema* (as a social phenomenon) and the concept of the *moving image* (which is a real "concept", in the Deleuzian sense of the word, i.e. an intellectual philosophical creation aiming at producing new knowledge), Väliaho manages in splitting his object in a certain number of supplementary concepts, each of them representing a specific aspect of the moving image, that help him link the emergence of cinema with the major thinkers and the major innovations of Western modern culture. The moving image becomes then a "lense" through which it becomes

possible to reread, for instance, Freud, Nietzsche and Bergson – and conversely, for the idea is not only to disclose how these thinkers are indebted to the new ways of thinking made possible by the new forms or recording such as the (pre)cinema, but also to demonstrate that the moving image is a truly philosophical mechanism that produces in the field of the automatically produced image the same effects as what the typewriter meant for Nietzsche's writing and thinking for instance. The key reference here is of course Kittler, but Väliaho's rereading of Nietzsche's "Schein" ("semblance") and "eternal return" (as extreme and permanently reborn potentiality) in the light of the cinema's moving image is extremely convincing and very illuminating. *Mapping the Moving Image* is a significant piece of scholarship and theory, which is also a vibrant defence of Theory with a capital T – a highly salutary position in a period of increased empiricism in film studies. Many hypotheses defended by Väliaho should stimulate intense discussion, as should do also his attempt to rewrite in a finally quite homogenizing way a history of dissolution of old categories. But this is the prize to pay for this great example of challenging scholarship and audacious theory.

Fireworks: Pyrotechnic Arts and Sciences in European History

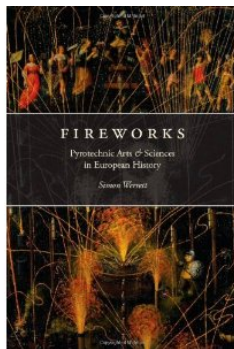
by Simon Werrett
University of Chicago Press,
Chicago, IL, 2010
376 pp. illus. 33 b/w, 16 color,
36 halftones
Trade, \$45.00
ISBN-13: 978-0-226-89377-8

Reviewed by Giovanna L. Costantini

Simon Werrett's investigation of pyrotechnics from the fourteenth through the nineteenth centuries explores relationships among philosophical fireworks, art, and science as a significant expression of European beliefs, aspirations, and authority throughout the modern era. Reflecting a timeless fascination with fire, its archaic divine and magical associations, and an identification of human potentiality with Prometheus, the embodiment of the archetypal hero who stole fire from heaven and presided over the human arts, *Fireworks* asserts the "status of the artificer" within a performative context. As such, it purports to epitomize pyrotechnic artistry as a philosophical platform from which to view the interaction of art and science from the Renaissance to the Scientific Revolution.

The book takes a comparative approach to the history of fireworks, focusing on centers such as Paris, London, and St. Petersburg. It examines

distinctive aspects of the pyrotechnic histories of these cities, practices of knowledge, philosophical undercurrents and exchanges that contributed to identifiable and enduring traditions in each of these locales. In these centers, fireworks stimulated valuable conduits of scientific learning among such areas as meteorology and electrical physics, astronomy and navigation, utilizing techniques adapted from rhetoric, optics, mathematics, and alchemy.



Fireworks opens with a description of an Enlightenment spectacle staged on New Year's Eve, 1748 in St. Petersburg in which wooden jetties, rockets, wheels, and fire fountains light up the night sky in the image of a Siberian pine tree in a garden of parterres and greenery. As a literary frontispiece to the comprehensive study that follows, it is intended to illustrate the allegorical significance of pyrotechnical displays to eighteenth century aficionados, in this case representative of the growth in prosperity of the Russian state. Werrett's history of pyrotechnic arts and sciences sets out to document fireworks as a representative Enlightenment era phenomenon (with roots in the fifteenth century), intended primarily as a spectacular demonstration of temporal power. Through displays staged amid elaborate architectural machine erected largely within the province of the Catholic

Church and princely courts of Europe and Russia, artificers aspired to recreations of cosmic phenomena, allying earthly events with Providence and

cosmic order. But Werrett's larger objective is to explore the reshaping of a military, alchemical craft into an ideological discourse, whereby pyrotechnical displays provided the focus for the progress of intellectualism and debates centered on politics, religion, economy, and history. *Fireworks* and its broader rationalistic context, Werrett argues, in many ways emblemizes the transformation of Western society from a largely religious culture to a scientific one.

Indicative of this transition is the progression of alchemical chemistry (comprised of equal parts myth, metaphor, fantasy, and experimentation) towards the physical and mechanical sciences; and the evolution of belief structures from ones founded on faith and allegory to others governed by philosophical reason and acquired knowledge. Comprised of the interdisciplinary arts of artillerymen, painters, architects, chemists, entrepreneurs, and natural philosophers, this text illustrates the manner in which pyrotechnical performances provided a metaphor for human knowledge at the dawn of the scientific era, igniting new interpretations of history and sovereign authority based on variable combinations of contraries as combustible elements.

Issues considered include the impact of regional geography on epistemology; the convergence of empirical science and artisanship; aspects of pyrotechny that contributed to the transformation of culture from an analogical foundation in allegory to one of empirical inquiry; contestations of warfare, artifice and philosophy; the design of pyrotechnical displays and their programmatic basis in the liberal arts; the propagandistic uses of theatricality in the service of political legitimacy and power; interrelationships between the arts of artillery production (gunnery) and the craft of spectacle (ingegno); transmission of technique and regionality; festival entertainment and boulevard commercialism.

Among the book's many strengths are chapters dedicated to key centers of pyrotechnic science such as the Royal Society of London and the

St. Petersburg Academy of Sciences that not only showcase two of the most important centers of intellectualism during the eighteenth century beyond studies confined to France, Italy and the Hapsburg Empire, but offer crystallizing optics for the study of ideological polarities. His examination of the relevance of the Frézier-Perrinet debates on the value of art and philosophical reflection to a scientific method, a crucial focus of Diderot & d'Alembert's *Encyclopédie*, critically anchors Werrett's arguments. But there are also other very interesting sections devoted to alchemy and the liberal arts, ephemeral architecture and the talented, itinerant artificers of Italy such as Giovanni Nicolo Servandoni, Giuseppe Sarti and the Ruggieri family, who not only designed princely spectacles for the courts of King George III of England, Louis XV of France and the heirs of Peter the Great, but contributed to the dissemination of Enlightenment ideals throughout Europe during the seventeenth century. Stories of foundational archetypes (Prometheus) and vanquishers of evil (St. George and Perseus), flying dragons, volcanoes and girandolas enliven Werrett's narrative with legendary tales of pyrotechnic lore and descriptions of its imaginative signs and emblemata. His detailed accounts of controversies such as England's Green Park Folly and Mikhail Vasil'evich Lomonosov's 1756 orations to the Russian Academy of Sciences on color and light surrounding introductions of secret, sensational "green fire" into Russian fireworks by Danilov and Marynov, provide a fascinating glimpse into pyrotechnic history.

Werrett's view of the

importance of pyrotechny to the history of ideas as a "seminal" basis of 18th century socio-political and philosophical debates tends at times to overstatement in light of similar claims that could be made for other branches of the "tree of knowledge" such as mathematics, physics and ontology. Generalizing summaries tend at times to overshadow its wealth of historical documentation that could be better served in chronologies of events and personages, and appendices of festival book citations and chemical recipes.

At the same time, this book points up the need for further study in areas that relate the history of pyrotechny to fields of criticism and performance theory; political science; philosophy and religion; art history; theatre; anthropology and chemistry. Further investigation into underlying questions of patronage; intersections of pageantry and military history; the ritualistic prehistory of fireworks; hermetic and esoteric traditions; design and iconography; and relationships to stagecraft will also prove fruitful.

Werrett's *Fireworks* augments many treatments of the subject published previously, including technological studies and selective exhibitions of museum print collections, by offering a comprehensive, scholarly survey of events and ideas linked to the intellectual history of pyrotechny in Western European history. Complete with illustrations, color plates and three introductory maps that identify locations described in the text, it is amply footnoted with an extensive bibliography, chapter summaries and an inclusive index. As a "Geography of Art and Science," it presents a

formidable overview of one of the eighteenth century's most spectacular paradigms, one whose complex interrelationships between artifice and philosophical speculation provide a conceptual framework for continuing associations between art, natural science and theatre.

Points on the Dial: Golden Age Radio beyond the Networks

by Alexander Russo
Duke University Press, Durham, 2010

278 pp., illus. 11 b/w

Trade, \$23.95

ISBN: 978-0-8223-4532-9

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The so-called "golden age" of radio (the 1920s-1950s) is often cited as a time of focused listening to live, commercially sponsored national network broadcasts. Radio, according to several historians and critics of the medium, unified the nation during this time, not only in terms of programming, but also, as part of or resulting from that programming, socially, politically, and culturally. *Points on the Dial: Golden Age Radio beyond the Networks*, by Alexander Russo, disputes and disrupts this vision of network-centered radio, positing instead a vision of intermingled national, regional, and local programming, along with distinctly different regional and local sponsorship patterns and methods of distribution. The result is a diversity of practices, obscured until now by the network-centric focus of current radio history, which set the stage for radio in the second half of the twentieth

century.

Current, consensual histories of radio view the development of network-centric systems of content production and distribution as "a natural function of consumer choice and democratic action," says Russo (188). Radio networks responded to consumer desires for new products and diversions and built systems to highlight the production and distribution of live content meant to convince audiences they were hearing exactly what they would hear were they present at the site of the original production/presentation. Russo's account of radio broadcasting's development challenges this view. For example, Russo argues that the rise of radio networks was based on the desire for a larger share of the potential national advertising market, rather than on national unification as the networks claimed. Networks forced local stations to carry specific programming, and the accompanying advertising. Local stations often acquiesced, as this was the only way to obtain the most popular programming then demanded by audiences. Advertisers were forced to place advertising buys in markets that did not represent their customer base. This packaging of content and access provided best benefit to the networks, but not always to advertisers, local stations, or audiences.

Rather than and despite of a unified network-centric model, Russo says much of radio's historical record was always "a hybrid system with local, regional and national interests, tastes, and concerns intermingling throughout institutions, programming, and audience responses" (189). Such internetworks "required constant revision and

modification" (19) in order to influence the construction and maintenance of imagined communities and audiences. This work of the network, although it appeared uniform, consistent, and singular, was, in fact, limited, unstable, and hybrid.

To develop this point, Russo devotes chapters to radio's geographies, as he calls them: national, regional, and local information networks alternatively seen as sites of community and conflict; sound-on-disc recordings as an alternative distributive technology to wired networks; the spatial and temporal flow of spot advertising; and locating human attention in a world increasingly mobile and not focused on a single radio.

National networks were unable to extend their wired connection capabilities to every market, every community, leaving gaps which were filled by regional and local broadcasters more attuned to the wants and needs of their audiences. These audiences needed content and program producers and distributors responded with electrical recording technologies like sound-on-disc transcriptions of live events that avoided the problems, and outright prohibitions, associated with using recordings. Whether regional or national, programming was increasingly produced with intentional content gaps that could be filled with spot advertisements and programming that focused on genres or content tailored to specific locations and identities, thus localizing national brands by giving them, seemingly, local presences.

Finally, changing and often distracted practices of listening to radio programming resulted in local radio stations

developing programs based around talk and music, both of which could be location specific in their appeal. As a result, rather than specific content that required listening at specific times, radio became more of an accompaniment to one's life, an endeavor that could be entered and exited with little loss of meaning or potential for confusion. Localized spot sales via station representatives, ad hoc arrangements of regional networks for live programs, locally assembled news and music programs, block programming facilitated by disk jockeys, record and tape libraries, and the tension between disk jockeys and single owners of groups of regional radio stations all led to new forms of radio production and listening. These heretofore hidden aspects of radio's golden years, often missing from consensus histories, function, according to Russo, as increasingly autonomous actors, all figuring in the fragmentation of radio production, text, and audience in the 1950s and the rebirth of radio throughout the remainder of the twentieth century.

Points on the Dial: Golden Age Radio beyond the Networks is not only interesting but also informative. If Russo's read on radio is right, history may help inform the nature of radio as it proceeds into a digital era where geographies of consumption and listening are drastically altered by the technologies of production and distribution.

Fleeing from Absence: Four Cross-Disciplinary Essays on Time, Its Nature and Its Interpretations

by Olga Ast and Julia Druk
Ugly Ducking Presse, NY, NY,
2009, 100 pp.
Paper, \$25.00

ISBN: 978-933254-57-9

Reviewed by Jack Ox
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What is *Art/Science*? Sometimes it is more 'artful' than 'scientific,' and sometimes artists completely enter the realm of scientific scholarship and method, bringing to the science method elements of creative practice.

This small book, in a stylized seven-inch square format, is an artist's book. It is artful and creatively designed. When I read it as I read a poem, I find it to be a very pleasant experience. The drawings and photographic images created by Ast often include photographs taken from Flickr under a Creative Commons license.

However, it is not a deep thinking experience. The subtitle, *four cross-disciplinary essays on time, its nature and its interpretations*, promises something more from a philosophical and/or a linguistic point of view.

The authors, one of whom is not credited on the front of the book, talk about the metaphor of time. However, they do not ever define metaphor. Since the early 80s there has been a large area of scholarship devoted to this very subject. The authors should be aware of this as it is the subject of their book, and they should give the definition(s) that they are applying to their analysis.

But is it an analysis— or is this 'artistic' musing about a very interesting subject? It must be the second because even though there is a touching on different ways to see and approach the notion of 'time', there is little referencing and deep thinking about the issues

that are talked about.

So, going back to my original question of 'what is *Art/Science?*,' this book is art, not science, philosophy, linguistics, or any kind of scholarship. It is charming and lovely, but does not deliver on the promise of its sub-title.

Cold War on the Home Front: The Soft Power of Midcentury Design

by Greg Castillo
University of Minnesota Press,
Minneapolis, MN, 2010
312 pp., illus. 97 b/w.
Trade, \$75
Paper, \$24.95
ISBN: 978-0-8166-4691-3
ISBN: 978-0-8166-4692-0

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Cold War on the Home Front: the Soft Power of Midcentury Design is a well-written and fluid discussion of an often underappreciated area of design history: the role of designed objects in the propaganda war between the United States and the Communist Party in the U.S.S.R. In this book, Castillo focuses on the use of "Soft Power," or the coercive attraction of such intangibles as ideology, beliefs, culture, and the perceived moral authority demonstrated via propaganda materials and designed artifacts. This fascinating book opens with a discussion of "Domesticity as a Weapon" as deployed in the landmark 1959 exhibition at the *American National Exhibition* in Moscow, featuring the use of such ideological munitions such as women's nylons, refrigerators, clothing, and toys. Associate Professor Greg Castillo proceeds through the

manuscript in fluently tracing the use of soft design across the decades of the Cold War, through a series of exhibitions presented across the globe featuring such titles as *America at Home*, *Industry and Craft*, *Create New Home Furnishings in the USA*, and *People's Capitalism*. These exhibitions were inspired by the deliberately formulated propaganda effort sponsored by the United States—arguably the most extensive international peace-time propaganda effort to date—that intended to compare and contrast the rewards of the capitalist way of life versus the Spartan fruits of the communist way of life.

Beautifully crafted by Castillo, this book skillfully covers the ideological tension between capitalism and communism as evidenced by propaganda and designed objects during the Cold War era. Castillo's lively narrative and the carefully selected photographs and illustrations should engage the most discerning scholars of design and political science and, yet, is readable enough to appeal to advanced undergraduate and graduate students in architecture, graphic design, and industrial design programs.

This book was a true pleasure to read, combining fascinating historical facts with keen insight into the subversive ideological influence of design on culture and values.

Premediation: Affect and Mediality After 9/11

by Richard Grusin
Palgrave Macmillan,
Basingstoke, UK, 2010, 208 pp.
Trade, £60.00
Paper, £19.99
ISBN: 978-0-230-24251-7
ISBN: 978-0-230-24252-4

Reviewed by Jussi Parikka
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Richard Grusin's co-authored (with Jay David Bolter) *Remediation* has become core reading in media studies and cognate disciplines curricula, and with a new book out called *Premediation* there is a temptation to read this a mere updating of the remediation-thesis introduced some 10 years earlier. *Remediation* came out at a good moment in the midst of an interest in drawing theoretical concepts and methodology from old media and new media in parallel lines and added to that theoretical context its own input. Understanding new media from computer games to the WWW through the very McLuhanesque theoretical idea of remediation was further elaborated in the book through the double logic of mediation in new media cultures. It was not solely an idea that new media circulates old media (even if even articulating that had strong repercussions in understanding the prolonged life time of old media, with resonances to such work as Erkki Huhtamo's on the recurring *topoi* of media culture), but an elaboration of the constant tension between discursive immediacy and hypermediacy as aesthetic strategies. In the words of that earlier book, "Our culture wants both to multiply its media and to erase all traces of mediation: ideally, it wants to erase its media in the very act of multiplying them" (5).

Actually, Grusin himself is keen to establish continuities between *Remediation* and *Premediation*. He describes this new research concept and the book as a continuation or a counterpart to the earlier one, a

new form of a media logic that is especially visible after 9/11, which is for Grusin the key turning point. However, I would argue that these books are quite different in their take and style, and that *Premediation* is not only a complementary project to the earlier one; the clear-cut "adaptability" to use such a word that of course does not entirely catch the full breadth of *Remediation* is in *Premediation* emphasized towards more refined conceptual arsenal that articulates premediation more clearly as non-representational, material and affect-based logic of media.

Grusin outlines his new interest in such media logic that tries to come to grips with futurity as the new horizon for politics of media cultures. Indeed, smoothly written and mapping his interests as part of the wider development of post 9/11 culture, he articulates the shift from the more screen based emphasis of *Remediation* to his current interests in social networking, and software-based cultural production. A key concept is now "affect" which both resonates with some recent years of trends in cultural theory even branded as the "affective turn," but which for Grusin acts as a way to understand the embodied nature of our behaviour in network environments – behaviour that is fully embedded in politics of anticipation, that he sees as a new version, or perhaps as a replacement of what such writers as Walter Benjamin and Siegfried Kracauer articulated as the emblematic distraction inherent in cinematic modernity.

Premediation is defined in the book in various but converging ways that all seem to contextualize it as a regime of security, temporality, and

processes of mediation after 9/11. Hence, as Grusin admits, it is primarily a book about America, even if post-9/11 culture has had its global after wakes. *Premediation* is about such futures that are already present – the idea, or feeling that "the future has already been pre-mediated before it turns into the present (or the past)," hence a kind of a remediation of the future in order to "maintain a low level of fear in the present and to prevent a recurrence of the kind of tremendous media shock that the United States and much of the networked world experienced on 9/11" (4).

Premediation works through the idea of media as objects, and "mediation itself as an object" (5) through which to investigate the mobilization of bodies in this security regime. Hence, *Premediation* takes much of its theoretical background from Foucault and especially the idea of governmentality – how to govern people and things, where the emphasis in *Premediation* is heavily on things as well in terms of how Grusin wants to steer clear of too human-focused perspectives. Whereas Grusin would have benefited from a more in-depth engagement of Foucault's texts on security as a post-disciplinary logic of governing, he does however present a mostly convincing case in terms of how we should rethink media as a material translation, a mediation process that escapes representational frameworks. Indeed, the book is not only about Foucault, but draws heavily from Latour as well, and Deleuze when Grusin is arguing that premediation is not only a creation of possible futures in a videogame logic of algorithmic possibilities (if this choice is made, then this and that happens). Instead, premediation works through

the virtual as understood the Bergsonian Deleuze, i.e. a governing of the future present as a multiplicity that is brought about. Grusin writes:

"While premediation often takes the form (as in the run-up to the Iraq War) of the proliferation of specific possibilities, or particular scenarios, the generation of these specific possibilities entails the remediation of potentialities or virtualities out of which future actions, decisions, or events might (or might not) emerge." (59)

This theoretical move is to be welcomed as it adds complexity to the logic of premediation but would have merited from more discussion as there is a constant danger of pulling the radically open-ended ontogenetical concept of virtuality into the regime of possibility and rationalization of the future. In any case, his discussion has a clear context in contemporary cultural theory with Brian Massumi's interest in futurity and security, and Greg Ulmer and Andy Opel's project and little book on *Preempting Dissent*.

For a short book that tries to emphasize the importance of software cultures and social media, there is relatively a lot of emphasis in terms of page count on such case studies as Don DeLillo's *The Falling Man*-novel (2007) and especially Art Spiegelman's *In the Shadow of No Towers*-graphic novel series. Grusin does, however, also engage with such social media phenomena as Abu Ghraib photos in their medial logic. What could have been perhaps further elaborated would have been the logic of anticipation and its relation to distraction. Grusin's reading might have actually benefited from a further historical insight offered by Jonathan Crary, whose

reading of the concepts of distraction/attention as part of the creation of modern media culture would have offered a further complexity to the suggested newness of anticipation as part of social media cultures – in short, for Crary even the cinematic modernity is not only one of distraction but a continuous drilling for a temporal, fluctuating and attention-demanding physiological state of being which in itself is closely related to "anticipation". As always, any good book is a starting point for further thoughts and elaborations, and Grusin's intervention into the politics of affect and security is an extremely important one.

Inside the Death Drive: Excess and Apocalypse in the World of the Chapman Brothers (Tate Liverpool Critical Forum, Vol. 11)

by Jonathan Harris (ed.)
Liverpool University Press/Tate
Liverpool, Liverpool, UK, 2010
240 pp., illus., 50 col., 20 b/w
Paper, £ 35.00
ISBN: 978-1-84631-192-5

*Reviewed by Rob Harle, Australia
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This book is challenging, at times irritating, and not for the faint hearted. Further, it is not really suited to the general interest art reader. The essays are mostly based in postmodern critical theory and as such are deeply intellectual, convoluted, and at times both obscure and pure fictional fabrication. Anyone who still has doubts that history has nothing to do with "facts" but is "writ large" by critics, the media, and correspondents will have those doubts removed after reading this book. The Chapman brothers' actual artwork is only incidental to the stories woven around their work by the book's

contributors. The discussions could have just as easily been about excrement, snails, and maggots. Yes, these do all feature in the Chapman's works.

Inside The Death Drive has nine chapters together with colour and black & white illustrations. I found many of the detailed colour images too small to see properly. This is most annoying as fine detail, such as thousands of tin soldiers, are features of the Chapman's work. The book was edited by Jonathan Harris, Professor of Art History at the University of Liverpool. I very much enjoyed his introductory essay (Chapter 1), *The Future Remains Excluded: Beyond the Pleasure Principle, 'Slow-Motion Fascism' and the Chapman Brothers (and Sisters)*. For me this essay *nails* the Chapman's work accurately (well, as accurately as possible) and introduces the approaches of the following contributors. Chapter Eight *Inside the Death Drive* is an extensive conversation/interview between Harris and Jake Chapman. This discussion reveals far more about what the Chapman's work is *really* on about than the other essays combined.

As Harris mentions in his introduction, the book is divided into three types of commentary. "The first, three contributors [Baker, Adams and Lotringer] write relatively conventionally about the Chapman's work". "The book's second movement consists of an extensive interview I carried with Jake Chapman in September 2008 at the brothers' new studio in the east end of London". "The third movement of the book attempts to go determinedly beyond this 'world of the Chapman brothers', both historically and in contemporary art terms, examining other

artists and artworks that have *entered into some kind of deathly embrace with violence and violation in the modern world*" (p. 20).

It is not my purpose here to offer a detailed critique of the Chapman's artwork. For those who may not be familiar with their work the following may help. "Brothers Jake and Dinos Chapman enrage some with their art and reduce others to hysterics, but no one is neutral [*Really?*] about two of Britain's most outstanding artistic provocateurs" (cover note). The Brothers' work consists of graphic, sculptural, and installation pieces, often with titles (and overlaid text) consisting of expletives and profanity. As some of the contributors suggest the Chapmans do not just create work to shock viewers; they are much deeper than that. Maybe? However, calling these two "outstanding provocateurs" would seem to contradict this. It is my contention that the Chapman's work would only shock or enrage those who have led a very sheltered existence indeed, living under a bushel, as it were. For those of us who have had real life experiences of the most horrendous kind — children or siblings dying of hideous cancers at a young age, friends being torn to pieces in motor vehicle accidents, being a refugee fleeing the death regimes' of insane political leaders (including holocaust survivors) or having a severe debilitating illness — the Chapman's work on the shock-horror level is simply a big yawn!

This book is the result of the ongoing relationship between the Tate Liverpool and the University of Liverpool in their Tate Liverpool Critical Forums series. It will no doubt be of interest to *fans* of the Chapman

Brothers. Also to students studying critical theory, art history or perhaps psychoanalytical theory. It will thrill those who wish, "... to focus attention on the *dynamic construction of art histories as stimulated by the act of exposition*" (cover) [my italics].

War and Love in Kabul

A Film by Helga Reidemeister.
86 minutes, color, 2009
Icarus Films

Reviewed by Jonathan Zilberg

War and Love in Kabul is a Romeo and Juliet Afghani drama, an oxymoron and most likely a prelude to disaster. Shaima and her fated love Hossein are up against Islamic law and traditional tribal economics. What chance do they have? The facts that either of them are alive and that both families and communities tolerated the intrusion of this film into their awkward lives are remarkable.

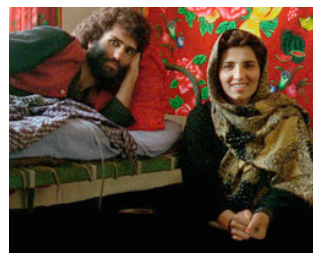
Set against the backdrop of a ruined world in which daughters are considered currency, and honor killing a cultural norm, the film provides an intimate insight into Afghan society. As an unrequited love

story in an unlikely context, it comes across as intensely anachronistic. Simply put, romantic love and personal happiness are not options for women in Afghanistan though the pursuit of romance was not unknown there prior to the Soviet invasion. An excellent film for introductory college courses in history and gender studies, law and politics, the film will however be especially useful for anthropology classes. As a prelude to any introductory

lecture on cultural relativism, this film will bring the enlightenment based issues of liberty, never mind the Victorian notion of romantic love into irresolvable tension with the reality of life for women in such societies.

The film is awkwardly intrusive. The camera and interviewers seem barely welcome. Presenting a story of forbidden love between two childhood friends from different ethnic backgrounds, it is above all an account of the life of a most extraordinarily stubborn and willful young woman, Shaima. She refuses to submit to tradition. She defies her family and society and prefers to die should her demands not be met. Indeed, one wonders at what point, provoked by what opportunity, she and her crippled love, will meet their deaths.

In the meantime, in limbo, they and their families simmer. Strangely, as unexpected as it might be, while one cannot help be stirred to natural compassion for the couple, one also comes to realize how problematic their recalcitrance is for their families. Herein it is a poignant fact that the reason



for the problem in the first place is Shaima's family's fall into relative poverty from their former affluence. Circumstances have pushed them and their daughter into a situation far from the kind of lives they may have aspired to in the 1970's and 1980's. At this point, for them and Afghans across the board, survival is the name of the game, not principles and certainly not romantic love.

The film's most obvious message is that women everywhere should be able to

marry for love rather than being sold as chattel to old men or given away as compensation for murder in order to prevent a blood feud. However the film provides material for considering a much more serious set of questions in the realm of Islamic jurisprudence. In fact, the case presents a fascinating case study. As a teenager, Shaima was sold to a much older man, a perfectly normal fate she repeatedly and bitterly resisted. In time, after the consummation of the marriage and the birth of a child, the husband failed to pay the dowry. As a consequence her father brought her and her child home. We know from the film that she attempted suicide to prevent being returned to the husband but we do not know anything about the older man or his household and her life there though we can assume that it would most likely have been grim. We do not know whether the young bride had been so difficult to control despite harsh punishments accepted as the norm that this might have been the reason why the husband had not paid the dowry. For all we know, it was a matter of an incomplete payment of dowry until the wife could be brought under control or simply a refusal to pay because of the problems at hand. It also could have been related to the economic and political crisis. These type of issues are not explored. Instead we simply have a wishful romantic love story in a place where such love has no name.

The film centers on Shaima's desire for a divorce so that she can marry Hossein. Though it is a case of hopelessly tragic wishful thinking on their part, the situation does present an opportunity for exploring more deeply anthropologically informed issues. The marriage ceremony was conducted and

the marriage consummated, her child at this point being five years old. What we need to know is whether she actually has any grounds for divorce according to Islamic law and local tradition. Does a woman even have the right to seek divorce in Afghanistan? Are there any legal precedents? If the entire dowry or merely part of it was unpaid what does tribal, in this case inter-tribal law and Islamic jurisprudence stipulate? If the husband had beaten, starved, raped and locked her up for her recalcitrance, would that change the situation in any way? And in any event did he not have the right to do so according to local norms? What rights if any does a woman have in Afghanistan either de jure or de facto? Does Shaima not presume far, far too much? Does she not technically deserve a death sentence in refusing to accept tradition? While the film alludes to or refers to these issues, it could have gone much further and thus have made a much more serious contribution to our knowledge of life and law in Afghanistan. Nevertheless, it certainly presents an excellent context and opportunity for doing so.

Anthropologically speaking, it would be interesting to know what rights her husband as opposed to her father technically has over her and her child in terms of Islamic law and local tradition considering that the dowry had not been paid and thus the marriage technically not a marriage. Could the husband not have sold off the child in advance to pay Shaima's father the dowry had he wanted to keep this latest and youngest wife? In any event, who does the girl child technically belong to, the grandfather or the husband? Might it also have been an issue of who would have ownership

rights over her for in a society where girls are currency considering that the child will be a useful commodity even before the age of eight. Is this even an issue to consider or is this being cynical in the extreme?

In any event, these are the type of brute realities that we need to know about. Is it normal for a father to take back a daughter, and another man's child, if the husband is unable to pay the dowry? Is the payment of dowry sometimes delayed and under what terms? Surely a father can only regain "his property" if unequal power relations exist in his favor. And is not the daughter in this case technically the husband's property? Is it not actually also a matter of Islamic law that the mother has no propriety rights regarding the child? Such questions lead us to ask the heartless questions: What are the father's real motivations? What is the husband's position? What do we not know? We do know what the mothers think, that the daughter should bow to tradition and accept her fate.

For all we know, the husband may have demanded that the father take his daughter back. Again, perhaps he simply refused to pay the dowry. If it was simply a matter of lack of money, what legal recourse would the father have had according to tradition if the husband could not pay the dowry? Certainly the father now has damaged goods on his hands and no acceptable solution at hand. What then are his options for remuneration? And most important of all, has there been any single instance of a woman divorcing her husband in Afghanistan and how can she or her husband even get divorced if the dowry was not paid as technically the marriage is therefore not complete. What are the laws?

And finally, why wouldn't the man divorce her if he wasn't prepared to pay the dowry?

Fortunately we have the report *Family Structures and Family Law in Afghanistan: A Report of the Fact Finding Mission to Afghanistan*, January-March 2005 prepared by the Max Plank Institute for Foreign Private Law and Private International Law as well as the relevant marriage laws posted alongside the report (see http://www.mpipriv.de/ww/en/pub/research/research_work/foreign_law_comparative_law/islamic_legal_system/family_law_in_afghanistan.cfm). There we find the unfortunate answers. Though very rare exceptions do exist, and usually only for the educated upper class the report confirms that "there is no such thing as a divorce for women (there is not even a proper term for it)" as well as the fact that "[T]o give a *sharia* divorce is the right of a husband." The report further confirms that divorce is essentially unheard of because of this and no less because of the social and economic consequences a divorce would have for the woman. Alongside the stark evidence of problems women face in this regard, the report also provides statistics about marriage. For instance, 15% of girls in rural areas are married between the age of 8 and 10. And despite the Koranic injunction that intercourse with minors should be delayed until the age of puberty, in traditional tribal context this is not an issue and even if it were it would never be brought to a *jirga* (informal, that is non-state traditional court) or formal court, and in most instances neither would murder or rape. What we are left with is a very stark disjunction between the modern legal codes adopted only in 1976 and the reality of the application of those laws never mind the complete

rejection of these laws by both the Taliban and society at large, excluding perhaps the women and girls themselves.

To return to the film and what we do know. No-one in either Shaima or Hossein's family supports the couple. They are all dead set against the romance. As for Hossein, crippled as he is, he cannot earn a living, has no capital and cannot look after himself. And returning to the above-mentioned legal issues. Even if he had the means he could not possibly marry another man's wife whether or not the man had failed to pay the dowry. For both, the legal consequences of any culmination of their desires to be married are certainly death. There is no ambiguity in that. It is tradition, both a matter of honor and tribal law in a state that only temporarily exists as it is because of American security concerns.

Finally, at some point, Shaima's husband or his family might either try to reclaim or kill her, if in fact it matters at all to him, or she or Hossein might become the victim of an honor killing by their own families. In the meantime, Shaima insists on visiting a house in which she is unwelcome and attempts to take care of Hossein as she can under the circumstances barely tolerable for everyone involved. Refusing to accept their mutual love and refusal to accept their fates, both sets of parents are in a bind. On one hand, they are heading for a blood feud. On the other hand, the young lovers both threaten suicide. It seems to be just a matter of time before the natural order of events takes its course one way or another unless...

Call Me Us

by Tristan Honsinger and Massimo Simonini
i dischi di angelica, via Gandusio
10 40128 Bologna, Italy, 2009
CD, ReR MEGACORP, €14.69
Distributor's website:
<http://www.megacorp.com>

*Reviewed by Jonathan L. Zilberg
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Warning. This CD is not for easy listening. In fact, *Call Me Us* will be of no interest to you whatsoever unless you are specifically interested in new music or being subjected to it as a part of your musical training. It begins with pleasant classical ornamentation interspersed with banter in Italian and English. Massimo Simonini and Tristan Honsinger, playing the cello and ... and bits and pieces from CD's and records. Here is an example of the type of the opening banter which sets the tone for the whole performance. "Do you like classical noise?" The reply is "I like classical noise sometimes as well as classics ... *clá, a, aaaaaa ...*" Apparently, if he "had no choice," Tristan Honsinger "would burn his head and listen with his feet" ... if he "had a choice." In short, the first part CD is in part both sonorous and dissonant and often amusing. As regards the reference to classical music, it is important to keep in mind perhaps that we are not supposed to "like" it in the "classical" sense of appreciation.¹ Instead, we are supposed to appreciate it for its creativity and as an art happening. No doubt, as a film, this would be much more interesting to watch than to listen to.

Massimo Simonini and Tristan Honsinger are established iconic figures in new European

music.² But it is Honsinger's interest in the child that this CD best speaks to.³ There Erik van de Berg, a Dutch journalist describes the composer in this way. "Honsinger is someone who hasn't lost his childhood fantasy entirely. His compositions are like a child's drawing, or even more like a story from *Winnie The Pooh*: awkward and touchingly simple, yet full of deeper meanings for those who want to see them." Adding to this insight in that same wiki, Honsinger himself provides the following lengthy explanation about his work. As he relates:

Simple things fascinate me, simple stories and simple characters. It's not that I write for children in particular, but I think they would understand it very well. I usually get the best reactions from an audience with a good mix of children and adults. I don't like to play for one particular age group. It is almost a necessity for me to compose in the form of stories and texts. It gives me ideas and it does help the musicians in their improvisation if they can think: this story is about a little man who takes a walk and experiences this, that and the other. It also helps the audience, it gives them something to hold on to.

Judging from the laughter and the clapping, from the obvious pleasure one can hear coming from the audience during the performances on *Call Me US* it must have been a highly entertaining musical event. To conclude by plundering new music like a quote from modisti.com, it is sparing, seemingly intelligent, definitely skillful, very much spontaneous, certainly ambiguous as to its degree of control versus improvisation. It is also no doubt eccentric, confident and extremely musical. As a masterpiece of plunder and

manipulation, it is most certainly a masterfully humorous one-off.⁴

Notes

¹ For examples which demonstrate that new music does not all conform to the outsider's stereotype that it is nonsensical noise not worth listening to one might mention the aesthetically accessible "minimalist" new music by Nico Mulhy (see <http://nicomulhy.com/>), Arvo Part, Georgy Ligeti and Gesualdo in the 17th century which still sounds wholly contemporary. This discussion is outside of the discussion that all innovative classical music was new music in its time, see Zilberg 2009, www.leonardo.info/reviews/feb2009/zilberg_philosophy.html.

Naturally it goes without saying that new music people who prefer the practiced dissonance of Call Me Us would find such music too boring to take seriously.

² For a list and discussion of Massimo Simoni's performance history, see http://highzero.org/2007_site/performers/index.html.

³ See http://en.wikipedia.org/wiki/Tristan_Honsinger.

⁴ The advertisement for the CD reads: "Cellist Honsinger and pre-existing media manipulist Simonini with a piece that falls between radio art, music theatre and... and what? A highly unusual performance in 10 parts that deploys its materials sparingly and intelligently and, through a combination of skill, spontaneity and ambiguity, arrives at something seemingly too controlled and precise to be improvised, but too complex and wilful to have been composed. In a world of its own; this is confident, eccentric, and highly musical. Simonini's choice, use and development of both plundered sources and real time manipulation is masterful. A one-off." See <http://modisti.com/releases/?p=5240>

Words, by Bob Brown

by Craig Saper, Editor, with an

Afterword
Rice University Press, Houston, TX, 2009, 44 pp.
Trade (Laminate), \$26.75
Trade, \$29.45
Wirebound, \$16.45
eBook, \$7.00
b&w, \$13.98
Trade (laminate),
ISBN: 978-0-89263-028-0-029-9

Reviewed by Jan Baetens

A companion volume to his *ars poetica* manifesto *The Readies* (see my review in the July postings of *Leonardo*), *Words* is one of the most amazing books invented, written, composed, and published by one of the most amazing authors of the whole 20th Century. Bob Brown (1886-1959) may be best known today as the ultimate representative of avant-garde poetry that has been burgeoning in the environment of the small press movement in the 1920s and 30s, but to stress his contribution to the hands-on exploration of literary techniques, ideas, and universes that are still far from being acknowledged today, would miss the point. Rather than being just a 'minor' experimentalist (minor in the sense of hardly recognized by mainstream literary historians), Brown is in the very first place an author who anticipated a number of landmark shifts that his own times could only dream of, such as the complete dissolution of genres, themes, and sociological levels and distinctions as well as the dizzying exploration of textual materialism (in the later tradition of the literary text as a 'writing machine', to follow the terminology coined by N. Katherine Hayles in her eponymous 2002 book).

If the encounter of 'high' and 'low' has become a commonplace of postmodern literature and culture in general, and if in the light of the blurring

of their boundaries it is now possible to make now readings of the allegedly elitist High-Modernism (1910-1940) and its ambivalent reluctance to mass culture, no author probably went as far as Bob Brown in the joyful combination of the popular and the sophisticated, the commercial and the unreadable, the utilitarian and the useless. Having a (well filled) day-time job in the magazine publication business, and having covered enough pages to fill 10 lives of reading (in the beginning of his career he wrote among many other things novelizations, at the end he will produce a great quantity of cookbooks), he was also extremely active as an experimental poet, producing no less than five collections in the year of these *Words*). And in all the enterprises that he was undertaking, be it commissioned work or self-chosen experiments, the very materiality of the writing was the driving force of his inspiration and creative energy. His poetic work helps demonstrate it easily, but the same commitment to paper and ink, to the form of the characters and the dimensions of the page, to the relationship with genre and other constraints, constituted invariably the core of his poetics.

Words has been produced (for it is no longer possible to use here traditional words such as 'to write', 'to transcribe', 'to compose' etc.) in collaboration (and here as well the word 'collaboration' exceeds by far the usual partnership between printer and author) with Nancy Cunard's Hours Press, at the intersection of various lineages that came together in the small press movement: first, the materiality of the text; second, the avant-garde tradition of art as stunt; third, the inquiry into the limits of reading (already

initiated by the invention of the 'readies' as a quick-reading device aiming to compete with the speed of modern life and never art forms such as the cinema). *Words* is, simply put, a large format book (more or less an A4-format) containing two sets of poems. These sets, however, are not just two series of poems, like in a diptych, or a set of poems and their comments, marginal, translinear, or whatsoever. They are set in two different font-sizes, the first series in point 16, the other one in an astonishing point 3 (!) – a construction that makes them unreadable by one and the same reader or, more precisely, in one and the same reading. The first series is utterly readable and the latter almost unreadable, unless the reader uses a magnifying glass – and even in that case some letters or words may remain unreadable, as became clear in the joyful and painstaking efforts to fabricate a modern equivalent of the original text, the 'traditional' technique of photocopying being insufficient to offer a new double of the original.

Words is often very funny, yet it is not a play. One can read it as a satirically distorted mirror of the literary climate of the decade or as a portrait of a certain avant-garde group (the Americans in exile). Brown is a great writer, funny, nasty, capable of shifting from one style to another in the same verse, always sharp and nervous, a literary master in one word. But he is also always very serious. The idea of proposing an 'unreadable' text has strictly nothing to do with a literary joke. It is part of a policy, of an economy of writing and writing that demonstrates the poorness of our traditional devices and habits as well as the ways to overcome them, for instance by using a machine (here a magnifying glass,

elsewhere a microfilm reader, and so on). In that sense, it is of course not a coincidence that the Bob Brown's work is being rediscovered now, at a moment of such intense changes in reading and writing. And as the (excellent) editor of this volume repeatedly argues: Brown's work should not be read as an example of literary archaeology, but as an incentive to make a different use of what machines can help us do today.

Out Of Our Heads: Why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness

by Alva Noë
Hill and Wang, New York, NY,
2010, 232 pp.
Trade, \$25.00
ISBN: 978-0-8090-7465-5

*Reviewed by John Vines
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Whilst the study of human consciousness has been a feature of the arts and humanities for centuries, the hard(er) sciences have been notably slow in treating this area of research with the seriousness it deserves. This has altered somewhat over the past few decades with advances in various neuroscientific technologies and, subsequently, methods, with a growing opinion in neuroscience that scientists are able to explore consciousness and human experience through observing how the brain functions. In 'Out of Our Heads' Alva Noë asks whether the assumptions that form the starting point of the majority scientific studies of consciousness – that it is 'something that happens somewhere and sometime in the human brain' (p. 4) – inherently constrains this area

of research.

Noë defines consciousness from a biological perspective, arguing it provides a 'rigorous empirical alternative to mechanistic detachment on the one hand and mere personal intimacy on the other' (pp. 25-26). Typically, he argues, science has attempted to look at how others think through observing external behavior or measuring internal neural states, generating a scientific paradigm of the mind that must take a detached perspective. By starting from a non-mechanized biological perspective, however, Noë uses the example of how a simple bacterium may be considered as having a mind as a result of it having a 'life'. The bacteria, although primitive, is engaged with and geared into its world around it in an attempt to fulfill its appetite for certain types of sugars. It may be difficult for some to relate human consciousness to the example of bacteria, but Noë's point is that consciousness can be understood not purely through some kind of internal state or its representation in external behavior of an organism, but rather through the ongoing and dynamic interaction between a particular organism and its environment. In stating this he does not deny the importance of the brain as a part of this system, but rather than being considered as the centre of human consciousness its role is more in line with 'enabling an exchange between the person or animal and the world' (p. 67).

The book comprises of eight short chapters that each takes a topic relating the move from brain-centric to world involving systems of consciousness, with an epilogue and a short section of notes near the end. The fourth section of the book appears to be of particular note,

as it is here that Noë discusses evidence of how human activity both shapes and is shaped by the dynamic exchanges between a unified mind, body and world. The conclusion stemming from this chapter is that 'in an important sense, we are not separate from the world, we are of it, part of it'. (p. 95) This duly leads into a chapter on 'habits', which Noë determines as part of the worldly nature of consciousness in that along with skills they can be 'triggered by environmental conditions and they vanish in the absence of the appropriate environmental setting'(p. 97).

Taking Noë's argument, the intellectualization of conscious experience – that humans are thinking things that rationally digest information – must be replaced with understanding that we experience and perceive the world through the sensory and motor skills the human body provides - skills that have evolved in reciprocity with the world they interact with. It is the habitual nature of human kind that have formed these skills over millennia, and Noë provides evidence that human beings are today still creatures of habits in an extended world of thought that goes beyond the skull. He touches on notions of novices and experts, comparing the techniques used by a player learning the game to that of a player who had mastered the sport through habitual practice. The novice requires a high level of focus upon the mechanics of hitting a baseball; the attention of the player is on their body, the ball and hitting thereof. The opposite is presented by the expert player, whom if concentrating on the mechanics of the task shows deterioration in performance. Rather, 'the expert turns his attention elsewhere—for example, to tactics, or to

figuring out what sort of pitch is likely to be thrown next.' (p. 100) A similar argument is presented to people learning second languages. Noë highlights how the forming of habits and, thus, expert skills, furnishes beings with a heightened ability to partake in the wider context of an activity in an automatic manner. When we deliberate, plan and mediate the flow of a given situation is disengaged. If the environmental situation changes, again the flow of the activity is broken.

In 'Out of Our Heads', Noë has moved towards broadening the audience of his particular perspective on the philosophy of perception, and at many times the book reads as a journalistic piece rather than scholarship. Noë's argument is rather profound, yet in moving towards a more simplistic prose, an informed reader of 'Out of Our Heads' may react with a 'so what?'. Although I am sympathetic to Noë's argument, there are moments where I wonder what he is trying to bring to the table that differs in the slightest from what Maurice Merleau-Ponty, Francisco Varela, James Gibson, Jakob von Uexküll and a whole host of other thinkers have said before. To claim this, however, does injustice to the manner in which Noë synthesizes, examines and reanalyses a huge amount of scientific experimentation literature. Importantly, in making this book more open Noë still continuously relates his claims back to the empirical studies they are inferred from, never moving too far from the evidential base.

'Out of Our Heads' differs hugely in writing style comparison to Noë's previous work, such as *Action in Perception*,¹ which can be hard work for anyone not entirely

familiar with cognitive science, phenomenology and visual perception. For this reviewer, there is no doubt that Noë has provided an account for consciousness that adds to the growing discussion of understanding human beings as embodied and situated organisms. Only touched on very briefly in this book, Noë's model of consciousness is greatly influenced by the work of Francisco Varela and Evan Thompson, and as such will provide easy and valuable reading to anyone interested in the study of consciousness, and must be read by anyone working with the aforementioned authors work. Artists and creative practitioners interested in Noë's research on visual perception and consciousness may also find his investigations into the relationship between art and science and the role certain artworks have in the examination of perceptual consciousness as particularly useful further reading.²

References

- ¹ A. Noë, *Action in Perception* (Cambridge, The MIT Press, 2004)
² A. Noë, *Art as Enaction* (<http://www.interdisciplines.org/artcog/papers/8>)

Curating Consciousness: Mysticism and the Modern Museum

by Marcia Brennan
The MIT Press, Cambridge, MA, 2010
304 pp., illus. 60 b/w, 8 col.
Trade \$29.95
ISBN: 978-0-262-01378-9

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I am an artist, and not a curator, but an artist with a long-standing interest in the place of consciousness, mysticism and related non-physical processes

in the visual arts. My own art has been much influenced by these ideas. These comments then are from one artist's point of view.

Because of the general nature of the title, I was a bit disappointed that the book focused so heavily on one curator/critic, John Sweeney. However, his work is certainly central to any discussion of mysticism in the modern museum, as the author very carefully develops. It is, therefore, a necessary part of any understanding Western 20th Century art. It would appear that a book that would discuss a variety of curatorial approaches to the same artists is another enterprise.

With the focus on Sweeney, the author not only clearly presents his underlying assumptions and the ways his approach plays out as he curates exhibitions by various artists but she also includes the museum culture in which these took place and with which they often clashed.

Chapter 1 is a general introduction to John Sweeney, his ideas and career. Chapter 2 describes his writings, teachings, curatorial activities and collaborations with Alfred Barr that provided the basis for his curatorial approach. The remaining chapters deal in great detail with the approach Sweeney took when exhibiting particular artists as director of the Houston Museum of Fine Arts. While the book is well researched and footnoted as a scholarly text should be, it is written in a way that is accessible for the informed non-specialist.

One of the central themes of the book and of Sweeney's work is the concept of *coincidentia opposiorum*, the unification of opposites, "the saying the unsayable." The author develops this very difficult

theme clearly as it is involved in Sweeney's curatorial practice. She approaches it in a number of different ways, which provides a framework for appreciating the subtleties involved. Likewise the concepts of mysticism and the spiritual in the visual arts are clearly and amply discussed as Sweeney developed these ideas both theoretically and in his curatorial work. There are many quotes from Sweeney, but they are interwoven in ways to provide the essence and context of the concepts involved.

As an artist, the book helped me a great deal. I would certainly recommend the book to anyone interested in gaining a more thorough understanding of 20th Century Western art.

The England's Dreaming Tapes

by Jon Savage
University of Minnesota Press,
Minneapolis MN, 2010
752 pp., illus. 12 b&w
Trade, \$78.00
Paper, \$25.95
ISBN: 978-0-8166-7292-9

*Reviewed by Michael R. (Mike)
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One wonders about the *raison d'être* of this new book, subtitled "the essential companion to *England's Dreaming*, the seminal history of Punk". Is there really a dearth of primary sources on the Punk era, which necessitates a new printed book rather than online resource? When Savage approached the Punks, it was nearly a decade and a half after their 1976-77 moment in the limelight, and they'd had time to ponder its follies and its meaning. He relied on their

insights, but then shaped them into a history that reflected his own experience of the times and its tremors.

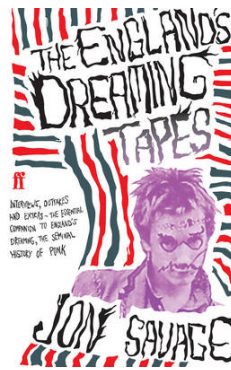
Before jumping—stage-diving—into this book, I took John Savage’s 1992 history of Punk rock *England’s Dreaming* down from the shelf, for a fresh look. His story begins with a constantly conceptually-redesigned clothing store run by Malcolm McLaren. McLaren’s death in spring 2010 made me revisit Craig Bromberg’s *The Wicked Ways of Malcolm McLaren* and to view some interviews from this decade found on YouTube. Like P.T. Barnum, movie distributor Arthur Mayer, John Sinclair, or (these two especially of interest to McLaren) Brian Epstein or Larry Parnes, the promoters of entertainment are often as interesting as the *artistes* themselves. Shopkeeper-qua-haberdasher-qua-ideologue McLaren, with energies and good ideas borrowed from designer Vivienne Westwood and others, decided he needed to form a band out of some of the wastrels hanging around his shop. As it was then called SEX, the Sex Pistols were born. Following the Pistols saga with few diversions from this center, the author introduces the New York Dolls and the Londoners’ rivalry and resentment of New York bands. Roberta Bayley, employee in SEX, seems to have been a peacemaker shuttling between both scenes. There was also the influence of amphetamines, and an eye to the individualistic Stiff Records label and roster of eccentric rock performers. McLaren did truly want the band to record on the established label EMI, yet the company feared the controversy that the band sparked when it cussed on bibulous Bill Grundy’s show would cause cancellation of orders for the medical scanners another part of the corporation

manufactured. A drumbeat of huffily oppositional moralizing by the popular press helped get the Sex Pistols banned from various small nightclubs. In *England’s Dreaming*, Savage is a thoughtful observer. There is a flash of good literary criticism of Patti Smith, and Savage compares the Sex Pistols’ “Submission”—where, asked to write a song about S & M John Lydon introduced imagery of a submarine’s dive—to motifs of the oceanic, enveloping woman detailed in Klaus Theweleit’s study of proto-Nazi Freikorps novels *Male Fantasies*. *England’s Dreaming* felt about twice as long as it should have been, its long comet’s tail being the depressing story of the dissolution of Sid Vicious and the Sex Pistols’ unhappy US tour, at whose San Francisco gig the band unceremoniously broke up. Johnny Rotten sneered from the stage “Ever have the feeling you’ve been cheated?” Too much of the time nobody seemed to be having any fun, except guitarist Steve Jones and drummer Paul Cook, who enjoyed all the available girls and lager. In Savage’s way is the fact that the story of the Sex Pistols has been scooped by two movies, director Julien Temple’s “The Great Rock n’ Roll Swindle” (McLaren’s version) and director Alex Cox’s “Sid and Nancy” (with Sid Vicious at its center).

Reading the source interviews in *The England’s Dreaming Tapes*, I quickly realized what a good job Savage did in his earlier book of distilling the salient message and lesson of each interviewee. That a similar book of interviews, *Please Kill Me: the Oral History of Punk* by Legs McNeil and Gillian Welch

(Penguin) has been a success, remaining in print and boasting steady sales, could not have been lost on the planners and publishers of Savage’s new book. The interviews include only a smattering of Punk musicians not in the Sex Pistols (Sylvain Sylvain, Captain Sensible, Siouxsie Sioux, Howard Devoto, Pete Shelley, Poly Styrene and Don Letts), but are organized into coterie of shopkeepers and members of the Glitterbest management team, frequenters of the Roxy Club, New Yorkers, and notable Punks hailing from London suburbs or the north of England.

Just when one feels one might just as well be slogging through a Victorian book called *Memoirs of Numerous English Persons in the Era 1875-77*, a nugget of insight gleams and makes it all worthwhile. Or that intriguingly raises further questions: is the “Pauline from Penetration” that Glen Matlock recalls at a Northallerton concert the same Pauline celebrated in the Sex Pistols’ song “Bodies”? I suppose *The England’s Dreaming Tapes*, like Jon Savage’s earlier book, would make a good holiday or high school graduation gift for young people, musicians or rock fans curious about the era. It reminds me of a book I enjoyed in the 1980s that collected OMNI magazine’s interviews with scientists. Yet this volume is as elephantine as any of the 1970s progressive rock compositions lasting the length of an album side, which Punk, in its speed and brevity, hoped to banish forever. When not consulting it in the production of further Punk exegesis, *The England’s Dreaming Tapes* is the kind of stout book to keep on the shelf in a vacation home, or



for—as the Sex Pistols sang—
“holidays in the sun.”

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