How did we come to be in the world?

The following piece falls into a new category in Leonardo Digital Reviews called “Review Articles.” This represents a move that we have long anticipated in LDR towards material that both synthesizes and analyzes the interventions in our field. Single-item reviews will continue as before, and these are intended to be reactive, informative and analytical as far as possible within the terms laid down by the author or artist. Of course, our single-item reviews often comment on the relative merits of the assumptions that are behind the work, but this is largely secondary to situating the material within an existing body of practice or a bibliography. A review article, on the other hand, will normally deal with two or more items. Using these as the primary data source will show the significance (or otherwise) of the material to the reviewer’s own intellectual position and research interests relative to the Leonardo project.

WORLD SPECTATORS


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How do we come to be in the world? Why are we here, knowing we are here? What do we do to inhabit the universe? These are fundamental questions for artist and scientist alike, which Kaja Silverman, in all modesty, sets out to answer in this small, elegant and arresting book. Coming out of the humanities (her previous work includes significant interventions in semiotics and film theory), Silverman’s initial casus belli is to raise the pennant of the visual against the apparent triumph of the linguistic in studies of how (and what) humans mean. In the process, she attempts to square one of the odder circles of contemporary theory: the relation between Heidegger and Lacan.

The task is difficult. These two maîtres-à-penser left prolific quantities of writing, moved through distinctive intellectual phases and, to some extent, though addressing significantly similar themes with significantly similar premises, are entirely irreconcilable. Silverman proposes that the philosopher needs the psychoanalyst to understand the subjectivity, and especially the duty of care, fundamental to Heidegger’s concept of the human as Dasein, as “being there.” At the same time, “Dasein makes visible something which psychoanalysis has functioned to make invisible: what it means for the world that each one of us is in it” (p. 28).

Silverman’s argument opens with an impressive analysis of the repression of the visual in Plato’s myth of the cave, establishing that “Our ‘essence’ is thus strangely inessential” (p. 19). This inessentiality is clarified in the second chapter: it is only in death that our whole lives can be reckoned, only then that we become what we always were. Of course, that is a moment from which, by definition, we are absent. Using Heidegger’s metaphor of the jar from his essay on “The Thing” (Heidegger, 1971) and the parallel work of Lacan on the vase in Seminar VII (Lacan, 1986), Silverman proposes that the relation of world and subject is based on mutual incompleteness, a void sculpted in the heart out of the necessary elimination-repression of the first unnamable object of individual desire. And yet, as the phenomenological tradition has attested for a generation, to see is to be seen, to belong to the visible. If we appropriate the world to our desires, we are also appropriated. The question then is: What does the world desire? The book’s final chapter is a tour de force of argument, realizing the meticulous theorizations presented in a bravura act of optimism. Drawing on the maverick biology of Caillois and Portmann, Silverman argues that animals, insects, even stones appear in forms that cannot be explained by the usual reasons (survival, camouflage, display). Rather, they exist to display themselves for perception in the visible world, and thus perception by humans, that unique species in which perception as aesthetics has become a specialty. “What I am calling ‘appearance,’” she writes, “occurs only through the most paradoxical of all events: the meeting of absence and presence” (p. 144), a meeting that is ontological rather than semiotic. As a result, we humans “only give the gift of Being to something when we permit it inaccurately to replicate what was” (p. 145); that is, to become a signifier of the specific and personal history of repression that originates the signifying activity of the individual.

Silverman is one of those who seek to develop a non- or even anti-Oedipal analysis, capable of recognizing cultural difference while nonetheless committed to the idea that kinship structures are a foundation of human subjectivity. Her corrections to both Lacan and Heidegger are convincing; she emphasizes the temporality of signification and mediation in important ways, and distinguishes the most significant moments in Lacan. She is unembarrassed about binning some of Lacan’s more bat-brained suggestions, emphasizing the far less gendered concept of Das Ding from Seminar VII, rather than the...
pre-eminence of the phallus elsewhere in his works. Likewise she recognizes the crucial shift in Heidegger’s post-war thought, where the “house of being” is identified no longer with Man but with Language (for example in the 1951 essay “Building, Dwelling, Thinking”). Most of all, however, Silverman attempts something vital to the project of Leonardo: an ontological aesthetics that recognizes at once the partnership of world and human in the generation of care, meaning and, most of all, beauty, but is also alert to both the individual and cultural differences that make that beauty perpetually incomplete, perpetually renewed.

This is that rare thing, a beautiful book. Navigating a complex argument and paying dues to the full apparatus of professional scholarship, Silverman nonetheless delivers a work that matches her definition of beauty: it asks to be read. This is not to say it is an easy read. It is not so much difficult as slow, inviting the reader to savor arguments rather than consume them. Rolling its ideas around the tongue, however, also invites one to dialogue.

There is, in particular, a hint of arrogance in presuming that the world exists in order for us to (mis)understand it. Silverman argues for ecstatic beauty, where the ecstatic being is “one who can claim to be only from a place it can never occupy, a place outside itself” (p. 33). A similar thesis might be argued of the universe of number, a discourse that likewise renders the world fundamentally understandable, but which equally clearly excludes the contemplating mind. Does number exhaust the universe? Surely not, and Silverman would be the first to say so, arguing as she does that “things at which we look with pleasure exceed our capacity to see them” (p. 146). Yet there is nonetheless something exhausting in the principle that either perceptual signification or number might in some way form the unique structure through which the world presents itself as comprehensible. More significant is the question of why it should be human perception (or the artifice of math) that is so privileged. Silverman’s answer derives from the psychoanalytic tradition, and pertains to the unique formation of human desire in the emergence into Lacan’s symbolic domain, the region of psychic life ordered into meaning by social and semiotic structuring. Human desire is founded on loss and lack, while animal instinct is presumably ordered by presence and fullness, since it is never mediated by those prohibitions that shape humanity.

Yet there are alternative structures of meaning that we can imagine: cetacean and primate understandings, glimmers of an as yet only imaginable machinic consciousness and, beyond that, the hoped-for encounter with extraterrestrial. Finally, since it is a final theory, there is the proposal of liberation theology that the task of the fallen world since the sacrifice of Christ is to prepare itself for the Second Coming. Even though we may not share that radical belief, philosophically it is a critical stance. It proposes that there may be a consciousness other than human to whom the significance of the world is more deeply comprehensible than it is to our species.

I agree with Silverman that it is a duty to act as if we were the only sentient species in the universe. Unless we care, we the dominant species on our all-too-limited planet, then there will be no beauty to exhaust us with its appealing. But to suggest that the world exists only to end in our perception seems to mark a dangerous political line, a permission to restructure the world in the image not of our best interests, not in the interests of the ecology itself, but to correspond with our often tragic desires. By way of contrast, Stephen Jay Gould argues that it is only because homo sapiens (and the whole chordata phylum) is a product of contingency that “We are the offspring of history, and must establish our own paths” (Gould, 1989, p. 325). In the course of emphasizing our insubstantiality and lack of essence, Silverman misses the significance of our accidence, our contingent materiality.

Silverman’s essay is distinguished by its readiness to confront the Heideggerian legacy with evidence of its own internal dialectics. There is a foundation in Heidegger, marked in a number of terms, all of which converge on absence. This is of course a genial way of building a philosophy that can claim to have no foundation. But whether mooted as death and the being-towards-death, as the lack in being, as fading, as the perpetually missing object of desire, the moment of difference or the anti-Leibnizian query raised by Baudrillard (“Why is there nothing rather than something?” [Baudrillard, 1996, p. 2]), the grounding of philosophy in lack has become the governing trope of late-twentieth-century continental philosophy. It is entirely correct for Silverman to explore and make demands of this grounding belief. She does so with tact but also with dexterity and a certain ruthlessness, like a surgeon who refuses the protestations of a patient.

Yet there is a step she finds hard to take, a step out from the tale of loss, splitting, fading and absence. With immense skill, she makes this sick patient walk, move, even recuperate enough to be taken to the window and shown all the reasons for continuing to live. Nonetheless, the patient is still sick, and hard to cure because she suffers from nothing, and extracting the nothing is an unsurprisingly tricky operation. That nothing is mortality and its bearing on the self. This is a residual humanism in Silverman, which weakens the powerful argument towards social care in the closing pages. Death, despite Heidegger’s protestations, remains as his marker of selfhood, and it is the primally selfish nature of psychoanalytic desire and Heideggerian being-towards-death that anchors both in a politics of individualism.

It is perhaps as a result of this individualism that Silverman concentrates on the aesthetics of natural beauty rather than the arts. The world of natural beauty that Silverman addresses is a world about which most of us are prepared to accept the general principle that, by and large, it is beautiful. A very positive point to make in Silverman’s favor is that she never calls upon concepts of the incomprehensible, incommunicable, asocial and ahistorical sublime. In the closing lines of the book, she gives a clue as to why this is the case: “Only as a collectivity,” she writes, “can we be equal to the demand” (p. 146). Beauty is at least human, and perhaps ecological, in the sense that it belongs to what is in principle not in practice comparable, communicable, discussable. The sublime is not. So far so good.

But when we move from the objects of the world to the processes of mediation—to social mores, cultural practices, media forms and the arts—do we have to sacrifice these elegant arguments? If it is the case that the ostentatious world seeks my vision and my desire, how much more so is this the case of, let’s say, Jean Renoir’s La Règle du jeu (1939)? Here the world is mediated as pro-filmic world (the world
designed and arranged for the camera, and mediated again from profilmic to filmic, and from filmic to the cinema experience. “Art,” Silverman argues, “functions . . . by making us more cosmopolitan or ‘worldly’ spectators—spectators capable of looking from a ‘there’ which is not our own" (p. 73). By contrast with psychoanalysis, which seeks to make us speak the word that is uniquely our own, art images the world as other, uniquely not our own. Sureh, then, the artwork addresses us or appears to us even more forcefully as an agent, as a desiring machine that seeks out our love? The correlative of the problem of selfish individualism is the production of the world as other, as nature. Yet there is no nature that is not already mediated, not only by the personal construction of the psyche but by the social constructions of media technologies, from the rituals of the caves to virtual reality. The social does not die, and being does not fade, because both are becoming, in mutual mediation. These criticisms are less problems in Silverman’s book than in the phenomenological tradition. What remains of value, and there is a great deal, is that tradition benefits enormously from Silverman’s trenchant observation, her assertion of the visual as the field in which the fit between world and human occurs. If the world and the human are as she suggests, then the term “cosmopolitan” is entirely accurate; we are the citizens, the only ones with duties and obligations to the cosmos. But if between my perception and the world there lies a vast domain of technological and cultural mediations that exceed the relation between individual and world and overwrite it, then this work represents only a first step, albeit a delightful and significant one.

Bibliography

BOOKS

CONSCIOUSNESS, COLOR AND CONTENT

Reviewed by George Shortess, Department of Psychology, 17 Memorial Drive East, Lehigh University, Bethlehem, PA 18015, U.S.A. E-mail: <george.shortess@lehigh.edu>.

In Consciousness, Color and Content, philosopher Michael Tye principally sets out to defend and expand upon his theory of phenomenal consciousness, known as representationalism. Phenomenal consciousness is concerned with what it is like to feel or experience a particular sensation, rather than just to know about the state intellectually. In the book, Tye provides an excellent overview of the area, even while promoting his own theory. As a perceptual psychologist and visual artist, I was intrigued by his manner of argument and presentation, particularly since phenomenal consciousness is a topic about which the cognitive and perceptual sciences say very little. I began to wonder if there are particular neural correlates associated with phenomenal consciousness—or if we can even ask such questions in this way. If so, Tye argues, then such correlates are rather primitive, since phenomenal consciousness exists even at the level of honeybees and similar organisms. The part of the title that initially intrigued me was color, which Tye discusses in some detail in Chapter 7. He argues against the notion, which he attributes to visual and cognitive scientists, that color exists only as a mental state, proposing instead that the common-sense view of color as a property of an object does not conflict with the view of color as a mental state.

In reading Tye’s discussion, I was struck by the apparent need for a clearer distinction in the use of the term “color,” particularly the distinction between the perception of color and color as a property of an object. I think perceptual psychologists would agree that there is a physical basis in external reality for the perception of color. As Tye points out (p. 159), the major determinant of color under ordinary viewing conditions is the reflectance of the surface, characterized as the percentage of light at various wavelengths reflected from the surface. For most ordinary surfaces, this is a stable physical property. However, the perception of reflectance is influenced by a number of factors, most notably the characteristics of the illuminating light, the adaptive state of the observer and the reflectances of surrounding surfaces. Tye summarizes the common-sense view of color as one of properties independent of mind and illumination, belonging primarily to surfaces but also to films (e.g. soap films) (p. 148). It would thus seem that Tye identifies the term “color” with the reflectance properties of surfaces, while transmittance would be the comparable color property for film. However, in Tye’s quotes of cognitive scientists, discussion of “color” includes the mental state as part of the perception of these reflectances and transmittances. Could we call the reflectances and transmittances, the color properties and the mental states “color perceptions”? Then the perception of color properties results in color perceptions, which are mental states with a basis in the neurophysiology of the visual system. I wonder if this kind of distinction would cause problems for Tye’s theory of phenomenal consciousness.

In summary, this book is difficult for the non-philosopher, but provocative. With additional reflection and clarification, it could lead to a further convergence of philosophy of mind and cognitive science.

A LANDSCAPE OF EVENTS

Reviewed by Mike Leggett, 17 Ivey St., Darlington, Sydney, N.S.W. 2008, Australia. E-mail: <legart@ozemail.com.au>.

In this series of essays written between 1984 and 1996 (presented chronologically in the book), Paul Virilio is a witness of the times, or the landscape of events, as they pass by in the electromagnetic spectrum of our collective telepresence. Paul Carter observed at about the same time these commentaries were written that “we build in order to stabilize the ground, to pro-

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vide ourselves with a secure place where we can stand and watch.” As professor of the Ecole Speciale d’Architecture in Paris, Virilio continues his description of the overtaking of space by time in the domain of the human environment, both built and natural. The secure place, however, dominates his attentions or, as he would have it, the attentions of the military-industrial complex trading today in the globalized industries of information.

In some ways, each essay reads less as an extended aphorism and more as an anguished “Letter to the Times” about the state of the world, relying a little too much on rhetoric and not enough on analysis. The essays most definitely are vivid statements “signaling through the flames” of contemporary turmoil and spectacle, commenting on war, terrorism, accidents, public disorder, the madhouse, mass murder and military history (“dematerilization, depersonalization and deregularization”). This virtual diorama is “the great circus of Time, of this landscape of events that God alone can contemplate.” Clearly, Virilio is right up there on the left hand of the almighty technology.

The section that deals with the anorthoscopic slit and the bankruptcy of “optical positivism,” perception and belief takes its cue from the artist Marcel Odenbach’s use of “total war” footage in Die Distance, his video game based on anorthoscopic optics. Odenbach’s installation plays with the persistence of visual phenomena and the ability of the mind to construct meaning from the scantiest of visual evidence, gathered in this case with a severely restricted field of view. Virilio’s subjective responses are dutifully released—he enlarges the anorthoscopic slit into a metaphor aligned with the falling of the Berlin Wall in 1989, writing of “a commutation of existence between East and West.” Such connections characteristically remind us that, whatever the field of research, an engagement with realpolitik connects the inner spaces of personal endeavor with the public space of the economies of human survival.

Virilio also discusses the discriminat ing gaze of kinematic optics (a recognized area of computer science, it seems, presumably to assist in dealing with junk e-mail), wherein information energy is seen as the ability to observe in a relativistic mode and thus distinguish between phenomena, setting apart the essential from the ephemeral flow and thus informing the more usual kinetic and potential energies.

Virilio reminds us that interactive processes, such as clicking on a mouse, were preceded by hand-to-hand combat. At least we do not lose a hand or a leg in the state of telepresence, although the more paranoid may be led to suspect that someone, somewhere is writing lines of code for a game that will exact that very outcome. It is all a matter of what is at stake, and how we can stake it. According to Virilio’s clarion call, we are being truly lulled. These entertaining thoughts would be better delivered via the listerv “dispatches from the front” style or, even better, as part of a dialogue, rather than up to 16 years later, via this elegantly designed book. On the one hand, this suggests that Virilio’s writings are a precursor to the listerv, indeed that his observations need to be recorded in the “Age of Speed” he has helped describe—their writings will be the kinematic optics to students of media, enabling a wider comprehension of the telepresence of the everyday. On the other hand, publication of this collection invokes the bittersweet feeling that this is commentary that missed the engagé audience in flagrante, but has now found it again, resting at home and willing to reminisce. It will strain, however, to reach the non-believers and (updating Heraclitus) the “optical atheists,” those baffled beings no longer capable of taking an interest in the shape of the world that is passing faster and faster.

THE LURE OF THE EDGE: SCIENTIFIC PASSIONS, RELIGIOUS BELIEFS, AND THE PURSUIT OF UFOs


Reviewed by David Topper, University of Winnipeg, Winnipeg, MB R3B 2E9, Canada. E-mail: <David.Topper@ds1.uwinnipeg.ca>.

I was in grade school when the first “flying saucer” reports came in. My friends and I were fascinated by the topic, had endless and fruitless discussions about UFOs and attended all the bad 1950s movies about alien attacks upon the earth. In the early 1960s I was an undergraduate majoring in physics and mathematics (yet minoring, in my spare time, in the humanities and arts), but no longer a believer in the pseudoscientific and paranormal. About that time, I read the book When Prophecy Fails (1956), by L. Festinger, H.W. Riecken and S. Schachter. Although written as a tedious sociological study, it was nevertheless a captivating read about a cult formed around a woman who contacted aliens and was waiting for them to visit earth. Although the study was about the gullible tendency of people to believe outlandish things, I also saw in it a glimmer of optimism about human behavior; true, numerous people joined the cult over several months, yet as negative evidence mounted (namely, the aliens did not appear on their appointed nights!), members left the group one by one, leaving in the end only a few of the original true believers. When there is a lack of confirmation, some people can un-believe things they may want to believe.

The Lure of the Edge is Brenda Denzler’s attempt at a thorough review of the community of UFO believers. I was interested to see that the first work she mentions in the introduction is When Prophecy Fails, which she regards as perpetrating a narrow view of UFO believers. She makes a case that in fact this community is not composed entirely of socially marginalized people with pseudoscientific beliefs who are prone to cult behavior. With a Ph.D. in religious studies, Denzler is also interested in the relationship of UFOlogy to traditional religious belief. Her focus is limited to the United States, where, according to a poll she quotes, 48% of the population believe that UFOs are real. Flying saucer reports began in 1947 and thereafter came in several waves. One such wave was during 1965–1967, which I clearly recall. I was a graduate student in Cleveland, Ohio, and one night two friends returned from a date quite agitated, fearful and yet awed, proclaiming that a light hovering in the sky followed them for an extended period of time along a dark stretch of country road. Subsequently they reported this UFO to Project Blue Book, a government agency set up in 1952 to study the possible validity of such sightings; it was closed late in 1969, and thereafter UFOlogy was relegated to the UFO community. Scientists dismissed most of the mid-1960s sightings as due to the seepage of methane gas
scientific activity, although acknowledging that the “science” they profess does not necessarily come from the mainstream (surprisingly, she does not mention a possible analogue with Christian Science).

Denzler, nevertheless, has convinced me that the UFO community is not the monolithic fringe group that I originally imagined. Her book is an exhaustive treatment of this theme, with an appendix on the present-day “picture of the UFO community” that is particularly illuminating. She, however, takes their “evidence” much more seriously than I do. Of course, I say this as a skeptic who has not seen a UFO and who, after reading this book, hopes never to be an abductee.

APPROACHES TO UNDERSTANDING VISUAL CULTURE


Reviewed by Mike Mosher, Saginaw Valley State University, University Center, MI 48710, U.S.A. E-mail: <mosher@svsu.edu>.

Approaches to Understanding Visual Culture is a useful and clearly written book, examining competing strategies towards the interpretation of the totality of human-made objects and imagery beyond the confines of “art history.” It contains about a dozen illustrations, although one would have welcomed at least a dozen more.

With techniques from history and the social sciences, phenomenology and hermeneutics (the arts of individual consciousness-based understanding), visual theorists began in the 18th century to build methodical processes for interpretation. By the mid-20th century, individualist approaches were being applied to subject matter as diverse as Renaissance paintings and 1950s motor-scooter advertisements. Other interpretive approaches sprang from communication theory, Saussurean semiology and structuralism, while feminist and Marxist social histories also added significantly to the field. It is only after discussion of these that Barnard examines formalist art historians—too often the beginning and end of interpretation—such as Clive Bell, Heinrich Wölflin and Clement Greenberg.

Due to its discussion of a wide range of major theoretical approaches, Approaches to Understanding Visual Culture deserves a place on the theory shelf beside Terry Eagleton’s Literary Theory, a similarly sized guidebook of much help for the perplexed.

A HISTORY OF RUSSIAN MUSIC


Reviewed by Stefaan Van Ryssen, Jan Dehuijslaan 47, Gent, Belgium. E-mail: <stefaan.vanryssen@pandora.be>.

Francis Maes makes it very clear from the beginning of this book that he intends to thoroughly and entirely rewrite the history of Russian music. Instead of unthinkingly copying the nationalistic discourse of the early Russian music historian Vladimir Stassov, Maes builds on research of the past decades by many Russian and non-Russian musicologists to re-appraise the work of icons like Tchaikovsky, Rachmaninoff and Shostakovich. There is no doubt that he succeeds in all respects and does so in a book that reads like a novel but still holds up against the criticism of musicologists and specialists.

The first question when writing a history of any country’s music is how to define one’s subject. For instance, is all music written in Russia Russian? Maes deals with this question by discussing the alleged “nature” of Russian music as it was understood by its inventors.

He shows that what some ideologists identified as genuine, original, native and pure in music was either absent or totally rejected in Russian music. This is exemplified by Glinka, the so-called “Father of Russian music,” who thought Russian folklore utterly uninteresting as a source of musical material. In A History of Russian Music, Maes tells a multifaceted tale of conflicting ideologies: conservative and progressive nationalist, progressive classicistic, Soviet, “formalist” and “cosmopolite,” each one influencing and influenced by composers of different stature.

The book deals at length with all the great composers and compositions, from Glinka’s Kamarinskaya to Shostakovich’s Babi Yar (Thirteenth Symphony). The yarn is, unsurprisingly,
to the intellectual climate of the latter part of the last century, should lie relatively dormant now. Picking through this large volume of selected essays by one of structural anthropology’s leading practitioners, Marshall Sahlins, one gets the impression of a field of study that tried to reconcile at least two distinct disciplines, using the methodology of a third.

First, there is ethnography, the attempt to objectively study societies and their cultures in operation; this book presents many exemplary pieces of ethnographic research. Second, there is political philosophy—the attempt to explain how societies and their cultures operate—which, in the case of much of Sahlins’ work, ultimately derives from Marxism. Finally, there is the application of linguistics—the attempt to objectively classify the cultural operation of societies—more specifically here, the structural linguistics of Ferdinand de Saussure and the subsequent school of French semiotics. Although Sahlins’ involvement with structural anthropology is highlighted by a glowing endorsement from Claude Lévi-Strauss (perhaps the most prominent exponent of the field), it is interesting to observe the fluctuations of intellectual fashion in this “intellectual autobiography” spanning the activity of some 30 years. Divided into three sections, the first set of essays, “Culture,” from the 1960s and 1970s, is marked by an emphasis on “cultural construction or symbolic order” (p. 57), frequently referencing the Saussurean principle *il n’y que le différences*. The second set (“Practice”) documents Sahlins’s more overtly political writing of the late 1960s, flavored by the general mood of revolutionary intellectual struggle and reactions to the Vietnam War. The final set (“Culture in Practice”), written in the 1980s and 1990s, is more concerned with the fate of indigenous peoples and the “hegemonic forces of a globalizing capitalism,” marking a shift toward historical ethnography and comparative anthropology.

To return to our original question about the current reputation of structural anthropology, its decline may be due (at least in part) to the decline in value of Marxist political philosophy and Saussurean structural linguistics, components that elevated the subject in the 1960s and 1970s. For the optimistic belief in the rational scientific manipulation of human culture and society is now as defunct as the equally optimistic belief in a rational explanation of the languages, signs and symbols by which such societies function. Allied to this loss of faith is the more profound malaise one can sense in contemporary intellectual activity that, it seems, has been stripped of its main purpose—to direct the improvement of, rather than simply observe, the human condition. What is left then is ethnography, in something like its original form: that is, the observation of cultures, especially cultures other than our own, about which we can still be remarkably ignorant. This is an ignorance that, as Sahlins points out, allows the brutal logic of corporate progress to invade and mutilate other fragile worlds. The fact that we still have so much to learn from our quieter fellow humans is demonstrated by a small example cited toward the end of the book. Discussing the “Relativity of Subject-Object Distinctions” (p. 563), or how the relation between person and environment is understood in different cultures and how this can determine the way we treat other humans and the environment, the author notes Godfrey Lienhardt’s discussion of the Dinka people’s relations to external “powers.” He quotes:

The Dinka have no conception which at all closely corresponds to our popular modern conception of the “mind” as mediating and, as it were, storing up experiences of the self. There is for them no such interior entity to appear, on reflection, to stand between the experiencing self at any given moment and what is or has been an exterior influence upon the self.
FALSE COLORS: ART, DESIGN, AND MODERN CAMOUFLAGE
Reviewed by Wilfred Niels Arnold. Biochemistry Department, University of Kansas Medical Center, Kansas City, KS, U.S.A. E-mail: <warnold@kumc.edu>.

During Australian Army training back in the mid-1950s, I had my one and only experience with a camouflage exercise. We were asked to blend with the landscape and to sneak up on another neophyte platoon. Most of the fellows started rubbing their faces with charcoal from last year’s bush fire, but I imagined something more creative (and cleaner). I pulled off a huge piece of eucalyptus bark, big enough to cover my body from my head to my belly button, fashioned a couple of eye-holes, and stuck it in my belt. It looked great in the line-up but did not work in practice—trees do not move through the forest. And now my friend and colleague Roy Behrens explains all of this, and much more, in a delightful volume that delves into so many aspects of art, war and living.

Major chapters include a historical perspective, the quantum jump in World War One camouflage techniques for warships and a potpourri of current camouflage artists. The outlandish designs on surface vessels (so that submarine captains could not tell at first glance the direction of travel of their prey) are alone worth the price of admission. This era has passed—directing missiles is now a very remote thing, and I suppose somewhat less emotional for those who press the trigger. Nonetheless, the last decade has shown a resurgence in World War One and World War Two interests, and the present volume will be as well-received in that arena as it will be in the classrooms and libraries of art theory and appreciation.

The book is richly produced, in a 9 x 6 in format, and copiously illustrated with well-chosen items. The spatial arrangements make for happy reading, and there is a bibliography of over 400 references (including 21 papers by Behrens), but no index. The book is complemented by numerous glosses and asides in the margins, ranging from biographic tidbits through carefully attributed quotations, to simply amusing snippets.

Roy Behrens is professor of art at the University of Northern Iowa, Cedar Falls, where he primarily teaches graphic design and illustration. He is widely published, has three other book titles, and is the editor and publisher of Ballast Quarterly Review. He is currently writing a biography on Adelbert Ames II, inventor of the “Ames Demonstrations” in psychology.

JANET ASHabee: LOVE, MARRIAGE, AND THE ARTS AND CRAFTS MOVEMENT
Reviewed by Roy R. Behrens, Department of Art, University of Northern Iowa, Cedar Falls, IA 50614-0362. E-mail: <ballast@netins.net>.

The British designer Charles Robert Ashbee (1863–1942; usually known as C.R. Ashbee or, among his contemporaries, CRA) was an inheritor of the Arts and Crafts tradition of William Morris. He was a literal inheritor in the sense that, after Morris’ death, it was Ashbee and his newly formed Essex House Press that purchased the equipment from Kelmscott Press. In 1888, inspired by Morris, he had founded the Guild of Handicraft and School of Handicraft (for woodworking, metalwork and decorative painting) at London’s Toynbee Hall, a colony admired by Chicago social worker Jane Addams, who returned from a visit to Europe to start Hull House. Lecturing in the U.S. in 1909, Ashbee was a guest at Hull House, where he met and was befriended by Frank Lloyd Wright (for whom he wrote the foreword in 1911 for an important German portfolio of Wright’s architecture).

As this book explains, traveling with him on that trip were the two Mrs. Ashbees: his youngish, bitchy mother (called “Little Mother”), to whom he was abnormally tied, and his “comrade-wife,” as he called her (a year younger), Janet (née Forbes) Ashbee, whom he had wed in 1898 but with whom he had yet to consummate the marriage. As this book explains, at times in honest, bleak detail, Ashbee was a prominent homosexual, as everyone seems to have known but his bride. In fact, it was only 9 years later, a dozen years after their wedding, having returned from their second visit to the U.S., that they began sleeping together, which eventually led to four daughters.

All this is new—sort of. It has been there for all to find, since, throughout their marriage, CRA and Janet kept a collaborative journal, in which each wrote entries in the same daily diary; they exchanged letters between themselves and with a number of close friends; Janet kept a private diary, the ninth and last volume of which records the events that eventually led to her breakdown and recovery; and last, but most revealing, Janet wrote a thinly disguised autobiographical novel (in which only the names are fictional), portions of which are printed here for the first time. Research and skillfully written by the second of the Ashbees’ four daughters (now 88 years old), this is a candid, backstage look at the challenges faced and surmounted by her heroic Victorian mother, as she grew to accept the reality of a Jolly Art “practical” marriage.

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THE ACTIVIST DRAWING: RETRACING SITUATIONIST ARCHITECTURES FROM CONSTANT’S NEW BABYLON TO BEYOND
Reviewed by Mike Mosher, Saginaw Valley State University, University Center, MI 48710, U.S.A. E-mail: <mosher@svsu.edu>.
As bookish 12-year-olds, another “faculty brat” and I redrew the map of Europe, arbitrarily grouping countries and simplifying boundaries with our Crayola crayons and colored pencils. In second-empire Paris, city planner Baron Hausmann called himself an “artist-demolitionist” as he leveled old neighborhoods to make room for new boulevards and blocks of elegant apartments lining them. In Germany’s Third Reich, the creative young Fascist Albert Speer envisioned heroically wide thoroughfares leading to mammoth state buildings. All of these tendencies seem to be found in the work of Constant Nieuwenhuys (b. 1920), though his major political influence may be the Situationist theorists of the 1950s and 1960s, with whom he associated. Centered around a quintessential Parisian named Guy Debord, the Situationists made the city their subject matter and their canvas, and saw many of their slogans adopted for posters by radical students in Paris in 1968.

Constant’s work began with drawings resembling those of the COBRA group, composed of artists in Copenhagen, Brussels and Amsterdam (hence the acronym), who sought a childlike expressionist purity after the devastation they had witnessed in the Second World War. He soon moved on to creating works incorporating a methodical, serial alignment of small cubes on the surface of a canvas. Less organic than Larry Poons, less colorfully decorative than Victor Vasarely, the works strike me as resembling computer punch cards, appropriate for the cover of an IBM annual report or MIT Technology Review, circa 1962.

These works led Constant to create architectural-looking works, where his forms’ movement into space came in concert with Situationist ideas of “unitary urbanism.” He produced a multitude of sketchy drawings, which look like the plans of an architect as she or he moves towards a grand vision. Constant also proposed—then created—models of huge, labyrinthine interiors with reconfigurable walls, floors, lighting and environmental experience (color, texture, smell), their internal configurations supposedly driven by public desire, almost by whim. His high-level views of Lego-like “sectors” zig-zag diagonally over vast terrains and straddle national boundaries on the map, as if to render such boundaries irrelevant in a globalized world and interconnected European Community—one wonders if maybe they are irrelevant.

Constant’s work fits into the utopian tradition of Boullée, Le Corbusier and Britain’s Archigram group, or the more recent genre that mixes conceptual plans and gallery objects, like Christo and Jeanne-Claude’s work or Mike Kelley’s recent architectural model of remembered school buildings. Kelley’s contemporary, Spelman Evans Downer, created many textured and scribbled map-like paintings in the 1980s and 1990s, but these more often focused on natural topography than urban phenomena.

Constant must enjoy Minneapolis, Minnesota, where downtown buildings are connected by walkways to facilitate urban life and circulation during cruel winters. I could not help also seeing his “sectors” realized in ungainly and insecure Logan Airport in Boston—one imagines Constant spending a lot of time roaming airport terminals. His forms are echoed somewhat more successfully in 1990s buildings on campuses of public universities such as U.C. Berkeley, San Francisco State, San Jose State or Cal State Hayward (all in California). Their shadowy concrete plazas, beneath several floors of classrooms and offices, should be used more often in movies as settings for lovers’ miscommunication and emotional strife.

The problematic “sectors” that Constant exhibited over the past three decades display urban life that is off the ground, away from the street-level existence that makes a city most vibrant. If built, they would keep the homeless and the unemployed at bay, serving as an easily policed bulwark against the rabbles and the rabble-rousers. They would function much as a shopping mall does in daily life. Their changing characteristics sound like little more than the aesthetic shifts of the department store window, delightfully entertaining, but spaces where nothing significant really changes as it remains a theater of its commodities.

Though it is germane to examine utopian architectural precedents for Constant’s work (as it is to examine its science-fiction ones), comparisons of his projects to the Web in some essays in The Activist Drawing seem forced. Granted, he envisioned mammoth New Babylon buildings to snake over political and national borders, but water, sewer and electric power systems do the same thing. Constant’s “scientific-esque” drawings, diagrams and other artworks are very much of their own time and straddle the borders between architecture and vintage-1970s conceptual art. Allusions to the Web seem an unnecessary marketing device to make contemporary and relevant creative works by a mid-century artist, works that are worth examining and are enjoyable in their own right.

The handsome book includes Benjamin Buchloh’s interview with Constant and contributions by Rosalyn Deutsche, Catherine de Zegher, Elizabeth Diller, Tom McDonough, Martha Rosler, Bernard Tschumi, Anthony Vidler and Mark Wigley.

Catherine de Zegher is director of the Drawing Center, New York City, which exhibited in 1999 many of Constant’s works pictured in The Activist Drawing.

LA PLANÈTE DES ESPRITS—POUR UNE POLITIQUE DU CYBERESPACE


Reviewed by Julien Knebusch, 22, rue Caulaincourt, 75018 Paris, France. E-mail: <julien.knebusch@free.fr>.

Philippe Quéau is a thinker as well as a man of action. In the 1990s, he organized the exhibition Imagina, which centered around digital images. Since July 1996, he has been director of the Information and Informatic Division of UNESCO and has written many theoretical essays on the issues of technological art and virtual reality.

In La Planète des Esprits—Pour une Politique du Cyberespace, Quéau presents a political and philosophical reflection on globalization, based on a philosophical questioning of the virtual. The author claims that a new historical age—the World Renaissance—has arisen, heralding a planetary civilization. Like the Western Renaissance in the 16th century, the World Renaissance has its own writing, which is digital or virtual and succeeds printing. It also has its own America—cyberspace and the worlds of financial abstraction—and its own reform, the concept of a common world good.

The foundation of this renaissance is the invention of a new system of writing—the virtual—based on the development of communication and information technologies. The author invites us to define the virtual not only as a tool for a better understanding of the real, but also as a civilizing agent, allowing for new modes of behavior. He
Pascal Bruckner’s essentially economic, as recalled in debate on globalization. This debate is this book is very useful in the actual virtual and world politics. In so doing, the consequences of the virtual affect the very foundation of being human and thus open new possibilities for human communities. Quéau posits that the virtual may help the virtual community of humans to represent themselves as a planetary society, thus developing the ultimate utopia of the virtual. Nevertheless, he does not forget the dangers of the virtual in relation to the question of otherness—here, the virtual is used only as a mirror of ourselves.

Although globalization and the virtual are abstractions, they are real for those who believe that “ideas rule the world.” Quéau argues that the fortune of the world depends on the reality we lend to abstractions, making reference to the ancient scholastic debate between nominalism and realism regarding the concreteness of abstractions. A similar problem exists in terms of a concept of a common world good, which Quéau seeks first to define more precisely in order to develop it into a political tool. He analyzes the various world public goods—water, the oceans, space—and is especially interested in immaterial goods, such as the Internet and information society, in a broad sense. He proposes different measures for guaranteeing these common world goods. For example, he advocates creation of a virtual public world library and wants above all to demystify international law, which, he writes, is too heavily based on nation-states and not enough on a world-oriented, supranational vision. Quéau here makes a link (along with other theoreticians such as Herve Fischer) between his thinking about the virtual to a broader perspective of planetary civilization by emphasizing the relationship between the virtual and world politics. In so doing, this book is very useful in the actual debate on globalization. This debate is essentially economic, as recalled in Pascal Bruckner’s *The Misery of Prosperity* (Paris, Grassett, 2002) and only rarely seeks to define the ethical and political conditions necessary for a world civilization. Globalization has always been of interest to sociologists and political scientists and only more recently to philosophers.

One may criticize in this book the fact that the author ties the question of globalization too closely to the problems of the virtual or the question of otherness, thus marginalizing the question of geography in comprehending globalization. Even if the virtual produces another space, one should not forget the importance of planetary space and the conflicting interactions it implies in understanding the formation of globalization (as discussed by Henri Lefebvre). On the other hand, one should also consider the ontological relationship between humans and global space (which the virtual does not abolish), as described by thinkers such as Paul Virilio and, more recently, Peter Sloterdijk. Considering such relationships is important in discussing the future of the world, and its fortune or misfortune.

**DESIGN BY NUMBERS**


Reviewed by Stephen Wilson, Art Dept., San Francisco State University, 1600 Holloway, San Francisco, CA 94132, U.S.A. E-mail: <sunolson@sfu.edu>.

Throughout the history of computer art, there has been a vocal sub-community interested in the investigation of code and algorithm as an aesthetic focus. Some have considered the exploration of algorithm as a way to penetrate to the essence of image, design and aesthetic experience; some have even felt there are resonances between the algorithms and the core of nature; other computer artists have been interested in code because it is an aspect of their craft largely not appreciated or understood by audiences. John Maeda’s book, *Design by Numbers*, injects new life into those discussions.

Maeda is director of the Aesthetics and Computing Group at MIT’s Media Lab. He and his students are famous for the interactive, visually striking systems they develop that are helping to forge new attitudes toward design. The power of these systems lies in the interplay of algorithm, interactivity and ultimate visual manifestation. *Design by Numbers* is an elegant introduction to Maeda’s approach to thinking about code and visuality. To accomplish his goal, Maeda has developed a streamlined programming language called dbm, which is customized toward visual thinkers (dbm is available for free download on the Web). The commands of this language attempt to cut to the essence.

In an updating of the spirit of the Bauhaus school, Maeda systematically introduces a series of concepts, thought experiments and hands-on exercises that explore the interrelationships of design and coding. There are chapters on commands, lines, variables, repeat, dots, nesting and questions (conditionals). Later, more advanced chapters look at time, paint, reaction, touch, network, change and numbers. Each chapter simultaneously explores the core idea of the code and the visual concept. For example, the chapter about lines examines what a line is computationally and what it is visually.

The book invites hands-on experimentation and could serve as an introduction to both programming and design. Each chapter introduces the core idea in programming/visual display and then plays with variations that can be developed. Each code snippet is illustrated by an image of its visual result. All visual displays are restricted to a 100 × 100 pixel box, with a grayscale range for each pixel of 100, providing an elegant coherence to the book. The sequences of grayscale box experiments are visually wonderful to scan.

The advanced chapters tackle more complex issues. For instance, Maeda laments that many artists and designers never seek to penetrate beyond commercial computer applications, such as paint programs. They thus never realize what assumptions and limits underlie these systems. Even with his streamlined language, he leads the reader to explore the essence of image-processing, interactive systems, mice, keyboards and so on. His introduction to networks and distributed Internet drawing is brilliant—he poses a conceptually simple system in which people anywhere can read and write to a limited number of positions on a server and then proceeds to explore shared visual creation systems.

There are some places the book could have gone further: some readers will find the simplified, code-oriented approach overly modernist; the book is short on philosophical discussion about the assumptions of this system and the underlying faith it implies in the ability to create totally controllable systems, and there is also little consideration of
the fact that numbers can only represent certain domains poorly—such as emotion or semantics. The discussion on randomness, however, is revealing: Maeda considers noise an unfortunate distraction for elegant systems, while others might consider it the essence of contemporary life. The book would also have been enhanced with some discussion of the long history of algorithmic computer art. Despite these faults, however, I strongly recommend this book.

MULTIMEDIA

OF SHIFTING SHADOWS
by Gita Hashemi. Exisle Creations, Toronto, Canada, 2000. CD-ROM. Available from <exisle@excite.com> or through InterAccess Electronic Media Arts Centre.

Reviewed by Mike Leggett, 17 Ivy St., Darlington, Sydney, N.S.W. 2008, Australia. E-mail: <legart@ozemail.com.au>.

That intimate space existing between a book and its reader, the computer monitor and its viewer are locations where intense feelings of both attraction and revulsion occur, amplified by the physical proximity of the events depicted on the screen and on the page. This intimacy is completely separated from the real events occurring around the subject who is so immersed—sunlight dapples the grass in the garden, kids play in a neighbor’s house, as on-screen people are bound in white sheets, buried up to their waists in the ground and then stoned by a convulsive mob.

Of Shifting Shadows takes us back more than 20 years to the trauma of the Iranian Revolution and, in trying to recover the complexities of events, relates the unseen effects on individuals to the present day—the status of exile, banishment from one’s country of birth and culture, the lot of a forced nomad seeking hospitality and protection in a country of refuge. The stories of three women are related here, with the artist Gita Hashemi adding her voice and multimedia-authoring talents. The narrative is constructed in 48 segments, layered with video, audio, animated text and graphics, combining original and reconstructed material in English and Farsi.

Movement through the work has both a symmetry and an element of chance well suited to the need to bear witness in a cultural context hybridized by personal histories. The three identities remain anonymous; they do not address us directly but instead use allusion and poetic forms, all speaking with the same voice (that of Hashemi). Each introduces a segment with video, maybe taken from news archives of the time or cut with street scenes of urban Canada (where the women now reside) or of a performer—a dancer gestures with hand signals, indicating a contemporary presence. At the completion of the segment, a window opens, where either a word-phrase collage echoes some of the spoken pieces or documents of the time brief us on the sequence of historical events.

The events, which continue to reverberate today, were the beginning of the most recent phase of Islam reasserting its authority. Marxists and fundamentalists joined forces to depose the Shah, the puppet of the West and its oil interests, maintaining Iran as a bulwark to communism to the north and east. We are reminded of one of the slogans of the time—‘Neither the East, Nor the West / Islam is Best’—which eventuated in the Ayatollah Khomeini being returned from exile in 1979 to inspire and help install the religious state, kill or eject hundreds of thousands of erstwhile allies and, in short order, commence a 6-year war with neighboring Iraq, which was to kill millions and impoverish the survivors.

Women, including those represented in Of Shifting Shadows, were at the forefront of the Iranian Revolution. However, with the eventual victory of the fundamentalists, they were also the victims, required to wear the hijab and, in transgression of aspects of the Koran, punished through public floggings and death by stoning. I remember that at the time these were lead stories in news bulletins, but nothing as callously brutal as the footage displayed here was ever allowed to drive home the horror of the scene nor the terror that this instilled in the Iranian female population.

For refugees from this terror, survival in the appeal courtrooms and tribunals of cold northern climes became the raison d’être. Time to meditate, for survivors (and for the subject navigating this work), upon the dualities of presence and absence, singularity and plurality, origins, territories, histories and memory—‘The story is the nomad’s arrival.’ As we navigate through this piece, we move like nomads around this place of images and sounds, locating the place where we can arrive at an understanding of the depth of these experiences, their impact upon individuals, their effect upon the social structure of local and national communities across the globe.

Of Shifting Shadows deals with transitional realities as they pass before us, the viewers, expressed as an evocation rather than as a linear historical narrative. As such, these realities serve as a testament to appalling events that preceded exile for these women, for all refugees, the trials that accompany enforced residence in a foreign land. (Australia, a country that can well afford to be generous, is currently debasing the threshold of compassion and conditions of confinement for refugees.) It is important that witnesses speak in this way, that our complacency does not assume that time will heal, or simply allow enough time to pass so that events can be forgotten.

Death in the afternoon, on the small screen, has a potency the reverberation of which we cannot predict. Let us forget.

FOR A BETTER WORLD

Reviewed by Mike Leggett, 17 Ivy St., Darlington, Sydney, N.S.W. 2008, Australia. E-mail: <legart@ozemail.com.au>.

For Better World presents to the viewer the suicides of five men and women, in which self-immolation was used as a means of bringing injustice and oppression to the attention of the population. Shocking images of these acts are countered with a woman’s voice coolly analyzing the case-studies of a batch of unnamed perpetrators and descriptions of the acculturization of such practices in certain societies. Her emotionally unattached, BBC-type documentary voiceover weaves in and out with that of an emotionally charged American male, who berates the listener as we watch grainy video footage moments from an inescapable suicide. Indeed, the pointy finger that appears from time to time as the user patrols the
picture area, seeking to switch voices and launch some more archive footage, is the only thing that “triggers an action,” as the artist puts it. Eventually, two captions appear on the screen and offer a choice, also rhetorically: “New Begin” and “Continue.”

We are then immersed in a series of circles, a virtual tube in which we rotate, confronted by drawings based on images related to the topic. We search for the next pointy finger, listening to the English voice calmly narrating the sociological viewpoint. We are able to move through a layer of charcoal (burnt wood) images and shift into a different “tube.” The trigger action confronts us with the flat abstract space of a television news report, the station logos and time-code quantifying and owning the segment that, when ended, returns us to the charcoal wall to continue our searching.

These closed, claustrophobic spaces encourage a meditation upon the condition of self-sacrifice as an act of spectacle, worthy here only of remote analysis and comment. The individual sacrificial victims’ motivations are somehow lost in between a principled “No comment” from the artist and the desperate grasping by the viewer to comprehend the causes for such desperate acts. Is it as if Jan Palach was another possibly unbalanced performance artist rather than who he was, the student citizen of Prague enraged and helpless, as we all felt in 1968, when Russian tanks crushed the “Prague Spring.” We are manipulated by our removed involvement to seek beyond the surface of the disc the histories, the circumstances that caused these people to kill themselves in such spectacular, media-grabbing style. For a Better World, however, presents us only with some visual and audio artifacts related to their actions.

While recognizing the right of the visual artist to restrict their terms of reference, there is an implied responsibility in this age of super-surplus information to provide access to the background of material displayed within an artwork. Hyperlinking and interface design enable users to make decisions for themselves about where to stop this process of investigation rather than have the initial researcher (the artist, in this case, but it might equally be a physicist or sociologist) advertise their concern, then leave the scene they have set. The statement Palach made before his death, for instance, is too obscure yet too important a document to be lost to the interacting subject in this way—interaction as an option does not imply resolution but can go further than ultimately non-productive choices, which might encourage a cynical disregard. So you want to know more? Sure, perform an advanced find in a search engine—but realistically, who has the time to read the plethora of documents that would be delivered to the screen?

The artist, whether accepting responsibility or not, is an arbitrator, an editor of lived experience, as is so deftly demonstrated here—the need to “give voice” to these individuals’ experiences goes further than simply advertising their demise by utilizing a representational form (archive footage and spoken text voiceover) in an ironic, but essentially unproblematic, way. These are symbols, but of what? The essays that accompany the CD-ROM do not go there—instead they are superseded by the specter of the September 11, 2001 tragedy that followed the completion of the artwork.

My expectation (maybe through some other part of the CD-ROM or appendix to For a Better World) is to be enabled to choose to engage, or not, with the politics of the events for which these sacrifices were perpetrated. Ultimately, all suicides can be accounted for in these terms, but those that seek to be public spectacles signify a broader, principled statement. The experience of interacting with an art piece has the potential to transform the individual (if not the chimera of a better world), where immersion within the work occurs alongside creating meaning of and from the encounters that have been engineered by the artist.

As a footnote, this interactive CD was put together using the Quicktime-based open source iShell application from Tribeworks, freely available for non-commercial purposes. I encountered problems running directly off the cross-platform CD-ROM disc (on a Macintosh G4), but found it more stable after transferring to the hard disc.

Videos

Swing in Beijing

is perhaps not surprising that Percival

tigation has been studied extensively. It

connections between the brain and the

historical attempts to understand con-

animal magnetism throughout the

body raised questions about the instru-

it seems Franklin

medical, neuro-

Ironically, when Franklin debunked

Mesmer’s claims, he was also a key

Zeitzer, a classically trained musician,

this information presentation, which mixed

audience questions with musical pieces

including his own compositions). The

was not the case at the seventh annual

meeting of the International Society for

the History of the Neurosciences

(IShN). Indeed, one of the most comp-

elling features of the conference was

the degree to which combinations of

art, science and technology were simply

assumed.

This assumption was immediately
evident during the opening reception,

held in the rare book room of the

History and Special Collections Divi-
sion, Louise M. Darling Biomedical Lib-
ary at UCLA. A special exhibit was

set up and included (among other

things) Hideomi Tuge’s study; an atlas

of the brain of a pianist, Chiyo Tuge

(1908–1969); an 1880 anatomical wax

model of the left side of the head and

neck in dissection; and Percival Bailey’s

copy of the Edwin Smith surgical pa-

pyrus. This ancient papyrus is now

regarded as a work of art, due to its

value and significance—the unknown

author, a surgeon, systematically de-
scribed the examination, diagnosis

and feasibility of treatment for 48 cases.

Several of these cases discussed the

brain, meninges (brain coverings),

spinal cord and cerebrospinal fluid for

the first time in recorded history. Gen-

erally regarded as the first record of

historical attempts to understand con-

nections between the brain and the

human body, the papyrus’s empirical

approach to the problems under inves-
tigation has been studied extensively. It

is perhaps not surprising that Percival

Bailey, a later neurologist, owned a

copy of this document, which con-
tained the first written reference to any

part of the brain, in this case the cor-
tex. Interestingly, the Edwin Smith

papyrus is also a copied document. It is

usually dated to about 1700 BCE and is

said to be a copy of a much older surgi-
tcal treatise, dating back to the pyramid

age of the Old Kingdom of Egypt

(about 2686–2181 BCE).

Stanley Finger’s fascinating paper,

“The Power of a Musical Instrument:

Franklin, the Mozarts, Mesmer and the

Glass Armonica,” was a particularly

noteworthy contribution, as was the

subsequent counterpoint demonstration

concert of the “glass armonica” by

William Wilde Zeitzer. As Finger ex-

plained, the playing of glass has a long

history: early Pythagorians experiment-

ed with glass bowls filled with increasing

quantities of water, and the history of

the East Indian jal	arang (a set of tuned glass or porce-

lain bowls struck with mallets) similarly

illustrates a long interest in the crea-

tion of music derived from glass bowls

filled with increasing quantities of

water.

Benjamin Franklin’s contributions to

the playing of glass are not as well

known, however. Franklin (1706–1790),

an inventor who was keenly interested

in music, brought his extensive knowl-
dge to the problem of how to elimi-

nate water tuning and constant

evaporation from the playing of glass

bowls. His solution, the elegant glass

armonica, eliminated water tuning by

having each glass made with the correct

size and thickness to give the desired

pitch without being filled with any

water. In addition, Franklin made the

set of glasses more compact and

playable by nesting them inside each

other, mounted on a spindle that was

turned by a foot treadle. Franklin

claimed the glass armonica was his

most satisfying invention, yet history

shows he also contributed to its demise.

Finger explained that even Mozart

began the session with an examination

of the impact of quantification in physi-

ological science and the birth of pho-
tography. Frances Terpak, of the Getty,

then walked attendees through the

recent show, “Devices of Wonder: From

the World in a Box to Images on a

Screen.” This exhibition clustered

together optical devices, scientific

instruments, rare natural history books,

zoological, botanical and mineral speci-

mens, trompe l’oeil paintings, games,

toys, prints, ephemera and even a

seventeenth-century Wunderkabinett,

which unfurled its rich collection of

naturae and artificia. As Terpak ex-

plained, fascinating and difficult-to-

classify cultural material demonstrates

how wondrous devices existing at the

interface between art and science can

reflect, refract, diminish, magnify,

stretch, dissolve, project and animate

objects to reveal how enhanced percep-
tions have occasioned new forms of

consciousness in different historical

moments.

Geneviève Aubert, the third speaker

of the conference, presented his paper,

“Photography and Cinematography

before 1914: The Neurosciences

Discover Multimedia.” Impressively

outlining how the use of film came to be a

part of neuro-anatomical and neuro-

physiological studies, Aubert explained

that, at the beginning of the 20th cen-
The final paper in the session was “Brains, Bodies, and Mad Scientists: Hollywood does Neuroscience,” by Sheryl Ginn. Introducing clips from The Lady and the Monster (directed by Eric von Stroheim, 1944), Fiend without a Face (directed by Arthur Crabtree, 1958) and other genre films, Ginn exposed the distorted “scientific” information the general public receives from horror films and used this genre to convincingly explain why it is not surprising that scientific literacy in America is considered so abysmal.

A short review cannot do justice to this excellent conference. Topics were far reaching, with papers such as “Early Neuroscience: Chinese, Arabic and Islamic Medicine” and “The Politics of Science” and discussions of key figures in historical neurology (e.g., Hughlings Jackson and Santiago Ramón y Cajal). Within this context, it was refreshing to see the ease with which the organizers, speakers and attendees integrated art and technological innovations with the history of neuroscience. Indeed, I find it difficult to offer constructive criticism.

To be sure, I was disappointed that the Getty session did not include discussion of eye/brain connections, but this is really a minor point, given that the session certainly was in step with the thrust of the event. I would urge those interested in historical connections between art and neurology to look at the conference program <http://www.ishn.org/> and at Zeitler’s glass armonica webpage <http://www.glassarmonica.com/>.

Imagine a biennial conference that has been running for 8 years about a topic that is at the very center of our understanding—a conference that draws together scientists, doctors, philosophers, artists, para-scientists and a fair share of other “outsiders.” What could they possibly agree on? This year at the Toward the Science of Consciousness Studies conference at Tucson, the answer was simple: no one knew what consciousness was.

If you find such a scenario stimulating, then this conference would have met all your expectations; if, alternatively, such an imaginary scenario fills you with horror, then perhaps consciousness studies is not for you. One thing is certain—regardless of what discipline you have been trained in, imaginative leaps are the order of the day just to begin to understand what is at stake in these discussions. For this reason (and a whiff of political correctness), the individual voices of the speakers seemed as significant as the subjects being argued. As a result, much of the material at Tucson this year came from the point of view of first-person experience rather than in the dry, detached tones one might expect in a scientific conference.

That is not to say that the experiments were designed without scientific rigor, nor that universal and generalized conclusions were not drawn, but the necessary trans-disciplinarity of the discourse imposed a welcome modesty—particularly as some of the claims became most unsettling. Dick Bierman, for example, began by reminding us that science was not concerned with miracles, and then discussed his results with fMRI on subjects who appeared to anticipate emotional stimuli, responding in advance to the horrific pictures in a random set of benign and malign images. Similarly, Dean Radin’s evidence seemed to show that global thought could affect a global network of random-number generators. More speculative suggestions came from the panel that dealt with sleep behavior disorders (parasomnias) and the proposal, argued by Petra Stoerig, that we might need to revisit the cultural hierarchy between sleep and wakefulness (much as Fellini suggested in virtually all of his films). Perhaps the most transgressive suggestions came from Charles Tart, who, it seems, has prized himself out of retirement to tackle the qualitative difference between hypnosis, meditation and consensus consciousness, since younger scientists cannot afford the risk.

None of these fascinating interventions illuminated the causality of consciousness, nor did they yield fuller or more satisfactory descriptions. What they did achieve was a radical challenge to the mono-disciplinarity of Western thought that now stands as a barrier to intellectual growth. The thrust of much that was presented at Toward a Science of Consciousness called for imagination as a part of a research method, not as a distracting diversion at the end of a hard day in the laboratory. For this reason, consciousness studies is a prime site for scientists and artists to collaborate, to fuse their distinct and specific skills into a new and powerful instrument of enquiry—what was clear in the week of presentations and poster sessions was that this was generally understood in the “coffee crowd.”

But old (cultural) habits die hard, and it was with some regret that very often, the imaginative arts were not subjected to the same courtesy that the laboratory rats enjoyed. At worst, high-profile speakers were embarrassingly ill-informed and unashamedly philistine in their reckless treatment of scholars’ work in the humanities; often, however the point was simply missed in the theatrical rhetoric of academic performance. In exceptional contrast to this was Amy Ione’s measured and courageous presentation, in which she spoke with equal terms with both artists and neurological scientists and, if nothing else, showed a model of how these constituencies might collaborate in terms of mutual respect and even con-
The research project at the Center for Consciousness Studies at Tucson is perhaps one of the most important ongoing projects. This is certainly so for the Leonardo constituency, not for what it may or may not (eventually) tell us about consciousness, but for the model that it proposes for seeking new insight into those aspects of human experience that still languish in the deep shadows of the Enlightenment. As such, its contribution to human affairs could be as significant as quantum physics—an imaginative intervention that, on the evidence of the 20th century, freed the creative impulse from the tyranny of mechanistic rationalism. The difficult, and unenviable, task for the scientific panel is to manage the heterogeneous collection of contributors with a professional symmetry so as to benefit from the skills of those people for whom imaginative leaps are all in a day’s (or night’s) work.

**MATERIALS RECEIVED**

### Audio Compact Discs

**01.06.16**


**Bottom of the Motorway**


**L'Evangile Rouge (The Red Gospel)**


**Extrasensory Perceptions**


**Intersect 4**


**Kuwayama-Kijima**


**North America**


**Pulse Music**


**Timeaus**


**Transit**


**YPGN**


**Books**

**El Arte de los Sonido Fijados**


**Body and Building: Essays on the Changing Relation of Body and Architecture**


**The Body Electric: An Anatomy of the New Bionic Senses**


**Central European Avant-Gardes: Exchange and Transformation 1910–1930**


**Computers and Typography 2**


**Conxessions: Art, Reseaux, Media**


**CTRL-SPACE: Rhetorics of Surveillance from Bentham to Big Brother**


**Curvature of Spacetime: Newton, Einstein, and Gravitation**


**Czech Photographic Avant-Garde**


**Dark Fiber: Tracking Critical Internet Culture**


**Electronic Mediations Series, Vol. 4: Cyberculture**


**Electronic Mediations Series, Vol. 5: Bodies in Technology**


**Envisioning Science: The Design and Craft of the Science Image**


**Experimental Cinema in the Digital Age**


**Exploring Consciousness**


**Ezra Pound’s Radio Operas: The BBC Experiments, 1931–1933**


**Fantasies of Fetishism: From Decadence to the Post-Human**


**Fire and Ice: Treasures from the Photographic Collection of Frederich Church at Olana**