If a great book is defined by the fact that it helps you think differently, then Ursula K. Heise’s new book is a truly great book. Next to its scholarly and stylistic qualities, which are great, *Imagining Extinction* is also a work that both frames and reframes the field of ecocriticism. It frames the field thanks to the broadness of the material and issues it studies. It also reframes it to its new, that is, *cultural* take, on the dispute on the extinction of species.

According to many biologists as well as the general public extremely sensitive to this kind of scientific research, we are currently facing a new mass extinction of species in the history of life on Earth. This crisis is not only studied by scientists; it is also a hot topic in cultural production (the dodo, the whale, the gorilla, etc.) will have a completely different impact than the absence or presence of the latter (for instance a mutating virus). This difference is not just theoretical; it is directly and materially reflected in the actual research, which overlooks many species for reasons that are inextricably scientific, cultural and economic (as is well known, it is easier to get funding to what may be happening today), but also because the “scientific” definition of a species is always biased or, more positively put, influenced and determined by other, that is, cultural, criteria: Certain species are considered more important than others, and the presence or absence of the former (the dodo, the whale, the gorilla, etc.) will have a completely different impact than the absence or presence of the latter (for instance a mutating virus).

A representative of cultural studies in literature and science studies (to label her work as an example of ecocriticism would not do justice to the broad scope of her research), Heise instead makes a plea for the crucial importance of cultural elements for a better understanding of science itself. Such a claim is of course not totally new (the productive role of culture, more precisely of language, has been a permanent and extremely stimulating concern since the 1980s), but the foregrounding of culture, that is of cultural values having to do with the basic difference between what we value as a community and what we do not, be it by choice, indifference or ignorance, is an important innovation in the debate on biodiversity (which is the larger horizon of the extinction debate).

*Imagining Extinction* opens with a fascinating evaluation of the criteria that enable us to measure biodiversity. For even if it is “easy” to observe that this or that species has disappeared, there is no direct link between species extinction and declining biodiversity. Generally speaking, the relationship between both fields is always after these specialists, their intervention being that of science vulgarization as well as of awareness and consciousness-raising. Cultural agents, in this perspective, have certainly a major role to play, but their impact is limited to social and cultural action and does not apply to science itself, which remains free from cultural speculation.

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study the possible extinction of a species we consider "essential" than to study the life or death of species that remain under the radar). Moreover, the debate on the place and role of species, which tends to isolate certain species from their environment, is very different from the more general discussion on biodiversity, which needs sometimes very different techniques of measuring and appreciation.

Heise's book is divided in two major parts (each of them having three chapters). The first part is mainly devoted to a cultural reading of conservation politics and policies and offers comparative close readings of, for instance, scientific databases recording species and environmental laws. The comparative aspect of the analysis is key here, for it is what discloses the cultural embedding of what can no longer be called scientific "facts": The way we measure, the way we protect, the way we evaluate the failure or success of biodiversity policies cannot be separated from a cultural context that proves extremely diverse. We imagine species very differently when the general framework is that of a species taxonomy than when we focus on the more encompassing ideas of landscape or environment. In a similar way, the cultural meaning of species or environmental protection depends a great deal on the way in which we establish a link with human beings as they interact with other species (if a certain species is considered harmful, its extinction will not be deplored) and with the larger environment (if biodiversity is seen as something that can help give poor people a better life, we may be more tolerant towards certain interventions that other groups may consider intrusive, if not utterly harmful).

The second part of the book takes as its starting point the often-strong conflict between animal welfare activism, which defends the individual rights of any individual animal, and conservationist groups or policies, which defend a more holistic approach of biodiversity. Here as well, the author's thinking relies on the in-depth reading of certain cultural productions, whose sometimes overtly fictional character (Heise has a healthy interest in science fiction) is analyzed not as subjective or unscientific reworkings of the scientists' work but as offering windows into the cultural roots of scientific thinking and opportunities to sketch both new insights and new solutions.

For Heise, the critical reading of the tensions and paradoxes displayed by works of fiction or cultural interventions in the scientific field is never a neutral, transparent or ivory tower activity. Although the author is extremely careful in discarding all monolithic interpretation or ecocritical radicalism (her critique of ecological nostalgia is one of the threads that runs through the whole book), Imagining Extinction is also a plea for a well-balanced and culturally aware environmental justice and multispecies justice that attempts to take into account both general principles and context sensitivity.

ROGUE ARCHIVES: DIGITAL CULTURAL MEMORY AND MEDIA FANDOM


Reviewed by Jan Baetens. Email: <Jan.Baetens@arts.kuleuven.ac.be>. doi:10.1162/LEON_r_01502

The archive has been at the center of a tremendous amount of scholarly, critical and political reflection for more than four decades. In 1969 Foucault published the book that triggered the renewed interest in archives—The Archéology of Knowledge—and a sudden outburst of new publications, such as for instance those by Alan Sekula and John Tagg, appeared in the early 1980s. Within this field, the focus has increasingly shifted toward the medial infrastructure of the archive, both by opening the research to nonprint or nonpaper archives and, even more generally, by addressing the importance of the digital turn. Abigail De Kosnik's book is a stimulating and innovative intervention in the field. Its originality is derived not only from the particular corpus that she examines (mainly fan fiction archives created and managed by minority groups—in this case female, feminist, global-South and queer groups), but also from the theoretical framework that she develops for the study of what she calls "rogue" archives—a type of archive that is much more than just a digital or a digitized archive but that rather exemplifies and implements several of the new opportunities disclosed by the digital turn.

For De Kosnik, whose book is based on an oral history project at Berkeley and interviews with some 50 "rogue" archivists in the domain of fanfic archives, a "rogue archive" (the metaphor is borrowed from the work by Jacques Derrida, who establishes a strong link between the figure of the rogue and radical democracy) is very different from a traditional archive, where the preservation, organization and presentation of a certain type of document of the past produces an official interpretation for present use that also aims at maintaining itself in the future. Rogue archives are created bottom up, by sometimes untrained and generally unpaid amateurs and volunteers sharing a special interest in a certain, often marginal or
marginalized field, whose ambition is less to transmit a certain idea of things past to future generations in a well-structured and tightly controlled way than to make possible the very survival of ignored or censored experiences as well as to generate a community life around an archive where all roles and functions become and remain blurred. Rogue archivists are almost always activists, and the driving force of their work is passion and commitment. Rogue archivists are in many cases not interested at all in technical or scientific standards and reliability and ignore or willfully break the current rules of copyright and intellectual property rights. Examples of rogue archives therefore do not include YouTube channels or Facebook groups, even if much rogue archiving work can be done in these digital environments; the commercial interests of these platforms are in direct contradiction with the basic “no rules, no restrictions” spirit of the real rogue archive.

De Kosnik’s book, which does not hide its sympathy for the anticanonical and politically inspired approach of rogue archivists, is an important contribution to a better understanding of the stakes of digital culture in general. First of all, the book offers a clear and well-informed state of the art of many smaller and larger debates that surround the issue of digital archives (in that sense, it is almost tailor-made for classroom use)—after all, the oral history project was executed with the help of MA students, and one feels throughout the book the strong commitment of the author to the intertwining of teaching and research). Second, and this is of course what stands out most, Rogue Archives is also an attempt to sketch a theoretical framework for the study of the countless grassroots initiatives that represent a huge percentage of the archival work that is being done online (the final chapter of the book proposes a big data analysis of the production as well as the reception of these online archives, and the quantitative figures are absolutely dizzying). De Kosnik does so by emphasizing the notion of archival “style” (a notion also fruitfully explored, yet in a very different context, that of the photo archive, by Robin Kelsey in an eponymous study, Archive Style [California, 2007]). Three types come here to the fore: (1) the universal archive (some rogue archives want to digitize theoretically everything—at least in a given field—and De Kosnik analyzes the consequences of the refusal to distinguish between what is worth keeping and what is, according to nonrogues, not worth keeping at all); (2) the community archive (many rogue archives are made by minority groups or communities of affinity, and the long-term preservation of material that would otherwise be lost is here an absolute priority); (3) alternative archives, which may overlap with the second category (here the idea of user-generated content is taken in a much more radical sense than usually known: ‘The ambition is not to complete information that is incomplete or missing in official archives, for instance with the help of crowdsourcing mechanisms, but to generate “different” content and stories, that is content and stories that are not allowed to appear in traditional archives or that are simply ignored or discarded elsewhere’).

De Kosnik rightfully insists on the necessity to think of the relationship between both archival categories, the canonical ones and the rogue ones, in terms of creative interaction, not of a priori antagonism. After all, it may occur that rogue archives are integrated into canonical archives, while the latter should also understand that the only way to have a real future is to adopt certain aspects of the former’s creativity and dynamism. De Kosnik’s book is an invitation to rethink the meaning of an understudied but key cultural practice while making us aware of the dangers of its smooth institutionalization, which would involve the inevitable loss of what makes rogue archives essential to an open and democratic society.

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THE ORDINARY MAN OF CINEMA

Reviewed by Will Luers, Creative Media & Digital Culture Program, Washington State University Vancouver. Email: <wluers@gmail.com>. doi:10.1162/LEON_r_01503

Jean Louis Schefer’s The Ordinary Man of Cinema is a strange and challenging book. It is strange because the author examines, in minute detail, a very personal universe of going to the movies. It is challenging because the language tries to convey the ghostliness of cinema rather than any particular material expression or historical context. There are no discussions of “the apparatus,” camera or editing techniques, directorial intentions or any formal exegesis of particular films. Fragments from genre films (mostly burlesque, horror and noir) are presented out of context and filtered by Schefer’s idiosyncratic observations, associations and memories. In its extreme subjectivity and phenomenological reduction, The Ordinary Man of Cinema awakens the reader’s own secret history with the cinema.

This English translation of Schefer’s influential 1980 work comes at a time when “the cinema” itself is a ghost in contemporary culture. Cinema is undergoing either a crisis, a redefinition, a slow death, a technological transformation or even a rebirth, depending on whom you consult. But one reads The Ordinary Man of Cinema now as if it were addressing the ordinary person of the Internet age. What is the cumulative effect of all those screen images on our psyches and bodies? Can we even know? We take our seat with others in the theater. We settle into the bed with our laptop and earbuds. The cinema experience, then and now, is “shared,” but it remains “solitary, hidden, secretly individual.” The collective expectation (of producers, theater owners, streaming services and their custom-
ers) is that the movie will successfully transport us into another world. But as Schefer points out, there is more to the story. A movie is made of details: gestures, textures, objects and shadows; and not all of these images are connected to the narrative or to any precise meaning. “I don’t expect the hand resting on a table and sweating like a face to signify, but to pass, that is to say no longer be at hand.” While we consciously attend to the plot, the most insignificant details work on us invisibly. Here is Schefer, in characteristically dense prose, on how some images, lacking clear narrative purpose, become unknowingly absorbed into the spectator:

Something is linked to the mystery of meaning that we add to the image in our uncertainty of grasping its totality, as we doubt that such an addition would be anything other than an incomplete sampling of what pleas for signification it contains—being uncertain, moreover, that what we add isn’t primarily something that we should call ourselves. Beyond the seduction of images, the film will thus keep the mystery complete (and will keep it like a part of ourselves): before any apprehension of new meaning we learn that signification is, here, a body.

Schefer avoids conventional explanations or terms because they are abstractions that mask a complex, murky and contingent experience. His writing style is sometimes as dreamily opaque as the cinema he writes about, as if the writing were the commentary trying to catch up with the flicker of the author’s ideas and associations. But then there are wonderfully clear passages that embrace our collective pleasure and pain at the cinema. A mummy is “the bearer of all the bandages of our lives, of our entire hospital life.” Bursts of poetic montage startle the reader from the hypnotic prose: “a hand rises, a rowboat sways on the waves, a rotating pane of glass shifts a landscape.” Schefer sinks into his own confessed ignorance of film theory in order to explore the residue of cinema’s “fund of affects,” the unnamed and unthought regions that remain when we leave the theater. The work in form and content is exhilarating and as relevant to today’s media ecology as it was in 1980.

THE SELECTED LETTERS OF JOHN CAGE

The Selected Letters of John Cage, spanning the life of legendary composer John Cage, is akin to two books running neck and neck with one another. The first is the vast cache of missives Cage wrote that reveal his hidden struggles and insights with notables the world over. For scholars of Cage’s life, it’s the ultimate treasure trove, and, for the rest of us simple admirers, a jaw-dropping read of the mundane and profound trials on the road to achieve, maintain and reconcile avant-garde fame and notoriety. The second book is much less noticeable and written in 9-point type and runs along the bottom of practically every page. It is the 1,159 meticulous and phenomenally well-researched footnotes about those letters put together by editor Laura Kuhn. It’s a heroic effort where every person’s station in life and specific relation to Cage is identified. I suspect it took more time to fact-check and collate those notes than the actual editing of the letters themselves. But without these critical signposts the book would not make as much sense. They are the key to who Cage knew, how he framed his world and how, in turn, his world framed him.

Selected Letters is full of surprises. Cage is, despite his eventual confessed homosexuality, at one time in love with two women, both over twice his age. Xenia, his ex-wife who was a quarter Alutiq, or Sugpiaq (Eskimo), had, at one point, been the lover of photographer Edward Weston. By the time Cage is 21, he is savvy enough to hit up important contacts who could further his career, including asking Adolph Weiss to be his music composition teacher. He writes touching letters to Weiss regarding his progress studying with his newest mentor—the master of 12-tone composition, Arnold Schoenberg.

In 1939 during the Depression, times were hard, and while teaching in Seattle, Cage laments to fellow composer Henry Cowell, “I had to go around and beg for money to purchase percussive instruments.” By 1940 Cage tried to establish a center for experimental music, begging anyone and everyone for funds—to no avail. He compares his found percussion instruments to “what many negro street musicians in New Orleans had done” and “defined music for myself as Organized Sound.”

Bauhaus artist Lázlo Moholy-Nagy, who was teaching at the University of Chicago, invited Cage and his group of percussion players to perform, but lack of funds prevented that excursion. He did, however, manage to bring Cage to Chicago to teach in 1941, accompanied by Xenia. She was translating Italian Futurist’s Luigi Russolo’s manifesto “The Art of Noises,” and Cage remarked it was about “the importance of the machine and of electricity” in contemporary music. It was also in Chicago, before Cage and the dancer Merce Cunningham became seriously involved, that he noted “Merce has a serious inferiority complex.” Yet by 1943 that did not prevent him from writing love letters to Cunningham about his “enigma” and little friend (penises) and compare Cunningham to the muse Calliope, highest of all. Which, by 1944, caused Xenia to up and leave him.

Distraught, Cage traveled to Paris, where he met composer Pierre Boulez and introduced him to American composer Aaron Copland. Soaking up French culture, Cage dined out with the haute demimonde, including the Duke and Duchess of Windsor and the Rothschilds. When not
ascending the heights of French society, he was showering at the public baths, as he was sans washing facilities in his spartan living quarters. He even wrote his mother to send him towels because he couldn't find any decent ones in postwar Paris. Enamored of the work of composer Eric Satie, he spent days at the Bibliothèque nationale de France devouring every piece of music Satie ever wrote and penned rebuttals to critics who dared slander him. In the end, though, the City of Lights lost its allure, and Cage decamped back to New York.

He then began a legendary correspondence with Boulez, lasting from 1949 to 1954, which turned into the book The Boulez–Cage Correspondence. He wrote pianist David Tudor about how musicians and composers Morton Feldman and Christian Wolff were boooed and hissed when presenting their compositions and then admits to Tudor that he loves him. In other letters he outlines, in excruciating detail, how he threw the I Ching to create his compositions, and in the next sentence complains he is constantly working at composing but just not getting paid for it. This is not just empty bitching. He is so broke he tries to sell shares in his yet uncomposed works. Eventually he manages to raise five thousand dollars from Paul Williams to create the magnetic tape piece Williams Mix. He gives advice to his friends, drops names all over the place and argues with and corrects critics like Peter Yates. In 1954 he acknowledges the controversy he has stirred up from playing the silent piece 4’33”, saying, “I attempt to let sounds be themselves in a space of time.” He ponders the morphology of sound—how it begins, in a space of time. “He ponders the ‘I attempt to let sounds be themselves in a space of time.”

Despite outright success, he was constantly burdened by money woes, so chunks of the letters are chockablock with requests for money, access to rights, bookings and corrections on translations. His personal responsibilities mounted: First his father passed away and then he had to support his mother, who had had a stroke, and finally he had to make his never-ending alimony payments to Xenia. In 1962 he was excited to be going to the East, but in the end it was a bit of a disappointment. In a 1963 letter to Lou Harrison he complains that he can’t just live his own life but has to give lectures and play the piano despite arthritic hands that are so disfigured they can’t pick anything up anymore. He moans about returning home with no money to pay the bills. He is constantly in debt and has to borrow funds to pay his taxes. Despite issues with time management, he assumes the administrative arrangements for the Mycological Society, and those letters are fastidious with details for the society’s aims and ambitions. In 1964, always prescient about the next wave, he writes that Lejaren Hiller is beginning to compose music for the computer. In 1965, having read Philip Kapleau’s book on Zen, he remarks that he could never imagine sitting crossed-legged.

By 1967 he is taking a twice-weekly course in the survey of computer music and thrilled to find out that a program in Fortran is being written for the I Ching. He tells Yoko Ono he is not interested in her bottoms project (films of buttocks) or in cellist Charlotte Moorman’s tops (breasts) or in anyone’s projects of “fixed ideas and feelings,” which decades later caused Cunningham dancer Carolyn Brown to accuse him of hiding his feelings behind his music. He talks about leasing, not owning, creative works, comparing them to cars, a very innovative approach that contemporary performance artists like Tino Sehgal now employ. He complains bitterly about having to fundraise but then turns around and writes an elegant fundraising request to a potential patron. By 1971 he has begun to perform less often, but when he does, those performances last up to five hours.

The final section of the book focuses on the last 10 years of Cage’s life (1972–1982). He catalogs his work, figuring out what collections should go where and writes that one day he will die. In 1973 he says, “As far as music goes I for one no longer need it; I find it all around me. I hear it all the time and it clicks.” In 1975 he finally got around to answering a letter, sitting around for decades, from poet Jackson Mac Low. In his lengthy response he mentions that he still uses the I Ching, but it is now computerized. He complains that he does not have enough time to accomplish anything and vows to stop listening to unsolicited manuscript cassettes. He embraced a macrobiotic diet, which helps to cure his arthritis, demanding special diets as part of his worldwide engagements. In 1997 he wrote about his exposure to one of the first computer bulletin boards (BBS). He mused endlessly about wills, foundations, requests, his health and, again, his diet. He takes great enjoyment in telling people he is 80 years old and has no time.

And then, unexpectedly, on 28 July 1992, his cranky, wondrous voice ceased. This time he is spot on: He truly and tragically has finally run out of time.
Leonardo Reviews

THE HIDDEN THIRD

Reviewed by Rob Harle. Email: <harle@robharle.com>. doi:10.1162/LEON_r_01505

The Hidden Third is a collection of well over nine hundred “poetic theorems” or “poetic aphorisms” from the mind and pen of Romanian theoretical physicist Basarab Nicolescu. This work is translated from the French Théorèmes poétiques by William Garvin. Nicolescu is a champion of, and very active in the field of, transdisciplinarity, being founder of The International Center for Transdisciplinary Research.

The poetic theorems are grouped under 13 sections so as to retain some vague coherence in the widely varying subject matter. I say vague because, as Tavares states in his Foreword, “these perplexing theorems follow no specific order: straying from the imposition of any narrative sequence or fixed relationship between cause and effect that so often restricts digression” (p. 10). The sections are as follows:

1. Levels of Reality
2. Reason
3. Science and Tradition
4. Meaning
5. Transdisciplinarity
6. The Quantum Poetic
7. Cosmodernity
8. Stupidity
9. Nature
10. The Hidden Third
11. God
12. Life/Death
13. I

To try and give the reader some real idea of this book, I am going to arbitrarily insert random selections throughout this review of the poetic theorems.

“The end of history is only a fantasy engendered by negligence” (91) (p. 94).

This book seems to be approachable on two distinctly separate levels. The first is a highly intellectual, deeply theoretical level, with an existing understanding of Nicolescu’s transdisciplinarity movement. It is as though Nicolescu is a guru uttering enigmatic little gems for his devotees to ponder or contemplate. His approach to understanding existence, life and so on is from the perspective of the Hidden Third—the liminal zone between subjectivity and objectivity, the space between binary oppositions. The second approach is that of a curious lay reader perhaps interested in cross-disciplinary approaches to understanding quantum phenomena, cosmology and answers to the meaning of life.

“The only thing that’s really worth seeking in this world is the Hidden Third” (1) (p. 133).

The approach from the first level is reasonably clear: to disseminate the thinking of Nicolescu. As mentioned, at this level the book is only accessible to the very small minority of those in the know.

“The binary degeneration of religions can only lead to their dying out” (90) (p. 84).

The purpose and relevance of the second level of accessibility eludes me other than that it provides a single English collection of the “poetic theorems” of Nicolescu. Stretching the imagination, the book could be useful for: (a) finding an interesting, contentious quote for a greeting card; (b) finding one for contemplation.

From my understanding, a poetic theorem or poetic aphorism is a very short, poetic-style statement that embodies a more-or-less universal truth. An example, “The sun shines and brings forth life to the living”:

This is not contentious and open to being dismissed as false—it also has a light poetic feel. The same cannot be said of Nicolescu’s blunt, unpoetic, openly controversial statements!

“The demonstration of God is a monstrosity, invented by lifeless thinkers” (99) (p. 37).

I must remind the reader this is not a critique of Nicolescu’s work per se; it is a review of a book. However, whatever the reader thinks of the extensive entries themselves, this is definitely not a book for the general reader, nor is it a book to sit down and read in long sessions, rather one to dip into from time to time.

“The greatest responsibility of all: the transmission of mystery” (14) (p. 166).

I think the book, and consequently the lay reader’s access to Nicolescu’s worldview, would have benefited immensely with two or three short explanatory essays to help with orientation. It is a shame the book lacks this as I believe he has many brilliant ideas and a unique approach to understanding reality that would benefit the general public.

As it stands, I found the book highly disappointing and possibly the most irritating book I have had to endure.

“Those we call ‘intelligent people’ are often merely brilliant apostles for the obscurity of stupidity” (25) (p. 100).

THE APPARENTLY MARGINAL ACTIVITIES OF MARCEL DUCHAMP

Reviewed by Edith Doove, Transtechnology Research, University of Plymouth. Email: <edith.doove@plymouth.ac.uk>. doi:10.1162/LEON_r_01506

Rather tellingly, Elena Filipovic gives the introduction to her study the title “A History of Marcel Duchamp and Other Fictions,” indicating that his is a narrative like any other. What Filipovic makes clear is that the history of an artist like Duchamp is written not only by
participants in a discipline like art history but also by the art market and the appreciation of peers and critics. The difference in this case, as is widely known among Duchamp scholars but convincingly exemplified by Filipovic, is that Duchamp was rather instrumental in writing his own narrative. Anyone who is slightly familiar with that story knows the basic ingredients. As Filipovic sums them up at the beginning of her introduction, this basically comes down to "a story of things: artworks invented or handmade, original or in copy, influential and in some cases revolutionizing" (p. 2) [1].

While Duchamp made it sufficiently clear that he was at a certain point no longer interested in painting due to its "retinal" qualities and therefore resorted to the selection of "ready-mades," or as Filipovic succinctly puts it, "nominating store-bought stuff as art," he seems to have also been quite happy with the limited view of what an artist constitutes in the eyes of many. This approach bought him, namely, the freedom he was after. If there is one reason why Duchamp still fascinates, it is because of his elusiveness. What is clear and further demonstrated by Filipovic is that Duchamp was always eager to cross the boundaries of what an artist constitutes—not boxed in by style, discipline or activity. By focusing on "apparently marginal activities," Filipovic addresses the issue of an artist being too much identified with certain of his or her things or artworks, through either art history or the art market. In Duchamp's case, the emphasis has certainly been on his so-called ready-mades and more specifically his "urinal" or Fountain (1917).

The "apparently marginal activities" that Filipovic however alludes to are the kind of activities that are usually not seen as being artistic or at least (still) not fully appreciated as such. In earlier publications and talks, Filipovic has already done much to rectify this oversight, such as in her talk during the 2012 conference "Artist as Curator" organized by the magazine Afterall and the subsequent series of appendixes under the same denominator for the magazine Mousse. For those familiar with Duchamp's work, or with the realities of the activities of the average artist for that matter, the outcome of this book, therefore, not so much surprises as continues to put things in the right perspective for a wider audience.

That Duchamp early on had an interest in a wider scope of activities than "just" producing art is demonstrated through among other things his role in setting up the Society of Independent Artists in New York and being involved as head of the hanging committee for its inaugural exhibition in 1917. Even though the Society had promoted a jury-free setup and Duchamp subsequently advocated a democratic hanging according to the alphabet rather than subjective preference, the board of directors nevertheless famously refused to show his anonymously submitted readymade Fountain. Duchamp nevertheless became a sought-after curator, administrator and art dealer among fellow artists such as André Breton. Although Duchamp did not want to be reined in by the Surrealists as a member, this did not prevent him from collaborating with Breton and curating several exhibitions with him, making very clear that life does not come in the boxed entities of the art market or art history. Boxes, and especially ways to escape them, nevertheless played a significant role in his work, either literally or figuratively. Starting with his lifelong love for chess and its black-and-white squares that could be seen as equal and thus interchangeable, his female alter ego Rose Sélavy could also be regarded as a way of escaping too-fixed boundaries.

Filipovic rightfully points in this context to the problem of canonization of an artist who gets fixed in a certain view as to support the art market that is usually not open to artistic development and freedom. Especially in the case of an artist like Duchamp, it has turned out to be easy to pigeonhole him and not fully appreciate him in all his various aspects. Filipovic underlines how Duchamp's interest in organizing and exhibiting was thoroughly engrained in his work from the start, demonstrated by among other things his portable museum of miniature copies of his work in Boîte-en-valise (1943), his extensive use and research of copies throughout his work (including his notes and the ready-mades), the organization of various exhibitions and the extensive negotiations surrounding his final work Etant donnés or Given: 1. The Waterfall, 2. The Illuminating Gas. Filipovic describes how this installation in the Museum of Philadelphia was for a long time largely ignored by critics as it was regarded as redundant in comparison with the revolutionary introduction of the ready-mades. Duchamp worked on Given from 1946 to 1966 and managed to keep the production of it largely secret by pretending to no longer make art, demonstrated by a more public, "empty" studio and by apparently concentrating on playing chess. When eventually installed and opened to the public, Given was largely met with disappointment. Filipovic however rightfully regards it as an excellent example of institutional critique and questions why it has not been treated on the same
level as the work of that other Marcel, the Belgian artist Marcel Broodthaers and his contemporaneous Musée d’Art Moderne, Département des Aigles (Brussels, 1968). Broodthaers had suggested that it should be seen as “a situation, a system defined by objects, by inscriptions, by various activities.” With its “behind-the-scenes museum trustee meetings, elaboration of museum contracts, writing and construction of a Manual of Instructions, reorganization of a whole section of the museum’s contents and display, and even insertion of the work into the museum itself” (p. 263), Given is in fact doing exactly the same, but as Filipovic demonstrates, remained nevertheless largely ignored.

Duchamp was in all respects a true escape artist, making use of the art of smoke and mirrors, for which he gave good indications by his use of smoke or clouds both in his persona and in several artworks. He also was very aware how art was subject to a delay in appreciation, not only by a general audience but clearly also by very aware how art was subject to a technological narrative—by means of an idea of perception and neuroscience. Still, she writes from within an academic discipline of (contemporary) art history, respecting all the rules of the disciplinary one. Defining the mirroring as both seeing oneself, imitating others and imaging displacing oneself, Albu crosses the academic fields of history of art, visual studies, media studies, phenomenology, the psychology of perception and neuroscience. Still, we might [want to] recognize how much Duchamp’s final work was not the “retardaire” lapse of an old man who “arrived a bit too late” but instead the neo-avant-garde gesture of an artist who never stopped articulating the terms of a criticality that operates in, through, as well as against the institution of art, and who had found one last way to do so (p. 266).

Note

1 This review was written based on an uncorrected proof copy. For exact quotations please refer to the final bound book.

**MIRROR AFFECT: SEEING SELF, OBSERVING OTHERS IN CONTEMPORARY ART**


**Reviewed by Ana Peraica,** independent scholar.

Email: <anaperica@gmail.com>.

doi:10.1162/LEON_r_01507

_Mirror Affect: Seeing Self, Observing Others in Contemporary Art_ by Cristina Albu extrapolates a theme more frequently analyzed in image science and visual culture: the mirror (see, for example, Sabine Melchior-Bonnet’s _Mirror: A History_, 2001). Working a widened definition of a mirror as a medium that enhances a “mirroring act,” Albu is not restricted to analysis of only mirrors and objects incorporating mirrors; rather, she spreads her interest over mirroring media, such as closed-circuit installation in video and interactive, or responsive, technologies, which are not necessarily visual. Defining the mirroring as both seeing oneself, imitating others and imaging displacing oneself, Albu crosses the academic fields of history of art, visual studies, media studies, phenomenology, the psychology of perception and neuroscience. Still, she writes from within an academic discipline of (contemporary) art history, respecting all the rules of the chronological narration, visual analysis and literary review.

The first chapter, covering art from the 1960s, deals with mirror used as a material of construction of the environment in artworks of Robert Morris, Lucas Samaras and Michelangelo Pistoletto. Chapter 2, dedicated to the 1970s, crosses over works of Dan Graham and Lynn Hershman, while Chapter 3 goes into contemporary installation art by Anish Kapoor, Olafur Eliasson and Ken Lum. Finally, the last chapter is dedicated to interactive media art by David Rokeby, Christian Moeller and Rafael Lozano-Hemmer, crossing over telematic pieces.

While mirrors in objects and installations of the 1960s were primarily constructed as sensorial experience, those of the 1970s were producing an additional meaning, commonly engaged in social relations and socioeconomic environments (often related to surveillance), slowly setting up new visuals paradigms. The new century has again withdrawn the communication in arts to a field of perception, which finally leads to a real interaction in arts and “development of interpersonal modes of art spectatorship.”

Choosing precise pieces to patiently interpret, Albu performs a deep analysis not only of visual artifacts but also of primary and secondary sources accompanying them. In the final chapters, she performs an analysis in addition to visual and literary ones.

Although writing in a slightly limited, narrative frame of art history, the integration of media art into a conventional art historical narrative—by means of an idea of participation challenging the definition of art as a fixed object and perception as a lateral activity—is more than important. Besides major pieces addressed by analysis in Chapter 4 and an important analysis of works by Lynn Hershman, earlier art and technology groups such as GRAV, Nouvelle Tendance (New Tendencies), LACMA Art and Technology and such projects as E.A.T.’s Pepsi Pavilion and the Magic Theatre show are also covered.

The book recapitulates some well-known and less-known passages of contemporary art commonly not set together and jointly that are now unified via the research concept of the mirror. Although written for advanced readers in art history (or users that can browse the Internet simultaneously while reading, trying to see how these pieces looked, since illustrations in the book are rare, pretty small and black and white), _Mirror Affect_ is an interesting reading for researchers in the joined field of art, science and technology. One conclusion after reading it is: It would be great to see a curated show with a precise selection of pieces.
THE NEW ECOLOGY: RETHINKING A SCIENCE FOR THE ANTHROPOCENE


Reviewed by Amy Ione, director, The Diatrope Institute.
Email: <ione@diatrope.com>.

do1:10.1162/LEON_r_01508

Although global-scale human influence on the environment has been recognized since the 1800s, the term Anthropocene, introduced a decade or so ago, was only accepted formally as a new geological epoch or era in Earth history in August 2016. Then an official expert group said that humanity’s impact on the Earth is now so profound that a new geological epoch—the Anthropocene—should be officially declared. Ironically, this geologic term, frequently associated with ecology and often portrayed as static because ecologists used too simplified given the complexity of evaluating human activity. A key point of this chapter is that, in his view, there is currently an incorrect tendency today to “blame” nature’s reordering on human actions despite the abundant evidence that environmental change is often engineered by species. Using beavers and termites as examples, the author argues that ecosystems often change when species perform ecosystem engineering without human intervention. He also points out that humans are unlike other species in generating transformations geared to steer primary productivity to just one species, their own. Thus, the end result is that human activity supports less biotic diversity. Schmitz’s key point here is that how humans restructure the environment can contribute to a loss of diversity. He is also arguing that human influences need not be harmful; how we interface with the environment has an impact on the environment we have. In addition, population growth and shrinking habitat size means that we have less living space, and it is more fragmented.

By Chapter 4 it begins to become clear that Schmitz is presenting a particular approach to ecology—the New Ecology. While agreeing with its basic parameters, I had hoped for more of an entry into the nuances of ecological debates about global warming than a volume promoting a generalized ecological position on the New Ecology. The New Ecology stresses change more than constancy, in contrast to the old classic paradigm of ecology. According to Schmitz, the Old Ecology, though not named as such in the volume, saw nature as static because ecologists used to believe that ecosystems are self-contained, self-supporting systems. This kind of thinking led them to hold the view that anything that happened outside the boundaries of an ecosystem, including changes caused by humans, was irrelevant to the ecosystem’s inner workings. Whereas I am inclined to agree with many of this author’s positions, I nonetheless found his promotion of the New Ecology a bit too simplified given the

The Anthropocene could be said to have started in the latter part of the eighteenth century, when analyses of air trapped in polar ice showed the beginning of growing global concentrations of carbon dioxide and methane. This date also happens to coincide with James Watt’s design of the steam engine in 1784. Perhaps it is because Crutzen and Oswald J. Schmitz, the author of The New Ecology: Rethinking a Science for the Anthropocene, come from different backgrounds that there is a noteworthy difference in how each embraces the term. Schmitz’s emphasis in The New Ecology is on optimism, despite what many see as a global environmental crisis. Crutzen, by contrast, sees more reason for concern, claiming that the discovery of the ozone hole over Antarctica served as defining evidence that human activity has moved us into a new epoch. Indeed, one of the defining features of The New Ecology is Schmitz’s assertions that the idea that Earth’s biota are doomed is incorrect: “The New Ecology reveals that species may rapidly evolve and adapt to their changing environmental conditions,” and, perhaps more importantly given the concerns of many today, “[t]his gives hope that the future may not be as dire as it is often portrayed” (p. 104). In other words, while some see a grim picture, Schmitz, a professor of ecology at Yale University, declares, “the realization that evolutionary and ecological processes operate contemporaneously offers some hope that species have the capacity to adapt and thereby sustain ecological functioning” (p. 102). In support of this view, Schmitz further argues that new computational tools now allow us to account for feedbacks and nonlinearities. With the ability to understand the dynamics of complex ecological systems, he claims, we are able to use models to predict how feedbacks propagate throughout food webs in response to disturbances such as harvesting. Researchers can also explore different scenario outcomes.

Chapter 1, “The Challenge of Sustainability,” uses the well-known debates about the short- and long-term impacts of mining the Bristol Bay region of Alaska to introduce how competing human values complicate ecological issues. Schmitz expands on this idea in Chapter 2, noting that even as we “pay attention” to known variables, there are many impacts we cannot evaluate in terms of valuing species and ecosystems. Of particular importance is that we must account for the fact that any action humans take reverberates through the rest of the interdependent chain. The difficulty in terms of scale and specific traits is the subject of Chapter 3, where the author turns to biological diversity and ecosystem functions. As he points out, the scale of a function as well as functional redundancy among species makes ecosystem evaluation even more challenging.

“Domesticated Nature,” the topic of Chapter 4, extends this to the
and requires we build partnerships: must account for global connectivity he notes that environmental decisions scale up. While not offering details, we start with small projects and then stewardship ethic. The idea is that distances—and an environmental interactions over emerges. He advocates recognition—socioeconomic and environmental telecoupling—socioeconomic and environmental interactions over distances—and an environmental stewardship ethic. The idea is that we start with small projects and then scale up. While not offering details, he notes that environmental decisions must account for global connectivity and requires we build partnerships:

In the past, the hesitancy to build partnerships between conservation and industry in the interest of common cause or purpose has been attributed, in part, to the absence of critical science. But The New Ecology can offer the needed science... can help craft ways to implement technology alongside maintaining species interdependencies and ecosystem functioning (p. 152).

In ecological vernacular, open systems can be sustainable only insofar as raw materials and energy are supplied in unlimited quantities. This condition will not be met for systems that depend on nonrenewable materials and energy (e.g. fossil fuels and mineral elements). Environmental stewardship, for Schmitz, is the correct approach because it includes promoting sustainable technologies, planning ahead and building a circular economy (an industrial economy that incorporates closed systems). For example, while a linear economy is a "take, make, dispose" model of production, a "recycling" factor offers circularity to the system.

Environmental stewardship respects various ethical positions and the nature of the social systems that determine them. It is an intermediate between anthropocentrism on the one hand and ecocentrism on the other. Essentially, humans have ethical obligations to one another that are mediated through their mutual relationships with the environment. Unlike historical conservation and management, stewardship includes minimizing potential damages created by society as it exploits ecosystems as well as improving environmental performance. In practice this is accomplished by protecting entire ecosystems, not just their parts. Therefore, we need to develop policies/regulations that minimize risks and maximize opportunities to sustain and restore natural ecosystems for current and future generations. Ethical stewardship is also an ecocentric ethic to some degree: "An ecocentric ethic thus recognizes that if humans are to be considered part of nature, they, like all other species, should have the right to exploit it." In other words:

Humans as biotic species are functional parts of complex adaptive ecosystems. While recognizing humanity’s right to exploit nature, such an ethic is not intended to give humanity license to exploit ecosystems without regard to sustainability. Systems thinking teaches us that to maintain sustainability of the whole system, humans must act in ways that preserve food web structure, and also preserve the dynamism created by species interactions and feedbacks (pp. 145–146).

Chapter 6, "Hubris to Humility," shows how difficult it is to design ecosystems in a real sense. This chapter begins with Biosphere 2 (the Earth is Biosphere 1), a science experiment in the 1990s that took place in a fully enclosed glass facility near Tucson, Arizona. The enclosed space contained several miniature ecosystems, heating and cooling systems and space for human habitation and agriculture. Eight people were sealed into the facility for two years. The project included monitoring their health, the air, water and soil functioning. The problems the experiment exposed show how difficult it is to engineer a functional natural economy. Humans complained of hunger the first year, although they did adapt in the second. The ecosystems became underdeveloped or transformed because of unforeseen limitations related to how the crafted environment evolved. The most significant challenge was maintaining balanced levels of carbon dioxide and oxygen. The experiment, which cost about US$200 million, was halted after two years because many species died and the humans began to experience apnea and chronic fatigue.

While I appreciate Schmitz’s expression of the need for humility and his notations that the New Ecology offers an approach by humans and for humanity, a major reservation I had as I read was that humans in this book are more conceptual than "actual," because he treats humanity as if it is of one piece. People interested in learning about how an ecologist sees this vocation will no doubt enjoy this book, particularly those who desire a view that counters the idea of a global environmental crisis. Even so, it is hard to avoid concerns about the human enterprise, as Schmitz’s comments about global climate change remind us:

Layered upon all of this, with potentially conflating effects, is global climate change. Domestica
greenhouse gas emissions through land clearing and resource exploitation, land conversion for agriculture, rearing livestock, production and use of cement for infrastructure development, energy generation, and transportation of humans, their goods, and their materials. A warming Earth selects for those species with the suite of physiological traits that allow them to adapt to changing conditions. Those that are incapable go extinct (p. 84).

In summary, Schmitz's arguments, while sensible, are presented without the cacophony of human voices. I would have liked him to critique his own proposals, to name competing ideas about proposed policies that aim to combat climate change and to have named theories to a greater degree (e.g. the Jevis paradox). I am not suggesting he should have given voice to environmental skeptics. Rather, as Schmitz tells us, scientific understanding of urban environments remains rudimentary. His discussion read like a story detailing ecology through his eyes; critical evaluation was sparse. Schmitz's urge for innovations and a scientific approach to urban design, while compelling, did not include enough about human complexity. Perhaps this will come in another book? Suffice it to say, I was hoping The New Ecology would provide scientific details that would open entry into the issues circling within the implementation debates when environmental questions arise. Schmitz, instead, puns:

The specter that humans can instigate rapid evolutionary change is well appreciated in an environmental stewardship ethic. . . . But what it means operationally for the interplay between changes in ecological systems and social institutional change remains beyond current comprehension. . . . What is humanity's obligation to ensure that evolutionary capacity—central to ensuring resilience—is sustained? It is humbling, even to think about all of this (p. 202).

Reference


THE PARTICIPATORY CONDITION IN THE DIGITAL AGE


Reviewed by Gabriela Galati.

Email: <info@ec-centric.eu>.
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The Participatory Condition in the Digital Age is a compilation of articles that tackles the issue of what participation means in an age of pervasive digital media. The editors state in their introduction that "the participatory condition names a situation in which participation—being involved in doing something and taking part in something with others—has become both environmental (a state of affairs) and normative (a binding principle of right action)" (p. vii). They advance that participation has always existed in social life, but what is new of the present condition is the level up to which participation has and is being thematized in every order of society. Thus this sort of generalization of participation seems to be bonded to the extensive diffusion of digital media. In fact, digital media can foster the sensation that one now interacts and participates in a greater measure than before in social, economic and political life—although participating implies some sort of power in decision-making, and thus what actually seems to happen is closer to “sharing” than to actually participating, at least for a great part of the actors/users.

In this context, the aim of the book is to unveil some of the mechanisms through which a rhetoric of participation may act as a counterfeit of actual participation. To do so, in the introduction the editors briefly explore participation as interpellation, historical participation, art histories of participation and media histories of participation, and then define four main axes according to which the articles are classified: Politics, Openness, Surveillance and Aesthesis.

Nico Carpentier's text "Power as Participation's Master Signifier" (p. 3) links participation to power through considering the former as a "political-ideological concept" from which social power struggles cannot be detached, subsequently delineating two strategies to cope with it.

In “Think Outside the Boss: Cooperator Alternatives for the Post-Internet Age” (p. 59), Trebor Scholz deals with participation, digital labor, automation and the future of work. After describing Amazon's Mechanical Turk—an online crowdsourcing system founded by Amazon in 2005—the author reflects on digital labor as a new kind of oppression. Consequently, he proposes to think of new kinds of solidarity and workers' mobilization through new platform cooperatives and in this way try to revert the use of digital technologies for labor exploitation to a tool of social mobilization.

In the summer of 2012, Salvatore Iaconesi, a well-known “Italian designer, open source activist, and digital artist” (p. 123), was diagnosed with brain cancer (which after some studies, fortunately turned up to be a benign tumor). Following some preliminary check-ups, he decided to make his disease open source. La cura (the cure) is both an artwork and the means Iaconesi conceived to cope with his disease. At the same time, he considers it what ultimately led him to the disease’s cure. “Open Source Cancer: Brain Scans and the Rituality of Biomedical Data Sharing” (p. 123) is authored by Alessandro Delfanti and Iaconesi himself. In the article, the authors analyze the potential use of hacking—understood as “perform-
ing technological alternatives in the public sphere in order to convey its emancipatory potential” (p. 124)—to understand and possibly create new ways of being a patient and to relate to one’s body and disease in an age of pervasive digital technologies.

Julie E. Cohen investigates the relationship between participation and surveillance (p. 207), arguing that the participatory turn is clearing the way of legal and social control for a pervasive exercise of surveillance, from commercial to institutional forms of surveillance. The text is revelatory in the ways in which individuals are pushed into voluntarily and sometimes even unwittingly providing personal data, mainly through gamified surveillance environments, and quantified self movement logic (p. 208).

In the series of chapters dedicated to Aesthesis, Bernard Stiegler advances in turn seven proposals to rethink the university in the Participatory Condition moment (p. 280).

Although the strength of The Participatory Condition both as a theoretical tool and as an actual social situation is not completely convincing—mainly because participation is too broad and general a term to have enough explicative power—the ensemble of contributions in the book offers a solid critical base on the diverse topics developed; and it can hopefully become a point of departure to further deepen and expand these issues elsewhere soon.

**THE ANCIENT ORIGINS OF CONSCIOUSNESS: HOW THE BRAIN CREATED EXPERIENCE**


Reviewed by Craig Hilton. Unitec, New Zealand, Mt Albert, Auckland, New Zealand.

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Something wonderful happened around half a billion years ago and at least once. Todd E. Feinberg and Jon M. Mallatt take us through a very methodical and highly convinc-
dently more than once? The authors note that invertebrates, despite having very different brain and sensory apparatuses than vertebrates, have function consistent with consciousness. Octopuses, despite their apparent cleverness, are thought to fail crucial consciousness criteria with their independent neurons controlled arms. Countering this, The Ancient Origins of Consciousness makes a good case for mental unity in the octopus brain and therefore the possibility of consciousness as defined as an experience of what it is to be. If this turns out to be the case, it is possible that consciousness has emerged in cephalopods’ ancestors alongside their post-Cambrian evolution of good vision. Unfortunately, these species are not as well studied as vertebrates, and the authors remain cautious, judging cephalopod mollusks and arthropods as “probably conscious.” If arthropods and cephalopods do turn out to possess consciousness, then without a doubt consciousness is considerably more widespread than is currently thought and has also emerged from the evolution of quite different neural structures. Independent evolution would help explain emerging evidence that other invertebrates may possess consciousness. Honeybees, for instance, appear to have learning and memory abilities sufficient to comprehend certain abstract things. This seems incompatible with the size of their brains, which are very small but rather denser than ours. In addition, the insect brain has neural apparatus similar to the vertebrate midbrain, backing up the idea that insects may as individuals have subjective awareness and at least some sort of basic consciousness.

There it is. Consciousness predates us, and not just us. Consciousness predates primates and mammals and possibly arose on more than one occasion. This is strong evidence that there exists a very significant survival advantage for any organism that is consciously aware of the risks and rewards of external environment, of its internal state, and has an experience of being, an awareness of self. Hence, it seems that we share a planet with conscious beings who experience what it is to be and understand themselves as distinct from others. More study no doubt will shed more light on the extent of this, but consciousness, it seems, is quite possibly significantly more common than we might have believed.

While The Ancient Origins of Consciousness may require some commitment from the reader to navigate the multidiscipline approach necessary to address the complexity of the Hard Problem, this well-structured book is very much worth the effort required. As the authors state in the preface, “We do not skimp,” and they certainly have not; but they have also designed this book thoughtfully to ensure that nonexperts can remain engaged and informed as they encounter very robust arguments and conclusions well supported on all fronts. From this perspective, no review can do justice to the work behind The Ancient Origins of Consciousness.

THE PERVERSY OF THINGS: HUGO GERNSBACK ON MEDIA, TINKERING, AND SCIENTIFCION


Reviewed by Jan Baetens. Email: <Jan.Baetens@arts.kuleuven.ac.be>.

Best known as the founding father of science fiction as an established literary genre, Hugo Gernsback, a Jewish émigré from Luxembourg and editor of the first SF magazine, Amazing Stories (launched on 1 April 1926), did not start his career as an editor and a writer. After arriving in New York at the beginning of the century, he first founded an electrical supply shop while trying to make his way as an inventor and progressively started to publish newsletters and small magazines—some short-lived, some very successful—whose actual function proved to be multifold: promoting electrical parts sold by Gernsback’s companies; offering a platform to a community of tinkerers and amateurs; and trying to make sense of an emerging technological culture in which notions such as electrical device, medium, research and utopic thinking were not yet “functionally differentiated;” as sociology of Modernism would put it.

It is the gray zone between two key moments in 20th-century technological and cultural history that is at the heart of Grant Wythoff’s study. On the one hand there was the disappearance of dime novel pulp culture in the late 19th century and the explosion of technological inventions and innovations, just before the transformation of this incredible amount of social energy into well-structured and bureaucratized research centers and industrially organized R&D plants. On the other hand, there was the appearance of the new artistic genres and scientific disciplines such as science fiction and media studies in the 1920s. Wythoff’s book contains an exceptionally well-edited body of “transitional” work by Hugo Gernsback, inventor, editor, media theoretician avant la lettre, businessman and political thinker on the one hand, but also spokesman and shortcut of a whole community of otherwise unorganized technology fans and tinkerers whose importance for the creation of modern media and technology culture has never been taken seriously. Gernsback himself has long been seen as a sympathetic but somewhat clumsy and often boring dreamer, while the role of amateurs and fans was made properly invisible by the increasing institutionalization of technological research as an industry-driven activity. Wythoff’s selection of articles and stories published by Gernsback in one of his many magazines—in which the distinction between editor, author and reader was not always easy to make—convincingly demonstrates that there are good reasons to challenge this negative judgment and to make room for a new reading that highlights the
key importance of the role of the amateur in cultural and technological change. In that sense, the Gernsback *universum*—by which I mean both the *writings* by this famous editor or those simply inspired by the example of his magazines and the large but amorphous *community* of all those who participated in the social life of the technological and cultural inventions of his time—can easily be compared with phenomena such as the open source movement in software development, alternative forms of working such as peer-to-peer economy, fan fiction or many other forms of collective intelligence.

Wythoff recovers this lost history in two ways. First of all, by gathering a large sample of Gernsback’s writings from the decades before *Amazing Stories* (which ends the chrono-

logical survey one finds here in this book), he offers direct insight into what anticipated as well as prepared the emergence of science fiction (to use the modern term). What these articles on all aspects of modern technology (but this is a contemporary term as well) make very clear is the complete merger of aspects and issues that are now clearly separated: techniques and media, faction and fiction, content and materiality, form and function, private and public, meaning and use, etc. Second, by contextualizing as well as close-reading this truly amazing body of work and stressing the intricate relationships between editor and tinkering community, he also elucidates the social environment that animates the technological craze of these years: the desire for upward mobility and job security thanks to technology among new immigrants; the link between feminism and the participation in technological culture in the domestic sphere (women readers of *Amazing Stories* expressed for instance their dislike of the romance aspects of the SF short stories, which they judged discriminating); the multiple connections between the ideas that burgeoned in the amateur sphere and the industrial patents that were the subject of fierce battles; and above all the universally shared belief in the benefits of progress (which translated in the domestic sphere in a clear but cautiously formulated sympathy for “technocracy” in politics). The quality of Wythoff’s editorial work is outstanding and is served well by its clever typography. It is also pleasant to read, well indexed, and nicely illustrated. Thanks to this work, it should be possible to reframe the figure of Gernsback, whose role cannot be reduced to that of a somewhat old-fashioned forerunner of a literary genre that has moved eventually away from the “hard technology” side it had in the beginning, when one of the aims of the stories was not to create new story worlds but to fictionally demonstrate how certain things actually worked. There is a lot of McLuhan in Gernsback, and it is to media studies and media archeology that his life and work really belong.

But what about the “perversity of things,” finally? It is the title of a 1916 article by Gernsback in *The Electric Experimenter* (here pp. 165–167). In this text, he addresses an old subject: “the recalcitrant behavior of things in general toward us humans,” which he reads as an invitation to all tinkerers to remediate their “lack of knowledge” and through study, research, work and trial and error to get a better “intimate knowledge” of the things in order to better subject them to make them do what we want them to do. His conclusion: “If people would only stop to think how infinitely little we know about everything about us, and how thoughtless we are in our relations to all inanimate things, we would not be so apt to complain about the fabled Perversity of Things.”
Leonardo Reviews

by Cormac Deane. Reviewed by Ian Verstegen.


Giambattista and Domenico Tiepolo: Master Drawings from the Anthony J. Moravec Collection by Adelheid M. Gealt, with contributions by George Knox. Reviewed by Michael Mosher.


MARCH 2017


The Camera Does the Rest: How Polaroid Changed Photography by Peter Buse. Reviewed by Ana Peraica.

FEBRUARY 2017


Philosophy of Language by Rodrigo Maltez Novaes. Reviewed by Ana Peraica.


JANUARY 2017

The Intermediality of Narrative Literature by Jørgen Bruhn. Reviewed by Jan Baetens.

Pirate Philosophy: For a Digital Post-humanities by Gary Hall. Reviewed by Rob Harle.

Control—Digitality as Cultural Logic by Seb Franklin. Reviewed by Ana Peraica.

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ANNOUNCING

Leonardo Art Science Evening Rendezvous (LASER)

Since 2008, the Leonardo Art Science Evening Rendezvous (LASER) series of lectures and presentations on art, science and technology has provided spaces for progressive thought leaders to come together to form community and explore the intersections of disciplinary thinking. Owing to its success and popularity, LASER has expanded beyond its birthplace in the San Francisco Bay Area, first to the U.S. East Coast, then across the Atlantic to London—the home of the first European LASER—and today continues to expand to new locations nationally and internationally. We thank all of those who have spoken at, participated in or attended LASER events throughout the years. We owe a special thank you to Piero Scaruffi, LASER founder and chair, for his inspiration and continued dedication, and to the growing list of LASER hosts around the world. To follow LASER events, see <www.leonardo.info/laser-talks>.

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