

Hito Steyerl: Postcinematic Essays After the Future

1. From Objectivity to Objecthood

The much-vaunted “end of history” may be an ideological phantasm, but there is such a thing as the end of the future—or, at least, a crisis of futurity.¹ In *After the Future*, Franco “Bifo” Berardi has focused not on the year 1989 and the fall of Actually Existing Communism, but on 1977 as a year when the future ended—when a certain modern western conception of the future as a linear, progressive development came to an end.² Of course, the 1970s saw an increasing awareness of the finitude of growth (oil crisis, ecology), coupled with both the gradual dissolution or marginalization of late 60s New Left and the introduction of neoliberal economic and military “shock therapy,” most noticeably in Chile.³ By 1977, as Bifo notes, we have the RAF campaign resulting in the “German Autumn,” the rise of punk and its “No Future” slogan, as well as the Autonomia movement in Italy (in which Bifo himself was involved), which hurled the untenable Marxist-Leninist belief in the proletariat as the sole emancipatory agent of history overboard, choosing instead to develop new forms of social (re)composition—in the form of various micropolitical movements.⁴

Hito Steyerl, too, has identified 1977 as the moment when “the short decade of the New Left violently comes to an end,” using David Bowie’s *Heroes* and the Stranglers’ *No More Heroes* as pop-cultural indications of this shift.⁵ In the film *November* (2004), this is “the time after October, a time when revolution seems to be over and peripheral struggles have become particular, localist, and almost impossible to communicate. In November a new reactionary form of terror has taken over which abruptly breaks with the tradition of October.” *November*, in which Steyerl attempts to retrace the story of her teenage friend Andrea Wolf, who later became a freedom fighter/terrorist for the Kurdish PKK, contains footage that might be termed documentary, but it is not “a documentary.” Leaping from the personal to the world-historical and from one type of image to another—from Eisenstein’s *October* to martial arts movies and the unfinished film Steyerl and Wolf worked on in their youth—it is an essay film par excellence.⁶

Steyerl writes, films, and performs essays, with their various articulations (sometimes under the same title) bolstering and enriching each other.⁷ To essay is to try, to attempt. The essay is a form of doubt - a format in which one can explore doubtful theses. While the essay is at root a literary genre, in the twentieth century it leapt into new media. The transition from the printed page to film was a haphazard process, and its conceptualization even more so. In the 1920s, the protagonists of the soviet montage school conceived of film as a dialectical and historical medium with no rival: filmic montage could unite seemingly disparate shots such as dialectical thesis and antithesis, thereby not merely illustrating the march of history but actively participating in it. The notion of the essay film or film essay was originally proposed by Hans Richter as an alternative for both feature films and conventional documentaries—as a continuation of documentary film by other means.⁸ While Richter’s text, published in a Swiss newspaper in 1940, is strenuously apolitical, this abstention from explicit politics is itself highly significant.

Richter had collaborated with Sergei Eisenstein in the 1920s, but the rise of Fascism and Stalinism had dashed any hopes of a quick breakthrough into the bright future. Under the circumstances, as October was sliding into November, it made sense to reinvent film, reinvent montage, in essayistic terms—to see if the cinematic medium might not at least find ways of temporality prying open the stolid realism of documentaries. Richter’s text having remained obscure, the notion was reinvented around 1970 by theorists and filmmakers advocating a film practice that would, through montage, develop ideas rather than pretend to “show reality” or reveal “the truth” in an objective manner.⁹ But how do ideas develop? Only if the filmmaker-essayist puts his or her subjectivity on the line, allows for conceptual jump cuts that may not, strictly speaking, be justifiable. Steyerl’s films, lecture-performances and essays thrive off such jumps. They evince what one could term a heightened subjective grasp of the materials; almost a *Willkürsherrschaft*.

Steyerl's written essays are not "explanations" of her films. Even when they share a title, as with *In Free Fall* (a 2010 film and 2011 article), their relation is one of mutual complementation and contradiction—with the article following a more abstract trajectory of speculation. In contrast to the wide-ranging text, the film focuses on the "lives" of Boeing airplanes, and leads us from the Israeli army to an airplane junkyard in the Mojave desert is rife with her bold, but deftly executed conceptual jumps. Referencing Sergei Tetyakov's 1929 *The Biography of the Object*, as well as the stock market crash of that year the 30-minute short combines shots from the airplane junkyard with Steyerl and the film's small cast of motley characters, interspersed with found documentary/propaganda footage explaining how airplanes are reused for aluminium (while the retired planes are often used for cinematic explosions such as in *Speed*, their aluminium is also recycled for DVD production). In another twist in the films' gathering of histories and biographies, we are told that 1929 is not only the year of the stock market crash and Tetyakov's text but also when Howard Hughes's aviation epic *Hell's Angels* was shot, during which Hughes crashed and was seriously injured. Later, Hughes bought TWA and the plane blown up for *Speed* is one of TWA's old Boeings, which spent part of its life in the Israeli airforce as 4X-JYI. Its sister plane, 4X-JYD, was present at the storming of the hijacked plane at Entebbe, and it now functions as a cinema in an Israeli army museum while 4X-JYi was blown up in *Speed*. "Everything that was left was scrap, and that's when the Chinese were buying scrap."

Steyerl's entropic airfield dissolves in a postcinematic montage indebted to MTV; new footage and appropriated footage generate a dizzying, fragmented map unfolding in non-linear and multifaceted time. The editing – tied together through catchy tunes – is seductive to the point of glossing over its own intricacies, making the film feel more accessible than it might actually be. While it would indeed appear that with *In Free Fall*, Steyerl "has turned from the essayistic subject to the essayistic object", it may be more precise to say that the film focuses on objects as having a certain derivative and secondary *agency* that affects lives.¹⁰ Depending on market fluctuations, planes may be used for movie productions or be sold to China for their scrap metal. *In Free Fall* does not fetishize the social relations between things; both object and subject act and are acted on in a bewilderingly complex political economy. (Steyerl's cameraman lost his Hollywood job partly because of the crash in the DVD market due to online streaming and filesharing.)

In Steyerl's work, objects liquefy while subjects can solidify into objectified images. The film *Lovely Andrea* (2007), for example, in which Steyerl retraced her short-lived career as a bondage photo model in Japan cuts from images of tied-up models to footage of Spiderman casting his nets—and the Twin Towers, which featured in a hastily withdrawn trailer for *Spider-Man*. Yet with her and the other bondage models becoming flesh sculptures, *Lovely Andrea* also sees the filmmaker become an object, an image-object modeled by other "artists." In her text "A Thing Like You and Me," a prime example of Steyerl's jump-cut essayism, she observes that David Bowie with his constantly changing looks and personas is "no longer a subject, but an object: a thing, an image, a splendid fetish" and "a commodity soaked with desire." This prompts her her pose the question: "What happens to identification at this point? Who can we identify with? Of course, identification is always with an image. But ask anybody if they'd actually like to be JPEG file. And this is precisely my point: if identification is to go anywhere, it has to be with this material aspect of the image..."¹¹ Elsewhere, she has noted that "[despite] its apparently immaterial nature, digital wreckage remains firmly anchored within material reality."¹² In other words: the storm of history rages on, resulting in entropic debris. But rather than developing a Robert Smithson-like scenario wherein everything veers towards an ultimate state of entropic sameness and frozen stasis, Steyerl sketches a kind of junkspace – and junktime – in which movement abounds, in which images are frenetically circulating, de- and recontextualized, morphed and reformatted.

Subjects as images, images as objects; in her wonderfully messy 2013 film *How Not To Be Seen. A Fucking Didactic Educational .Mov File*, Steyerl performs various options for going undetected in the age of total surveillance. These include "becoming an image," chameleon-like, and "becoming a pixel" – since what does not exceed the side of a single pixel cannot be zoomed in on. ("Happy pixels hop off into low resolution.") Various scenes

show performers wearing a kind of greens-screen burqua, which would allow them to become part of the background, and we see people wearing pixel-boxes over their heads. These are not serious proposals for fooling the NSA or google, but they are nonetheless reminders that we all are data-objects and we'd better start acting on that knowledge. In our allegedly "visual culture," what really matters are not the images but *the subjects that are entangled in the images*—even as we are looking, we are being looked at, or being read, or being scanned. Images now function as traps in a way that Lacan never envisaged; they lure us in and mine us for data. In turn, we become both visible and legible, but not necessarily for human eyes—we become *scannable*.¹³

2. Circulation and Speculation

In Steyerl's recent video *Liquidity Inc.*, subject and object finally appear equally enmeshed in a dialectic of liquefaction and solidification; of liquidation and crystallization. *Liquidity Inc.* "is all about these stages of transition between different states of matter: between water, ice, capital, sweat, leaks, polygons, liquid crystal and how they are being incorporated as bodies and then keep transforming over and over again."¹⁴ The video appears as a profile of Jacob Wood, who during the economic crash left the financial sector and started a career in the world of Mixed Martial Arts, a.k.a. cage fighting. However, Wood as subject of this film is constantly engulfed by digitally rendered water, appearing underneath him or on a monitor behind him. (In *In Free Fall*, Steyerl had already digitally edited footage onto a laptop screen, as if to underline the obsolescence of her cameraman's Hollywood craft.) In *Liquidity*, Wood and Steyerl speculate on water travelling through the cosmos and constituting human bodies, on financial liquidity and the weather. "Be like water, my friend" – the cagefighter needs to be fluid and flexible just like his neoliberal, financial trading counterpart. Steyerl too had to go with the flow: the film includes an online exchange between her, co-author Brian Kuan Wood and curator David Riff, revealing that part of the budget had evaporated and that Steyerl could no longer hire digital FX experts to do the water effects. She now had to follow tutorials and learn to do it herself, delaying the completion of the film in the process

During a "weather report" presented by the artist's camouflaged daughter, an insert shows a clip with an orgone gun firing at the sky, from Kate Bush's music video *Cloudbusting*.¹⁵ "The Weather Underground is busting corporate clouds using orgone cannons." Privatized clouds—the phrase neatly encapsulates not just the storage of virtually all our information in data clouds, but the selling off of the commons in a "free market" economy too, in which everything (water included) is imbued with the promise of a quick return, regardless of long-term costs. The weather reports of *Liquidity Inc.* suggest a global interdependence across different systems or ecologies.¹⁶ As Berardi has put it, the increasingly "mental nature of production has exposed the economic system more and more to the psychic storms that are crisscrossing the collective mind. And on the other hand, the economy has caused competitive sentiments that have been transformed into anxiety, and at times degenerate into forms of panic. Financial and psychic flows are closely interdependent."¹⁷ On German TV, the weather report and a "financial report" live from a Frankfurt stock exchange are broadcast in quick succession before the 8 PM news, with the financial report very much functioning like a daily update on market depression, storms, and high-pressure areas. And in fact, now that the weather increasingly seems to behave in a more volatile manner as climate change becomes part of daily life rather than theoretical speculation, Steyerl suggests that the global ecosystem is also interconnected with the human psyche and with the financial system—almost like an update of Charles Fourier's thesis on the "material deterioration of the planet" caused by the *désordre passionnel* of capitalist society.¹⁸ As the masked weathergirl in *Liquidity* puts it: "A breeze would start to blow, if you could just finally manage to focus."

The title of *Liquidity Inc.* is a reference to Derrida's *Limited Inc.*, in which the French philosopher critiques the "speech act theory" of pragmatists such as J.L. Austin, the author of *How to Do Things With Words* (1962); the book also contains Derrida's response to Searle,

who had defended Austin and attacked Derrida. As Steyerl puts it, “Derrida scoffs at Searle’s pragmatic view of what language does, establishing contracts, marriages and such: in his view it is impossible to predict or fully control what language does. It does do something, but who knows what? The same happens with the incorporation of the digital. Who knows what happens if the Dow Jones and the weather were linked via systems of structural instability and how one might affect the other – or not. We might want to reconsider both Derrida’s and Searle’s questions in relation to code too: code definitely does something – but do we really know what it is? What the hell does high frequency trading really do? What are these bots doing chatting with one another and spamming each other into machinic oblivion or ecstasy?”¹⁹

Steyerl effectively pits one form of speculation against another: a kind of hyper-speculative reasoning legitimized by the essay form against the speculative logic of hyper-capitalism. As the Uncertain Commons collective has argued, capitalist modernity is marked by a dialectic between what they call *firmative* and *affirmative* speculation. The former is speculation in the service of control, of predicting and managing the future—spanning effectively the whole financial system with all its authorities, services and products to organizations such as the WHO and the Intergovernmental Panel on Climate Change. “Firmative speculation produces probable states as calculable alternatives wrapped in investment contrasts (futures, options, swaps) and choices for individual portfolios. Such packaging forecloses alternative possibilities in the interest of a precise rate of return.”²⁰ But today’s global condition actually manifests itself as “a heterogeneous accumulation of unplanned and unprecedented effects”—with insurance companies such as Swiss Re even trying to manage weather instability by providing “weather derivatives” that allow companies to insure themselves against severe weather.²¹ However, the insurance sector has long been aware of the dangers of climate change; it might lead to an accumulation of risk that is too extreme for insurance, incapable of being contained by managerial speculation.

What is needed - now more than ever - is affirmative speculation that sabotages the exploitation of potential for quick profit and “concern[s] itself with an uncertainty that must not be reduced to manageable quantities.”²² This is where art and the essay enter stage left. But there is no reason to romanticize the artistic-essayistic complex. Steyerl’s practice has been accused of being all too compatible with a project-based cultural economy in which the essay has become a post-Fordist imperative – life as a project. Is Steyerl’s essayism not all too free-floating, too much of a virtuoso exercise to generate page clicks in the *e-flux journal* and survive the social Darwinism of biennales? In fact, Steyerl herself was the first to note that in the age of flexibility and “just-in-time” production, essayism can also be a form of conformism.²³ Any practice worth its salt runs (and courts) risks. Rather than downplaying the problematic and conformist side of her artistic essayism, Steyerl exacerbates it, and pushes the “formative” speculation that is inherent in any practice within today’s cultural sector to the tipping point.

In her recent piece *Shunga*, Steyerl has “glitched” animated gifs of pornographic Japanese woodcuts called shunga (“images of spring”) by inserting “absurd online advice on how to make spring come faster (or at all)” into the code. “This ranges from moving Earth closer to Jupiter to decreeing the coming of spring by law, gardening, revolutionary or erotic advice.”²⁴ Steyerl’s practice here recalls Kenneth Goldsmith’s exhortation to “parse the new illegibility” by treating digital files as writing, as texts to be appropriated and detoured.²⁵ Rewriting images in this manner is *circulationism* in action: if Soviet productivism entailed calls for artists to design products for the nascent communist industry, circulationism is not about making, but about reveling in the possibilities of postproduction. As Steyerl notes, circulationism is also entangled with today’s neoliberal version of the “Stalinist cult of productivity, acceleration, and heroic exhaustion.”²⁶ It is, then, suffused with speculation in its different forms and modalities. We are all circulationists, and Steyerl’s work begins to address the consequences of such a state of play.

3. Going Live

Steyerl's essayism is marked by an engagement with what Heinrich Heine once called the "material activity of the brain" in the age of its digital reformatting.²⁷ It is a form of twenty-first century materialism, a materialist praxis that never deals with mere subjects in the sense of "themes," but rather with the subject as maker and consumer – circulator – of images. This circulationist subject is also always circulating *as* image. Thus the artist herself is an instable subject-object, and her *Versuch* is a *Selbstversuch* in the free fall of history. In circulationism, images exist to be performed (repeated and remade) in some manner and post-producing images means that one constantly performs and reperforms the digital source material.²⁸ After all, image, sound or text files are nothing without being played—performed—in some manner. So why not do this live by talking the audience through whatever images one can scavenge or footage one can shoot cheaply?

Steyerl's lecture-performance *I Dreamed a Dream: Politics in the Age of Mass Art Production* (2013) is a live essay that shares traits with both the artist's written and video forms.²⁹ Accompanied by projected images, the artist articulately speculates on the phenomenon of "mass art production" and whether it could change the world as much as the mass production of arms. Steyerl begins by mentioning a "Comrade X", a Kurdish fighter imprisoned in Turkey, who became fascinated with *Les Misérables* as a political work of art, to which he wanted to write a sequel. Steyerl dryly remarks that this should be sufficient proof that she didn't make Comrade X up, since she never would have chosen *Les Misérables*—that sentimental proto-telenovela with all its cliffhangers. In fact, in contrast to Comrade X Steyerl focuses not so much on the work's pseudo-revolutionary content but on its productive logic as manifested in its form—which was shaped by 19th century newspaper serials and the modes of production and consumption they generated. Steyerl here foregrounds the impact of this nascent culture industry, recalling Marx's statement that "Production thus produces not only the object but also the manner of consumption, not only objectively but also subjectively. Production thus creates the consumer."³⁰ What it also brings into being is the producer him- or herself. But as we know, in contemporary immaterial labour the dividing line between production and consumption is tenuous at best—as in the case of "ordinary people" who get up from their sofas and audition to be the next "idols" who we cheer on every Saturday night.

Like the works of the "real" feuilleton hacks with whom Hugo had to compete, Steyerl notes that *Les Misérables* reads like a permanent public audition by the author. Completing the novel check by check, the serial author "rambles on commission"—the pitch has become part of the drama. From this, Steyerl cuts to Susan Boyle's performance of *I Dreamed a Dream* from the musical version of *Les Misérables* (the hopeless dream of Fantine, the tragic working mother) on a British talent show, and forges a *now-time* between the 1832 failed revolution portrayed by Hugo and the situation of the 2011 precariat. There is another species of *miserables* around – they are onstage, as losers mocked by posh juries. We live in a casting economy, in which we constantly pitch projects and ourselves; images of artists in Berlin cuing up outside after a call for an "open" exhibition by the Deutsche Bank art space are projected behind Steyerl, before she moves on to imagining and performing a pitch for a project on the basis of Comrade X's dream, which she reads in front of a karaoke screen with lyrics to *I Dreamed a Dream* (with accompanying music). The proposed project involves a green-screen montage of people in nineteenth century and contemporary museum architecture, with a "rabble" of post-Fordist extras that is about to be slaughtered on barricades. In this bizarre pitch, we, the audience, become a quasi-jury, complicit in the culture of permanent auditioning.

This culture of permanent performance is also one of permanent surveillance, in which "becoming invisible" is ever more of a challenge—a crazy form of speculation that no sane investor would get behind. "Passively and often voluntarily, one collaborates in one's own surveillance and data-mining," as Jonathan Crary has put it.³¹ In this situation, Crary rightly argues, "To be preoccupied with the aesthetic properties of digital imagery, as are many theorists and images, is to evade the subordination of the image to a broad field of non-visual operations and requirements. Most images are now produced and circulated in the

service of maximizing the amount of time spent in habitual forms of individual self-management and self-regulation.”³² Culture has been “gamified,” and in the process it has been militarized.

In the age of digital effects and 3D, what was once cinema is subject to an arms race against which the Cold War pales in comparison. With the digital blockbuster, cinema has been remade in the image of video games that were in turn civilian adaptations of military flight simulators. The “military-entertainment complex” has only become stronger now that, as Steyerl puts it, “in 3D cinema, the new characteristics of aerial views are fully exploited by staging vertiginous flights into abysses,” and “military, surveillance, and entertainment applications” are integrated ever more completely.”³³

Against the military-entertainment complex of James Cameron’s *Avatar*, in which we enjoy our own submission to a culture of shock and awe, Steyerl enacts a disarming sleight of hand that doubles as pure speculation, seemingly realizing an impossible and excessive potential beyond all probability and calculation. A video that is part of Steyerl and Rrahimi Mroué’s lecture-performance *Probable Title: Zero Probability* (2012) shows the artist facing the camera, she tosses a coin into the air, explaining that the chances of heads and tails are each 50%, and that the probability of the coin never coming down zero. Of course, the coin does not come down. In a move that recalls trick films of early cinema, Steyerl produces a questionable miracle, that pushes us to speculate on the conditions of its (non-)occurrence.³⁴

In her solo lecture-performance *The Body of the Image* (2012) Steyerl returned to her friend Andrea Wolf and her supposed death in a cave where she was presumably killed by Turkish troops.³⁵ A 3D mapping of the cave goes wrong and produces a warped space full of blind spots: a “digital hallucination” not suitable for mapping forensic evidence. In such a 3D reconstruction, missing bodies can get lost all over again—just as a coin may suddenly decide to never come down (probability be damned). If the latter is a trick that would have been possible even in early cinema, the hallucinatory potential of contemporary postcinematic imaging technology is all the greater. In the same talk, Steyerl notes that the Federal republic of Yugoslavia was actually proclaimed in a 2D cinema in 1943, and that this cinema was destroyed during a fight between Croats and Bosnians in 1992. “I think cinema as such got mortally wounded in that fight and never recovered.”³⁶ However, (un)dead cinema survives as event. If in today’s 3D blockbuster the event is created by the technology of immersion, which helps turn the films into quasi-games giving you vertiginous perspectives as you plunge off a cliff with the hero, the “eventualization” of Steyerl’s practice takes the form of a live performance of her material.

I Dreamed a Dream and *The Body of the Image* have not been developed into video essays. Instead, Steyerl chose to combine a projection of still and moving images with a live lecture—with a performance in the guise of a lecture. While the budgets for Hollywood blockbusters soar in the quest for the perfect “event movie,” Steyerl finds that her budgets—which were never massive to begin with—have evaporated. *Liquidity Inc.* foregrounds its status as a digital artifact that has lost the arms’ race: the budget did not stretch to hiring a professional for the aquatic effects, so Steyerl had to teach herself to do it. In the ongoing financial crisis, everybody wants to show her films, but nobody wants to finance them. And of course, art institutions are happy to invite artists to give talks, to present her work. In the process, the artist has to mobilize and liquefy herself, stepping onto the podium to engage in a highly peculiar form of Mixed Martial Arts. Under today’s conditions, the audience becomes both potential surveillance instrument and circulationist accelerator—perhaps sending text messages, tweets and photos, and in the process making the work as unpredictable as the weather, and turning it into a perfect storm.

Note: I removed a number of minor glitches from the published version in Too Much World – a wonderful publication which, as ever in the art world, was produced with too much haste.

¹ In a 1989 essay, reworked into a 1992 book, Francis Fukuyama famously presented his version of the Hegelian “end of history”: with the triumph of “Western liberal democracy” over Soviet Communism, there was no true historical antagonist of capitalist democracy left, signaling the end of the world-historical process.

² Franco “Bifo” Berardi, *After the Future* (Oakland/Edinburgh: AK Press, 2011), pp. 44-50.

³ See Naomi Klein, *The Shock Doctrine* (London: Penguin, 2007).

⁴ Berardi, 17, 46-48.

⁵ Hito Steyerl, “A Thing Like You and Me,” in *e-flux journal* no. 15 (April 2010), <http://www.e-flux.com/journal/a-thing-like-you-and-me/>

⁶ On November see T.J. Demos, *The Migrant Image: The Art and Politics of Documentary during Global Crisis* (Durham: Duke University Press, 2013), pp. 74-89.

⁷ On Steyerl’s most recent collection of essayistic texts, *The Wretched of the Screen* (Berlin: Sternberg Press, 20012; this volume collects essays from *e-flux journal*), see Tony Wood, “Reserve Armies of the Imagination,” in: *New Left Review* 136 (July/August 2013), pp. 136-142.

⁸ Hans Richter, “Der Filmessay: Eine neue Form des Dokumentarfilms,” in *Schreiben Bilder Sprechen: Texte zum essayistischen Film*, eds. Christa Blümlinger and Constantin Wulff, (Vienna: Sonderzahl, 1992), pp. 195-198.

⁹ See Noël Burch, “Director’s Notes” (2010), <http://www.theforgottenspace.net/static/notes.html>

¹⁰ Kerstin Stakemeier, “Plane Destructive: The Recent Films of Hito Steyerl,” http://www.metamute.org/en/articles/plane_destructive_the_recent_films_of_hito_steyerl

¹¹ Steyerl, “A Thing Like You and Me.”

¹² Hito Steyerl, “Digital Debris: Spam and Scam,” in: *October* no. 138 (Fall 2011), p. 71.

¹³ Georges Didi-Huberman has long criticized the tendency (in iconology and elsewhere) to collapse *le visible* into *le lisible*, the visible into the legible. By now, both texts and images often function primarily as data to be scanned; the visible and the legible become the scannable.

See Georges Didi-Huberman, *Devant l’image* (Paris: Minuit, 1990), pp. 21-64.

¹⁴ Steyerl quoted in Sven Lütticken, “Glitches of an Exhibition,” interview with Hito Steyerl to be published in *Metropolis M* 35 (2014), no. 2

¹⁵ Bush’s song and music video *Cloudbusting* (1985) reference Wilhelm Reich and his “cloudbusters.” A psychoanalyst, Reich during the 1930s transmuted the Freudian notion of the libido into a vitalist conception of cosmic energy that he named orgone. The cloudbuster, by Reich from 1952 on, was a device consisting of metal pipes connected to a well or another body of water; when aimed at the sky, these pipes would act as a kind of lightning rod for orgone energy, enabling Reich to influence cloud formation and cloud dissipation in various ways. See Myron Sharaf, *Fury on Earth: A Biography of Wilhelm Reich* (s.l.; Da Capo Press, 1994), pp. 378-383. While Sharaff is a believer in the literal truth of Reich’s orgone theory, he is nonetheless a conscientious and perceptive biographer.

¹⁶ Building on Bateson’s Ecology of Mind, Félix Guattari proposed an “ecosophy” revolving around the relations between “three ecological registers”: “the environment, social relations and human subjectivity.” Félix Guattari, *The Three Ecologies* (1989), trans. Ian Pindar and Paul Sutton (London: Continuum, 2008), pp. 19-20 etc.

¹⁷ Franco “Bifo” Berardi, *Félix Guattari: Thought, Friendship, and Visionary Cartography*, trans. Giuseppina Mecchia and Charles J. Stivale (Houndmills: Palgrave Macmillan, 2008), p. 27.

¹⁸ See Charles Fourier, “Détérioration matérielle de la planète” (1820-21), in René Schérer, *L’Écosophie de Charles Fourier. Deux textes inédits* (Paris: Anthropos, 2001), pp. 31-125. As with Reich, who cast Cold-War fear of nuclear annihilation in the mythical form of DOR (“Deadly Orgone Radiation”), Fourier presents a mythico-romantic but at times strikingly perceptive take on the interdependence of human society and the planetary ecosystem.

¹⁹ Steyerl quoted in Lütticken, “Glitches of an Exhibition.”

²⁰ Uncertain Commons, *Speculate This!* (Durham: Duke University Press, 2013), Speculation <http://speculatethis.pressbooks.com/chapter/firmative-speculation/> Thanks to Rachel O’Reilly and the participants of the Jan van Eyck’s “Moving Images of Speculation” project for acquainting me with this text.

²¹ Uncertain Commons, *Speculate This!*; see also <http://insurance.lbl.gov/opportunities.html>

²² Uncertain Commons, *Speculate This!*

²³ Hito Steyerl, *Die Farbe der Wahrheit. Dokumentarismen im Kunstfeld* (Vienna: Turia + Kant, 2008), pp. 139-142.

²⁴ Steyerl quoted in Lütticken, “Glitches of an Exhibition.”

²⁵ Kenneth Goldsmith, *Uncreative Writing: Managing Language in the Digital Age* (New York: Columbia University Press, 2011).

²⁶ Hito Steyerl, “Too Much World: Is the Internet Dead?”, in *e-flux journal* no. 49 (November 2-13), <http://www.e-flux.com/journal/too-much-world-is-the-internet-dead/>

²⁷ See Heine’s ironic characterization of Jean Paul in *Die Romantische Schule*: “Instead of thought he gives us his thinking itself. We see the material activity of his brain; he gives us, as it were, more brain than thought,” <http://www.gutenberg.org/files/37478/37478-8.txt>

²⁸ On the performing of digital files see also Boris Groys, “Religion in the Age of Digital Reproduction,” in: *e-flux journal* no. 4, 2009, <http://www.e-flux.com/journal/religion-in-the-age-of-digital-reproduction/>. However, in claiming that “the digital file functions as an angel—as an invisible messenger transmitting a divine command,” Groys slides into techno-idealism and neglects the file as matter or material that can be tampered with in a myriad ways.

²⁹ *I Dreamed a Dream* was first performed at the Haus der Kulturen der Welt in Berlin on March 18, 2013, and subsequently at the Stedelijk Museum in Amsterdam on May 16.

³⁰ Marx, *Grundrisse*, p. 92; <http://www.marxists.org/archive/marx/works/1857/grundrisse/ch01.htm>

³¹ Jonathan Crary, *24/7* (London/New York: Verso, 2013), p. 48

³² Crary, *24/7*, p. 47

³³ Hito Steyerl, “In Free Fall: A Thought Experiment on Vertical Perspective,” in *e-flux journal* no. 24 (April 2011), <http://www.e-flux.com/journal/in-free-fall-a-thought-experiment-on-vertical-perspective/>

³⁴ *Probably Title: Zero Probability* premiered at the Tanks at Tate Modern on October 6, 2012, and was subsequently performed or shown in a number of iterations—for which Steyerl could be replaced by another performer, or both Steyerl and Mroué by video images.

³⁵ Hito Steyerl, *The Body of the Image*, lecture/performance at Haus der Kulturen der Welt, June 2, 2012.

³⁶ The lecture script can be found at <http://eipcp.net/e/projects/heterolingual/files/hitosteyerl/print>