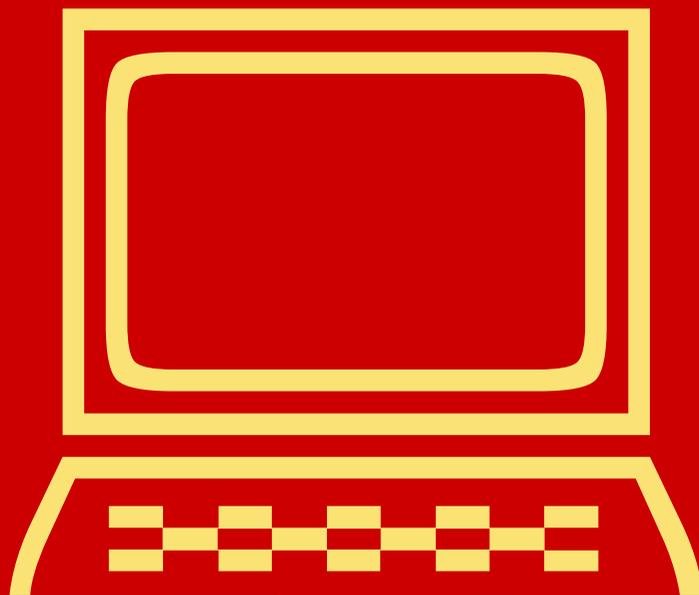


LEA  
BOOKS

VOL 20 NO 1 BOOK SENIOR EDITORS LANFRANCO ACETI, SUSANNE JASCHKO,  
JULIAN STALLABRASS / BOOK EDITOR BILL BALASKAS

The Leonardo Electronic Almanac is proud to announce the publication of its first LEA book, titled "Red Art: New Utopias in Data Capitalism." The publication investigates the relevance of socialist utopianism to the current dispositions of New Media Art, through the contributions of renowned and emerging academic researchers, critical theorists, curators and artists.



# RED ART

New Utopias in Data Capitalism

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LEONARDO ELECTRONIC ALMANAC BOOK, VOLUME 20 ISSUE 1

# Red Art: New Utopias in Data Capitalism

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# Commonist Red Art: Blood, Bones, Utopia and Kittens

**Does Red Art exist? And if so, who creates it and where can we find it?** This special issue of the Leonardo Electronic Almanac addresses these questions and collates a series of perspectives and visual essays that analyze the role, if any, that Red Art plays in the contemporary art world.

Red Art, these are two simple words that can generate complex discussions and verbal feuds since they align the artist to a vision of the world that is 'Red' or 'Communist.'

Nevertheless, even if the two little words when placed together are controversial and filled with *animus*, they are necessary, if not indispensable, to understand contemporary aesthetic issues that are affecting art and how art operates in the context of social versus political power relations within an increasingly technological and socially-mediated world.

Red Art could be translated – within the contemporary hierarchical structures – as the art of the powerless versus the art of the powerful, as the art of the masses versus the art of the few, as the art of the young versus the old, as the art of the technological democrats versus the technological conservatives, as the art of the poor versus the art of the rich... Or it could be described as the art of the revolutionary versus the status quo. In the multitude of the various possible definitions, one appears to stand out for contemporary art and it is the definition of art as bottom-up participation versus art as top-down

prepackaged aesthetic knowledge. And yet, what does Red Art stand for and can it be only restricted to Communist Art?

The contemporary meaning of Red Art is different from what it may have been for example in Italy in the 1970s, since so much has changed in terms of politics, ideology and technology. It is no longer possible to directly identify Red Art with Communist Art (as the art of the ex Union of Soviet Socialist Republics or of its satellite states and globalized Communist political parties which were and continue to be present in the West – albeit inedulcorated forms) nor as the art of the left, but there is a need to analyze the complexity of the diversification and otherization of multiple geopolitical perspectives. <sup>1</sup>

If today's Red Art has to redefine its structures and constructs it becomes necessary to understand who is encompassed within the label of Red Artists and what their common characteristics are. Red Artists – if we wanted to use this category – and their aesthetic production cannot be reduced to the word 'Communist,' borrowing passé ideological constructs. An alternative to the impasse and the ideological collapse of communism is the redefinition of Red Art as the art of the commons: **Commonist Art.** <sup>2</sup> If Red Art were to be defined as the art of the commons, Commonist Art, thereby entrenching it clearly within technoutopias and neoliberalist crowd sourcing approaches for collective participation, this would provide a contradictory but functional framework for the realization of

common practices, socially engaged frameworks, short terms goals and 'loose/open' commitments that could be defined in technological terms as *liquid digital utopias* or as a new form of permanent dystopia. <sup>3</sup>

The XXIst century appears to be presenting us, then, with the entrenched digitized construct of the common versus the idea of the Paris Commune of 1871, thereby offering a new interpretation of the social space and an alternative to traditional leftist/neoliberal constructs. The idea of the common – as an open access revolving door, is opposed to the concept of the commune – as a highly regulated and hierarchical structure.

The 'semantic' distingo between commons and communes becomes important since both terms are reflections of constructions and terminological frameworks for an understanding of both society and art that is based on 'likes,' actions and commitments for a common or a commune. The commitment, even when disparagingly used to define some of the participants as click-activists and armchair revolutionaries, <sup>4</sup> is partial and leaves the subject able to express other likes often in contradiction with one another: e.g. I like the protests against Berlusconi's government and I like the programs on his private TVs.

I find the idea of the commons (knowledge, art, creativity, health and education) liberating, empowering and revolutionary, if only it was not expressed within its own economic corporative structures, creating further layers of contradiction and operational complexities.

The contradictions of contemporary Red Art and contemporary social interactions may be located in the difference between the interpretations of common and commune – the commune upon which the Italian Communist Party, for example, based its foundations in order to build a new 'church.'

The relationships in the commune of the Italian communists (oxymoronically defined Cattocomunisti or Catholic-communist) rests in faith and in compelled actions, in beliefs so rooted that are as blinding as blinding is the light of God in the painting *The Conversion of Saint Paul on the Road to Damascus* by Michelangelo Merisi da Caravaggio.

*[...] and from the leadership an aggressive unwillingness to allow any dissent or deviation. 'That time produced one of the sharpest mental frosts I can remember on the Left,' the historian E. P. Thompson would recall from personal knowledge of the CP... <sup>5</sup>*

It is this blind faith that has generated the martyrs of communism and heretical intellectuals, accusations from which not even Antonio Gramsci was able to escape. The vertical hierarchical structure of the commune and of the Communist Party produced heretics and immolations, but also supported artists, intellectuals, academics and writers that operated consonantly with the party's ideals: people that sang from the same preapproved institutional hymn sheet.

**Stefania:** *This young generation horrifies me. Having been kept for years by this state, as soon as they discover to have two neurons they pack and go to study, to work in the US and London, without giving a damn for who supported them. Oh well, they do not have any civic vocation. When I was young at the occupied faculty of literature, I oozed civic vocation. [...] I have written eleven novels on civic duty and the book on the official history of the Party.*

**Jep Gambardella:** *How many certainties you have, Stefania. I do not know if I envy you or feel a sensation of disgust. [...] Nobody remembers your civic vocation during your University years. Many instead*

*remember, personally, another vocation of yours that was expressed at the time; but was consumed in the bathrooms of the University. You have written the official history of the Party because for years you have been the mistress of the head of the Party. Your eleven novels published by a small publishing house kept by the Party and reviewed by small newspapers close to the Party are irrelevant novels [...] the education of the children that you conduct with sacrifice every minute of your life ... Your children are always without you [...] then you have - to be precise - a butler, a waiter, a cook, a driver that accompanies the boys to school, three babysitters. In short, how and when is your sacrifice manifested? [...] These are your lies and your fragilities.* <sup>6</sup>

To the question, then, if Red Art exists I would have to answer: YES! I have seen Red Art in Italy (as well as abroad), as the Communist Art produced in the name of the party, with party money and for party propaganda, not at all different from the same art produced in the name of right-wing parties with state or corporate money – having both adopted and co-opted the same systems and frameworks of malfeasance shared with sycophantic artists and intellectuals.

In order to understand the misery of this kind of Red Art one would have to look at the Italian aesthetization of failure – which successfully celebrates failure in the *Great Beauty* by Paolo Sorrentino when the character of Stefania, and her ‘oozing civic duty,’ is ripped apart. It is a civic responsibility that is deprived and devoid of any ethics and morals. <sup>7</sup>

This is but one of the multiple meanings of the concept of Red Art – the definition of Red Art as Communist Art, is the one that can only lead to sterile definitions and autocelebratory constructs based on the ‘aesthetic obfuscation of the lack of meaning’ as a

tool for the obscurity of the aesthetic to act as a producer of meaning when the artist producing it is inept at creating meaning. <sup>8</sup> Even more tragically, Red Art leads to the molding of the artist as spokesperson of the party and to the reduction of the artwork, whenever successful, to advertising and propaganda.

Commonist Art, founded on the whim of the ‘like’ and ‘trend,’ on the common that springs from the aggregation around an image, a phrase, a meme or a video, is able to construct something different, a convergence of opinions and actions that can be counted and weighed and that cannot be taken for granted. Could this be a Gramscian utopia of re-construction and re-fashioning of aesthetics according to ‘lower commons’ instead of high and rich ‘exclusivity,’ which as such is unattainable and can only be celebrated through diamond skulls and gold toilets?

Commonist Art – the art that emerges from a common – is a celebration of a personal judgment, partially knowledgeable and mostly instinctive, perhaps manipulated – since every ‘other’ opinion is either manipulated by the media or the result of international lobby’s conspiracies or it can be no more than a reinforcement of the society of the simulacra. Conversely, it may also be that the image and its dissemination online is the representation of a personal diffidence towards systems of hierarchical power and endorsement that can only support ‘their own images and meanings’ in opposition to images that are consumed and exhausted through infinite possibilities of interpretation and re-dissemination. <sup>9</sup>

If Commonist Art offers the most populist minimum common denominator in an evolutionary framework determined by whims, it is not at all different from the minimum common denominator of inspirational/aspirational codified aesthetics that are defined by the higher echelons of contemporary oligarchies that

have increasingly blurred the boundaries of financial and aesthetic realms.

Commonist Art – if the current trends of protest will continue to affirm themselves even more strongly – will continue to defy power and will increasingly seek within global trends and its own common base viable operational structures that hierarchies will have to recognize, at one point or the other, by subsuming Commonist Art within pre-approved structures.

Red Art, therefore, if intended as Commonist Art becomes the sign of public revolts, in the physical squares or on the Internet. It is art that emerges without institutional ‘approval’ and in some cases in spite of institutional obstacles. Gramsci would perhaps say that Commonist Art is a redefinition of symbolic culture, folk art and traditional imageries that processed and blended through digital media and disseminated via the Internet enable Red Art to build up its own languages and its own aesthetics without having to be institutionally re-processed and receive hierarchical stamps of approval.

Red Art can also be the expression of people whose blood and tears – literally – mark the post-democracies of the first part of the XXIst century. Non-political, non-party, non-believers, <sup>10</sup> the crowds of the Internet rally around an argument, a sense of justice, a feeling of the future not dominated by carcinogenic politicians, intellectuals and curators, that present themselves every time, according to geographical and cultural spaces, as Sultans, Envoys of God, or even Gods.

Red Art, the Commonist Art that perhaps is worth considering as art, is the one that is self-elevated, built on the blood and bones of people still fighting in the XXIst century for justice, freedom and for a piece of bread. Art that rallies crowds’ likes and dislikes based

on the whims of a liquid Internet structure where people support within their timelines an idea, a utopia, a dream or the image of a kitten. <sup>11</sup>

This piece of writing and this whole volume is dedicated to the victims of the economic and political violence since the beginning of the Great Recession and to my father; and to the hope, hard to die off, that some utopia may still be possible.

**Lanfranco Aceti**

*Editor in Chief, Leonardo Electronic Almanac  
Director, Kasa Gallery*



## REFERENCES AND NOTES

1. Larry Ray, "At the End of the Post-Communist Transformation? Normalization or Imagining Utopia?" *European Journal of Social Theory* 12 (August 2009), 321-336.
2. Commonism was used by Andy Warhol. In this essay the word is rooted in Internet 'commons,' although similarities, comparisons and contiguities exist with the earlier usage. "Thus Warhol's initial preference for the term 'Commonism' was as ambivalent, and ambiguous, as the oscillating signs 'Factory' and 'Business.' Although it flirted with connotations of the 'common' with the 'Communist' (from cheap and low to 'dignity of the common man'), the term betrayed no hidden, left-wing agenda on Warhol's part." Caroline A. Jones, *Machine in the Studio: Constructing the Postwar American Artist* (Chicago, IL: The University of Chicago Press, 1996), 205.
3. "For one thing, utopia has now been appropriated by the entertainment industry and popular culture – what is termed the contemporary liquid utopia – as a kind of dystopia." Anthony Elliott, *The Contemporary Bauman* (Abingdon: Routledge, 2007), 17.
4. The blurred lines between real and virtual do not exempt click-activists or armchair revolutionaries from the persecutions and abuses of the state police. The sitting room within one's home becomes the public space for conflict and revolts. One example of many around the globe: Alexander Abad-Santos, "Turkey Is Now Arresting Dozens for Using Twitter," *The Wire*, June 5, 2013, <http://www.thewire.com/global/2013/06/turkey-twitter-arrests/65908/> (accessed January 10, 2014).
5. David Kynaston, *Austerity Britain, 1945-1951* (London: Bloomsbury, 2007), 342.
6. The English translation from the Italian is from the author. *La Grande Bellezza*, DVD, directed by Paolo Sorrentino (Artificial Eye, 2014).
7. "Anti-communism was never accepted as the moral equivalent of anti-fascism, not only by my parents but also by the overwhelming majority of liberal-minded people. The Left was still morally superior." Nick Cohen, *What's Left?: How the Left Lost its Way* (London: Harper Perennial, 2007), 3. La questione morale or the 'moral issue' in English is the problem identified by Enrico Berlinguer and that questioned the role of the Communist party and the Left in general in Italy. The moral issue has not been resolved to this day and is at the core of the current impossibility to distinguish between the ideological frameworks of Left and Right – since both political areas are perceived as equally and intrinsically corrupt as well as tools for an oligarchic occupation of democracy. For the original interview in Italian of Enrico Berlinguer see: Eugenio Scalfari, "Intervista a Enrico Berlinguer," *La Repubblica*, July 28, 1981 available in "La questione morale di Enrico Berlinguer," Rifondazione Comunista's website, <http://web.rifondazione.it/home/index.php/12-home-page/8766-la-questione-morale-di-enrico-berlinguer> (accessed March 20, 2014).
8. "Under the surface of images, one invests bodies in depth; behind the great abstraction of exchange, there continues the meticulous, concrete training of useful forces; the circuits of communication are the supports of an accumulation and a centralization of knowledge; the play of signs defines the anchorages of power; it is not that the beautiful totality of the individual is amputated, repressed, altered by our social order, it is rather that the individual is carefully fabricated in it..." Michel Foucault, "Panopticism," in *The Nineteenth-Century Visual Culture Reader*, ed. Vanessa R. Schwartz and Jeannene M. Przyblyski (New York, NY: Routledge, 2004), 78.
9. There are those who think that the image is an extremely rudimentary system in comparison with language and those who think that signification cannot exhaust the image's ineffable richness. Roland Barthes, "Rhetoric of the Image," in *Visual Culture: The Reader*, ed. Jessica Evans and Stuart Hall (London: Sage Publications, 1999), 33.
10. Non-believers stands for skeptics and does not have a religious connotation in this context.
11. Lanfranco Aceti, *Our Little Angel*, Lanfranco Aceti Inc., personal website, January 10, 2014, <http://www.lanfrancoaceti.com/portfolio-items/our-little-angel/> (accessed January 10, 2014).

## Changing the Game: Towards an 'Internet of Praxis'

There is a new spectre haunting the art world. Not surprisingly, it has been put forward in recent articles, panel discussions and books as the 'ism' that could, possibly, best describe the current dispositions of contemporary art. The name of the spectre is "post-internet art."<sup>1</sup> Unlike, however, its counterpart that was released in the world by Karl Marx and Friedrich Engels in 1848,<sup>2</sup> this contemporary spectre has not arrived in order to axiomatically change the established order of things; conceivably, it has arrived in order to support it.

Post-internet art refers to the aesthetic qualities defining today's artistic production, which is often influenced by, mimics, or fully adopts elements of the Internet. At the same time, the term incorporates the communication tools and platforms through which contemporary artworks reach their intended (or non-intended) audiences. Notably, in his book *Post Internet* (2011), art writer Gene McHugh suggests that regardless of an artist's intentions, all artworks now find a space on the World Wide Web and, as a result, "[...] contemporary art, as a category, was/is forced, against its will, to deal with this new distribution context or at least acknowledge it."<sup>3</sup> Quite naturally, this would seem like a strong oppositional force directed against the modus operandi of the mainstream art world. Yet, further down in the same page, McHugh characterizes this acknowledgement as a constituent part of the much larger "game" that is played by commercial galleries, biennials, museums and auction houses.

Thus, there are inevitable contradictions and challenges in the role that post-internet art is called to fulfil as a movement and/or as a status of cultural production. Firstly, there is an easily identifiable 'anxiety' to historicize a phenomenon that is very much in progress: the Internet is changing so rapidly, that if we think of the online landscape ten years ago, this would be radically different from our present experience of it. Furthermore, the post-internet theorization of contemporary art runs the danger of aestheticizing (or over-aestheticizing) a context that goes well beyond the borders of art: in the same way that we could talk about post-internet art, we could also talk about post-internet commerce, post-internet dating, post-internet travel, post-internet journalism, etc. Therefore, the role and the identity of the post-internet artist are not independent of a much wider set of conditions. This false notion of autonomy is quite easy to recognize if we think, for instance, of 'post-radio art' or 'post-television art' or, even, 'post-videogames art,' and the inherent structural and conceptual limitations of such approaches.<sup>4</sup>

Most importantly, however, any kind of aestheticization may readily become a very effective tool of depoliticization. The idea of distributing images, sounds and words that merely form part of a pre-existing system of power, inescapably eradicates the political significance of distribution. The subversive potentiality inherent in the characterisation of a network as 'distributed' was systematically undermined over the 1990s and the 2000s, due to the ideological perva-

siveness of neoliberalism during the same period. Distribution – not to mention, *equal* distribution – could have enjoyed a much more prominent role as a natural fundament of the Web and, accordingly, as a contributing factor in any investigation of digital art. Last but definitely not least, one cannot ignore the crucial fact that apolitical art is much easier to enter the art market and play the ‘game’ of institutionalization (and vice versa).

To the question: could the Internet and new media at large become true ‘game changers’ in the current historical conjuncture? What does ‘red art’ have to propose, and how does it relate to the previously described ‘post-internet condition’?

Interestingly, the term “post-internet art” was born and grew parallel to the global economic crisis and the Great Recession of 2009. One of the most important objectives of the social movements that were engendered by the crisis has been the effort to “reclaim” and “re-appropriate.” This aspiration referred not only to economic resources, but also to social roles, democratic functions, human rights, and – of course – urban spaces. Syntagma Square in Greece, Puerta del Sol in Madrid, Zuccotti Park in New York, as well as some of the most iconic public locations around the world saw diverse, or even ‘irreconcilable’ in some cases crowds demand change. Within the reality of Data Capitalism and its multiple self-generated crises, people increasingly felt that they have now been totally deprived of a place (“topos” in Greek).

It is worth remembering that the coiner of “utopia,” Thomas More, chose an island as the location where he placed his ideal society.<sup>5</sup> Any island constitutes a geographic formation that privileges the development of individual traits through a natural process of ‘appropriation.’ This encompasses both the material and the immaterial environment as expressed in the landscape, the biology of the different organisms, and – most relevant to our case – culture. Notably, when it comes to connecting utopianism with the cultural paradigm of new media art, we should not focus merely on the lack of a physical space (as articulated, for instance,

through cyberspace); rather, we should address the juxtaposition of “topos” with a potentially ‘empty’ notion of “space.” The transcendence of space in a ‘digital utopia’ absolutely necessitates the existence of a ‘topos.’ In a similar way to the one that Marx sees capitalism as a stage towards a superior system of production (communism),<sup>6</sup> the construction of a ‘topos’ is a prerequisite for the flourishing of utopianism.

‘Red Art’ can be understood as a tool for the creation of such ‘topoi.’ The lesson that new media artists can learn from the political osmoses catalyzed by the economic crisis is that, in order to be effective, cyberspace should become part of a strategy that combines physical and online spaces, practically and conceptually, whilst taking into account the individual traits of both. The necessity expressed through this combination constitutes (at least partly) a departure from the developing discourses around the ‘Internet of Things’ or the ‘Internet of Places.’<sup>7</sup> Alternatively, or additionally, what is proposed here is the formulation of an ‘Internet of Praxis’ (including, of course, artistic praxis). This approach is vividly reflected in several of the projects examined in this publication, as well as in the theoretical frameworks that are outlined.

Digital art is today in a position to capitalize on the participatory potentialities that have been revealed by the socio-political events that defined the early 2010s. The reconceptualization of cyberspace as a ‘cybertopos’ is a constituent part of this new ground on which people are called to stand and build. Accordingly, the emergence of a culture of ‘post-net participation’ in which digital media transcend physical space by consolidating it (instead of ‘merely’ augmenting it), may allow us to explore “concrete utopias”<sup>8</sup> to a greater extent than ever before in recent times. It is by actively pursuing this objective that we would expect to change the rules of the game. Artists are often the first to try.

**Bill Balaskas**

## REFERENCES AND NOTES

1. The term ‘post-internet art’ is attributed to artist Marisa Olson. See Gene McHugh, *Post Internet* (Brescia: LINK Editions), 5.
2. Karl Marx and Friedrich Engels published *The Manifesto of the Communist Party* in London, on February 21, 1848.
3. Gene McHugh, *Post Internet*, 6.
4. The etymological comparison between the terms ‘post-internet art’ and ‘postmodern art’ could also highlight this context. Notably, in the case of this juxtaposition, ‘post-internet art’ puts a tool (the Internet) in the position of a movement (Modernism). If we were to consider the Internet as a movement, then, the natural historical link that would be established through the term ‘post-internet art’ would be with net art. Nevertheless, such a decision would assign net art to a status of ‘legitimization,’ towards which major museums, curators and art fairs have shown a rather consistent hostility. In this instance, historicization becomes a foe, since it would refute a ‘neutral’ relationship of the Web with art. This perspective is closely connected with the formation of an abstract notion of universalism, to which I refer further down (see endnote 8).
5. Thomas More’s *Utopia* was first published in 1516, in Belgium. There are several translations of the book.
6. Karl Marx and Friedrich Engels, *The Communist Manifesto*, with an introduction by David Harvey (London: Pluto Press, 2008), 51: “What the bourgeoisie therefore produces, above all, are its own grave-diggers. Its fall and the victory of the proletariat are equally inevitable.”
7. The Internet of Things represents a vision in which physical items become ‘smart’ objects by being equipped with sensors that can be remotely controlled and connected through the Internet. The Internet of Places focuses on the spatial dimension of the capacities that Web 2.0 offers. For an account of the Internet of Things, see Mattern, Friedemann and Christian Floerkemeier, “From the Internet of Computers to the Internet of Things,” in *Informatik-Spektrum*, 33 (2010): 107–121, <http://www.vs.inf.ethz.ch/publ/papers/Internet-of-things.pdf> (accessed February 20, 2014). For an account of the Internet of Places, see Giuseppe Conti, Paul Watson, Nic Shape, Raffaele de Amicis and Federico Prandi, “Enabling the ‘Internet of Places’: a virtual structure of space-time-tasks to find and use Internet resources,” in *Proceedings of the 2nd International Conference on Computing for Geospatial Research & Applications* (New York: ACM, 2011), 9.
8. For more on the concept of ‘concrete utopias’ see Ernst Bloch, *The Principle of Hope*, tr. Neville Plaice, Stephen Plaice, and Paul Knight, 3 vols (Oxford: Blackwell, 1986). Bloch differentiates between ‘abstract utopias’ and ‘concrete utopias,’ associating the latter with the possibility of producing real change in the present. ‘Concrete utopias’ should not be confused with seemingly similar theorizations such as Nicolas Bourriaud’s ‘microtopias,’ which structurally aim at preserving the existing status quo. Bourriaud asserts in *Relational Aesthetics* (2002) that “it seems more pressing to invent possible relations with our neighbours in the present than to bet on happier tomorrows.” Quite evidently, this approach stands far from the universalism that he advocates in his *Altermodern Manifesto* (2009) as a direct result of new technologies and globalization. At a time when neoliberal capitalism was entering its worst ever crisis, Bourriaud chose to largely ignore this context and build on a concept that – in the end – is apolitical and counter-utopian. ‘Post-internet art’ appears to follow a comparably dangerous trajectory.

# Suggestions for Art That Could Be Called Red

**What is Red Art? Or rather: what could Red Art be in today's post-communist, post-utopian world, a world shaken by conflicts engendered by contrary beliefs and ideologies which have little to do with communism?** A world in which countries and societies are disrupted by territorial disputes, and by bloody fights about questions of religious identity, national identity, and ideology? Where communism has been overrun by capitalism with rare exception; where the European left movement is weak. Where the post-industrial era has produced an economic reality that is orders of magnitude more complex, transnational and therefore more difficult to control or change, than history has ever seen. In this situation, can there (still) be art that deals with ideas of communism constructively, or does contemporary art look at communist ideals only with nostalgia?

And let's be clear: is art that simply speaks out against capitalism, globalisation and neo-liberalism from a leftist position – is this kind of art 'red' per se? Do we expect Red Art to be 'red' in content, for instance, in directly addressing topics such as class struggle, the negatives of capitalism and a new neo-liberal world order? And if it does, is it enough to be descriptive or do we want art to be more than that, i.e., provoking, forward-thinking or even militant? In 1970, Jean-Luc Godard drafted a 39-point manifesto *Que faire? What is to be done?* that contrasted the antagonistic practices of making political films and making films 'politically.' It called unequivocally for art that actively takes up the position of the proletarian class and that

aims for nothing less than the transformation of the world. With his legacy, what kind of objectives do we request from Red Art? Do we really still think that art can change the world or is that another idea from the past that has been overwritten by something that we like to call reality? Can art that is for the most part commercialised and produced in a capitalist art market be 'red' at all, or does it have to reject the system established by galleries, fairs and museums in order to be truly 'red'?

Decades ago, when artists started to use new media such as video and the computer, their works were 'new' in the way they were produced and distributed, and changed the relationship between artists and their collaborators as well as between the artworks and their audiences and 'users' respectively. Most of this new-media-based art circulated outside the ordinary market and found other distribution channels. The majority of works were inspired by a quest for the 'new' and consistently broke with old aesthetic principles and functions. Much of it was also driven by a search for the 'better,' by overthrowing old hierarchies and introducing a more liberal and inclusive concept of the world, based on self-determination and active participation. Last but not least the emergence of the Internet brought us a fertile time for new and revisited utopias and artistic experiments dealing with collaboration, distribution of knowledge, shared authorship, and appropriation of technologies. Today we know that neither the Internet nor any other new technology has saved us, but that the hopes for a more demo-

cratic world and alternative economies sparked by it have come true, if only to a minor degree.

So how do artists respond to this post-communist, post-utopian condition? What can be discussed as Red Art in the recent past and present? In this issue of Leonardo we have gathered some answers to these questions in the form of papers, essays and artworks, the latter produced especially for this purpose. Bringing together and editing this issue was challenging because we decided from the start to keep the call for contributions as open as possible and to not pre-define too much. We were interested in what kind of responses our call would produce at a moment when the world is occupied with other, seemingly hotter topics, and it is fascinating to note that the resulting edition quite naturally spans decades of art production and the respective 'new' technologies as they related to ideas of social equality and empowerment – from video art to net art to bio art. This issue shows that the search for alternative ideas and perspectives, and an adherence to leftist ideals is neither futile nor simply nostalgic. But that this search is ever more relevant, particularly at a time when European politics is seemingly consolidating and wars around the world are establishing new regimes of social and economic inequality.

**Susanne Jaschko**

# Why Digital Art is Red

**The divide between the art shown in major museums and art fairs and that associated with the new media scene has been deep and durable.**

Many critics have puzzled over it, particularly because there is much that the two realms share, including the desire to put people into unusual social situations.<sup>1</sup> Yet some of the reasons for the divide are plain enough, and they are about money, power and social distinction. The economic divide is across competing models of capitalist activity: the exclusive ownership of objects set against the release of reproducible symbols into networks with the ambition that they achieve maximum speed and ubiquity of circulation. The social divide is between a conservative club of super-rich collectors and patrons, and their attendant advisors, who buy their way into what they like to think of as a sophisticated cultural scene (Duchamp Land), against a realm which is closer to the mundane and more evidently compromised world of technological tools (Turing Land).<sup>2</sup> Power relations are where the divide appears starkest: in one world, special individuals known as artists make exceptional objects or events with clear boundaries that distinguish them from run-of-the-mill life; and through elite ownership and expert curation, these works are presented for the enlightenment of the rest of us. In the new media world, some 'artists' but also collectives and other shifting and anonymous producers offer up temporary creations onto a scene in which their works are open to copying, alteration and comment, and in which there is little possible control of context, frame or conversation.

This description of the divide has been put in extreme terms for the sake of clarity, and there are a few instances of the split appearing to erode.<sup>3</sup> Yet its persistence remains one of the most striking features of the general fragmentation of the fast-growing and globalising art world. That persistence rests on solid material grounds, laid out by Marx: the clash of economic models is a clear case of the mode and relations of production coming into conflict, and is part of a much wider conflict over the legal, political and social aspects of digital culture, and its synthesis of production and reproduction.<sup>4</sup> Copyright is one arena where the clash is very clear. Think of the efforts of museums to control the circulation of images and to levy copyright charges, while at the same time surrendering to the camera-phone as they abandon the attempt to forbid photography in their galleries.

So where is Red Art and the left in this scenario? Amidst the general gloom and lassitude that has beset much of the Left in Europe and the US, the development of the digital realm stands out as an extraordinary gain. It allows for the direct communication, without the intermediary of newspapers and TV, of masses of people globally – who turn out to be more egalitarian, more environmentally concerned and more seditious than the elite had bargained for. Alexander Cockburn, with his long career in activism and journalism, remarks:

*Thirty years ago, to find out what was happening in Gaza, you would have to have had a decent short-wave radio, a fax machine, or access to those great newsstands in Times Square and North Hollywood that carried the world's press. Not anymore. We can get a news story from [...] Gaza or Ramallah or Oaxaca or Vidarbha and have it out to a world audience in a matter of hours.*<sup>5</sup>

It is hard to ban social media, it has been claimed, because it entwines video fads, kittens and politics (and banning kittens looks bad). So the insight attributed by some to Lenin – that capitalists will sell us the rope with which to hang them – is still relevant.<sup>6</sup>

In an era in which the political and artistic avant-gardes have faded, the affiliation of the art world that is founded upon the sale and display of rare and unique objects made by a few exceptional individuals – in which high prices are driven by monopoly rent effects – tends to be with the conspicuous consumption of the state and the super-rich.<sup>7</sup> Here, the slightest taint of the common desktop environment is enough to kill aesthetic feeling. The affiliation of at least some of new media art is rather to the kitsch, the populist, and to the egalitarian circulation of images and words, along with discourse and interaction. New media artists who push those attachments work against some of the deepest seated elements of the art world ethos: individualism, distinction, discreteness and preservation for posterity (and long-term investment

value). It should be no surprise that they are frequently and without qualification denied the status of 'artist.'

It is also clear why the death of leftist ideas in elite discourse does not hold in new media circles, where the revival of thinking about the Left, Marxism and Communism is very evident.<sup>8</sup> The borders of art are blurred by putting works to explicit political use (in violation of the Kantian imperative still policed in the mainstream art world).<sup>9</sup> Very large numbers of people are continually making cultural interventions online, and value lies not in any particular exceptional work but in the massive flow of interaction and exchange. In that world, as it never could in a gallery, the thought may creep in that there is nothing special about any one of us. And this may lead to the greatest scandal of all: think of the statements that artists who deal with politics in the mainstream art world are obliged to make as their ticket of admission – 'my art has no political effect.' They have to say it, even when it is patently absurd; and they have to say it, even as the art world itself becomes more exposed to social media, and is ever less able to protect its exclusive domain and regulate the effects of its displays. So at base, the divide is economic, but at the level of what causes the repulsion from digital art – that puts collectors and critics to flight – it is deeply and incontrovertibly political.<sup>10</sup> They run headlong from the red.

**Julian Stallabrass**

REFERENCES AND NOTES

1. On the affinity between new media art and socially engaged art, including relational aesthetics, see Edward Shanken, "Contemporary Art and New Media: Toward a Hybrid Discourse?," <http://hybridge.files.wordpress.com/2011/02/hybrid-discourses-overview-4.pdf> (accessed March 31, 2014).
2. The reference is to Lev Manovich, "The Death of Computer Art," Lev Manovich's website, 1996, <http://www.manovich.net/TEXT/death.html> (accessed March 31, 2014). The complicity of both worlds with establishment powers has been criticised since the origin of the divide. For an early example of the engagement of computer art with the military-industrial complex, see Gustav Metzger, "Automata in History: Part 1," *Studio International* (1969): 107-109.
3. See Domenico Quaranta, *Beyond New Media Art* (Brescia: Link Editions, 2013), 4-6. Quaranta's book offers a thoughtful and accessible account of many of the aspects of the divide.
4. Marx discusses the effects of the transformations of the industrial revolution in the chapter "Machinery and Large-Scale Industry," in *Capital*. See especially, Karl Marx, *Capital: A Critique of Political Economy, Volume I*, trans. Ben Fowkes (Harmondsworth, Middlesex: Penguin Books, 1976), 617f. On the online synthesis of production and reproduction see my book, *Internet Art: The Online Clash of Culture and Commerce* (London: Tate Gallery Publishing, 2003), ch. 1. *Capital* is available online at <http://www.marxists.org/archive/marx/works/1867-c1/index.htm> (accessed March 31, 2014).
5. Alexander Cockburn, *A Colossal Wreck: A Road Trip Through Political Scandal, Corruption and American Culture* (London: Verso, 2013), 441.
6. According to Paul F. Boller, Jr. and John George it is a misattribution. See *They Never Said It: A Book of Fake Quotes, Misquotes & Misleading Attributions* (Oxford: Oxford University Press, 1989), 64.
7. On monopoly rent and art, see David Harvey, "The Art of Rent: Globalization, Monopoly and the Commodification of Culture," *Socialist Register* (2002): 93-110. Harvey uses Marx's example of vineyards as a prime example of monopoly rent: the wine from a particular vineyard is a unique product, like the products of a particular artist. The article is available here: <http://thesocialistregister.com/index.php/srv/article/view/5778/2674> (accessed March 31, 2014).
8. See, for example: Alain Badiou, *The Communist Hypothesis*, trans. David Macey and Steve Corcoran (London: Verso, 2010); Bruno Bosteels, *The Actuality of Communism* (London: Verso, 2011); Costas Douzinas and Slavoj Žižek, eds., *The Idea of Communism* (London: Verso, 2010) and the follow-up volume Slavoj Žižek, ed., *The Idea of Communism 2: The New York Conference* (London: Verso, 2013); Boris Groys, *The Communist Postscript*, trans. Thomas Ford (London: Verso, 2010). For the most concerted attempt to revise and extend Marxist thinking, see the journal *Historical Materialism*, <http://www.historicalmaterialism.org/journal> (accessed March 31, 2014).
9. See Joline Blais and Jon Ippolito, *At the Edge of Art* (London: Thames & Hudson, 2006).
10. Remember Bataille: "Communist workers appear to the bourgeois to be as ugly and dirty as hairy sexual organs, or lower parts [...]" Georges Bataille, *Visions of Excess: Selected Writings, 1927-1939*, ed. Allan Stoekl (Minneapolis: University of Minnesota Press, 1985), 8.



**Figure 1.** Entrance of the hacker space Kiberpipa, Kersnikova Street, Ljubljana, Slovenia, 2012. Photograph by Boris Magrini. Used with permission.

# Hackteria: An Example of Neomodern Activism

by

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## A BIO-LAB IN LJUBLJANA

**At the end of the stairs leading down to the underground Slovenian hacker space Kiberpipa, in Kersnikova Street in Ljubljana, there is a light box displaying the words:** “All our code are belong to you [sic].” The slogan is a reference to the well-known phrase from the badly translated Japanese videogame Zero Wing, that quickly became a favourite sentence among the global Internet and hacker fraternity. The

## ABSTRACT

*As a platform for knowledge sharing and artistic exploration, Hackteria constitutes a network of artists and researchers that merges the use of biotechnologies with hacking and do-it-yourself strategies. Its process-oriented and performative approaches, which oppose the materialistic imperatives of the art market, follow the tradition of political art. In this paper, I argue that Hackteria embodies what could be considered as a neomodern activism, other recent examples of which are emerging within the new media art field. Instead of rejecting controversial new technologies, they propose a vision of a society that is propelled by a more democratic use and discussion of these technologies. The activities of Hackteria are examined through the presentation of a bio-lab created in Ljubljana.*

light box at Kiberpipa states exactly the opposite of the famous meme. However, it conserves the syntactic errors that generated its appeal, and affirms that, instead of taking possession of a remote machine, they are sharing their software and knowledge. The idea of hacking is commonly associated with the image provided by Hollywood movies and the activities of Anonymous and their denial-of-service attacks (DoS) in the name of a free Internet. For this reason, hacker spaces like Kiberpipa make it clear that they consider hacking as a service to society, and distance themselves from the stereotyped image of the hacker as a cracker or pirate and align with the tradition and ethic described, for example, by Steven Levy in his survey on the history and philosophy of hacking.<sup>1</sup>

Invited to set up a temporary hacker space for biotechnologies, namely a bio-lab, and to coordinate a series of workshops at Kiberpipa, Marc Dusseiller added his touch to the light box slogan by writing the word ‘gene’ before the word ‘code.’ Based on the collaboration between Hackteria | Open Source Biological Art, the Kapelica Gallery and Kiberpipa, in November and December 2012, the BioTehna lab offered visitors and

participants the opportunity to experiment with bio-hacking while also providing an example of laboratory created on a low budget and using some do-it-yourself solutions. Between the numerous tools, cables, electronic devices and PET bottles containing algae, the book *Unscientific America* written by Chris C. Mooney and Sheril Kirshenbaum lay on a shelf in the lab.<sup>2</sup> At the time of its publication, the book warned about the high level of illiteracy in relation to scientific education in the United States, an illiteracy that ultimately harms the population while benefiting the private corporations engaged in scientific research, which derive advantages from the general lack of interest in and understanding of their activities. The authors consider the government and the media responsible for this situation to a certain degree. The presence of such a book in the lab clearly suggests that Hackteria considers workshops and knowledge-sharing as part of a broader political agenda.

The activities performed by Hackteria, of which the BioTehna lab is an illustration, are exemplary of a recent form of activism in the joint artistic and scientific environment. Instead of producing artworks



**Figure 2.** Workshop BioHacking Vs. BioPunk at the IMM\_Media lab, Zagreb, Croatia, December 2012. Photograph by Deborah Husic. Used with permission.

as commodities to be commercialized or consumed, Hackteria creates workshops for sharing knowledge and bridging art and science in an alternative and participatory way. While the creation of projects relating to art and science appears to be a current trend, especially in the artistic field, the activities of Hackteria differ from the many art and science exhibitions, conferences and events that often involve larger production costs and the participation of many celebrities. Rather than an artist group or a collective, Hackteria is a community platform that connects artists and researchers from several different fields and countries – although, for practical reasons, it is also officially constituted as an association. The activities are inevitably coordinated through the website, which states its mission as follows:

*As a community platform Hackteria tries to encourage the collaboration of scientists, hackers and artists to combine their expertise, write critical and*

*theoretical reflections, share simple instructions to work with life science technologies and cooperate on the organization of workshops, festivals and meetings.*<sup>3</sup>

The diversity of the members involved makes it difficult for them to effectively position themselves in one particular field, be it as researchers, hackers or artists. In this sense, Hackteria challenges the concept of identity and the implicit code of conduct determined by each specific field. Nevertheless, the role of Hackteria is pertinent in the existing artistic context and significant in the context of the new media art field. Hackteria provides examples of activities that push the boundaries of artistic practice in the tradition of performative and process-oriented art; moreover, it also illustrates a form of activism, or ‘hacktivism,’ that differs from the tactical media positions of the late 1990s which strongly characterized and contributed to the definition of the new media art scene.

#### THE ROOTS OF HACKTERIA: FROM PERFORMATIVE ART TO TACTICAL MEDIA

The events organized by Hackteria are rooted in a long tradition of media art as well as process-oriented and performative approaches. Performative art is not equivalent to process-oriented art; as Andreas Broeckmann correctly pointed out, “it only makes sense to speak of process-orientation in cases where the evolving process itself is a main factor of the aesthetic experience of the work.”<sup>4</sup> Nonetheless, neither performative nor process-oriented art focus on the creation of a finite product – a distinctive trait of the activities run by Hackteria. Furthermore, the BioTehna project, for example, combines performative, interactive and process-oriented qualities as it is not the lab, as such, that is meaningful to the artistic intent of the group, but the process involved in building and running it.

From the flourishing years of performative art in the 1950s and ‘60s to the most socially engaged actions of the ‘70s, as exemplified by Joseph Beuys’s work, performative art became established over the decades as

an important artistic practice of the 20th century. New technologies such as video recorders and computers were already incorporated into the performative practices of the early years, most notably by Fluxus. It is interesting to note, however, that performative art was often driven by a strong rebellious impulse directed at the art market, the authorities and private corporations. The use of new technologies was often subordinated to the provocative or dissenting character of the performances and happenings. Among the factors that made performative practices the ideal tool for engaging in political discourse was the fact that the performing artists did not aim to produce commercial goods but to engage, quite often, in close interaction with the audience. Lucy R. Lippard, for whom “activist art is, above all, process-oriented,” analyzed the close relationship between political art and performative or collaborative practices.<sup>5</sup> Among the most radical protagonists of performative art with a strong political agenda, Alexander Brenner and Barbara Schurer were

not being rhetorical when they called for the rejection, subversion and destruction of the works of commercially successful artists and the leading art institutions, both of which were viewed as symbols of the hegemony of a capitalist, globalized culture. In their eyes, “the demolishing of serious culture should be taken literally.”<sup>7</sup> If performative, process-oriented art were the appropriate political step for opposing the creation of commercial value, the destruction of physical works and institutions would be its logical final act.

During the 1990s, new media art became the popular expression for the identification of the field that emerged from the long tradition of artistic experiments with new technologies. New media art was certainly shaped in the 1990s by the development of the Internet on a global scale, however it was also one of the possible evolutions of the application of media tools to the documentation of the ephemeral actions of the performative and process-oriented art of the previous decades.<sup>8</sup> Together with the process-oriented approach, new media art inherited the militant peculiarity of performative works. More specifically, as asserted by Tilman Baumgärtel, net-art – probably the most significant emerging new media art practice of the 1990s – presented similarities with the hacker ethics and approach.<sup>9</sup> It is not surprising that terms like ‘tactical media’ and ‘hacktivism’ were used to describe the cluster of works that would characterize new media art in the late 1990s. The leading art critics and curators engaged in new media art – such as Christiane Paul, Inke Arns, Geert Lovink, and Joline Blais and Jon Ippolito, who helped to develop a vocabulary and a theoretical frame – stressed the fact that new media art was more about addressing questions relating to technology and society rather than creating works with fascinating new tools. Hence, for a new generation of artists engaging with technologies, particularly computers and the Internet, it was clear that to use them in an artistic context would

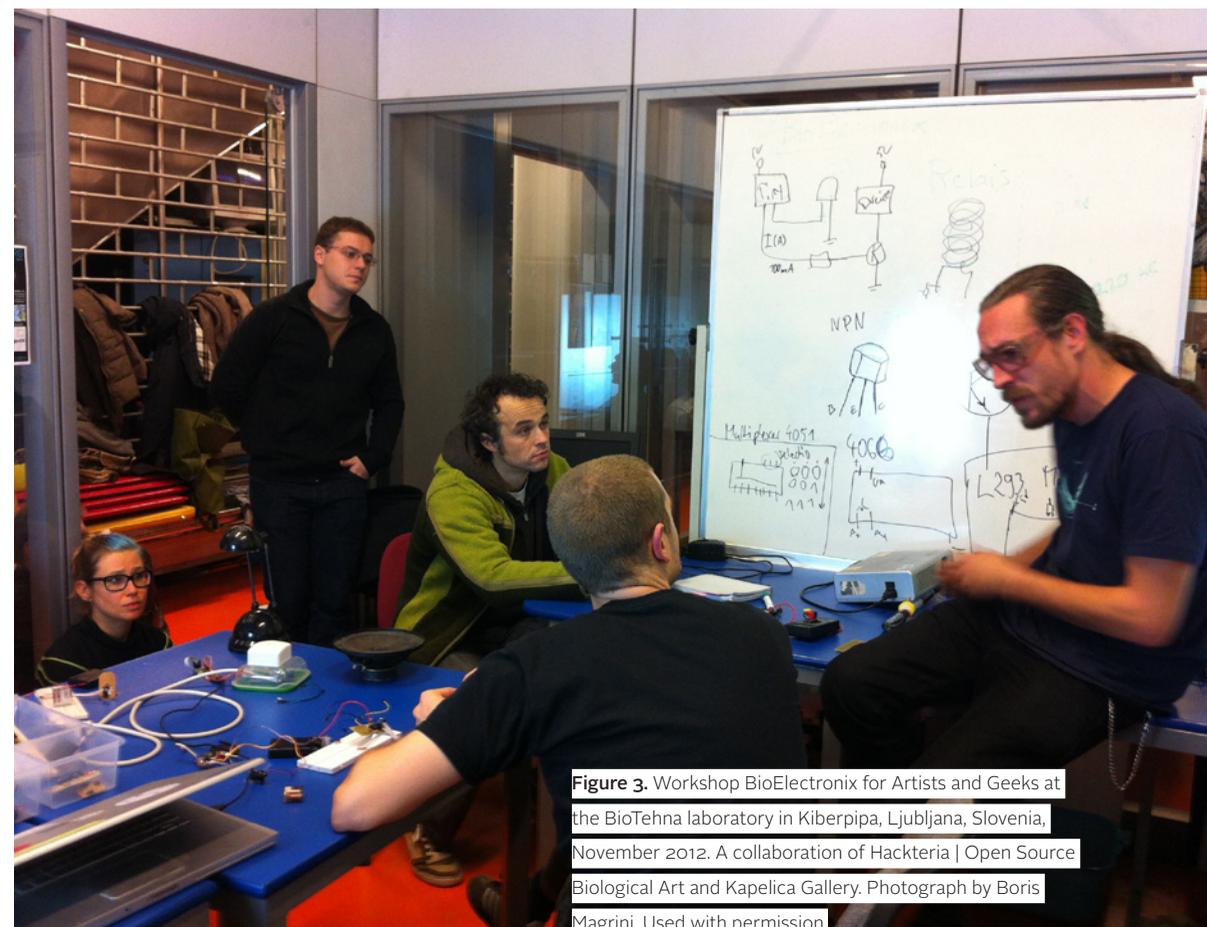
mean adopting a subversive strategy and working against them. In this context, the use of simple tools, do-it-yourself strategies and low budget productions were favoured by media artists, coupled with the drive to oppose the leading companies that governed the information technologies on a global scale and, more generally, capitalistic ideology. To infiltrate the Internet search engines (*Digital Hijack* by etoy), to hack commercial products (*The Barbie Liberation Organization* by RTMark), to challenge and alter the codes of software applications such as browsers and videogames (*Wrong Browser, Untitled-Game* by Jodi): these were the strategies that brought media artists to the international attention at the turn of the millennium.

It seems only natural that when biotechnologies became accessible to artists, similar strategies began to flourish. The Critical Art Ensemble, for example, approached biotechnologies by developing critical works and instruments for educating the public. Oron Catts and Yona Zurr from The Tissue Culture and Art Projects clearly affirmed their intention to reveal the hidden faces and real costs of tissue culture.<sup>10</sup> In his process-oriented work *Suspect Inversion Center*, Paul Vanouse recently recreated the Orenthal James Simpson gene-code from his own to demonstrate how easily DNA could be manipulated and suggest that it should not, therefore, be considered too hastily as objective proof, particularly in legal actions. Meanwhile, curators such as Jens Hauser strongly oriented their curatorial practice towards bio-art while critical theorists like Eugene Thacker and Alessandro Delfanti analyzed the political challenges of biotechnologies and the development of related hacking activities, thereby providing a theoretical vocabulary for the artists.

### BIO-HACKING ON A LOCAL SCALE THROUGH A GLOBAL NETWORK

Hackteria certainly grew out of the new media art tradition coupled with the recent interest in biotechnologies while, at the same time, inheriting the tradition's do-it-yourself approach, critical attitude and hacking strategies. During the press conference for the opening of BioTehna, Marc Dusseiller explained that, having obtained his Doctor of Sciences degree at the Federal Institute of Technology Zurich in 2005, it took him several years to find out what he wanted to do.<sup>10</sup> Having developed artistic projects alongside his academic career, he eventually decided to dedicate his time and energy to art without necessarily abandon-

ing the knowledge and experience he had gained as a researcher, but bringing it to bear instead in a more creative context. However, he was quickly dissatisfied with the artistic production and ‘buzz’ surrounding the flourishing art and science milieu; the emerging bio-art movement, above all, appeared to him as being overly compromised with the logic of commercial production which regulated the more traditional contemporary art scene.<sup>11</sup> Having co-founded the Swiss Mechatronic Art Society (SGMK) with Markus Haselbach in 2006 and created a hacker space in Zurich, together with artists Andy Gracie and Yashas Shetty,



**Figure 3.** Workshop BioElectronix for Artists and Geeks at the BioTehna laboratory in Kiberpipa, Ljubljana, Slovenia, November 2012. A collaboration of Hackteria | Open Source Biological Art and Kapelica Gallery. Photograph by Boris Magrini. Used with permission.



**Figure 4.** Detail of the BioTehna laboratory in Kiberpipa, Ljubljana, Slovenia, November and December 2012. Photograph by Boris Magrini. Used with permission.

he started Hackteria in 2009 during the *Interactivos?* workshop at Medialab-Prado in Madrid. The goal was to “develop a rich web resource for people interested in or developing projects that involve DIY bioart, open source software and electronic experimentation.”<sup>12</sup> Today, Hackteria has become a global network of people sharing similar ideas and goals around the application of hacking principles to biotechnologies; current members and collaborators include Nur Akbar Arofattullah (artist and student in microbiology and agriculture), Timbil Budiarto (civil engineer), Špela Petrič (microbiologist and media artist), researchers Brian Degger, Urs Gaudenz, Sachiko Hirose, and Rüdiger Trojok, and the institutions Lifepatch and Kapelica Gallery.

It is well known that hacking is not solely related to software: hardware, wetware and even social dynamics are subjected to hacking. However, the prohibitive prices of tools, gear and products related to biotech-

nology research made it impossible for hackers to experiment in this field until very recently. Today, it is possible to create a bio-lab with just a couple of hundred dollars using cleverly hacked devices and applying do-it-yourself solutions. This explains, in part, the growing interest in bio-hacking and the flourishing of hacker spaces around the world, which are introducing wetware research along with the more traditional focus on software and electronics. As already stated, hacking is often associated with piracy and cracking; not by the members of Hackteria, however, for whom hacking predominantly means manipulating a device so that it can perform a different task to that originally intended: to make a boiler out of a toaster, for example, or a microscope out of a game console web cam. To them, hacking is also intended, however, as a service to a community by creating open source and do-it-yourself prototypes that are explained, shared and constructed in workshops organized with local partners. Working on a local scale is another characteristic of Hackteria; Marc Dusseiller often refers to the book *Small is Beautiful* by the economist Ernst Friedrich Schumacher, who defended the importance of developing small economies and activities on a regional level, as an important source of inspiration.<sup>13</sup> This book also provided some interesting prescriptions for scientists and researchers, considering that only a technology with a “human face” will be capable of countering the consequences of the materialistic ideology. As Schumacher affirms:

*What is it that we really require from the scientists and technologists? I should answer: We need methods and equipment which are cheap enough so that they are accessible to virtually everyone; suitable for small-scale application; and compatible with man's need for creativity.*<sup>14</sup>

Instead of reacting against a technology that is often associated with capitalism, alienation or military war-

fare – for example by Herbert Marcuse,<sup>15</sup> Joseph Weizenbaum,<sup>16</sup> and more recently, Richard Barbrook<sup>17</sup> – Hackteria appears, instead, to put Schumacher's recommendations into practice. Through the creation of workshops and events that involve the local partners of artists and researchers with a view to offering them an opportunity to learn, share and discuss new technologies, as well as developing cheap and creative tools suitable for small-scale applications, Hackteria gives these technologies a human face. If some tools, such as glass-electrode micropipettes, web cam microscopes and hacked optical mice, are a way of approaching serious science, many other tools are developed in a more creative context, such as a Lo-Fi synthesizer created in a Tupperware container or an hybrid electronic-living system projector. As already observed by Denisa Kera, who affirmed that the “disruptive prototypes have simply a magical and anarchistic capacity to accommodate various uses, dreams, goals and needs and to connect people, contexts and various materials,”<sup>18</sup> all of the prototypes, on the other hand, share a punky, rebellious and playful note. A good example is the device *Fish to brain interface circuit* conceived by the artist Antony Hall, who was invited by Hackteria to give a workshop at the BioTehna lab while he presented his solo exhibition at the nearby Kapelica Gallery.<sup>19</sup> The device is a fish-shaped circuit with two light-emitting diodes, which blink at varying speeds determined by the level of humidity of the fingers that manipulates the device. It is simply an amusing gadget to be placed in front of closed eyes so that one can experience a psychedelic, unpredictable sequence of lights and colours – a way of bridging technology, mysticism and subculture humorously and also suggesting that hacking is not necessarily always about saving the world.

However, the main objective of Hackteria is to demystify the technologies that contribute to shaping our society and are, nonetheless, still poorly understood

by the majority of the population. Denisa Kera, Assistant Professor at the National University of Singapore, analyzed the recent development of hacker spaces, in particular in Asia, pointing out how they fulfil the role of informing civilians about scientific research, a role that the professional research laboratories have long relinquished due to being ruled by commercial and security imperatives.<sup>20</sup> Due the lack of knowledge about them, biotechnologies generate visceral fears in the population that range from the Promethean nightmare to the anthrax disaster; in the eyes of Hackteria, it is precisely for these reasons that it is necessary to educate the general public. However, the task of communicating the choice of applying hacking to the field of biotechnologies and introducing it to local communities is a delicate one. The dangers of biotechnology – a research field that encompasses tissue culture, genetics and many other wetware activities – exist, although they are probably overstated. In this respect, the members of the Critical Art Ensemble collective have been very active in throwing light on fears relating to bio-terrorism, suggesting that its real dangers are exaggerated by the authorities – the artists refers here to the US government in particular – in the interests of their political agenda.<sup>21</sup> Lack of knowledge and personal experience on a specific matter not only leads to fear and repulsion, it also allows greater manipulation of the general opinion of the personalities and institutions that have a vested interest on the matter.

Live science is a highly controversial and misunderstood field of research; by offering artists, laypersons and children the opportunity to experiment with a provisional bio-lab, Hackteria wishes to empower a larger community with some tools that will enable people to understand scientific progress and the current political discussion about new technologies. At the BioTehna lab in Ljubljana, artists, curators and amateur researchers learned to solder circuits, program

the devices through the Arduino platform, and apply some simple tools to biological research.<sup>22</sup> But above all, they learned the possibilities offered by recent technologies for building a bio-lab on a small budget and hacking devices to replace otherwise expensive instruments. During the workshop, and the several coffee breaks, some of the artists discussed the *Soft Control* exhibition, which had opened earlier at Maribor and Slovenj Gradec and presented works by some of the most prominent artists involved in biotechnologies.<sup>23</sup> They asked themselves whether they wanted to belong to the kind of bio-art presented in the show and they questioned the necessity of such large exhibitions presenting works produced using expensive resources and complicated technology, but which were very often shallow in vision and significance. Does media art, and in particular bio-art, have to produce works that are commercially viable and aesthetically entertaining in order to appeal to a wider public? Apart from these questions, they also reflected more specifically on the meaning and utility of organizing workshops. At Ljudmila, the well-known media art space in Ljubljana, some institutions that regularly engage in similar activities met during the month of November 2012 to share their knowledge and experience on organizing workshops in the field of new media and art.<sup>24</sup> Among the variety of topics discussed, the question of the utility and the necessity of workshops was hotly debated. The members appeared to agree that their main goal is to empower people, to move society forward, a vision strongly supported by the members of Hackteria. However, apart from this perspective, some of the participants highlighted another important one: workshops offer the possibility of bringing people from different horizons together, i.e. not only scientific ones, but also cultural and ethnical ones, for example. Bojan Markicevic, a collaborator at Atelier des Jours à Venir, presented the case of a workshop he organized in a village in which tensions rooted in the conflicts in the former Yugoslavia were still perceptible. The workshop, which is offered to children from different ethnic groups, gives them a rare opportunity to meet and work together and its significance goes beyond the mere aspect of learning about hacking and do-it-yourself tools.

The BioTehna lab, and the workshops in Ljubljana, is only one example from a long list of projects and col-

laborations that have been organized by Hackteria all over the world in its few years of existence. The platform has participated in some important festivals related to new media art, such as ISEA and Ars Electronica. It has organized workshops and activities in Zurich, Ljubljana, Los Angeles, and Yogyakarta, for example. Instead of attempting to bridge the gap between new media art and the wider fine art market, as several artists evolving in this scene are struggling to do, Hackteria pursues its philosophy based on open source and collaborative projects. Marc Dusseiller admits to considering his activity a political one. As he states:

*My hope is that by enabling more people to do science in their garages, kitchens and bathrooms, and by enabling more artist, designers and simply enthusiasts to work on various scientific projects, we will create a scientifically literate public, which can democratize decisions on stem cells, embryos, GMOs, nanotechnologies etc.*<sup>25</sup>

Elsewhere, he further explains that: "As a consequence of greater knowledge, people are also less susceptible to populist ideas from politicians or empty marketing promises from the corporate world."<sup>26</sup>

Given that Hackteria cannot finance its activities through the production of open source prototypes, it is strongly reliant on subventions from private and public institutions. The BioTehna lab and workshops in Ljubljana were financed through private and public funding with the collaboration of the Kapelica Gallery. The Swiss contribution to the enlargement of the European Union, a programme of the Swiss Federal Department of Foreign Affairs, the objective of which is to "help[s] to reduce economic and social disparities within the enlarged European Union,"<sup>27</sup> while at the same time "laying the foundation for solid economic and political ties with the new EU member states"<sup>28</sup> was among the project's key financial backers. This is interesting as it indicates that Hackteria's activities are recognized by the Swiss administration as eligible for support from a programme that focuses on social and economic development in foreign countries while also aspiring to establish new economic partnerships. On the other hand, it tells us that Hackteria must look for financial support in contexts outside the traditional

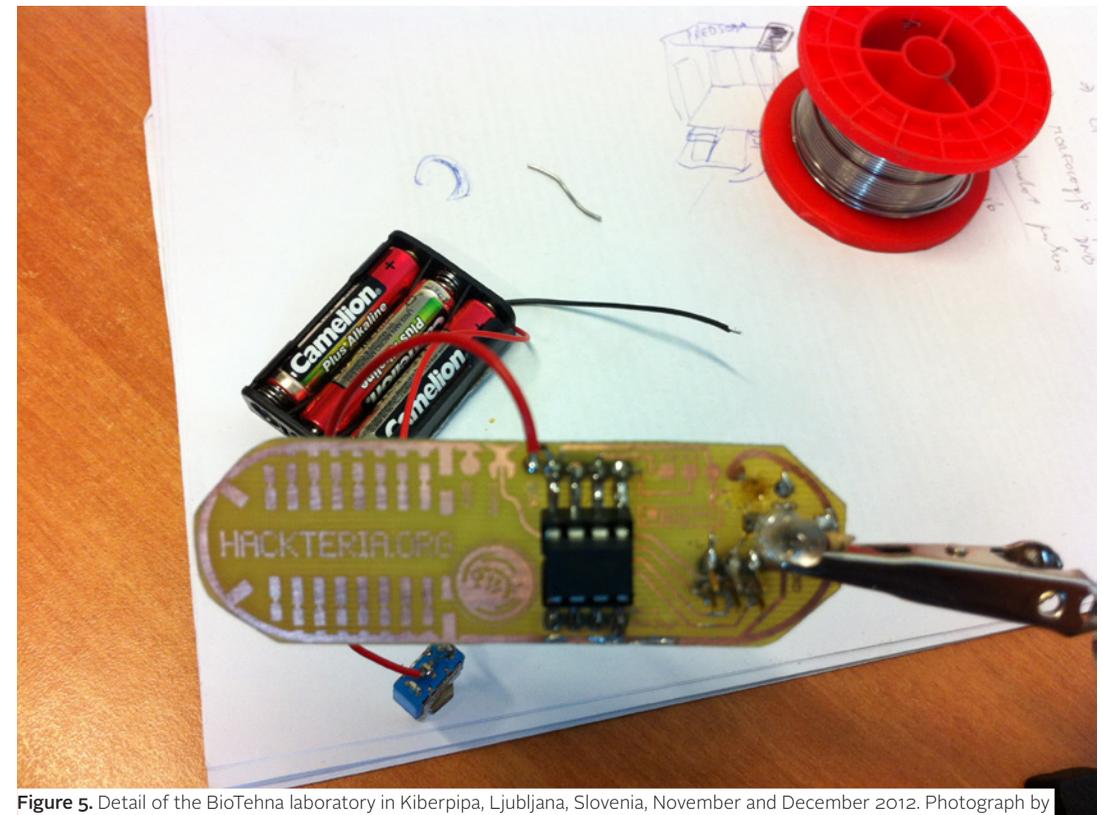


Figure 5. Detail of the BioTehna laboratory in Kiberpipa, Ljubljana, Slovenia, November and December 2012. Photograph by Boris Magrini. Used with permission.

subsidies that are usually solicited for cultural and scientific research. Hackteria's previous activities in Switzerland were financed by Sitemapping, the funding programme of the Federal Office of Culture, which was dedicated to new media art and digital culture and ran from 2003 to 2011. However, the programme was recently closed due to a restriction on the budget allocated to culture by the parliament and the consequent re-assignment of the associated responsibilities to Pro Helvetia, the Swiss Arts Council. Some other private institutions still finance new media art projects in Switzerland, for example Migros, which dedicates one percent of its income to cultural support with the Migros-Kulturprozent programme. However, apart from the activities initiated by the institution itself in the field, only CHF 50,000 are allocated to new media art projects per year. For Migros-Kulturprozent, supporting Marc Dusseiller and Hackteria was a logical move because "his project is based on the Do-it-yourself philosophy and he is bringing biological insights and know-how in many different fields, also to the field of the arts,"<sup>29</sup> as explained by Dominik Landwehr, Head of the Department of Pop and New

Media, who edited several publications on Do-it-yourself culture. Hackteria does not always fit in the category of art, however, since it does not produce works in the traditional sense, and it does not necessarily always participate in exhibitions. Moreover, its activities are often overlooked by other institutions that support cultural projects which do not have an adequate knowledge of recent media art strategies. This explains why Hackteria needs to develop other funding strategies to support its projects, and appeal to institutions with a mission dedicated to scientific research, economical development or social utility. For these reasons, the autonomy of Hackteria regarding the commercial fine art market may be challenged by its dependency on justifying its activities to these public and private institutions, particularly in a period of economic crisis affecting the global cultural policy.

## BIOTECHNOLOGIES AND UTOPIA

Numerous commentators predicted the end of painting during the 20th century, a prophecy that remains far from being fulfilled. Likewise, after the glorious years of new media art at the turn of the millennium, many theorists and historians consider today that strategies such as tactical media and hacktivism are coming to an end, while others question the future of media art per se.<sup>30</sup> If technologies are evolving and replacing each another at an exponential speed, it seems natural that a new generation of artists are inclined to appropriate them. Over the centuries, artists experimented with new techniques without necessarily discarding the older ones. There is nothing to suggest that artists will suddenly stop experimenting with new media in the future just as there is, equally, nothing to suggest that they will not draw, paint and photograph anymore, or even rediscover and appropriate discarded technologies in a 'media archaeology' fashion. Furthermore, there is no reason to believe that artists will stop addressing topics of relevance to society by subverting and hacking the future communication technologies. Hackteria is exemplary of a recent form of activism that uses and appropriates some of the most recently discussed and controversial technologies to develop performative and process-oriented activities addressing societal issues and bridging the gap between artistic and scientific research. Due to their multiplicity and variety of backgrounds, the members of Hackteria are difficult to classify under a single heading. Most importantly, Hackteria resists traditional classification because it refuses to follow the conventional protocols of scientific research, on one hand, and artistic production, on the other. From a commercial point of view, it is neither a professional research lab nor an artistic collective. In spite of this, its participation in important cultural festivals and symposiums worldwide along with its success in obtaining public and private funding demonstrate that Hackteria is far from being an irrelevant underground organization and that it has, on the contrary, established a name for itself.

The fact that Hackteria is invited to festivals like Ars Electronica and ISEA, that it is discussed in cultural magazines, and actively collaborates with artists and exhibition spaces clearly situates it in an artistic field, more specifically associated to the clusters of 'new media art,' 'art and science,' and bio-art. It is not the first – or last – example of a collaborative project working on a performative and process-oriented basis in the history of art. However, what mainly characterizes Hackteria is the ideology that drives its activities. Hackteria is a cultural and artistic project because it is driven by the idea that knowledge sharing and open-source projects and prototypes will create a better and more equal society: a better society because the dialogue and the network facilitated between researchers and artists will open new creative applications in the use of technologies that would otherwise be restricted to commercial uses. However, also a more equal society because the wide-reaching empowerment of citizens with tools for experimenting with new technologies through cheap do-it-yourself and hacked solutions will enable them to participate better in the political debates about such technologies. It is a rather Utopian vision, yet one that is coupled with a pragmatic approach involving action on a local scale. This is in line with the previously discussed prescriptions by Ernst Friedrich Schumacher but at the same time involves the development of a global network of local projects and partners, who and which inherit the McLuhan vision of a global community made possible by modern technologies. The philosophy underlying the activities of Hackteria could be considered Utopian to some extent; indeed, the reality concerning the costs and the requirements of scientific research makes it difficult to believe that any do-it-yourself lab will ever provide a successful solution that an industrial laboratory cannot provide. As Marc Dusseiller admits: "It's improbable that ideas for developing new drugs or solving the problem of world hunger will come out of this scene."<sup>31</sup> In fact, the

activism put forward by Hackteria is somehow more pragmatic than the majority of the tactical media activities of the late 1990s, which were strongly reliant on subversive strategies and confrontation. Despite providing an alternative to the dominant capitalistic system, the model of knowledge sharing and empowerment that it promotes is not incompatible with the current laws and economic regulations of our society. Indeed, even in the age of the Internet and even if open-source projects and free software are, in reality, a product of a free-market capitalist society, as lucidly analyzed by Lawrence Lessig, the consideration of knowledge and culture as something free is not as evident today as it might seem.<sup>32</sup> Another important and distinctive aspect of Hackteria, as opposed to the vast majority of activist practices of the 1960s and '70s and even some of the tactical media strategies of the '90s, is the belief that society does not need to refuse technological progress in order to improve. While technology has been considered by some critical theorists in the past as the tool of a capitalist society – as a means of improving productivity and attaining better control of workers and the consumers – Hackteria embodies a neomodern determination to merge technological progress and social equality. As Brian Holmes asserted in his contribution to the one hundred books of the thirteenth Documenta: "A movement without techné can't convince anyone of its capacity to materially reorganize society."<sup>33</sup>

One of the reasons why, following his involvement with the Swiss Mechatronic Art Society (SGMK), Marc Dusseiller decided to dedicate his time and energies to a project involving biotechnologies is that the tools for creating a bio-lab were becoming affordable to a wider public. Another reason could be that bio-art acquired international recognition during the first decades of the new millennium and is still considered the most avant-garde frontier in the new media art scene, hence the urge felt by younger artists to experiment

with these technologies. Above all, however, Hackteria was created in the hope of responding to a growing discrepancy between the researchers developing new products and tools and the authorities who regulate the research and the consumers. Biotechnologies continue to be extremely obscure and controversial and trigger resistance from the general population which misunderstands them. To bring them closer to the citizens is a political act, regardless of the field in which it is performed, be it artistic or scientific. This position is defended by Alessandro Delfanti in his academic research on the bio hacking emergence. For him open biology "is open circulation of information that has important political consequences, and the role of new media as tools for democracy is an important discourse underlying the whole development of information societies."<sup>34</sup> The success of Hackteria since its creation, the number of workshops it has organized, the network it has created, and the conferences and festivals in which it has participated signal that this peculiar political act undertaken by its members has succeeded in arousing some curiosity among a growing network of artists, researchers and a variety of other participants. And if curiosity ultimately leads to knowledge, the neomodern hacker Utopia may eventually lead to a better world indeed. ■

## REFERENCES AND NOTES

1. Steven Levy, *Hackers* (Sebastopol, CA: O'Reilly Media, 2010).
2. Chris C. Mooney and Sheril Kirshenbaum, *Unscientific America* (New York: Basic Books, 2009).
3. "About," Hackteria.org, [http://hackteria.org/?page\\_id=2](http://hackteria.org/?page_id=2) (accessed January 2, 2013).
4. Andreas Broeckmann, "Image, Process, Performance, Machine. Paradigms of Media Art Theory," in *Media Art Histories*, ed. Oliver Grau (Cambridge, MA: MIT Press, 2007), 201.
5. Lucy R. Lippard, "Trojan Horses: Activist Art and Power," in *Art after Modernism: Rethinking Representation*, ed. Brian Wallis (New York: New Museum of Contemporary Art and Boston: D.R. Godine, 1984), 343.
6. Aleksandr Brener and Barbara Schurz, *Demolish Serious Culture!!!, oder, Was Ist Radikal-demokratische Kultur, und Wem Dient Sie = or, What Is Radical Democratic Culture and Who Does it Serve? : ili, Shto tTkoe Radikal'no-Demokraticeskaja Kultura i Komu Ona Cluzhit?* (Wien: Edition Selene, 2000), 100.
7. For an historical analysis of the relation between media art and process-oriented art, see Rudolf Frieling "No Rehearsal – Aspects of Media Art as Process," in *Medien Kunst Interaktion – die 60er und 70er Jahre in Deutschland / Media Art Action – the 1960s and 1970s in Germany*, ed. Rudolf Frieling and Dieter Daniels (Wien: Springer, 1997), 163-169.
8. Tilman Baumgärtel, *Net.art 2.0: Neue Materialien Zur Netzkunst = New Materials Towards Net Art* (Nürnberg: Verlag für Moderne Kunst, 2001), 32.
9. Oron Catts and Ionat Zurr, "The Ethics of Experiential Engagement with the Manipulation of Life," in *Tactical Biopolitics*, ed. Beatriz Da Costa and Kavita Philip (Cambridge, MA: MIT Press, 2008).
10. Marc Dusseiller, presentation at the BioTehna press conference, Ljubljana, November 21, 2012.
11. Marc Dusseiller, interviewed by the author, October 1, 2012.
12. Hackteria, "About:"
13. The book is mentioned by Marc Dusseiller during the aforementioned BioTehna press conference.
14. Ernst Friedrich Schumacher, *Small Is Beautiful: A Study of Economics as if People Mattered* (London: Blond Briggs, 1973), 29-30.
15. Herbert Marcuse, *One-dimensional Man: Studies in the Ideology of Advanced Industrial Society* (Boston: Beacon Press, 1964).
16. Joseph Weizenbaum, *Computer Power and Human Reason* (San Francisco: W. H. Freeman and Company, 1976).
17. Richard Barbrook, *Imaginary Futures: From Thinking Machines to the Global Village* (London: Pluto Press, 2007).
18. Denisa Kera, "NanoŠmano Lab in Ljubljana: Disruptive Prototypes and Experimental Governance of Nanotechnologies in the Hackerspaces," *Jcom* 11, no. 4 (2012): 4.
19. The exhibition *Enki* inaugurated on November 22, 2012, at the Kapelica Gallery in Ljubljana, Slovenia. The artist Antony Hall presented the work consisting of a device enabling an interaction between the spectator and an electrogenic fish, resulting in a visual and acoustic experience.
20. Denisa Kera, "Hackerspaces and DIYbio in Asia: Connecting Science and Community with Open Data, Kits and Protocols," *Journal of Peer Production* 2 (2012), <http://peerproduction.net/issues/issue-2/peer-reviewed-papers/diybio-in-asia/> (accessed January 2, 2013).
21. Critical Art Ensemble, "Bioparanoia and the Culture of Control," in *Tactical Biopolitics*.
22. The BioTehna lab ran between November and December 2012 at the Kiberpipa hacker space in Ljubljana. During the lab, several activities have been organized, such as the workshops *BioElectronix for Artists and Geeks* and *Brain Hacking*, the symposium *Workshopology*, the workshop for kids *BioCyberKidzz* and the lecture *Kapitan Biopunk* by artist Julian Abraham.
23. The *SOFT CONTROL: Art, Science and the Technological Unconscious* exhibition curated by Dmitry Bulatov took place at the Koroška Art Gallery in Slovenj Gradec and at the Association for Culture and Education KIBLA in Maribor, Slovenija, between November 14 - December 15, 2012.
24. The symposium *Workshopology* took place at Ljudmila, in Ljubljana, on November 24, 2012. The participants were: Bojan Markicevic (Atelier des Jours à Venir), Marc Dusseiller (Hackteria), Deborah Husic (I'MM media Lab), Kristijan Tkalec (Hiša Eksperimentov, Kiberpipa), Miha Turšič (Institute Cultural Centre of European Space Technologies), Brane Zorman (Radio Cona), Antony Hall (artist), Borut Savski (artist), Tina Malina, Robertina Sebjanic and Uros Veber (Ljudmila).
25. "Hackteria: Interview with Marc Dusseiller," by Sara Tocchetti, *MCD - Musiques & Cultures Digitales*, no. 68 (2012): 47.
26. Max Celko, "The Revolt of the Hand-crafters: Interview with Marc Dusseiller," *W.I.R.E.*, no. 8 (2012): 88.
27. "Swiss Enlargement Contribution," *Swiss Agency for Development and Cooperation*, <http://www.contribution-enlargement.admin.ch/en/Home> (accessed January 2, 2013).
28. "The Swiss Contribution to EU Enlargement towards the East," *Swiss Agency for Development and Cooperation*, [http://www.contribution-enlargement.admin.ch/en/Home/The\\_Swiss\\_contribution](http://www.contribution-enlargement.admin.ch/en/Home/The_Swiss_contribution) (accessed January 2, 2013).
29. Dominik Landwehr, e-mail message to author, January 7, 2013.
30. See, for example, the warning call by Geert Lovink in his recent publication concerning the necessity of a renewal of tactical media strategies: Geert Lovink, *Zero Comments: Blogging and Critical Internet Culture* (New York: Routledge, 2007).
31. Max Celko, "The Revolt of the Hand-crafters: Interview with Marc Dusseiller."
32. Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (New York: Penguin Press, 2004).
33. Brian Holmes, *Profanity and the Financial Markets: A User's Guide to Closing the Casino* (Ostfildern: Hatje Cantz, 2012.) 14.
34. Alessandro Delfanti, "Genome Hackers - Rebel Biology, Open Source and Science Ethic" (PhD diss., Università degli Studi di Milano, Dipartimento di Matematica, 2009-2010), 17.



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