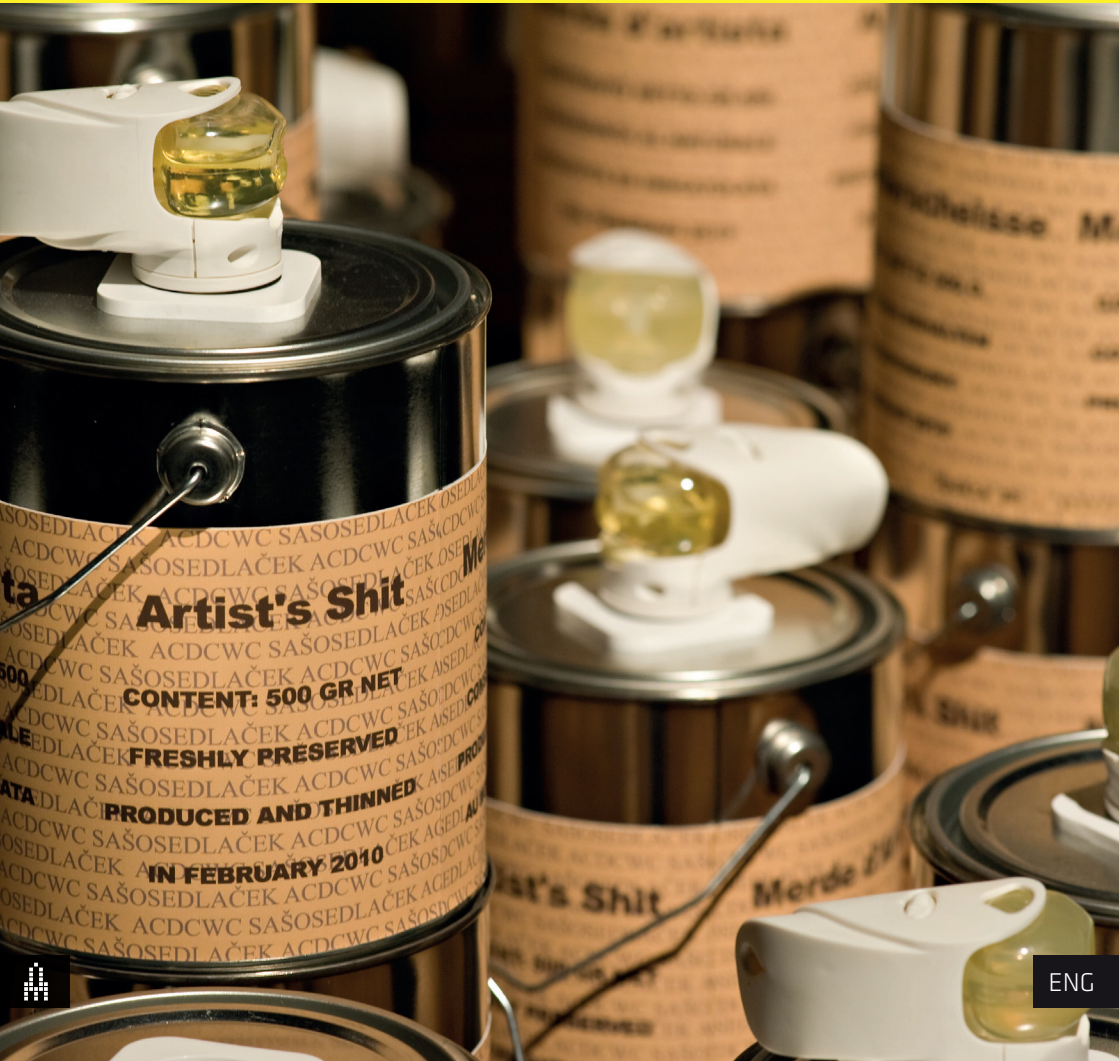
Tomislav Medak

SHIT TECH FOR A SHITTY WORLD



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Of waste, technological and human

Technology populates our world as waste. Obsoleted at a rapid pace, it becomes detritus filling shelves and landfills across the globe. E-waste in particular, hazardous for health and environment, mostly remains unrecycled. It is exported for processing and incineration to the dumping grounds of countries with lax environmental protection, poisoning their groundwater, atmosphere and populations. Yet paradoxically technology as waste is mostly obsoleted and rendered useless while still functional. Obsolescence is not the result of wear, tear and disrepair, but primarily of the advancement of technological systems, where improvements in performance and desirability of one aspect of functionality or design call for the replacement of other components. Technological advancement, the constant replacement of old technologies with new, is thus the dominant manifestation under which technology makes its appearance in our social world. While it populates the physical world as waste, it remains invisible as such, and appears in the guise of innovation, advancement and progress.

This duplicity of technology is a common thread running through Sašo Sedlaček's work: the real that suffuses the world of technology is its detrital character, yet it is made invisible by the dynamics of technological development. Behind the new productivity-raising automation and the shiny world of consumer technologies remains a trail of waste.

But if we take a step further in our analysis of technological development, we quickly come to realize that its direction and dynamics are not dictated by some neutral process of innovation. The accumulating technological waste is more than the disavowed ugly twin of progress. It is rather a sedimenting

material expression of capitalism as a mode of production and a form of social domination. Consequently, Sedlaček's concerns are the organic detritus – literally the human excrement that can be reused as an energy source; the surplus population of beggars whose socially abject work can be made easier through automation or the technologically unemployed whose avatars express their refusal of work; and the overproduction of useless stuff – such as supermarket flyers that are recycled into bricks to wall off the palaces of consumerism that produce them in the first place.[1] All these concerns point with a sense of bitter irony to the human waste that the relations of domination behind the technological development create and fail to address despite the enormous technological potential to do so. However, we don't intend to give here an account of Sedlaček's work. Rather we'll use it as a vantage point from which to consider how forms of social domination structure technological development in the present and how the present technological configuration is functional for the reproduction of those forms of social domination.

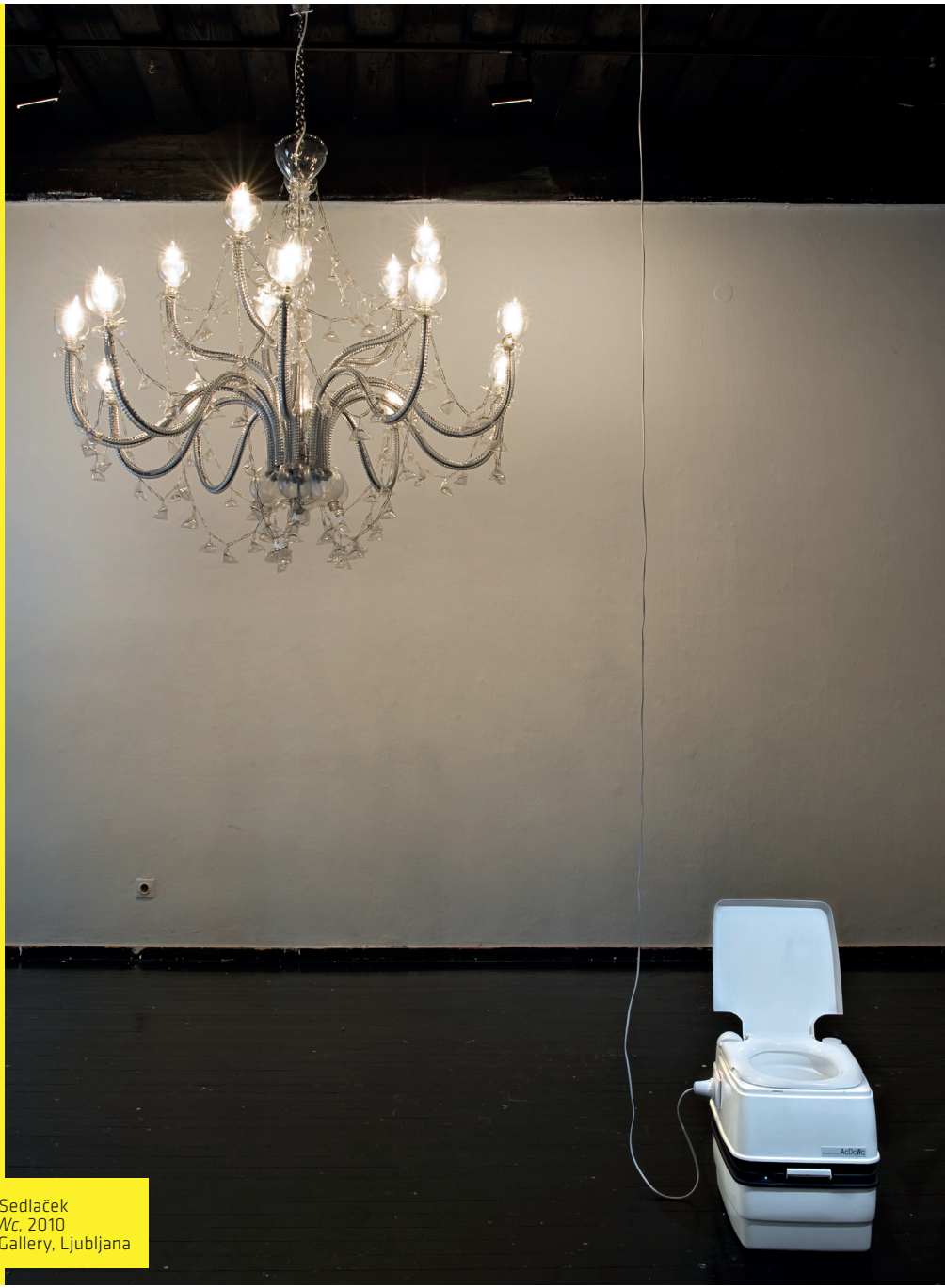
Structural dynamics of technological development

There's no denying that technology is a significant factor of progress in human history. Tools and machines are fundamental to the transformation of energy and matter that otherwise could not be achieved by human work, animal labor or plant metabolism. They are an important element in the satisfaction of natural and social needs in so far as they contribute to the mastery of nature, development of cooperation, longer life expectancy, health, higher quality of life, cultural exchange, communication and so on. At the same time, however, technology plays a major role in the reproduction of the global capitalist system, which is responsible for the uneven and combined development resulting in the cyclical immiseration and exploding depletion of planetary systems.

When we analyze technologies today, we are analyzing largely capitalist technologies. Even when they are developed outside of the capitalist

1 Here we're referencing the following works: *Toilets / Made in India* (2004), *AcDcWc* (2010), *Beggar Robot* (2006-), *Jobless Avatars* (2014), *Just do it!* (2003). For more on Sedlaček's works see: http://sasosedlacek.com.

Photo: Dare Sintič



Sašo Sedlaček
AcDcWc, 2010
Škuc Gallery, Ljubljana

enterprise, for example, for fundamental research, the public interest or military uses, their development is readily amenable to the needs of capitalist accumulation. This happens in two principle ways. Firstly, technologies are tools in the process of production. As such they are a part of the larger system of machinery of which Marx spoke in the *Grundrisse* as the "general social labor" that presents itself as an autonomous and impersonal productive force of capital. In the form of generalized technoscience, they stand opposite the labor force from whose skills they initially developed and whom they now subsume as an external and uncontrollable force into compliance with the laws of the motion of capital. The capitalist process of production does not only use technologies, but as it develops it starts to transform the process of production into an advanced technoscientific process whose development quickly transcends the level of individual workforce or individual capital.

As this impersonal force that organizes the production process in such a way as to maximize the productivity of labor, make the labor more dependent and generate more profit, technologies advance the forms of social mediation that dominate the workers. They help increase the separation between workers by detailed division of labor, the separation between the conception and the execution of the production process, and the separation between the workers and the command over the production process, undercutting whatever capacity of cooperation and combination between their labors they might develop to oppose the capital.

Secondly, technologies are consumer goods that are subject to similar economic rationality as technologies in production. The driver of their development is not the increase in productivity, but the expansion of commodification and the smooth realization of value in circulation. While consumer technologies are of immediate utility to the users, that utility is shaped by the need of companies to replace non-commodified aspects of life with commodified goods and services and to produce economies of scale that can maximize turnover and profits from their products. This has occasional positive feedback effects on the scale of adoption, standardization and development of individual technologies, but significant advancements and

even basic social needs are sometimes left unattended for reasons of missing economies of scale, disposable income or capacity to create a market monopoly that would make them worth investing into. Historically, we've seen superior technological solutions – innovative drugs that address health issues of the impoverished part of the world, advancements in communal infrastructure, technologies more efficient in the use of energy resources – all failing to be developed or established because of the lacking interest by capital.

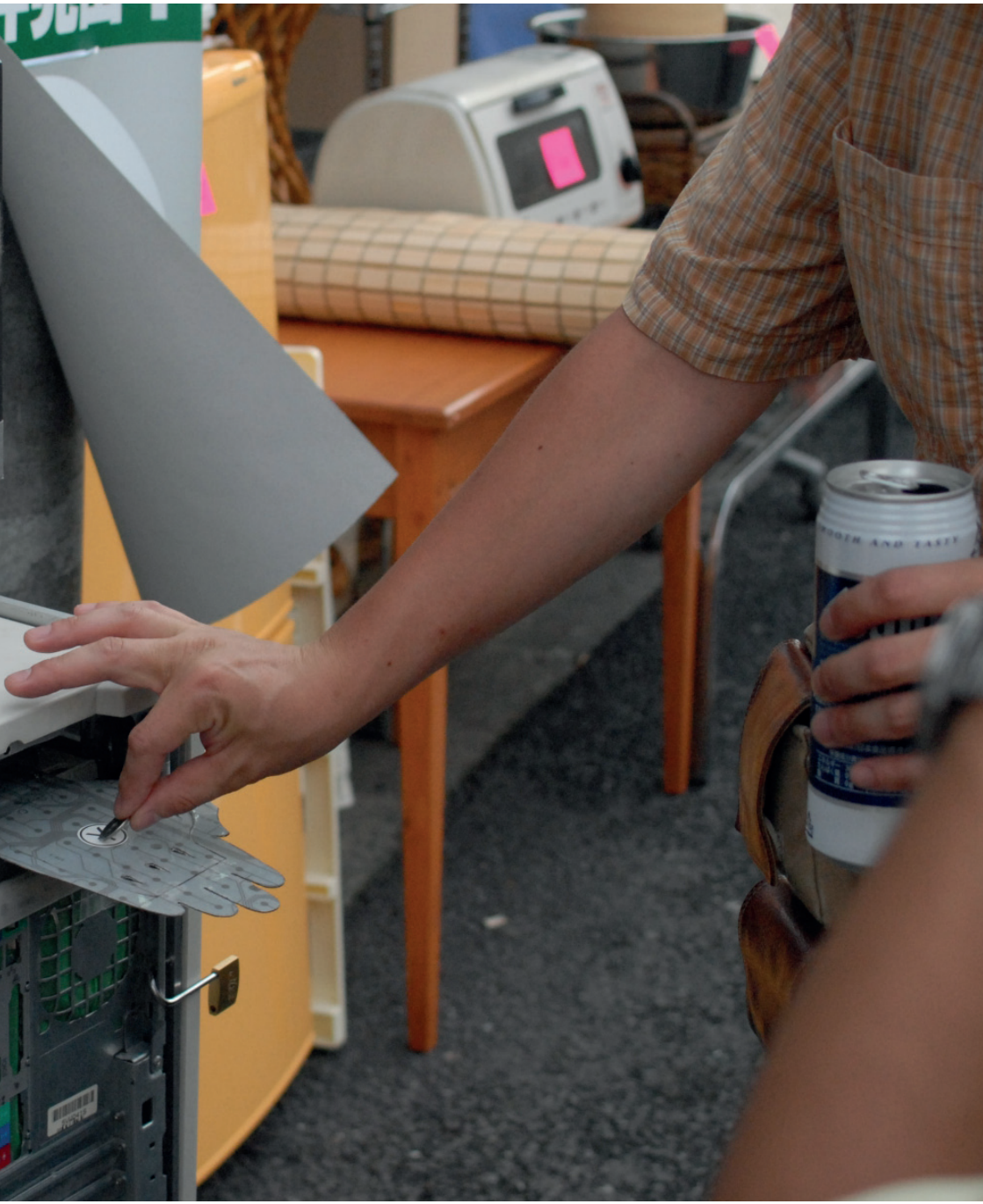
Configuration of technologies reproducing the present capitalist world-system
However, the relation between capitalism and technological development is not simply one-directional. Qualitative transformations of capitalism cannot be grasped solely from the general laws of motion of capital. Without the analysis of historically specific regimes of accumulation, we cannot understand its inherently contradictory character and the strategic space for its potential unmaking. Understanding a particular composition of technologies that are specific to a period of capitalist development is part and parcel of that endeavor of unmaking.

Contrary to what many have claimed, the contemporary capitalist system is certainly not transforming into an economy based on immaterial production. Rather, the opposite is the case. What lies behind the impression that Western economies have become cognitive and immaterial is the capacity to disaggregate and then coordinate the production process at an unprecedented geographic scale. The truly transformative technological advances over the last 50 years, advances that have addressed capitalism's structural crises since the late 1960s, have been in logistics, computing and systems integration, and management of food, energy and waste – all of which have trans-territorial scope. No longer separable are the Apples of this world from the Foxconns of this world, the liberal consumer paradises from the authoritarian processing zones, or the seamless global communication networks from the dirt, drudgery and wars of coltan mining.

Logistics. What is nowadays perceived as the process of post-industrialization (marked by the displacement of manufacture into the emerging economies

Photo: Hiromitsu Murakami

Sašo Sedlaček
Beggar robot 2.0, 2006
Cultural Typhoon, Tokyo, Japan



of South-East Asia) and the process of neoliberalization (marked by the depression of indirect and direct wages and the rise of credit and financialization) would not have been possible without the reorganization and integration of flows of resources, commodities and labor at a global scale. What has unfolded is not just a geographic displacement of production, but a transformation of the inner organization of the process of production to include a variety of sites distributed across the global logistical space.[2]

Global logistical chains have attained such a degree of vital importance for national economies that their vulnerability to disruption on even distant points of the globe have become an urgent concern for national and international security. This has led to the securitization of civilian logistical sites, military patrolling of high seas, war against the pirates and extension of border jurisdiction deep into the territories of foreign countries. At the same time, the restructuring of ports into highly automated shipment hubs, the replacement of port cities with free trade and processing zones and the capacity to exploit legal and illegal labor markets across the globe, have helped to carve out labor protections for transport workers, exploit immigrant labor at distant locations and discipline domestic labor in the countries of the capitalist core and semi-periphery.

Computing. Along with the standardization of intermodal transport, it is the systems analysis and systems integration by way of cybernetics and computing that have done most to propel the logistics revolution. However, as it has infused the material flows with the intangible abstractions of RFID signals, data points, algorithms and code that reach all the way down into their tiniest elements, the IT industry itself has become increasingly material, fixed and centralized. After the fast-paced expansion of the internet and its slow transformation into a commercial platform in the previous decade, which was mostly reliant on the more broadly distributed infrastructure of telecommunication networks, the IT industry has focused on huge fixed capital investments that would allow it to harness the computing power

2 For an excellent treatment of revolution in logistics, see Deborah Cowen, *The Deadly Life of Logistics: Mapping Violence in Global Trade* (University of Minnesota Press, 2014).

of large computer grids. Virtualization across distributed data centers and aggregation of data captured in electronic communication have allowed the IT giants to become new industry-level intermediates, while at the same time disintermediating the old industries.

Management of natural resources. The third powerful agent of present technological change is the technology associated with food, energy and waste disposal. Energy in particular is fundamental for capitalist development. In the technological mix under discussion here, there are close past and present affiliations between individual technological sectors. For instance, the early oil industry has birthed the civilian use of logistics and has stood at the forefront of creating flexible flows that subvert organized labor and labor protections.[3] Information networks have enabled the smooth running of energy supply networks. Both the logistics and IT sectors are energy-intensive industries, dependent on the stable supply of energy.

While just a decade ago peak oil seemed to pose a threat to the continued growth of energy consumption, the exploration of shale oil and wars in the Middle East have radically transformed the outlook. There's more oil in the market, and Arab producers are pushing prices down to run producers of more expensive shale oil into bankruptcy. It seems that there's now enough fossil fuel at relatively low prices to fully push the planetary boundaries beyond their critical levels.

Renewable sources of energy are advancing. However, in order to make a transition to a more sustainable global use of energy, orders of magnitude more money would have to be reallocated to renewables – and they would still produce lower energy outputs. With the energy consumption levels of developing nations outpacing those of less developed nations by a factor 5, 10 or more, we're not likely to see the change to a more just and sustainable energy use. On the contrary, global climate change places a higher and higher

3 For a detailed account of how the economy of coal extraction provided a basis for organized labor to claim social rights and how the economy of oil extraction provided a basis for their revocation, see Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (Verso Books, 2011).

premium on the capacity of more developed nations to pass the effects of global warming and waste production in general onto less developed nations.

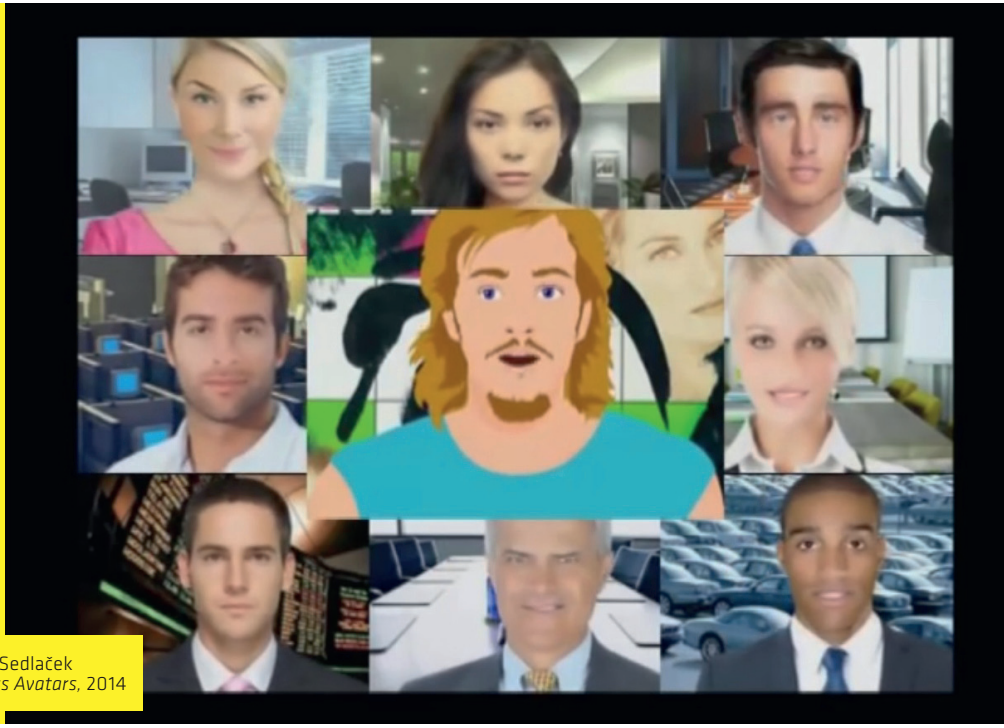
The waste produced by energy and material flows has to be deposited in natural systems, and as natural systems become more stressed through environmental pressures, the negative effects are increasingly pushed onto the struggling parts of the world. A case in point is the continued relocation of global industrial production of food to those societies and the growing use of fossil-fuel-based fertilizers to maintain yields from depleted soils, ultimately spoiling their lands and their food security for the benefit of more developed nations.

Alternative technologies and unmaking of the capitalist world-system

The management of planetary natural resources, computation and global logistical chains are the technological configuration that enables the uneven and combined development of the capitalist world-system. Returning to Sedlaček's works, their recurrent feature is that they deploy methods of re-purposing the technologies that grow in the shadows of capitalist technoscience – obsolete hardware, free software, alternative technology designs and indigenous techniques. But what can technological re-purposing of waste and re-purposing of technological waste, shit tech as it were, achieve in a shitty world? The marginal status that such alternative technologies have in the present world speak to the fact that technologies cannot in and of themselves lead to the overcoming of exploitation of the worker and spoliation of planetary ecosystems. As we can attest, they rather continue to mitigate the system's inherent crises and secure its reproduction. The post-capitalist transition will require a tide of political mobilization, unrest and fundamental social reconfiguration that cannot be prefigured. The disintegration of the planetary capitalist system will lead to the parallel disintegration of global technological systems. As no technologies stand outside of the existing social relations, we cannot be sure which technologies will survive into the post-capitalist world.

And yet the break with the capitalist system will require reliance on the old world in decay. Thus, we need to focus in the present on technologies

that maximize social use values and undercut the logic of disaggregation and integration of global production and circulation chains. Open pools of innovation, technologically advanced forms of smaller-scale production, renewable energy cooperatives, low-intensity trans-local exchanges and collectively managed infrastructures are some of the many aspects of technological and organizational change that an eco-socialist – equal, freely associative and sustainable, trans-local and internationalist – world might be based on. Thus they need to be seen as part of the register of anti-capitalist struggles just as the presentist repertoire of strike, sabotage, blockade and occupation. If social movements fail to understand that technology will condition the transition, and that a particular reconfiguration of technology should be part of their strategic register, judging by the experience of real existing socialisms, the day after tomorrow will increasingly start to revert back to the day before.



Sašo Sedlaček
Jobless Avatars, 2014

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