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Cornelia Klinger,

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An Essay on Life, Care and Death in the "*Brave New World*" After "1984"

The two most outstanding dystopian novels of the mid-twentieth century observe and anticipate technological development in relation to questions of human nature and culture, individual identity and close social relationships, matters of privacy and private life.

In his last novel, *1984*, George Orwell envisions the potential of interactive audio-visual media (the "telescreen") to supervise and destroy individual freedom and social relations under the sway of a totalitarian regime. In this context, intimate sexual affairs and maternal love are perceived as the last but powerless sanctuaries of revolt and resistance against the grip of an oppressive military dictatorship - to be overwhelmed and crushed in the end -- without hope.

In *Brave New World*, Aldous Huxley draws the image of a libertarian, benevolent and even caring society under no less totalitarian governance. Among many other blessings of technological progress (amenities and gadgets like individual flight devices) Huxley (fore-)sees the possibilities of chemicals (drugs) to 'liberate' sexuality from procreation, to reduce pain and induce pleasure, in short, to enhance life and its "lovely progress", while, at the same time, fulfilling the dream of authoritarian rule: the nightmare of artificially produced individuals who are sired in petri dishes and born into their *alpha*-, *beta*-, *gamma*-, *delta*- type places, roles and functions in a stratified society -- without escape.

Orwell and Huxley portray two different types or stages of human domination over human beings: Orwell's novel exemplifies the ancient strategy of sovereign rule based on the oppression of life through the construction of guilt under the permanent threat of capital punishment. In his "History of Sexuality", Michel Foucault describes this strategy as follows:

"The sovereign exercised his right of life only by exercising his right to kill, or by refraining from killing; he evidenced his power over life only through the death he was capable of requiring. The right which was formulated as the "power of life and death" was in reality the right to take life or let live" (Foucault, 1978).

Though death is the climax in the drama and the ultimate proof of power, it is the second alternative, to refrain from killing, which turns out to be more 'fruitful' in the long run. If the sovereign lets the subject live, s/he owes him his/her life, and therefore s/he is indebted and obliged to pay a ransom, a tribute or a service in exchange. The option "to let live" means a significant advantage over the option "to take life" - not only for the victim but also, and even more so, for the holder of power: While easing the threat of extinction it paves the way for exploitation. Under sovereign rule exploitation appears as:

"deduction (prélèvement), a subtraction mechanism, a right to appropriate a portion of the wealth, a tax of products, goods and services, labor and blood, levied on the subjects. Power in this instance was essentially a right of seizure: of things, time, bodies, and ultimately life itself" (Foucault, 1978).

In contrast, Huxley depicts a more advanced concept of domination in his brave new world. The term *biopolitics* which Foucault employs to distinguish the stratagem of the modern nation state from ancient sovereign rule corresponds Huxley's vision:

"... the ancient right to take life or let live was replaced by a power to foster life"
 "... a power bent on generating forces, making them grow, and ordering them, rather than one dedicated to impeding them, making them submit, or destroying them" ¹

This scheme does not aim at extermination but improves the "subtraction mechanism" by adding an element of 'care'. If the labour power and life energy of the underlings are to be exploited, life needs to be tended, cultivated and guided, monitored and policed. This advanced strategy still implies death ("to disallow" life "to the point of death", Foucault, 1978). But the more the outlook of domination shifts from oppression to exploitation, the less death (and violence, in general) figures as proof or apogee of power but rather as its failure or accident. We can observe this difference in comparing the two novels: Orwell's dystopia is marked by conflict and aggression; not only is there a never-ending global war going on in the background among rivaling governments of the very same type², there is also the constant fear of insurrection against the government of the Big Brother by ominous opponents. Huxley's world looks comparatively peaceful - nobody is oppressed or pressurised; everybody is equally cajoled or treated and drugged into compliance with an invisible government. There is hardly any opposition against the established system³, merely

¹ Foucault, History of Sexuality I, 138.

² Orwell's geopolitics imagines a three-partite planet, divided into East-Asia, Eurasia and Oceania.

³ In Huxley's concept there is only one world-system opposing or rather comprising an exterior realm of nature as a kind of reservation, a strange wildlife sanctuary.

casual 'accidents' that occur in the handling of instruments or material may cause disturbances.

Both, Orwell and Huxley take up and extrapolate into the future the cutting-edge technologies of their time. They explore the upshots of such developments under the reign of dictatorial regimes of the type they are witnessing to evolve in this era. Orwell describes the use of information and communication technology, media machinery and techniques to manipulate knowledge, indoctrinate beliefs and forge opinions. He illustrates the blending of severe censorship with alluring propaganda plus distracting entertainment, i.e. the push and pull of repression and attraction that the dictatorial systems actually bring to perfection over the first half of the 20th century⁴. The ingenious application of a technology-driven information and communication policy contributes significantly to the surprising popularity of totalitarian rule. Enticing and ensnaring advertisement which applies the rules of commercial promotion of goods to public, i.e. political relations turns totalitarianism into populism.

In comparison to the high degree of mastery in the use of ICT-tools, the bio-political experimentations in which these regimes also engage, prove far less successful. They fall short of fulfilling Huxley's dystopian vision of actually producing life in the retort. Their attempts to systematize and perfect the reproduction of life⁵ not only end in failure but are turned into an excess of extermination instead, culminating in industrialized death in concentration camps and in the second world war of the century (the first *fully* industrialized war in history).

Under the conditions of totalitarian regimes of the first half of the 20th century, the technology-driven media-policies and bio-politics start to threaten life *outside* in ways unheard of before while the sovereign power to take life reaches the possibility of a complete destruction of the planet by the atomic bomb at the close of this era.



The nightmares of totalitarianism dissipate with the defeat of National Socialism after 1945 and, at the latest, with the demise of the Soviet Union after 1989. At that same

⁴ There is an interesting class distinction in Orwell's story: The suppression of opinion and the indoctrination of the regime's own ideology are exclusively targeted at the elite, whereas the lower rank and file of the population is left alone to enjoy the pop-culture which is produced "by mechanical means" in the ministry of truth (called "Minitrue" in Newspeak): "There was a whole chain of separate departments dealing with proletarian literature, music, drama and entertainment generally. Here were produced rubbishy newspapers containing almost nothing except sport, crime and astrology, sensational five-cent novelettes, films oozing with sex, and sentimental songs which were composed entirely by mechanical means ... There was even a whole sub-section-Pornosec ... engaged in producing the lowest kind of pornography ..." (p. 41, cf. 126).

⁵ cf. Nazi experiments with "Lebensborn"

time, initially in the 1970s and 80s, a new wave of technological innovation is underway:

"... the world changed fundamentally in the 1970s and early 1980s. In this sense, the twenty-first century began during those years, for powerful forces that will shape the early part of the new century significantly appeared for the first time ... This new era has been called 'the information age' ... Whatever it is termed, it marks the beginning of something different in world history" (LaFeber, 1999).

At about the same time, or, a few years earlier, new societal unrest is exploding worldwide. The year 1968 epitomizes a neo-marxist, maoist, trozkist or whatever other branch of socialism to flourish over this 'short summer of anarchy' in the west, while revolts against post-Stalinist communism commence in eastern Europe and will finally succeed in 1989.

From afar this correlation between technological innovation and societal movement toward liberation from repressive governance that, all of a sudden, deems outdated bears resemblance to modernity in its original position.



The first big wave of modernization occurred as "a dual revolution: the industrial transformation pioneered ... in Britain, and the political transformation associated with ... France. Both implied the triumph of a new society" (Hobsbawm, 1997). It is well known that this "new society" of the early nineteenth century did not fulfil the promise of a universal emancipation of humankind under the banner of liberty, equality and solidarity. The diagnosis of the causes for this blatant failure was obvious at the time and remains valid up until today: Whilst the productive forces (*Produktivkräfte*) - including the manpower as well as the means of production - explode, the relations of production (*Produktionsverhältnisse*), stay more or less the same. In the *first* place, this is to say that the enormous flood of wealth that is produced in technology-driven industry by ever more hands and heads flows into ever fewer private pockets. *Secondly*, and equally important, is there a discordance in the dynamics of this mode of production: On the one hand, the process 'goes public' as it tends to embrace and connect ever wider circles of agents and thus calls for "Vergesellschaftung" -- socialisation, that is, social linkages without boundaries: global commonality or, world communism - *horribile dictu*. On the other hand, it is held back by societal conditions that favour private egoism and piggish gluttony. Narrow-minded self-interest, thrift and greed are the inert, primitive economic motives behind a highly elaborate, complex and boundless machinery.

In the early phases of industrialization not only Marx expected this bubble to burst: the outrageous incongruity between the masses of people who remain poor and get even poorer (*pauperized*) and the accumulation of incredible fortunes could not last. The conditions of production in private property treadmills and sweatshops should and would be resolved by a subsequent social revolution. The dream of liberating mankind did not only persist in theory, but "[b]ehind the bourgeois ideologists [like Marx and others, C.K.] stood the masses, ready to turn moderate liberal revolutions into social ones" (Hobsbawm, 1997). And indeed, by mid-century the awaited moment seemed to have come: 1848, "the famous 'springtime of peoples' was the first ... European revolution in the (almost) literal sense ... It seemed to be the culmination and logical product of the era of dual revolution". "... the dualism of the revolution of 1789 to 1848 gives the history of that period both unity and symmetry" (Hobsbawm, 1997). -- And yet, surprisingly and suddenly: "With the revolution of 1848 ... the earlier symmetry broke down, the shape changed. Political revolution "failed, universally, rapidly and ... definitively" (Hobsbawm, 1997).

In search for an explanation let us consider that the worst problems of the first stages of industrialization, namely the dust, dirt and danger of the heavy machines and the scandalous pauperization of the working class can be solved sooner or later within the limits of the evolving capitalist-cum-nation-state-system. As the machinery gets more and more sophisticated working conditions improve, they become bearable while the option of advanced jobs for workers as engineers, technician or managers of the fine-tuned instruments is opening up. The brute and brutal conditions of the early days which were the immediate cause for social revolt and political revolution in the nineteenth century are to be diminished by technological progress -- in addition to social engineering under the auspices of an increasingly democratic welfare state. Generally speaking, promoted underdogs will not bite the hands that feed them: The western working class is ready to be reconciled with capitalism as soon as people have just a little bit more to lose than their chains -- while the brunt of dirty work is delegated outside into the colonies of the 'third world' and is relegated inside into the patriarchal household. The phenomena of revisionism, imperialism and private patriarchy crop up at the same time. Nevertheless, this is an instable compromise.



Another coincidence between a big wave of technological innovation and societal commotion occurs almost exactly one century after the first one, around the turn of the 20th century. As the industrial revolution in Britain (1750/1770) preceded the political revolution in France (1789), the second industrial revolution in the west (since the 1870s) precedes the political uprisings in the aftermath of WWI (1917/18).

Usually, five categories are named as characteristics of this new leap in the process of modernization: (1) electricity and all its spin-offs; (2) the internal combustion engine and its subsidiary developments; (3) running water, indoor plumbing, and central heating; (4) petroleum, chemicals, plastics, and pharmaceuticals; and finally (5) "the set of communication and entertainment devices invented within the remarkably short period between 1885 and 1900, including the telephone, the phonograph, popular photography, radio, and motion pictures" (cf. Gordon 2012). These technological innovations (concomitant with less visible, hardly accessible but even more fundamental scientific discoveries that topple the symbolic order of time and space) converge with a radical cultural revolution affecting the production and reproduction of signs and sounds, words and pictures in all branches of the arts, including architecture with wide-ranging implications for the ways of thinking and of everyday life.

This second occurrence of a dual revolution reaches its climax and a decisive turning point as a result of WWI. Whereas the first wave affected the advanced European nations, Great Britain and France, and liberated what were to become the United States from their rule, major political uprisings in the wake of WWI put an end to the remaining *anciens régimes* of the houses of Romanow, Hohenzollern, Habsburg, Savoy and other European monarchies. The emerging regimes rising from the ashes of falling empires immediately claim the idea of a social revolution, of socialism on an international scale - and thus the (in-)famous "spectre" haunting Europe reappears.

And yet, the world revolution does not take place, the commotion amounts to nothing but belated bourgeois revolutions⁶, making an effort to catch-up with technological progress in backward countries⁷, while staying within the confines of one country respectively (Stalin 1924). Since the political system remains attached to the principle of territory⁸, the wished-for international/ global social revolution collapses into nationalism⁹. However conditions and circumstances may vary, under the auspices of national socialism or socialist nationalism, the revolutionary drive pushing towards socialisation of the productive forces (*Vergesellschaftung der Produktivkräfte*) results in nationalisation (*Verstaatlichung*) instead: either of the Soviet type (supposedly in accordance with the Marxist doctrine to expropriate the expropriators) or, it takes a pernicious ethnic turn, using racist ideology to target and expropriate Jewish capital in Nazi Germany. In both ways the obnoxious contradiction between progressive forces of productivity (*Produktivkräfte*) and tenacious relations of production

⁶ In the case of Russia it takes the form of an overhaul of a failed bourgeois revolution.

⁷ cf. Lenin's famous GOELRO-plan for the electrification of Russia, 1920-1960.

⁸ As a brief reminder: the early aspirations to cosmopolitanism in the Age of Enlightenment were already thwarted under the reign of Napoleon which sparked off processes of nation-building all over Europe and the world with devastating consequences for the twentieth and twenty-first centuries.

⁹ In Germany and Italy this problem seems aggravated due to belated processes of nation-building.

(*Produktionsverhältnisse*) is not resolved but exacerbated. Nationalisation (*Verstaatlichung*) does not achieve but betrays socialisation (*Vergesellschaftung*).

Once more: While "[p]olitical revolution retreated, industrial revolution advanced" (Hobsbawm, 1997). Somehow the belated nation states, the thwarted socialist regimes have to come to terms with modernity. This results in futurism, in fascism or (to use a broader term:) in "reactionary modernism" (Herf, 1984). Unlike conservatism, reactionary modernism is not about preserving the past, time-honoured habits and traditions, old-time religions, long-standing ways of life or any other remnants of bygone days. Reactionary modernism is bent upon instrumental progress¹⁰ while severing technological advancement from the promise of concomitant social and political liberation. In this fashion, reactionary modernism may expedite the zeal for modernisation of somewhat hesitant or sluggish well-established elites, on the one hand, while, on the other, it abuses the yearning of the masses for security, identity and belonging. The search for origins and roots in ancestral blood and soil that reactionary modernism propagates is becoming hopelessly futile with every day the electrification of any backward country proceeds. This deeply contradictory amalgamation of forward and backward outlooks is held together by the authoritarian leadership of an overarching surrogate father figure or rather, by iron-clad big party brothers who do not overthrow but assume the power of industrial capitalism. Capitalism is not abolished but converted into state capitalism. Blending the advancement of the non-personal, anonymous, neutral apparatuses of capitalist industry and political administration (i.e. bureaucracy), with a pseudo-personal, pseudo-sacral, pseudo-patriarchal *Führer*-cult combines the worst elements of two types of governance, sovereign rule and biopolitics.

Despite the enormous power reactionary modernism is capable of deploying in the catch-up race of backward or belated nations it soon proves a fateful error. The attempt to merge the process of rash technological progress with reactionary societal relations under the dictate of a one-party system or one-man rule does not dissolve the original contradiction between forward pushing, liberating forces and established power relations but drives the quandary one step further and, indeed, over the edge. The disastrous aberration of reactionary modernism is turned to dust and drowned in the blood of WWII.



In an opening address to an important west German conference on "Late Capitalism or Industrial Society", Theodor W. Adorno asserts: "The signature of the age is the

¹⁰ Including fickle flirtations with aesthetic modernism or fashion

preponderance of the relations of production over the productive forces which decry them"¹¹. Adorno's statement summarizes the return to the 'normalcy' of liberal capitalism after the totalitarian catastrophes of the earlier twentieth century. With a pinch of the famous 'irony of history' Adorno makes this statement in the very same year that marks the advent of a third dual revolution: 1968.

In comparison to 1848 or 1917, 1968 means a less forceful bid for a social revolution but sparks off a previously unheard of cultural revolution. However eager the leaders of the student movement may have been to integrate at least some figureheads of what they identify as the working class into their struggle, their rebellion is a youth movement borne by the sons and daughters of the elite - the offspring - if not of the bourgeoisie as the propertied class (*Besitzbürgertum*) but, all the more, of the educated middle class (*Bildungsbürgertum*). In a sense, the student revolt may be perceived as another form of an overdue bourgeois revolution. In this case it is not backward countries struggling to catch up with modernity but the younger generation of the bourgeoisie trying to overhaul the process of modernization their forebears initiated or participated in but did not accomplish. In fact, modernization seems to imply a "permanent revolution" in more than one respect.

The traits of the cultural revolution come to the fore as this short-lived juvenile student revolt ramifies into various directions of so-called New Social Movements to make their appearance soon after the end of the 1960s. Leaving behind socialist vestiges, so eagerly recollected only a few years afore, these movement do not exactly engage in social, i.e. class questions in the traditional sense of *having* a fair share in goods of all kinds but put topics on the public agenda that were heretofore either unknown or went unnoticed as 'private matters' of *being*. Now a wide gamut of subjects is opening up: ranging from global peace in the age of the atomic bomb, the care for the natural environment, ecological and health questions, to women's liberation and further through to matters of sexual, religious and cultural diversity under the impact of migration and general mobility. These multi-faceted and seemingly disparate perspectives converge as all of them raise issues of nature and culture, the (re-)production of bodies and signs, on a global scale.

Such aspirations coincide with the latest sky-rocketing technological innovation as it gains momentum over this period. Once again, technology seems apt and ready to

¹¹ "Allzu optimistisch war die Erwartung von Marx, geschichtlich sei ein Primat der Produktivkräfte gewiß, der notwendig die Produktionsverhältnisse sprengt ... Die Produktionsverhältnisse haben ... durch Flickwerk und partikuläre Maßnahmen die losgelassenen Produktivkräfte weiterhin sich unterworfen. Signatur des Zeitalters ist die Präponderanz der Produktionsverhältnisse über die Produktivkräfte, welche doch längst der Verhältnisse spotten" (Adorno, 1968) (Adorno, Theodor W.: Spätkapitalismus und Industriegesellschaft (1968). In: Ders: Gesammelte Schriften. Bd. 8: soziologische Schriften 1. Hg.v. Rolf Tiedemann. Frankfurt: suhrkamp 1980². S. 354-370, S. 363).

deliver what the new movements demand: free and equal access to the entire knowledge base of humankind (including the archives of history) to be present at the tip of your fingers; democratisation through world-wide-web-communication with anybody, anytime, anywhere; smart and soft technology to replace fossil energy and to boost human life energy; in short, having plus saving the cake of liberated nature and eating, consuming the cake of culture - in a democratized or popularized version - at the same time. Individualized autonomy of humankind by dint of universal command over nature and culture seems at hand.

As the timespan since the inception of this latest impulse toward a dual revolution has grown long enough today, we see the subsequent act of the by now well-known drama on stage again: Political, social, cultural revolution is retreating, (post-)industrial revolution is advancing (cf. Hobsbawm, 1997): The hopeful steps taken during the late 1960s and 70s towards a dual revolution wind up in a triumph of techno-turbo capitalism labelled as neo-liberalism. The high tide in the high-tech-development encourages the capitalist economy to shake off the fetters of nation state governance. Dismantling the western welfare-state under the sway of globalization the newly techno-driven market economy moves into the hegemonic position. Unlike its nineteenth-century ancestor the neoliberal economy is not any longer one among several semi-autonomous sub-systems striving for self-regulation but is stepping up to regulate all other sectors of the society. This amounts to an audacious attack to shift the rule from state to market as the organizing principle over the societal process in its entirety.

Ten years after Adorno stating the return to liberal capitalist normalcy under the rubric of "late capitalism", Ernest Mandel elaborates on this same notion. Writing in 1978, virtually on the eve of the massive onset of the latest industrial revolution, Mandel envisions what the turn from late capitalism to neoliberalism will bring about in the decades to follow:

"... late capitalism ... constitutes generalized universal industrialization for the first time in history. Mechanization, standardization, over-specialization and parcellization of labour, which in the past determined only the realm of commodity production in actual industry, now penetrate into all sectors of social life ... The industrialization of the sphere of reproduction constitutes the apex of this development ... The 'profitability' of universities, music academies and museums starts to be calculated in the same way as that of brick works or screw industries ..." (Mandel, 1978).

Mandel singles out "universities, music academies and museums" to illustrate the daunting effects of "the industrialization of the sphere of reproduction". Indeed, the transmutation of the institutions of arts and sciences into enterprises competing on markets for gain, is one important component in this process, much lamented and

commented on by scholars and artists in recent years. However, the scope of the sphere of societal reproduction is far broader than Mandel suggests. In fact, the "industrialization of the sphere of reproduction" not only relates to the (re-)production of *signs* but comprises the (re-)production of *bodies* as well. May this new era be called "the information age", it is not about information only. If "it marks the beginning of something different in world history" (LaFeber, 1999) it is because it is at the same time the era of bio-capitalism intending to industrialize the (re-)production and care for human and non-human life in all its natural and cultural aspects.

As a reminder, both developments already originate with the second industrial revolution around the turn of the twentieth century: The recent third-wave-inventions of computing systems and worldwide webs of virtual transmission stand in a line with earlier second-wave accomplishments like telegraph and telephone, cinema and television. The discoveries of the life sciences that bring forth a vast array of therapies, surgeries and drugs carry on the evolution of "chemicals, plastics, and pharmaceuticals" that figure as no. 4 on the list of innovations of the second industrial revolution (cf. Gordon quoted above). It was the level of development that these two fields have reached by the 1930s to 40s that caused the headaches of Orwell and Huxley. At the present stage of technological innovation the ICT (that was Orwell's concern) and the prospects for the then comparatively less advanced life sciences and bio-technology (as they occupied Huxley's imagination) come together as microelectronics and microbiology. Over much of the twentieth century the two fields did not progress at the same pace and remained divided. The fact that they converge today can hardly be overestimated.



The realms of the sign and of the body, σῆμα and σῶμα - only one letter apart in the wise Greek language -- no, this tiny one-letter gap is not overcome in harmony but sign and body fuse under the reign of the digit, the calculus, the algorithm that distorts the body as much as it disfigures the sign and disgraces both of them. Since the beginnings of modern mathematics and science the figure zero commands the discovery of the macrocosm as well as the conquest of the microcosm. Today, both branches of technology pursue similar paths into 'the very small' (*nano*¹²-technology), while they bring forth the gigantic¹³: big data, globalization and the proliferation of

¹² The dwarf in the name (νάνος); One nanometer (nm) is one billionth, or 10^{-9} , of a meter.

¹³ "das Riesige" -- in Martin Heidegger's terminology

enormous heaps of bubble money¹⁴ in the finance sector of the economy alongside the even more enormous amount of bubble infotainment. Under the label of globalization the exploration, exploitation and stratification of the exterior spaces, i.e. post-colonisation, is widely discussed. While there seems to be no more '*outside*' space in the exterior world, the invasion of the interior spaces of body, soul and mind as well as of the most remote nook and cranny of intimate social relations, the caves and crevices of intimacy and privacy, which is taking place simultaneously, may prove even more powerful and specifically awesome: There seems to be no more 'inner' space, either. Reality has become a flat screen in the relentless process to quantify all qualities.

Of course, we may understand the recent developments as a continuation of many centuries of scientific explorations and of the previous technological revolutions; in many respects they prolong and promote, accelerate and expand the dynamics that the earlier waves of innovation have spawned¹⁵. But besides the aspects of quantitative extension (faster, further, higher into the macro spheres of outer space - smarter, flatter, smaller into the micro spheres of inner space) there is a *qualitative* difference: The first waves of the technological revolution promise to and, certainly, do increase material prosperity, wealth and welfare. This implicates the command over objects and services in order to overcome the notorious poverty of life and to fulfil the basic external needs for food and stuff, for filling and stuffing the void. Miraculously, these essential needs evolve into countless wishes and an endless desire for fulfilment, for more food for thought and stomach, for goodies and gadgets of all kinds. The means and instruments, vehicles and devices are improved and augmented that are apt to console the scarcity of life.

However, the latest wave reaches beyond the comfort that *external* need satisfaction and luxury may provide. Instead of *wealth* the new promise is *health* for the material that we are made of, in order to remedy the intrinsic neediness of our selves, not only filling the holes, but curing the lack of life, overcoming the limits of our (material) duration along with the limitations and flaws of our (virtual) knowledge; in short, helping and healing our physical, mental and intellectual frailty, fragility and debility. The expectation is not only well-*faring* but well-*being*/ well-*ness* (self-)improvement, enhancement of life in pursuit of the old fantasy of omnipresence and omniscience. The recent waves of the industrial revolution are targeting the categories of being and consciousness immediately and completely. Progress is drawing closer to what we *are*: that is to the material body as well as to the immaterial spheres of soul and mind and to the *signs of life* they produce together, to the various levels on and

¹⁴ Apart from language, *money* is the most important sign system humanity ever invented. In the recent evolution of the money market into a technology-driven semi-autonomous system, money seems to lose the last remnants of a material reference and becomes completely virtualized.

countless languages (verbal and non-verbal languages, sounds and images) in which we interact and communicate, converse and deal with one another, to the manifold ways in which we entertain and amuse ourselves, and, last but not least: it involves the serious ways in which we *care* for ourselves as well as for and about others, how we crave or grieve for one another. This involves no longer the level of means only; it attains the echelon of ends and purposes, the sense and sensibility of life, our highest capacities and deepest capabilities of thinking and dreaming, loving and loathing, imagining and conceptualizing in all fields of human activity such as teaching and learning, nurturing and nursing, taking care of ourselves and the other, *le souci de soi et de l'autre* including the pleasures of being *sans souci*: *die Lebenssorge und Sorglosigkeit, die Last und Lust des Lebens*, the whole panoply of life ranging from joy and enjoyment, work and effort through to sorrow and pain.

As long as the process of industrialization can be taken (or mistaken) as simply improving our means and multiplying our instruments in addition to augmenting our belongings as external material enrichment, there seems not much to worry about. The sight of a locomotive, a heavy and slow awkward steam engine would cause a crowd of people to panic when they first set eyes on such a monster; but soon prevails the delight over easy long-distance travel plus the pure joy of velocity. However, when progress steps over the level of *having* into the dimension of *being*, prospects change. For the first time this happens in the wake of the second dual revolution in the early twentieth century. At that point a total turnaround of the social and symbolic order comes into sight and this expectation polarizes progressive and reactionary forces. As progress draws even closer to the essence of life today, the ambivalence of the hopes and fears is reiterated and renewed on a larger scale. The apparatus that makes us behold the interior of your brain or my womb certainly make us expect a better understanding of their workings in order to remedy their defects. But these much higher hopes and more ambitious plans to ultimately overcome the human condition of contingency are accompanied by deep anxieties for what we are, our identity, our foundations and 'roots'. The urge to wreck the device that sends pictures of our heart of hearts, our innermost interior around the globe in no time and beyond our control comes as no surprise, the impulse to demolish the juggernaut or to hide behind a veil is returning with each subsequent level of modernization. The more our capacity grows to bring about change, the more we yearn for socio-political stability and psycho-physical security -- while we become more and more aware that there was never anything like essence, no fundamentals but constant change in our turning world.

The repercussions of the latest wave of the technological revolution on the social and political agendas as well as on the symbolic order are immense¹⁵ ... with consequences we are hitherto hardly able to comprehend in full.



In particular, it should be noted that this is the first time that the process of industrialization attains the full scope of activities and functions, works and labours that were, not only 'traditionally', but are, up to the present, attributed to *women*. Hence, the third dual revolution has the potential to ultimately liberate women from their 'lot'.

Of course, this is not an altogether new idea: The emancipation of women from patriarchal rule already figures on the agenda of the first dual revolution but remains most marginal and mostly formal at the time; moreover, those timid attempts are taken back soon after, in the era of restauration over the nineteenth century.

In contrast, the second dual revolution includes an international women's movement that starts out in the 1880s (this is at about the time when the second technological revolution gets going and the workers movement gains traction). This so-called first wave women's movement in western countries is reaching its aim (and end) after WWI. In a sense, this is another 'belated' bourgeois revolution, granting women the same civil and political rights their men had obtained more or less one century earlier. At this point women's liberation means vote and participation in the political process as well as access to higher education, profession and business; in short, entry to the world *outside*, the world of men. However, the bulk of women's work plus the core of women's identity stay *inside* the 'home'.

Since its inception the interior world of family and private life is part of the process of modernization but over the nineteenth century it is configured as a 'separate sphere', dedicated to all aspects and activities of life that should not or could not undergo processes of rationalization and mechanization, bureaucratization and industrialization¹⁶. The sharp division in the modern gender order, the seclusion of

¹⁵ With regard to the symbolic order it is important to note that these developments confuse and, in the long run, will dissolve the classical dualisms / dichotomies that modern thought has inherited from ancient times, e.g. culture:nature, mind:body; reason:emotion, public:private, production:reproduction; work:life; history:histories, real:fictitious/ imaginary, self:other, masculinity:femininity. Yet, the calculus and algorithm pursue the path into the contingency of the material world while they are sterile as a language. They lack metaphor and vision and fall short of solving social and political questions or of establishing a symbolic order.

¹⁶ As an aside: housework in the narrow sense, that is in the material aspects of its chores already stands in the focus of earlier stages of technological development, from the relief that running water

women in the backwaters of the private sphere allows and indicates a clear distinction between the spheres of work and life as public and private, society and nature. 'Woman' and in particular, 'Mother' is warrant and token of a life to be lived outside the system. The second dual revolution ends this great divide in its rigid form: Now, women are set free to participate in state and market, while they remain assigned to their 'natural duties' and bound to their responsibilities for family life and household chores. With this pattern in place, women earn the burden of a 'double shift' instead of equal autonomy. The fact that this constellation handicaps women greatly in both directions and manifold respects is well known, often deplored but taken for granted.

It is the vocation of the so-called second wave of the women's movement beginning in the 1960s to pose a new challenge to this partially modernized yet still asymmetrical and unjust(ified) state of affairs. Some major bio-technological advancements - not least the availability of chemical contraceptives since the early 1960s - may have paved the way for renewed claims and demands¹⁷. However, also second-wave feminism remains focused on catching up with men in the world outside -- while all kinds of 'mother's little helpers' invade the home -- in fact, already since the period of economic upswing in the aftermath of the war. All in all, the endeavours of second-wave feminism result in a particular, albeit embattled recognition and institutionalization of 'women's issues'. Generally speaking, the achievements of this era embrace legal measures and political instruments aiming at the removal of barriers, against discrimination, sexist prejudices and other plights women may meet on their career paths in a male-dominated society. Not least due to the relative success of these ventures the immediate fervour of the movement is slackening off as it is dividing up into various, sometimes contrary strands.

So here we go again: Whilst the feminist revolution retreated by the mid-1980s at the latest, "industrial revolution advanced" (cf. Hobsbawm, 1997). High technology tackles the industrialization of the reproduction of signs *and* bodies in the 1980s and since. This affects the domain of women's tasks in the fields of sexuality, generation, education and care. Roughly speaking, the consequences of "generalized universal industrialization" (Mandel cf. above) that relate to women's work are similar to the effects of the first wave of industrialization on the labour of male (and female) industrial workers, described by Marx as "abstraction" of "living" labour. A major

and plumbing meant for housewife and maids through to sophisticated appliances. Although the private sphere is imagined to be exempt from modernization and industrialization as the last resort of human nature and culture, the progress of artificial light and warmth into the dark and damp quarters of life has turned this sphere of privation into the modern private sphere, made the house a cosy home.

¹⁷ An undeniable fact, the (few) history books of women's movement or feminist theory remain remarkably silent on.

difference ensues from the fact that the 'object' of primary industrial labour are mostly objects, i.e. inert matter, dead animals/plants, 'things', whereas the object of women's work are 'subjects', i.e. other human beings like the worker herself. Here is not the space or place to investigate the meaning and the consequences of this tertiary process of industrialization in further detail. Instead, by way of conclusion the phenomenon of the triple dual revolution should be reconsidered.



Progressive societal movements like the workers movement or the women's movements and technological progress run parallel as (long as) they share the same objective, namely to subvert the established order of an outdated authoritarian regime and to blow up into the air all that is solid. Apart from this revolutionary moment and the motive of empowerment, there is no causal link but rather a deadlock between the two sides.

It must be conceded that emancipatory movements do hardly ignite or substantially promote technological progress. In the nineteenth century, the German workers movement proudly declared, "at your strong arms will, all turning wheels are standing still". Indeed, not least by the help of a few bourgeois intellectuals, the proletariat develops the consciousness of its capacity to bring the machinery to a halt. Yet the strong arms that turn the wheels and, at times, may threaten to interrupt them, *they do not to set them in motion*. In the long run male as well as female industrial workers are not intending to wreck the mechanism. What they are striving and (occasionally) striking for is a fairer deal: better conditions, less toil and drudgery in the processes of production in addition to a larger piece of the produce. We need to face what Marx and his contemporaries preferred to turn a blind eye to: Even if they may "decry" them, the forward pushing forces of productivity (*Produktivkräfte*) prove inept and, over the further course of technological progress, become increasingly unwilling to supersede the established relations of production (*Produktionsverhältnisse*). Even if the social power imbalance between the two sides, the coercion of utter need and also open violence do play a role in this context, it is not least the prospect of technological progress and the material improvements it yields that bribe many if not the majority of the disadvantaged into compliance with these relations. It is not just "patchwork or a few trivial measures through which the dominant relations of production subdue the exploding forces of productivity"¹⁸. Technological progress is the 'miracle whip' of capitalism borne by an almost religious faith in the future: ...*what*

¹⁸ "Die Produktionsverhältnisse haben ... durch Flickwerk und partikuläre Maßnahmen die losgelassenen Produktivkräfte weiterhin sich unterworfen" (see above).

you cannot have today, you will get tomorrow ... or on the day when the cows come home ...

Marx seems to have been blind on the other eye too: Neither will the forces of productivity blast the relations of production nor is there an iron law of history under which they will wither away because they stand in the way of progress. Creativity and productivity are not harmed or hampered but, on the contrary, are being set free, mobilized and guided by capitalist relations of production. However narrow and petty-minded private profit interests may be, they promote and propel the storm troops of progress not least, by funding and financing industriousness, investing in creativity. The equally private ingenuity of Gyro Gearloose, Walt Disney's exemplary embodiment of the 'creative worker', and the business acumen of Uncle Scrooge McDuck, the archetype of the thrifty and greedy 'entrepreneurial self' were, are and remain the driving forces in the processes of modernization coined as industrialization of society. It is not by chance that the images of these two paragons of capitalist economy, the entrepreneurial self and the creative worker are revived and expanded under neo-liberal conditions.

Indeed, the powerful surges of technological innovation that are brought about by private business do prompt emancipatory effects and repercussions that, in turn, generate a certain affinity of the 'progressive circles' of society, emancipatory movements and (probably to an even larger extent) the aesthetic avant-gardes toward new technologies. No doubt, new technologies are crucial in introducing new perspectives into society; they require new attitudes and activities; they encourage hopes and visions of freedom through empowerment. In this way, technological progress may look like a blueprint, a template for social change. By way of example, it is clearly visible from vintage photographs that the bicycle or the automobile meant a much appreciated gain in the freedom of movement - specifically for women. Both vehicles of mobility did induce further significant changes in women's appearance and apparel (slimmer body shapes, shorter skirts, even trousers, instead of long gowns; small caps replacing voluminous hats and dangerous shawls). All this gives women a new look but it does not by itself overthrow the outlook of the gender order.

Social or political, cultural or artistic progress are neither purpose nor aim of the science&technology-based industry. Capitalism is driven by the one and only crude and static economic motive: making more of the same - *money*. Whatever innovative technology makes melt into the air, the promotion of freedom is a side effect while the increase in wealth is the aim. In consequence, the relations of production (*Produktionsverhältnisse*) remain stable or get re-established. The enormous flood of wealth that is produced in technology-driven industry by ever more hands and heads flows into ever fewer private pockets. Industrial technology is "the master's tool" *par*

excellence, and: "the master's tool will never dismantle the master's house (Audre Lourde). The impact and imprint of capital is even aggravating as each following step of innovation requires more venture capital, higher credit on future advancements than the previous one.

Notwithstanding considerable changes from the era of family business in the nineteenth century to the multinational companies of today: capitalism perseveres and, in point of fact, it prevails and proceeds with the strong tailwind of the recent wave of high-tech innovation -- just as nineteenth century bourgeois liberalism has been riding the tide of the first industrial revolution. The developments of microelectronics and microbiology are driven by and they are driving the neoliberal economy. This is the definition of 'late capitalism': we are approaching the level of universal and global culture-and-nature-industries now unified as *ICT&BIO-CAPITALISM, Inc.* -- this is a for profit enterprise in capital letters. In sum:

"There is nothing, no 'naked life', no external standpoint, that can be posed outside this field permeated by money ... Production and reproduction are dressed in monetary clothing. In fact, on the global stage, every biopolitical figure appears dressed in monetary garb" (Hardt and Negri 2000, 32). "What the theories of power of modernity were forced to consider transcendent, that is, external to productive and social relations, is ... formed inside, immanent to the productive and social relations" (Hardt and Negri 2000, 33).



If this assessment is valid today or may come true in the foreseeable future we should bid farewell to the concept of dual revolutions and consider the rise of a third system of rule, following the two types which Foucault has helped us recognize. To identify this third type of governance it may be useful to reiterate:

In the first place, primitive sovereign rule is the right of might "to take life", to exterminate the adversary and appropriate his/her belongings. At the second stage the more advantageous alternative evolves to let him/ her live and to exploit the life energy of the victim instead. However oppressive, sovereign and subjugated subject thus enter into a trade-off relationship: reprieve, 'redemption' from death (penalty) is granted; protection and a certain degree of 'care' is provided in exchange for a service or a fee, a ransom or tax -- while life is let and, for that matter, it is let to be lived *outside* the reach of power. Even if modern nation-state biopolitics intends to organize, administer and calculate life, life still must be lived outside the command of state power - otherwise it is bound to fail: The ICT-policies of Orwell's Big Brother surveillance regime were soon defeated by reality. The Huxley-type nightmare of biopolitics at the hands of a totalitarian state did not even see the day and is only

remembered as an abhorrent phantasy. The lesson to be learnt from the failure of totalitarianism: modern society must be 'liberal' in the sense of adopting the seigneurial, pastoral, paternalistic-patriarchal wisdom to spare, to save and safeguard the natural resources that it requires but cannot produce.

With the onset of the third industrial revolution this constellation definitively changes. In a complete reversal of sovereign power politics to *take* life, neoliberal all-inclusive life-economy¹⁹ seems fit to accomplish what was impossible before: to *make* life. This. Differing from nation-state biopolitics, late capitalism is not about organization and protection from outside, mediating between conflicting interests in fostering and controlling, furthering and restraining life. Life economy gives life free rein, it aims to boost, to pep up and pop up, to intensify and to increase, even to unleash life.

In pursuit of this logic neoliberalism steps over the threshold: it does not wield power as the "right of *seizure*" of something that is supposed to be outside but, on the contrary, *ICT&BIO-technology, Inc.* is assuming the right of *intrusion* since it has gained the power not only to make *work* productive but *life* as a whole. Not only manpower in the industrial process of production of goods but life energy in general is perceived as capital: human capital. Work and business hours do not last from 9 to 5 on five days a week but life goes on, on the 24/7 schedule of care work, all around the clock, all year round.

The shift from primitive sovereign rule (that is pure and simple robbery) to more elaborate forms of governance means a better deal for both sides. For the dominant side exploitation of the life energy, the service and workforce of the victim is more gainful, for the victim this means the benefit of life over death - certainly, a reason to be grateful, indebted and obliged. With the transition from biopolitics of the sovereign nation state to life economy of hegemonic neoliberalism a significant change takes place in the terms of trade. Under the rule of the feudal-to-modern state rule life was let in exchange for service or tax. The late capitalist market economy offers goods and services that improve, embellish and enhance life for cash or on credit. Does this looks like an even more beneficial trade-off relationship for both sides? Life is immediately and completely integrated into the global cash-nexus allowing to create 'commons' and 'shareware' even among the most intimate tissues and fluids of bodies. We have reached something like the butterfly effect in global society. Yet, while the push for "socialisation" (*Vergesellschaftung*) of the forces that connect us

¹⁹ Actually this move is not altogether new. In point of fact, the market economy has taken on the task to care and coddle the life that was to be let and lived outside with the means, tools and provisions for living. From the inception of industrial capitalism in the nineteenth century, the flexible world market economy started a "free home delivery" business Other than stern and rigid state policy and politics of protection plus control, it was the lavish capitalist economy to present an ever wider basket of goods and goodies for the private consumer.

gets stronger, the persevering and prevailing relations of production enjoy the advantage of perfected exploitation. The concentration of capital in oligopolies and monopolies continues unabatedly, the "deduction (le prélèvement)" of private profit, carries on unabashedly. Thus, the two older forms of domination are not abolished but supplemented and accomplished by the new deal to go beyond the simple "subtraction mechanism" of tax, fee or ransom. The new type of techno-turbo industrial capitalism coinciding with a revival of liberalism brings deduction to the point of depletion and exhaustion²⁰ of all productive forces, even up to the death of nature. This is the contradiction between integration plus socialisation a in global community that does not promote technological progress and does not overturn the established relations of production vs. persevering relations of production that push for innovation and hence privatize the profit. The problem of driving haves and have-nots apart is inherent in modern industrial capitalism since the beginnings. Many efforts have been made to overcome this birth defect. As inequality has resumed to grow at an alarming rate under the reign of neoliberal late capitalism these efforts look hopeless today.

Coda

Had I written this piece a few years ago the thought of a reappearance of reactionary modernism as a 'solution' for this agony would not have crossed my mind as the rules and laws of the hegemonic world economy differ so widely from those of nation state politics. Since the crisis years of neoliberalism in the late 2000s the return of power politics comes into view and, in particular, a revival of nationalism, of authoritarian if not totalitarian rule is not beyond imagination. In case, any such kind of politics should ever get the upper hand in the competition for hegemony and bring the so much more advanced technologies under its command ... then the dystopian visions of an Orwell or Huxley might look like children's tales.

²⁰ Ehrenberg, Alain: *The Fatigue of Being Oneself - Depression and Society*, Paris 1998.

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