

# A Critique of the Fordism of the Regulation School

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## Introduction

Some of the categories that people have used in recent years to describe the changes taking place in the world of production, such as Fordism, post-Fordism and immaterial production, have shown themselves to be rather blunt instruments.<sup>2</sup> Here I intend to deal with the use of the concepts “Fordism” and “post-Fordism” by the regulation school, which has given a particular twist to the former term, and which coined *ex novo* the latter. The aim of my article is to help break the conflict-excluding spell under which the regulation school has succeeded in casting Fordism and post-Fordism.

From midway through the 1970s, as a result of the writings of Michel Aglietta<sup>3</sup> and then of other exponents of the regulation school,

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- 1 The English version of this paper appeared in 1996 in *Common Sense* no. 19 and was subsequently published as a chapter in Werner Bonefeld (ed), *Revolutionary Writing: Common Sense Essays In Post-Political Politics Writing*, New York, Autonomedia, 2003.
  - 2 For a timely critique of the term “immaterial production”, see Sergio Bologna, “Problematiche del lavoro autonomo in Italia” (Part I), *Altreragioni*, no. 1 (1992), pp. 10-27.
  - 3 Michel Aglietta, (1974), *Accumulation et régulation du capitalisme en longue période. L'exemple des Etats Unis (1870-1970)*, Paris, INSEE, 1974; the second French edition has the title *Régulation et crises du capitalisme*, Paris, Calmann-Lévy, 1976; English translation, *A Theory of Capitalist Regulation: the US Experience*, London and New York, Verso, 1979; in 1987 there followed a second English edition from the same publisher. The link between the category

including Boyer, Coriat and Lipietz, Fordism began to take on a neutral meaning, due in part to a degree of slipshod historiography, but also to the reduction of movements of social classes into mere abstraction.<sup>4</sup>

When they use the term Fordism, the regulation school are referring essentially to a system of production based on the assembly line, which is capable of relatively high industrial productivity.<sup>5</sup> The regulationists' attention is directed not so much to the well-documented inflexibility of the Fordist process of production, to the necessary deskilling of the workforce, to the rigidity of Fordism's structure of command and its productive and social hierarchy, nor to the forms and contents of industrial conflict generated within it, but to the regulation of relations of production by the state, operating as a locus of mediation and institutional reconciliation between social forces. *I shall call this interpretation "regulationist Fordism", and shall use "pre-trade union Fordism" to refer to the sense in which Fordism*

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of Fordism and that of post-Fordism may be considered the term "neo-Fordism", proposed by Christian Palloix two years after the publication of the first edition of Aglietta's book. Cf. Christian Palloix, "Le procès du travail. Du fordisme au neo-fordisme", *La Pensée* no. 185 (February 1976), pp. 37-60, according to whom neo-Fordism referred to the new capitalist practice of job enrichment and job recomposition as a response to new requirements in the management of workforces.

- 4 For the regulationist interpretation of Fordism prior to 1991, see the fundamental volume edited by Werner Bonefeld and John Holloway, *Post-Fordism and Social Form: A Marxist Debate on the Post-Fordist State*, London, Macmillan, 1991, which contains the principal bibliographical references for the debate. For the regulation school see, among others, the following works: Robert Boyer, *La théorie de la régulation: une analyse critique*, Paris, La Découverte, 1986; Robert Boyer (ed.), *Capitalismes fin de siècle*, Paris, Presses Universitaires de France, 1986; Alain Lipietz, "Towards Global Fordism?", *New Left Review* no. 132 (March-April 1982), pp. 33-47; Alain Lipietz, "Imperialism as the Beast of the Apocalypse", *Capital and Class*, no. 22 (Spring 1984), pp. 81-109; Alain Lipietz, "Behind the Crisis: the Exhaustion of a Regime of Accumulation. A 'Regulation School Perspective' on Some French Empirical Works", *Review of Radical Political Economy*, vol. 18, no. 1-2 (1986), pp. 13-32; Alain Lipietz, *Mirages and Miracles: the Crisis of Global Fordism*, London, Verso, 1987; Alain Lipietz, "Fordism and post-Fordism" in W. Outhwaite and Tom Bottomore (eds.), *The Blackwell Dictionary of Twentieth Century Social Thought*, Oxford, Blackwell, 1993, pp. 230-31; Benjamin Coriat, *Penser à l'envers. Travail et organisation dans l'entreprise japonaise*, Paris, Christian Bourgois, 1991; Italian translation, *Ripensare l'organizzazione del lavoro. Concetti e prassi del modello giapponese*, Bari, Dedalo, 1991, with introduction and translation by Mirella Giannini.
- 5 I say "relatively high productivity" because the assembly line has not always produced results. For example, the Soviet Fordism of the first two five-year plans (1928-32, 1933-37) was the object of some experimentation, particularly on the assembly lines of the Gorki auto factory (thanks in part to the technical support of Ford technicians), but productivity turned out to be about 50 per cent lower than that of Ford's US factory. Cf. John P. Hardt and George D. Holliday, "Technology Transfer and Change in the Soviet Economic System", in Frederic J. Fleron, Jr., *Technology and Communist Culture: the Socio-Cultural Impact of Technology under Socialism*, New York and London, Praeger, 1977, pp. 183-223.

was generally understood in Europe from the early 1920s to the 1960s.<sup>6</sup>

## Regulationist Fordism

In what follows I shall outline briefly the periodisation which the inventors of the regulationist notion of Fordism have given their idea, because this is crucial if we are to understand the ways in which it is semantically distinct from pre-trade union Fordism; I shall then sketch the basic characteristics of the latter.

According to the regulation school, Fordism penetrated the vital ganglia of the US engineering industry and became its catalysing force in a period that is undefined, but presumably in the 1920s, delivering high wages and acting as the cutting edge of the mass consumption of consumer durables. Having passed through the mill of the Great Depression and the Second World War, Fordism then provided the basis for the expansion of Keynesian effective demand in the United States, where it provided the underpinning for a “welfare” regime, and thus for a stable global social reproduction, presumably from the end

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6 In his “Fordism and post-Fordism”, op. cit., p. 230, Lipietz maintains incorrectly that the term “Fordism” “was coined in the 1930s by the Italian Marxist Antonio Gramsci and by the Belgian socialist Henri de Man”. Lipietz is obviously referring to “Americanismo e fordismo” (1934) in Antonio Gramsci, *Quaderni del carcere*, vol. 3. ed. Valentino Gerratana, Torino, Einaudi, 1975, pp. 2137-81, a series of notes in which Gramsci takes account, among other things, of a book by de Man which does not directly discuss Fordism. The first edition of de Man’s work appeared in Germany in 1926: Hendrik de Man, *Zur psychologie des Sozialismus*, Jena, E. Diederichs, 1926 and, after a partial French translation which appeared in Brussels in 1927, a complete translation was published under the title of *Au delà du Marxisme*, Paris, Alcan, 1929, based on the second German edition published by Diederichs (1927). For his prison notes on “Americanism and Fordism”, Gramsci had the Italian translation of the French edition published by Alcan: Henri de Man, *Il superamento del marxismo*, Bari, Laterza, 1929. In Europe the term “Fordism” pre-dates de Man and Gramsci, and was already in use in the early 1920s; cf. in particular Friedrich von Gottl-Ottlilienfeld, *Fordismus? Paraphrasen über das Verhältnis von Wirtschaft und Technischer Vernunft bei Henry Ford und Frederick W. Taylor*, Jena, Gustav Fischer, 1924; H. Sinzheimer, “L’Europa e l’idea di democrazia economica” (1925), *Quaderni di azione sociale* XXXIX, no. 2 (1994), pp. 71-4, edited and translated by Sandro Mezzadra, whom I thank for this reference. In his article cited above, Lipietz states equally erroneously that “in the 1960s the term was rediscovered by a number of Italian Marxists (R. Panzieri, M. Tronti, A. Negri)”. In Italy the discussion of Fordism was addressed, taking a critical distance from Gramsci, in the volume of Romano Alquati’s writings, *Sulla FIAT e altri scritti*, Milano, Feltrinelli, 1975, which brought together texts from the period 1961-1967, and in the volume by Sergio Bologna, George P. Rawick, Mauro Gobbini, Antonio Negri, Luciano Ferrari-Bravo and Ferruccio Gambino, *Operai e Stato: Lotte operaie e riforma dello stato capitalistico tra rivoluzione d’Ottobre e New Deal*, Milano, Feltrinelli, 1972, which contained the proceedings of a conference held in Padova in 1967.

of the 1940s onwards. In the 1950s, this system of production is seen as reaching out from the United States towards the countries of Western Europe, and Japan. According to the regulationist periodisation, therefore, the high season of Fordism actually turns out to be rather brief, since it converges—albeit only on paper—with Keynesianism at about the end of the 1930s; then it becomes a concrete reality at the start of the 1950s, and lasts through to the end of the 1960s, when it goes into irreversible crisis. In their view, that point sees the opening of the period—through which we are still passing—of post-Fordism.

The regulation school can justifiably claim credit for the interpretation which associates transformations in the processes of valorisation with changes taking place in the socio-political sphere, and vice-versa. It was to make this position its own, and developed it with contributions on the state apparatus and its relations with modern and contemporary capital, in the writings of Hirsch and Roth in Germany and Jessop in Britain.<sup>7</sup> According to Jessop, the regulation school comprises four principal directions of research.<sup>8</sup>

The first direction, initiated by Aglietta, studies regimes of accumulation and models of growth according to their economic determinations, and it applied its first interpretative schema to the United States. Other studies looked at state economic formations—sometimes to examine the spread of Fordism in a given context, and sometimes to follow the particular circumstances of its development— independently from the question of the insertion or otherwise of those states within the international economic circuit.

The second direction concentrates on the international economic dimensions of regulation. It studies the various particular models of international regulation, as well as the form and extent of the complementarity between different national models of growth. This involves examining subjects such as the inclusion and/or exclusion of state and regional formations from the economic order, and the tendencies to autarchic closure and/or internationalistic openness of given countries.

The third direction analyses the overall models of the social structures of accumulation at national level. Reproduction of society depends on an ensemble of institutionally mediated practices which

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7 See in particular, in Werner Bonefeld and John Holloway (eds.) *Post-Fordism and Social Form*, op. cit., the essay by Joachim Hirsch, "Fordism and post-Fordism: The Present Social Crisis and its Consequences", pp. 8-34, and the two essays by Bob Jessop, "Regulation Theory, Post-Fordism and the State: More than a Reply to Werner Bonefeld", pp. 69-91; and "Polar Bears and Class Struggle: Much Less than a Self-Criticism", pp. 145-69, which contain further bibliographical references.

8 Bob Jessop, "Regulation Theory, Post-Fordism and the State", op. cit., pp. 87-8.

guarantee at least a degree of correspondence between different structures and a balance of compromise between social forces. This strand of regulationism devotes particular attention to the categories of state and hegemony, which it considers to be central elements of social regulation.

The fourth strand, the least developed of the four, studies the interdependences of emerging international structures, and various attempts to lay the basis of a world order through international institutions (which the regulationists call “regimes”) aimed at establishing or re-establishing an international order.

Now, even from this summary listing of the regulation school’s principal themes it becomes obvious that the centre of gravity of its interests lies in the analysis not so much of the social relations of production, but rather of the economic/state institutions which oversee them. *In short, the regulation school stresses the permanence of structures, and tends to overlook human subjects, their changes and what is happening to them with the disorganisation and reorganisation of social relations.*

From the start regulationism has been fascinated by the staying power of US capital post-1968, despite the United States’ defeat in Vietnam. According to the regulationists, in the period after World War II one has to grant the US “the dominant imperialist position”<sup>9</sup>: it therefore becomes necessary to understand how, *and thanks to what institutions* its structures and those of its allied industrial countries maintained their stability. Within this hypothesis there is an underlying assumption, in which Western institutions are seen as remaining solid (extremely solid in the case of the US), while not only the institutions of the labour movement, but also living labour power as a whole appear as inescapably subjugated to the unstoppable march of accumulation: in short, in the medium and long term capital’s stately progress is destined to continue, while its aporias melt on the horizon. Thus it becomes a question of studying the laws by which Western capital has succeeded in perpetuating itself. It was from within this framework that Michel Aglietta’s book<sup>10</sup> emerged, in the year following the first oil price shock, which was also the year of Washington’s political and military defeat in Vietnam.

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9 Joachim Hirsch, “Fordism and Post-Fordism: The Present Social Crisis and its Consequences”, op. cit., p. 15.

10 Michel Aglietta (1974), *Accumulation et régulation du capitalisme en longue période. Exemple des Etats Unis (1870-1970)*, Paris, INSEE, 1974.

## The Uncertain Contours of Regulationist Post-Fordism

For the regulation school, post-Fordism is like a crystal ball in which, “leaving aside the still not completely foreseeable consequences of molecular and genetic technology” it is possible to read some signs of the future. Particularly in the new information technology, in telecommunications and in data processing technologies, all of which could become the basis for a “hyperindustrialisation”, they see a potential for revolution in the world of production. Radically transforming work and fragmenting the “Taylorist mass worker”, the “electronic revolution” restratifies labour power and divides it into a relatively restricted upper level of the super-skilled, and a massive lower level of ordinary post-Fordist doers and executors. In short, it separates and divides labour power hierarchically and spatially and ends by breaking the framework of collective bargaining.<sup>11</sup> As a result the rhythm of accumulation becomes more intense, and there opens a perspective of a long period of capitalism without opposition—a *turbo-capitalism*—with a political stability that is preserved intact. The post-Fordist worker of the regulation school appears as an individual who is atomised, flexibilised, increasingly non-union, kept on low wages and inescapably in jobs that are always precarious. The state no longer guarantees to cover the material costs of reproduction of labour power, and oversees a contraction of workers’ consumption. In the opinion of the regulation school it would be hard to imagine a more complete overturning of so-called Fordist consumerism, within which, it is claimed, the workforce was allegedly put into conditions of wage employment which would enable them to buy the consumer durables that they created.

If we then look at the discontinuity between Fordism and post-Fordism, it seems to derive from the failure of two essential conditions: the mode of capitalist accumulation and the failure to adjust mass consumption to the increase in productivity generated by intense accumulation.<sup>12</sup> In the “golden years” following the Second World War, these two conditions had been satisfied. Fordism mobilised industrial capacities at both the extremes of high skilled and low skilled labour, without the system being destabilised by this polarisation; satisfactory profits were produced from mass consumption, which kept pace with growing investments.<sup>13</sup> As from the 1960s, these twin conditions were no longer given, because investments in the commodity-producing

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11 Joachim Hirsch, “Fordism and Post-Fordism: The Present Social Crisis and its Consequences”, pp. 25-6.

12 Alain Lipietz, “Towards Global Fordism”, *New Left Review*, no. 132 (March-April 1982), pp. 33-47.

13 *Ibid.*, pp. 35-6.

sector in the industrialised countries grew more than productivity, generating a crisis which capital then attempted to resolve by seeking out production options and market outlets in the Third World.

According to the regulationists the consequences at the social level are enormous. The influence of the state is reduced in society; the state is pared back; the majority sector of the non-privileged cuts back on its standard of living in order to organise its own survival; there is no sign of new aggregations arising out of the ashes of the old organisations and capable of expressing a collective solidarity. For the regulationists, strikes, campaigns and conflicts at the point of production are seen in terms of a pre-political spectrum which ranges between interesting curiosities (to which university research cannot be expected to pay attention) and residual phenomena.

## The Toyotophile Variant

The proponents of the advent of post-Fordism discovered Toyotism as a variant of post-Fordism towards the end of the 1980s.<sup>14</sup> In the 1960s, the West began belatedly to take account of the expansion of Japanese capitalism.<sup>15</sup> At that time it was understood as a phenomenon which combined shrewd commercial strategies with an endemic conformism and inadequate social policies.<sup>16</sup> On the Left there were some who—correctly, and before their time—saw in Japanese expansion new hegemonic temptations for Japan in East Asia.<sup>17</sup> Some years later, an admirer of the country's rate of economic growth drew attention to the regular increase in Japan's standard of living and the way in which the Japanese absorbed the oil price "shocks" of the 1960s.<sup>18</sup> There were also those who issued warnings about the regimentation of Japanese society, and about its incipient refusal of the rules dictated by the West.<sup>19</sup> Meanwhile there was something of a fashion for Japanese

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14 On this development, cf. the review by Giuseppe Bonazzi, "La scoperta del modello giapponese nelle società occidentali", *Stato e Mercato*, no. 39 (December 1993), pp. 437-66, which discusses the variously critical reception of the Japanese model within Western sociology; more briefly and in more general terms, cf. Pierre-François Souyri, "Un nouveau paradigme?", *Annales*, vol. 49, no. 3 (May-June 1994), pp. 503-10.

15 Robert Guillaïn, *Japon, troisième grand*, Paris, Seuil, 1969; Herman Kahn, *The Emerging Japanese Superstate*, Minneapolis, Minn., Hudson Institute, 1970.

16 Robert Brochier, *Le miracle économique japonais*, Paris, Calmann-Lévy, 1970.

17 Jon Halliday and David McCormack, *Japanese Imperialism Today: Co-prosperity in Greater East Asia*, Harmondsworth, Penguin, 1973.

18 Ezra Vogel, *Japan as Number One: Lessons for America*, Cambridge, Mass., Harvard University Press, 1979.

19 Karel Van Wolferen, *The Enigma of Japanese Power*, New York, N.Y., Knopf, 1989.

authors who supplied the West with dubious but easy explanations of the rise of Japan on the basis of its cultural and religious ways of life.<sup>20</sup>

In the 1980s the debate entered the public domain with the publication of a number of important works on Japan's economic structures, despite the growing hostility of Western commercial interests and subsequent gratuitous attacks on the Japanese industrial system in the media.<sup>21</sup> However, still in the 1980s, a number of studies by Japanese economists and sociologists that had been translated into English went almost unobserved.<sup>22</sup> Even the book by the main inventor and propagator of the word "Toyotism", Tai'ichi Ohno,<sup>23</sup> was only translated and distributed in the West at the end of the 1980s, at a point when the world of Japanese industry was becoming one of the key focuses for discussions of industrial productivity.

In the early 1990s, thanks principally to the book by Coriat,<sup>24</sup> in continental Europe too the focus of the debate on Japanese industry shifted from cultural motivations to business strategies; other earlier and worthwhile contributions had aroused less interest. According to Coriat, the lessons emanating from the Toyota factories introduced a new paradigm of productivity, whose importance was comparable to those of Taylorism and Fordism in their time. *Thus Toyotism comes into the limelight in the guise of a post-Fordism that is complete and by now inevitable.* Toyotism is seen as the fulfilment of a tendency to a new form of rationalisation, a rationalisation which had certainly dawned with the category of post-Fordism, but which, in the West, had appeared vague, not yet taking concrete form in a specific form of production and a consolidated social space. In Toyotism however, we are told by Coriat, post-Fordism is realised not only as an ensemble of attempts to rationalise and reduce production costs, but also as a major experiment in new and more advanced relations of production—

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- 20 Chie Nakane, *Japanese Society*, London, Weidenfeld & Nicholson, 1970; Italian translation, *La società giapponese*, Milan, Cortina. Michio Morishima, *Why Has Japan "Succeeded"?*, Cambridge, Cambridge University Press; Italian translation, *Cultura e tecnologia nel successo giapponese*, Bologna, Il Mulino, 1984.
- 21 Jean-Loup Lesage, *Les grands sociétés de commerce au Japon, les Shosha*, Paris, PUF; Chalmers Johnson, *MITI and the Japanese Miracle: the growth of industrial policy, 1925-75*, Tokyo, Tuttle, 1986.
- 22 Masahiko Aoki, *The Economic Analysis of the Japanese Firm*, Amsterdam, Elsevier, 1984; Kazuo Koike, *Understanding Industrial Relations in Modern Japan*, London, Macmillan, 1988.
- 23 Tai'ichi Ohno, *Toyota Seisan Hoshiki* [The Toyota Production Method], Diamond Sha, 1978; English translation, *The Toyota Production System: Beyond Large-scale Production*, Productivity Press, Cambridge, Mass.; French translation, *L'esprit Toyota*, Paris, Masson, 1989; Italian translation, *Lo spirito toyota*, Torino, Einaudi, 1993.
- 24 Benjamin Coriat, *Penser à l'envers. Travail et organisation dans l'entreprise japonaise*, Paris, Christian Bourgois, 1991; Italian translation, *Ripensare l'organizzazione del lavoro. Concetti e prassi del modello giapponese*, Bari, Dedalo, 1991.

in fact of a new sociality which might prefigure new forms of industrial democracy. In Coriat's book the West remains in the background, but if we transferred our attention from the delicate balance of productivity in Japan to its European variant, the diffuse factory, we would find an informal Toyotism already operating there, based on individual work contracts. For example, in the celebrated Italian industrial districts, we would find the employers in the "diffuse factory" attempting to set up individual relationships with their workers in order to break down systems of collective bargaining.

According to the Toyotist vulgate, the new system of productivity emerged principally as a result of endogenous demand factors during and after the boom of the Korean War (1950-53), as "just-in-time" production, and thus in large part as an attempt to reduce lead times and cut the workforce.<sup>25</sup>

What is new about Toyotism is essentially the elements of "just-in-time" production and prompt reaction to market requirements; the imposition of multi-jobbing on workers employed on several machines, either simultaneously or sequentially; quality control throughout the entire flow of production; real-time information on the progress of production in the factory; information which is both capillary and filtered in an authoritarian sense, in such a way as to create social embarrassment and drama in the event of incidents which are harmful to production. Production can be interrupted at any moment, thus calling to account a given work-team, or department, or even the whole factory. Any worker who shows a waged-worker's indifference to the company's productivity requirements, and therefore decides not to join "quality control" groups etc, is stigmatised and encouraged to leave. From Coriat we learn that in the interplay of "democracy" and "ostracism", the group may enjoy a measure of democracy, but the person stigmatised will certainly enjoy ostracism. In the interests of comprehensiveness, in his description of the wonders of Toyotism Coriat<sup>26</sup> devotes a laconic note to Satochi Kamata, the writer who went to work in Toyota in 1972 and whose experiences were reflected in the title of his book: *Toyota, the Factory of Despair*.<sup>27</sup>

Toyotism has a number of advantages for the regulation school as regards Western managerial perspectives, even though the Japanese advantage in productivity is showing itself to be tenuous, despite the propagandistic aura that has surrounded it in the West.<sup>28</sup>

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25 Benjamin Coriat, *Ripensare l'organizzazione del lavoro*, op. cit., pp. 32-3.

26 *Ibid.*, p. 85.

27 Satochi Kamata, *Toyota, l'usine du désespoir*, Paris, Editions Ouvrières, 1976; English translation, *Japan in the Passing Lane: Insider's Account of Life in a Japanese Auto Factory*, New York, N.Y., Unwin Hyman, 1984. By the same author, *L'envers du Miracle*, Paris, Maspéro, 1980.

28 Ray and Cindelyn Eberts, *The Myths of Japanese Quality*, Upper Saddle, N.J.,

First of all, it is an experiment that is geographically remote and commercially successful, inasmuch as it defines a route to accumulation (albeit in conjunctures that are both pre-war and war-based, and not at all in conditions of peace, as the enthusiasts of Toyotism would like to have us believe). In the second place, Toyotist methods seem to contradict the growing process of individualisation, which is often given as the reason for the endemic resistance from Western workforces to massification and regimentation. Thirdly, Toyotism is the bearer of a programme of tertiarisation of the workforce, the so-called “whitening” of the blue-collar worker, which, while it actually only involves a rather limited minority of workers, nonetheless converges with the prognosis for a dualistic re-stratification of the workforce which the post-Fordists consider inevitable.

## Pre-Trade Union Fordism

What was the reality of Fordism for those workers who experienced it at first hand? Put briefly, Fordism is an authoritarian system of production imposed “objectively” by the assembly line, operating on wages and working conditions which the workforce is not in a position to negotiate collectively. Pre-trade union Fordism, with its use of speed-up, armed security guards, physical intimidation in the workplace and external propaganda, in the 1920s and 1930s was *one of the key elements in the slow construction of the world of concentration camps* which put out its claws initially in Stalin’s Soviet Union and which would soon put out claws in Nazi Germany too. By the opposite token, even during the Depression, the US witnessed a continued, and even strengthened, democratic grass-roots way of doing things which aimed at the building of the industrial union, and which laid siege to Fordism, and brought it down. In the twenty years preceding the unionisation of Ford in 1941, the company’s managers and goon squads conducted anti-worker repression, with beatings, sackings and public relations operations. One day perhaps we will be able to be more detailed than Irving Bernstein when, speaking of the main Ford plant of that period, he wrote: “The River Rouge... was a gigantic concentration camp founded on fear and physical assault”.<sup>29</sup> The fact is that the Fordist mania for breaking down the rhythms of human activity in order to crib and confine it within a rigid plan at the worldwide level was defeated in the United States, but in the meantime it had already made its way across to a Europe that was in

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Prentice Hall, 1994.

29 Irving Bernstein, *Turbulent Years: A History of the American Worker 193-1941*, Boston, Houghton Mifflin, 1969, p. 737.

flames. One could argue that in the twentieth century the assembly line is, together with totalitarian state systems and racist nationalism, one of the originating structures which broadly explain the concentration-camp crimes perpetrated on an industrial scale. By this I mean that in pre-trade union Fordism, and in Taylorism before it, there was not already contained in potentiality its opposite: not the superiority of work “to capital” as in Abraham Lincoln; nor the construction of the CIO industrial union; nor the fall of the racism and male dominated division of labour; nor even less the right to strike. Fascism and Nazism were not in their origins the losing versions of Fordism, but were forced to become such thanks to the social and working-class struggles of the 1930s in the United States—struggles which had already stopped a ruling class that was set on a course of corporatist solutions at the time of the formation of the first Roosevelt government in 1932-33.

As we know, in the United States the assembly line dates from way back. The process of series production of durable goods in the twentieth century was built on the American System of Manufactures, the method of production by interchangeable parts which was already operating in US industry in the nineteenth century.<sup>30</sup> Ford’s experiment in his factories is a crucial moment in this series production, inasmuch as it applies it to a consumer durable, the motor car, which had been a luxury object in the early years of this century, even in the United States. By so doing, Ford structured an increasingly broad-based and pressing consumer demand, which in its turn legitimated among public opinion the authoritarian measures so typical of the Ford factories in the period stretching from the early part of the century to the eve of World War II.

I use the word “authoritarian” advisedly to describe the Ford experiment, because in its way it was both more authoritarian and—especially—more grounded than the proposals that had been advanced by F.W. Taylor twenty years previously. The worker who works for Ford is an individual who produces the means for a multiplication of the points of contact between individuals,<sup>31</sup> but paradoxically he produces it precisely thanks to his own imprisonment for hours on end at the point of production, where he is deprived of the right of movement to an extent hitherto unheard of, just as the woman employed on his daily reproduction is bound to the rhythms of industrial production while at the same time confined to the social twilight of domestic labour. The

30 David A. Hounshell, *From the American System to Mass Production (1800-1932)*, Baltimore and London, the Johns Hopkins University Press, 1984.

31 Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*, Harmondsworth, Penguin, 1973, p. 265: “Society does not consist of individuals, but expresses the sum of interrelations, the relations within which these individuals stand.”

worker is also deprived of the right of speech, because—in this respect Fordist disciplining goes one stage further than Taylorism—the rhythm of his working day is set not so much by direct verbal orders from a superior, as by a pre-ordained tempo set by the factory's machinery. Communication and contact with his peers was minimised and the worker was expected simply to respond automatically and monotonously to the pace set by a totalitarian productive system. By no means the least of these factors of isolation were the linguistic barriers which immigrant workers brought as a gift to Ford, and which the company maintained and deliberately exacerbated for four decades on end, fomenting bitter incomprehensions and divisions. These were lessened only with the passing of time, by daily contact between workers, by the effects of the Depression, and by the organisational efforts—apparently defeated from the start, but nevertheless unstinting—of the minority who fought for industrial unionism during the 1920s and 1930s.

As we know, right from its establishment in 1903, the Ford Motor Company would not tolerate the presence of trade unions: not only the craft unions or industrial unions, but even “yellow” or company unions. Trade unions remained outside the gates of Ford-USA right up till 1941. Wages became relatively high for a period with the famous “five-dollar day” in January 1914, but only for those workers whom Ford's Sociological Department approved after a minute inspection of the intimate details of their personal and family lives—and then only in boom periods, when Ford was pressurised by the urgent need to stabilise a workforce which was quitting its factories because of the murderous levels of speed-up.<sup>32</sup> The plan for total control of workers and their families went into crisis after America's entry into the war in 1917; thereupon surveillance began the more detailed use of spies on the shop floor. In the recession following on World War I, the wages of the other companies were tending to catch up with wages at Ford, and Ford set about dismantling the forms of welfare adopted in the 1910s. In February 1921, more than 30 per cent of Ford workers were sacked, and those who remained had to be content with an inflation-hit six dollars a day and further speed-ups.

Ford's supremacy in the auto sector began to crack halfway through the 1920s, when the managers at General Motors (in large part refugees from Ford and its authoritarian methods), definitively snatched primacy in the world of auto production. Rather than pursuing undifferentiated production for the “multitudes”, as Henry Ford called them, General Motors won the battle *in the name of*

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32 Stephen Meyer III, *The Five Dollar Day: Labor Management and Social Control in the Ford Motor Company, 1908-1921*, Albany, N.Y., State University of New York Press, 1981, in particular pp. 96-202.

*distinctiveness and individuation*, broadening its range of products, diversifying, and introducing new models on a yearly basis. From the end of the 1920s, and up till unionisation in 1941, the Ford Motor Company was to be notorious for its wages, which were lower even than the already low wages in the auto sector in general.<sup>33</sup>

The fact of the company having been overtaken by General Motors, and Ford's financial difficulties, were not sufficient to break pre-trade union Fordism in the United States: it took, first, the working-class revolts and the factory sit-ins of the 1930s, and then the unionisation of heavy industry, to bring about the political encirclement of the other auto manufacturers, and, finally, of Ford, to the point where it eventually capitulated to the United Auto Workers union following the big strike in the Spring of 1941. Pre-trade union Fordism dissolved at the point when, faced with attacks by the company's armed security guards, the picketing strikers instead of backing down increased in numbers and saw them off. It was a moment worth recalling with the words of Emil Mazey, one of the main UAW organisers: "It was like seeing men who had been half-dead suddenly come to life".<sup>34</sup>

With the signing of the first union contract in 1941, not only did Ford line up with the other two majors in the auto industry, General Motors and Chrysler, but it even outdid them in concessions to the UAW. Ford was then saved from bankruptcy a second time only thanks to war orders from the government. Already in the course of the Second World War it had been attempting to strengthen the trade union apparatus in the factory, to bring it into line with the company's objectives. As from 1946, a new Ford management set about a long-term strategy to coopt the UAW and turn it into an instrument of company integration. Thus was Fordism buried. If, by Fordism, we mean an authoritarian system of series production based on the assembly line, with wages and conditions of work which the workforce is not in a position to negotiate by trade union means—Fordism as it was generally understood by labour sociologists in the 1920s and 1930s—then *Fordism was eliminated* thanks to the struggles for industrial unionism in the United States in the 1930s, which were crowned by the imposition of collective bargaining at Ford in 1941. As

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33 Joyce Shaw Peterson, *American Automobile Workers, 1900-1933*, Albany, N.Y., State University of New York, 1987. As Samuel Romer wrote in "The Detroit Strike", *The Nation* (vol. 136, no. 3528), 15 February 1933, pp. 167-8: "The automobile industry is a seasonal one. The factories slow down production during the fall months in order to prepare the new yearly models; and the automobile worker has to stretch the 'highwages' of eight months to cover the full twelve-month period." Cf. also M.W. La Fever (1929), "Instability of Employment in the Automobile Industry", *Monthly Labor Review*, vol. XXVIII, pp. 214-17.

34 Bernstein, *Turbulent Years*, op. cit., p. 744.

for the dictatorial tendency to deny the workforce discretionality in the setting of work speeds, and the imposition of work speeds incorporated into machinery, these were far from disappearing with the end of pre-trade union Fordism; if anything, by the late 1990s they become more pressing than ever, precisely in the face of the growth in the productive power of labour and the advent of computer-controlled machinery—but that now takes us a long way from pre-trade union Fordism.

We may or may not choose to see these tendencies as a chapter in a far broader movement of rationalisation which began with the American System of Manufactures and which has not yet fully run its course. In any event, the overall drive to command over worktimes through the “objectivity” of machinery<sup>35</sup> was incubated by other large companies before Ford, explodes with the diffusion of the Fordist assembly line, but is not at all extinguished with its temporary defeat at the end of the 1930s. In fact it seems to impose itself with renewed virulence even in the most remote corners where capitalism has penetrated.

## Global Post-Fordism and Toyotism

As for the category of post-Fordism, in its obscure formulation by the regulation school, it then opened the way to a number of positions which seemed to be grounded in two unproven axioms: the technological determinism of small-series production which, since the 1960s, is supposed to represent a major break with large series production in the manufacture of consumer durables; and the recent discovery of the productivity of communication between what they choose to call the “producers” in industry.<sup>36</sup>

The first axiom derives from the assertion that material production in general (even in engineering—which is more discontinuous than flow production) today proceeds by small series, because, thanks to the increasing flexibility of machine tools, beginning with the numerical control machinery of the 1950s, it has become easier to diversify products, in particular in the production of consumer durables. This diversification makes it possible to meet the needs of consumers seeking individuality, but also to mould people’s

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35 David Noble, “Social Choice in Machine Design”, in Andrew Zimbalist, *Case Studies on the Labor Process*, New York, Monthly Review Press, 1979, pp. 18-50.

36 An updated synthesis of these positions is to be found in Marco Revelli’s essay, “Economia a modello sociale nel passaggio tra fordismo e toyotismo” in Pietro Ingrao and Rossana Rossanda, *Appunti di fine secolo*, Rome, Manifestolibri, 1995, pp. 161-224.

tastes and to offer them the little touches and personalising elements that pass for expensive innovations. In short, this tendency is merely a strengthening of the drive to diversification which General Motors had attempted and promoted right from the 1920s, and which enabled it to beat Ford at a time when Henry Ford was saying that his customers could have any colour of car that they wanted as long as it was black. Mass production had only in appearance moulded the mass-worker (a term which is used, but also abused, in identifying changing historical figures in class composition). In some departments of Ford's biggest factory, River Rouge, the Ford silence was broken by the "Ford whisper", or by "discourse by hand signals", one of the elements of working-class resistance up until the decisive confrontation of 1941.<sup>37</sup> Despite the fact that workers had to wear identical blue overalls, and despite the fact that they were not given permission even to think, it was plain that the "producers" had minds which aspired to *individuation, not to a universal levelling*. We were reaching the end of the levelling battle for an equality "which would have the permanence of a fixed popular opinion".<sup>38</sup> Towards the end of the 1920, Henry Ford found himself for the first time in serious financial difficulties, arising out of his insistence on the single-colour Model T. It is worth noting that in the Ford factories, even in the dark years of the 1930s, there were workers willing to risk the sack by buying a General Motors car.<sup>39</sup> Thus, within the auto industry, it was General Motors in the 1920s that invented and brought about a flexible production that matched the needs of the times.<sup>40</sup> Its diversified vehicles were produced by means of a "commonalisation" of machine tools and of the main components of the finished auto. The basis of economies of range was economies of scale. The advent of variety in production did not have to wait for Toyotism, as C. Wright Mills was well aware in the early 1950s, when he denounced the manipulating interplay between mass tastes and "personal touches" in the products of his time.<sup>41</sup>

Furthermore, it is taken as real that Toyotism had already broken with "Fordism" in the 1950s and 1960s, because it needed to be flexible in order for its auto production to cope with a demand that was

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37 Irving Bernstein, *Turbulent Years*, op. cit., p. 740.

38 Karl Marx, *Capital*, vol.1, Harmondsworth, Penguin, 1976, p. 152.

39 Irving Bernstein, *Turbulent Years*, op. cit., p. 740.

40 While not belonging to the regulation school, there are two admirers of the Italian industrial districts who presented flexible production as an innovation typical of the 1970s. Here the reference was not to Japan, but to the eastern part of the Po Valley plain: J. Michael Piore and Charles F. Sabel (1983), *The Second Industrial Divide: Possibilities for Prosperity*, New York, N.Y., Basic Books; Italian translation, *Le due vie dello sviluppo industriale. Produzioni di massa e produzione flessibile*, Torino, ISEDI, 1987.

41 Charles Wright Mills, "Commentary on Our Culture and Our Country", *Partisan Review*, vol. 19, no. 4 (July-August 1952), pp. 446-50, and in particular p. 447.

somewhat diversified. Even the prime advocate of Toyotism<sup>42</sup> makes this clear, and a number of Western researchers, including Coriat, have propagated its myth. The fact was that in the post-War period, Toyota, as was the case with Nissan, was relatively inexperienced as a producer of vehicles; it had begun production only in 1936, and had quickly learned to build itself an oligopolistic position which contributed to the dislodging of Ford and General Motors from Japan a bare three years later. After 1945, with the Toyoda family still at the helm, the company focused on large series production, which was exported, and then also produced abroad. The continuity not with regulationist Fordism but with the US auto sector turns out to be far stronger than the Toyotophile vulgate would be willing to admit.

After a difficult period of post-War reconversion, Toyota tried the path of the cheap run-about (the Toyotapet), and experienced major strikes in 1949 and 1953. It was saved principally by the intransigence of Nissan, when they destroyed the Zenji auto union, but also thanks to United States orders arising out of the Korean War. Subsequently, and for a further twenty years to come, Toyota's range of products, and those of the other Japanese auto companies, was restricted to a very limited number of models. Up until the 1960s the defective quality of these models meant that exports were not a great success. Faced with this lack of success, there began a phase of experimentation based on using multi-jobbing mobile workteams on machine tools with variable programming, and on attention to quality with a view to exports.<sup>43</sup> It was the success of one single model (the Corolla runabout) in the 1970s that laid the basis for a diversification of production, and not vice-versa; and it was a success that Toyota was able to build on abroad as well as at home, where the market was far less buoyant. Up until the 1980s, the variety of Toyota models was prudently limited, and only in the 1980s, when the domestic market experienced a standstill, did the company expand their range of production with a view to winning new markets overseas. *Thus it was not the need for a variety of models, but the mobilisation of the workforce after a historic working-class defeat that explains Mr Ohno's experiments at Toyota.* The principal novelty of his experiments was that whereas General Motors in the 1920s had been content to have several ranges of cars built on separate lines, Toyota created work teams that could be commanded where and when necessary, to multi-jobbed labour on the production of a variety of models along the same assembly line.

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42 Tai'ichi Ohno, *Toyota Seisan Hoshiki* [The Toyota Method of Production], op. Cit.

43 Marie-Claude Belis Bourguignan and Yannick Lung (1994), "Le Mythe de la variété originelle. L'internationalisation dans la trajectoire du modèle productif japonais", *Annales*, 49, 2 (May-June), pp. 541-67.

As for “just in time” production, this had already been experimented with, in its own way, by the auto industry in the United States in the 1920s, and even after the Depression. The layoffs without pay, which were so frequent in the 1920s, and even more so during the Depression, because of the seasonal nature of demand, was one of the battlefields that was decisive in the creation of the auto union in the United States.<sup>44</sup> In the 1936-37 showdown between the UAW and General Motors, the union was victorious on the planning of stocks and on the elimination of seasonal unemployment. Perhaps those who sing the praises of “just in time” production could take a page or two out of the history of Detroit in the 1930s, or maybe a page from the history of the recent recurring strikes in Europe and the US by the independent car-transporter drivers operating within the cycle of the auto industry, who are actually the extreme appendages of the big companies.

As regards the second thesis, the supporters of the notion of post-Fordism claim that production now requires, and will continue to require, ever-higher levels of communication between productive subjects, and that these levels in turn offer spaces of discretionality to the so-called “producers”, spaces which are relatively significant, compared with a past of non-communicating labour, of “the silent compulsion of economic relations”<sup>45</sup> of the modern world. This communication is supposed to create an increasingly intense connectivity between subjects, in contrast with the isolation, the separateness and the silence imposed on the worker by the first and second industrial revolutions. While it is certainly true that processes of learning in production (“learning by doing”) have required and still require a substantial degree of interaction, including verbal interaction, between individuals, it remains the case that from Taylorism onwards the saving of worktime is achieved to a large extent through reducing to a minimum contact and informal interaction between planners and doers. Taylorism tried, with scant results, to impose a planning in order to increase productivity, depriving foremen and workers of the time-discretionality which they assumed by negotiating informally and verbally on the shop floor. However, in the era of pre-trade union Fordism it should be remembered that in the periods of restructuring of the factory, of changes of models and of technological innovation, the “whispering” of restructuration was not only productive, but was actually essential to the successful outcome of the operation. Anyway, the silence imposed by authority and the deafening noise of development is what dominates the auto industry through to the mid-

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44 M.W. La Fever, “Instability of Employment in the Automobile Industry”, op cit., pp. 214-17. Cf. also note 31 above.

45 Karl Marx, *Capital*, op. cit., p. 899.

1930s.<sup>46</sup> *But the disciplining of silence and of the whisper within the channels of capital's productive communication—is this not perhaps also a constitutive characteristic of the modern factory?* On this point, one might note that industrial sociology, as a discipline, was built on the concealing of the communicative dimension and on the rejection of any analysis of the processes of verbal interaction in the workplace. It is not a mere distraction. Here we have only to remember the words of Harold Garfinkel:

“There exists a locally-produced order of work things; [...] They make up a massive domain of organizational phenomena; [...] classic studies of work, without remedy or alternative, depend upon the existence of these phenomena, make use of the domain, and ignore it.”<sup>47</sup>

As for the tendency to impose speed-up in totalitarian fashion, this certainly did not disappear with the demise of pre-union Fordism; if anything it is even more in evidence in this tail-end of the twentieth century, precisely in the face of the strengthening of the productive powers of labour. In fact the tendency now assumes some of the characteristics of the pre-union Fordism of the Roaring Twenties: a precariousness of people's jobs; the non-existence of health care schemes and unemployment benefits; cuts not only in the real wage but also in money wages; the shifting of lines of production to areas well away from industrially “mature” regions. Also working hours are becoming longer rather than shorter. In the whole of the West, and in the East too, people are working longer hours than twenty years ago, and in a social dimension from which the regulatory power of the state has been eclipsed. The fact that people are working longer hours, and more intensively, is also thanks to the allegedly obsolete Taylorist chronometer and the “outmoded” Fordist assembly line. Ironically, precisely for France, which is where the regulationist school first emerged, precious data, non-existent elsewhere, show that *work on assembly lines and subject to the constraint of an automated pace of production is on the increase*, in both percentage terms and absolute terms: 13.2 per cent of workers were subjected to it in 1984, and 16.7 per cent in 1991 (out of, respectively, 6,187,000 and 6,239,000 workers).<sup>48</sup>

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46 Joyce Shaw Peterson, *American Automobile Workers, 1900-1933*, op. cit., pp. 54-6; Irving Bernstein, *Turbulent Years*, op. cit., p. 740.

47 Harold Garfinkel (ed.), *Ethnomethodological Studies of Work*, London and New York, Routledge & Kegan Paul, 1986, p. 7.

48 Anon., *Alternatives Economiques*, May 1994, on the DARES data: *Enquêtes spécifiques Acemo: Enquêtessur l'activité et les conditions d'emploi de main —d'oeuvre*. My thanks to Alain Bihr for this reference.

In the 1950s and 1960s—the “golden years” of Fordism as Lipietz calls them—the international economy under the leadership of the United States pushed the demand for private investment, even more than the consumption of wage goods. *What had appeared to be a stable system began to come apart from the inside*, because at the end of the 1960s the class struggle, in its many different forms, overturned capital’s solid certainties as regards the wage, the organisation of the labour process, the relationship between development and underdevelopment, and patriarchy. *If one does not understand the radicality of this challenge, it becomes impossible to grasp the elements of crisis and uncertainty which characterised the prospects for capital’s dominion in the twenty years that followed.*<sup>49</sup> The dishomogeneity of the reactions—from the war of manoeuvre against blue collar workers in the industrialised countries, through to capitalism’s regionalisation into three large areas (NAFTA, European Union and Japan) and to the Gulf War—denote not the transition to a post-Fordist model, but a continuous recombination of old and new elements of domination in order to decompose labour power politically within a newly flexibilised system of production.

## Conclusions

The regulation school looks at the implications of this recombination from capital’s side, seeing capital as the centre and motor of the overall movement of society. Hirsch and Roth speak in the name of many when they state that “it is always capital itself and the structures which it imposes ‘objectively’, on the backs of the protagonists, that sets in motion the decisive conditions of class struggles and of processes of crisis”.<sup>50</sup> Thus it is not surprising that the conclusions that the regulationists draw from their position tend to go in the only direction which is not precluded for them: namely that conflict against the laws of capitalist development has no future, and also that there is no point in drawing attention to the cracks in the edifice of domination. Paraphrasing Mark Twain, one might say that if the regulationists have only a pan-Fordist hammer, they will see only post-Fordist nails to bang.

In taking up this position, not only do the regulationists deny themselves the possibility of analysis of conflictual processes both now

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49 See the indispensable “Contribution by Riccardo Bellofiore: On Pietro Ingrao and Rossana Rossanda, *Appunti di Fine Secolo*”, pub. Associazione dei Lavoratori e delle Lavoratrici Torinesi (ALLT), 24 November 1995.

50 Joachim Hirsch and Roland Roth, *Das neue Gesicht des Kapitalismus*, Hamburg, VSA, 1986, p. 37

and in the future, but they also exclude themselves from the multi-voiced debate which is today focussing on social subjects.<sup>51</sup> This is the only way in which one can explain the regulationists' reduction of the working class in the United States to a mere *Fordised object*,<sup>52</sup> even in its moments of greatest antagonistic projectuality as it was expressed between the Depression and the emergence of the Nazi-Fascist new order in Europe. And given the limits of its position, regulationism is then unable to understand how this working class contributed decisively in the placing of that selfsame United States capitalism onto a collision course with Nazism and fascism. Pre-union Fordism was transient, but not in the banal (but nonetheless significant) sense of Henry Ford financing Hitler on his route to power and decorating himself with Nazi medals right up until 1938, but because what overturned the silent compulsion of the Fordised workforce was the workforce itself, in one of its social movements of self-emancipation—a fact of which the regulationists are not structurally equipped to understand the vast implications at the world level, and for many years to come, well beyond the end of World War II.

As regards today's conditions, what is important is not the examination of the novelties following on the collapse of various certainties in the wake of the fall of the Berlin Wall, but the possibility or otherwise of avoiding the inevitability of the passage to a "post-Fordist" paradigm in which labour power figures once again as a mere object and inert mass. As Peláez and Holloway note, the insistence with which the regulationists invite their audience to look the future in the face arouses a certain perplexity.<sup>53</sup> After all, a belief in the marvels of technology within the organisations of the labour movement has led to epic defeats in the past. What is at stake here is not just the inevitability or otherwise of a system—the capitalist system—which has too many connotations of oppression and death to be acceptable, but even the possibility of any initiative, however tentative, on the part of social subjects. What is at stake here is the possibility of resisting a preconstituted subordination of labour power to the inexorable New Times that are imposed in part, certainly, by the computer chip, but also by powerful intra-imperialist hostilities, which for the moment are disguised behind slogans such as competition and free trade.

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51 On this theme see Peter Miller and Nikolas Rose, "Production, Identity and Democracy", *Theory and Society*, vol. 24, no. 3 (June 1995), pp. 427-67.

52 During the first two five-year plans under Stalin, the workers on the assembly lines of the Gorky auto factory were referred to as "the Fordised" (*fordirovannye*) by the Soviet authorities.

53 Eloina Peláez and John Holloway, "Learning to Bow: Post-Fordism and Technological Determinism", in Werner Bonefeld and John Holloway (eds.), *Post-Fordism and Social Form*, op. cit., 1991, p. 137.

What the present leads us to defend is the indetermination of the boundaries of conflictual action. We shall thus have to re-examine a means or two, with a view to clearing the future at least of the more lamentable bleatings.

Up until now the decomposition and anatomisation of labour-power as a "human machine" has been a preparatory process of the various stages of mechanisation; it is a process which capitalist domination has constantly presented as necessary. The point is not whether post-Fordism is in our midst, but whether the sacrifice of "human machines" on the pyramids of accumulation can be halted.

*Translated by Ed Emery*

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