

MARXISM AND ENVIRONMENTAL THEORY

1.

How to reposition and re-conceptualise Marxism in the age of the crisis of our planetary system? Marxism when theorised in the 19th century, was conceived as the culmination, the apex, of then existing bourgeois science. When reading the manuscripts which Karl Marx wrote through the decades when he built his own system of economic science, one cannot but be impressed by his efforts to systematically reflect on the ideas which bourgeois economic theoreticians had developed before him. Both in the *Grundrisse*, in *Capital I, II and III*, and in *Theories of Surplus Value* Marx manifested his conviction that a theory for the liberation of the working class needed to build on the ideas which conventional economic theoreticians had hitherto formulated (1). Marx's theory of labour value, farsighted and original as it was, owed much to the academic efforts which his 'bourgeois' colleagues had made before him.

2.

The first statement, observation, that needs to be made in order to be able to develop a Marxian environmental science, is that the above is no longer valid, does no longer apply to Marxism today. True, as a science which helps us analyse the exploitation of human labour, Marxism continues to hold an exceptional position among the different theoretical disciplines. No matter how many formerly Marxist academicians may meanwhile have rejected the validity of the Marxian discipline, - Marxism continues to be the true starting point for a systematic analysis regarding the exploitation of human labour under capitalism. Marx's formulas devised to explain that workers are the source of surplus value, of the profits which entrepreneurs and companies invariably search to reap, continues to be a valid starting point for our understanding of capitalism today. Thus, before putting forward my own unconventional ideas on Marxism and environmental science in this essay, I wish to unreservedly re-affirm my support for Marx's achievements.

3.

Nevertheless, the state of the planet, of nature under world capitalist conditions, forces me to admit the *insufficiency* of the orthodox Marxist framework of analysis today, in the new millennium. Environmental science has meanwhile moved forward to conceptualise the very crisis which our planet is facing. Report after report has been drafted and published in recent years by international institutions and by reputable coalitions of research centres, indicating that the degradation of ecosystems has reached alarming proportions, and that unless policies be devised to halt the further degradation of our natural environment, the capitalist world system itself will be at risk (2). These reports indeed indicate that we can no longer interpret the present phase of capitalism in the way it was done one hundred years ago (monopoly capitalism/imperialism), but have to conceptualise capitalism's present phase as a phase of continuing imperialist exploitation, carried out in combination with the *ultimate* exploitation of nature's (remaining) wealth.

4. Further, the concepts put forward by environmental scientists compel us to re-conceptualise, rethink, critical economic science itself. Environmental scientists, no matter how poorly equipped to analyse the exploitation of human labour as they generally lack a training in Marxian ideas, have put forward views and concepts which can well be used to broaden the horizon of Marxist economic theory. For instance, their view is that capitalism is no closed system, moving from

inputs to harvest outputs via industrial manufacturing, but a system which depends on the *pre-* and *post-*existence of nature. They hold that *sources* from nature are relied on preceding any manufacturing, and that nature is relied upon to serve as a *dump* for our waste (3). This view can well be applied to re-adapt Marx's views on individual and social accumulation of capital. Again, while the horizon of both bourgeois and Marxian value theory was limited to analysing the meaning of capitalist commodities, contemporary environmental science has meaningfully advanced the debate on *inherent values* in nature (4).

5.

On the basis of this evaluation, assessment, of the positive importance of 'bourgeois' environmental science, of the empirical and analytical contributions made by scientists towards exposing the worldwide environmental crisis existing today, - I suggest to revisit and revise Marx's formulas for the circuits of individual and social capital, as also to put forward a distinct view on the era humanity is living in. In previous writings I have made a beginning with rethinking Marx's formula for the individual circuit of capital. When analysing the problematic of non-commodity waste in the nuclear production chain, I had suggested that we cannot presume the outcome of capitalist manufacturing to always be the creation of commodities with additional value. In some cases, I had posed, the creation of new commodities is accompanied by the emergence of waste that is so damaging to human health and to our natural surroundings, that companies engaged in the given production cannot dispose of this waste without incurring capitalist costs (5).

6.

It is necessary to broaden this initial conclusion. In fact the problematic of *non-commodity waste* is a *general* problematic, the revised formula required to take account of the existence of non-commodity waste in the nuclear sector, in reality is a revised formula with general applicability. This can be illustrated amongst others by referring to green house gases. The emissions of CO₂, of carbon dioxide, and of other gases which are known to affect climate conditions on earth, are not just a by-product of one economic sector of our capitalist world economy, but in fact of a whole variety of production sectors, as also of transports, including automobiles, and thus of human consumption (proper). Hence, even though Marx can in no way be blamed for not having predicted the invention of 20th century nuclear production, even though it is understandable that no bourgeois or Leftwing economist in his days posed the question of non-commodity waste, - today we can no longer deny that such waste is the inevitable by-effect of almost all capitalist production.

7.

Still, a re-conceptualisation of the individual circuit of capital to take account of non-commodity waste, of the fact that industrial extraction and manufacturing does not simply result in a new commodity, but also in waste, thus does not suffice. We further have to admit that the circuit of money capital does not just end differently that conceptualized by Marx, but that to get it started the circuit also is far more dependent on the supply of non-commodity natural sources than Marx cared to admit. Thus, in the case of the mining industries, in the case of logging, as also in the case of industrial fishing, companies and corporations heavily rely on the 'free' availability of natural resources in order to make their profits. Of course, they also benefit from wage-slavery, i.e. thrive on the availability of people's labouring strength not being paid in full. However, it would be foolhardy to deny that companies engaged in extraction - whether mineral extraction, extraction of forest resources, of fish wealth, or otherwise - build their profits in part on the achievements which nature has scored over hundreds of millions of years.

8.

A further step along with the rethinking and re-adapting of Marx's original formula for manufacturing by an individual entrepreneur, is to pose the issue of *capitalist consumption*, i.e. consumption proper. When drafting his own theory, Marx had spoken of 'consumption' when referring to the manufacturing phase of an individual capital circuit. He rightly suggested that manufacturing cannot take place without consumption of commodities taking place, meaning the consumption of raw materials, of other means of production and of labour power, bought in the first phase of an entrepreneur's circuit. When drafting my theory on militarism, I had suggested that it is possible to conceptualise wars, namely via a formula for the consumption of arms and armaments (6). This formula emerged from reflecting on Marx's original formula for the individual circuit of capital. Yet we also need a formula for the consumption of *civilian* commodities, and it again can be devised by drawing on the basic formula for capitalist production, which Marx had put forward in *Capital II* (7).

9.

The issue of *consumption proper* needs to be addressed in view of the fact that a production circuit does not simply end with the sale of commodities and the transformation of commodity capital into money capital. As policymakers in industrialized countries have been forced to increasingly realise in recent decades, - the mass consumption which is required to keep the system of monopoly capitalism running results in ever larger mountains of waste, - waste which does not automatically vanish or disappear, but which unless treated and properly stored, or recycled for re-use, damages the very natural surroundings on which human societies depend. This waste in the form of *consumed commodities* in some cases may be less damaging than non-commodity waste and social waste, the two forms of waste which I have conceptualized within the framework of my theory on military production. Nevertheless, unless the problematic of consumed commodities be posed via a separate formula, the waste resulting from capitalist consumption will continue to be overlooked.

10.

The amount of rethinking which needs to be done in order to make sure Marxism remains an adequate tool for analysis, as the above comments show, is clearly becoming large. However, a renewed formula for the individual circuit of capital incorporating the effects of production on nature, together with a formula for capitalist consumption, still will not suffice to expose today's world environmental crisis. In order to be able to do the latter, we will also have to return to reconsider Marx's formulas developed to explain the complications of a capitalist business cycle, i.e. his formulas for the social accumulation of capital (8). Here we may take some clues from Rosa Luxemburg, who felt that in his analysis of 'social' reproduction Marx had wrongly presumed that the capitalist system is 'closed'. Whereas she did not point specifically at nature, the '*non-capitalist surroundings*' which she referred to may be read to refer to capitalism's rapacious relationship with our natural surroundings, the earth (9).

11.

In order to rethink Marx's diagrams for social accumulation, we need to make use of the twin environmental concepts of value, i.e. the concepts of *intrinsic value* and of *negative use value*. Marx, when making his mathematical calculations about social accumulation, had analysed capitalist production in the very same manner as he did when discussing individual accumulation: he divided the outcome of manufacturing, commodities, into three value parts, - constant, variable and surplus capital. Nowhere did he conceptualize the fact that the products emanating from his Departments of Production could negatively impact on human health and on nature; nowhere in his discussion on the diagrams regarding social accumulation did he pose the question of the detrimental effects of capitalism's by-products, the solid, fluent and gaseous waste churned out by capitalism's industrial sectors. In order to make visible the fact that capitalist production in the

various Departments does not just result in surplus value, but in negative use-values resulting ultimately in capitalist costs, we thus need to refine Marx's formula for the outcome of Departmental production (10).

12.

Again, just as in the case of individual accumulation, there in the case of social accumulation is the question of the exploitation of nature, which exploitation forms the very starting point and cornerstone of all social accumulation. It is true, of course, that not all sectors of a capitalist economy draw directly on the resources of nature. Nevertheless, no national economy can be run, without it having access to nature's organic and inorganic resources. The least we can do, in order to expose the fact that capitalism is dependent on nature's labour, is to incorporate into the diagram with Production Departments the fact, that the *inherent values* of nature are transformed into instrumental values, and that the processes of extraction on which national economies depend, affect nature's values, i.e. biodiversity, in numerous unseen ways (11). Just as we need to pose the fact that the outcome of capitalist production negatively affects our natural surroundings, we also need to pose the fact that nature contributes its own values to make capitalist production possible.

13.

There is, lastly, the urgent need to rethink the historical stages of capitalism in view of the present global environmental crisis. In brief: the history of the world capitalist system has often been depicted along the lines of imperialist expansion and domination over peripheral regions of the world. The utterly rapacious character of the system is well reflected in the way the human and natural resources of Southern continents have for many centuries since the later part of the Middle Ages been drawn on to build and help build central economies. Yet whereas there exist numerous sources on the periodisation of *imperialism*, - the history of environmental degradation under capitalism has rarely been periodicised. Today, as the environmental crisis is reaching a global climax, with ecosystem degradation becoming a worldwide concern, with the biodiversity losses taking place at an ever accelerating pace, and with climate change drawing every more alarming observations from scientists, - there is a clear need to reflect on the relation between capitalism and our natural surroundings in its various historic phases. In this manner, the earth's present crisis will be understood best.

14.

Marxist economic theory emerged in the 19th century as a holistic theory, as a theory which incorporated many of the finest ideas put forward by Marx's precursors. Today, Marxism needs to struggle, to fight, to regain this position at a time when the future of the earth is at stake. 'Bourgeois' environmental science, as indicated above, has meanwhile made significant progress in mapping the detrimental consequences of capitalist production and consumption. It has moved far beyond the parameters of all classical economic thinking, to expose the enormous risks of unplanned, competitive, exponential growth. At this particular point in time, if judged from an environmental perspective, Marxism is *lagging behind* instead of leading the way. Nevertheless, the potential for building a Marxist environmental perspective in my view definitely exist. If the theory of value be restructured, expanded, to build a labour/nature theory of value, as suggested in this essay, Marxism can regain its former position as a theory equipped to achieve revolutionary change.

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References:

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- (2) see eg. *Millennium Ecosystem Assessment. A Report of the Millennium Ecosystem Assessment* – www.millenniumassessment.org ;
- (3) for instance Donella Meadows, Dennis L.Meadows, Jorgen Randers, *Beyond the Limits. Global Collapse or Sustainable Future* (Earthscan Publications Ltd., London, 1995);
- (4) for the concept of inherent value, see Hugh P.McDonald, *John Dewey and Environmental Philosophy* (State University of New York Press, New York, USA, 2004); David Pearce, *Blueprint 4. Capturing Global; Environmental Value* (Earthscan, London, 1995);
- (5) Peter Custers, *Questioning Globalized Militarism, Nuclear and Military Production and Economic Theory* (forthcoming);
- (6) Peter Custers (forthcoming), op.cit., Chapter Twenty Four;
- (7) Karl Marx, *Capital. A Critique of Political Economy. Volume II* (Progress Publishers, Moscow, USSR, 1967);
- (8) Karl Marx (1976), op.cit.;
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- (10) Peter Custers (forthcoming), op.cit., Chapter Three;
- (11) see Hugh P.McDonald (2004), op.cit.; and David Pearce (1995), op.cit.