

## The Journal of Population and Sustainability

ISSN 2398-5496

Article title: Marx, population and freedom

Author(s): Julian Roche

Vol. 5, No. 1, 2020, pp.31-46

doi: 10.3197/jps.2020.5.1.31 Open Access – CC BY 4.0

# PEER REVIEWED ARTICLE Marx, population and freedom

Julian Roche<sup>1</sup>

University of Edinburgh

## Abstract

Marxists have long moved beyond a perception of Marx as a Promethean ecological vandal. Yet those disputing his environmental credentials are generally united in deploring the unhappy history of population control. They implicitly accept the idea of currently forecast future population levels as consistent with a Marxist view of human emancipation. This assumption should be challenged, on the basis of what resources a truly unalienated future may require in order to achieve real freedom for each future individual.

Keywords: Marxism; environmental impact; population control; freedom.

## Marxism and the environment

The time when a consensus existed that Marx was largely blind to ecological problems now seems long ago. As an all-too brief summary of events since, invidious in its choice of authors amidst a plethora of work, eco-socialist critics such as André Gorz (1994), Ted Benton (1989, 2001), James O'Connor (1988, 1998), Joel Kovel (2002) and Daniel Tanuro (2003), many in the *journal Capitalism, Socialism, Nature*, as well as eco-feminists such as Merchant (1992, 2005, 2012) and Ariel Salleh (1997, 2012) broadly agreed that Marx's undeniable emphasis on human labour implicitly denigrated the importance of the biosphere. In response, whilst largely agreeing in terms of objectives, contesting terms and even collaborating

<sup>1</sup> s1724025@ed.ac.uk

(Kovel & Löwy, 2001), Marxists concerned with the environment – notably Paul Burkett (1999, 2014) John Bellamy Foster (2000, 2009, 2011, 2014), and Michael Löwy (2017) constructed new theories of Marxist ecology, aiming to render the Marxist theory of surplus value more compatible with environmental concerns. And more recently, a comprehensive assessment of Marx's 'ecological turn' in later life leads at least to questioning whether Marx himself, at least, recognised the close relationship between human and planetary welfare, even if many of those subsequently acting in his name did not (Saito, 2016, 2017).

There is however a paradox at the centre of all these efforts to integrate Marxism and environmental politics. Whilst there is great concern over what kind of planet people should enjoy, there is a relative neglect of how many people there might need to be in order for a specifically Marxist ecological politics to succeed. Answering this question raises the question of the relationship between population, ecology and human freedom, which Marxism has generally eschewed.

## Marxist theory of population

The reason Marxists have been suspicious of population control lies in the 'archaeology' of Marxism. Marx and Engels themselves were highly critical of Thomas Malthus's early account of scarcity and population (Jones, 2020, p.101). Whilst population is a critical determinant of the ability of underdeveloped societies to affect their external environment, Marx suggested that 'this reproduction of labour-power forms, in fact, an essential part of the reproduction of capital itself. Accumulation of capital therefore entails an increase of the proletariat'. (Marx, 2015 [1867], p.435); Perelman, 1987, p.30). That being Marx's own view, the predominant Marxist view of population control has always therefore been that it is at worst rebarbative, at best unnecessary, and largely irrelevant in a wider economic and political context, as population levels will be determined historically, first by capitalist, and subsequently by socialist social relations. The practically universal assumption has been made that Marxism need not, indeed should not, address questions of population, whether in relation to the achievement of socialism or their possible role in ending alienation and creating universal freedom. These questions had been 'solved' by Marx.

Marxists have therefore argued from the fact that technology has always risen to the challenge of production for a growing population, leaving only a very real question of distribution. There is evidence that this overall approach is reasonable, if not always accurate. Generally, as wealth increases, fertility rates naturally fall as families invest more resources in fewer children. There is an empirically observable tendency that even in the absence of socialism, as people, especially women, gain education and income, fertility rates decline (Williams, 2010, n.p.), albeit unevenly. If so, we need not worry: economic growth and rising prosperity, even under capitalism, will solve the problem of overpopulation by itself. As one Marxist author, following the well-trodden path of environmentalists such as George Monbiot (2007) and Naomi Klein (2014) who argue that capitalism and the health of the planet are incompatible, summarised the Marxist response: population is not the problem, capitalism is, so 'Higher population growth rates are a product of hunger, not its cause' (Williams, 2010, n.p.). Marxists are not alone: the entire field of social reproduction theory too has placed the conflict between capitalism and reproductive freedom at its centre (Bhattacharya, 2020). This then leaves the problem of hunger as fundamentally one of distribution; the Food and Agriculture Organisation of the United Nations has stated plainly (FAO, 2005), and repeatedly (Martin-Shields & Stojetz 2018; FAO, 2019), that global conflict is the main cause of global hunger, and that the world has plenty of food if only it could be rationally distributed. Unfortunately, capitalism prevents that very effectively, not only through conflict but also by ensuring that international grain markets are directed at animal feed rather than food consumption (Cohen, 2017, p.38).

Marxists have therefore largely worried that concentrating on population confuses symptoms with causes, as well as failing to distinguish between absolute levels and rates of change, while simultaneously validating apologists for the system— and in some cases actively updating and perpetuating Malthusian anti-poor, nationalist, and racist arguments. Although there have been exceptions, the majority of Marxists have followed Bernstein on the Right and Luxembourg on the Left (Petersen, 1988, p.87) in being stridently opposed to population control, ably summarised in the argument that: 'The majority of the world's people don't destroy forests, don't wipe out endangered species, don't pollute rivers and oceans, and emit essentially no greenhouse gases' (Butler & Angus, 2011, n.p.). The point has also been made that: 'Capitalism's drive for growth isn't a drive for more customers – it is a drive for more profit' (Angus & Butler, 2013,n.p.).

It is noticeable that such criticism of population control often focuses on the contested liberal terrain of 'human rights' (Angus & Butler, 2013). The problem here is that the rights of the current generation may come at the expense of successive generations to follow – including those who will eventually inherit the Earth when capitalism has finally been ended. At the time the one-child policy was first introduced, the Chinese Government appeared to be groping uncertainly for this kind of concept. No doubt they made mistakes, ably and enthusiastically seized upon by opponents of population control (Mosher, 2008). And it may be readily conceded that policy directed at achieving a specific level of population must inevitably strike a balance between investment in the future of humanity and individual liberty in the short-term, at least so long as that liberty is conceived in terms of liberal 'rights' to personal procreation and not unshakeably connected to hope in the future. Similar trade-offs of course exist in the restriction of personal freedoms throughout the realm of government.

Unfortunately, also, however justified his arguments against Malthus, Marx did not 'solve' the question of population forever. Nor, although it is perhaps ironic for Marxists to argue it, is it necessarily the case that capitalism will necessarily come to the rescue of women everywhere and enable fertility rates to decline. Although Angus & Butler (2011) suggest that the argument that rising incomes are strongly correlated with declining population growth is irrefutable, and it is certainly generally the case, recent evidence from Nigeria, where population growth rates have remained steady for decades, is surely sufficient to disprove this as a universal hypothesis. Just as importantly, whilst global population growth rates have undoubtedly declined, that is of scant use to the underprivileged of Bangladesh, for example, where although the rate of growth of population is declining, the country still adds over 1.5m of predominantly very poor people annually. As a result, the question of at what level global population will peak, even that it actually will, is not yet settled. More importantly, it is definitely not clear what kind of population density will be the case when it does: all we can be certain of is that it will certainly be greater than that which prevails in advanced Western democracies such as Australia and the United States, even Europe.

Yet there seems to be no alternative for Marxists but to join their political adversaries in hoping that all will turn out well. It would seem that Marxists should welcome a growing global population, but unless socialism can be achieved in

the process, only if they remain poor, surely an entirely unwelcome paradox. Either way, by relegating questions of population to an increasingly distant communist future, Marxists appear to have marginalised themselves politically on this issue as on many others. Something has gone wrong here.

#### Three components of human freedom

What has been neglected throughout the development of the relationship between Marxism and population are the psychological, geographical and temporal dimensions.

In relation to the psychological dimension, the trail leads back to the debates over the role of the individual within Marxism and the debate between Marxist humanism and structural Marxism almost half a century ago. For Marx, alienation and capitalism were inseparable. Yet tragically, 'free conscious activity constitutes the species-character [Gattungswesen] of man' (Marx, 2009 [1844], p.81]). Overcoming capitalism entails a future in which human beings can and do participate in human society through free, cooperative activity, through which individual human beings can realise their freedom. For Marx, freedom means 'the conscious shaping by humans of the social conditions of their existence and so the elimination of the impersonal power of alienated, reified social forces' (Walicki, 1988, p.13). As a result, for Marxism, individual freedom cannot and certainly should not ever be defined in the liberal sense; it must remain 'social, collective and positive' (Brenkert, 2013, p.88). To be free, individuals must become ends-inthemselves, and not subject to such constraints in their actions that their time is used up in unwelcome, repetitive labour within a capitalist economy, even if an improvement over primitive conditions prior to the control of Nature (Marx, 2010 [1894], p.593]). The world Ayn Rand envisaged cannot deliver human freedom for all. Certainly, working conditions in many parts of the world are far better than the 19<sup>th</sup> Century capitalism that Marx saw first-hand, although by no means everywhere. Nevertheless, Marx's original criticism, that labour under capitalism denies human self-realisation, remains a forceful, relevant and valid one for the majority of human labour (Sayers, 1998, p.39), even in the 21st Century, and even in developed countries.

Subsequent theorists took up the argument and placed the individual at the centre of the Marxist project. A first example: the leading Marxist humanist Adam

Schaff recognised that socialist societies are not free from alienation, but one of the chief causes was that neglect of the problem of the human individual had in the 20<sup>th</sup> Century to the theoretical impoverishment of Marxism and its practical distortion (Schaff, 1967, p.143). In his view, personality is and always will be: 'the defining factor of a real individual, peculiar to the individual' (Schaff, 1970 [1965], p.94). Schaff's view that elimination of private property is an essential step towards the flourishing of individual personality points both to his fidelity to the Marxist tradition, but also to his implicit recognition of the sheer complexity of the multiple prerequisites for freedom in a Marxist sense, many of which will inevitably be severely circumscribed by the diminishing allocation of natural resources to individuals that a growing population inevitably entails.

A second example: Erich Fromm, who if not entitled to the appellation of Marxist himself was certainly closely associated with the Marxist tradition (Wilde, 2000, p.55), took the view that separation from nature is the basic human trauma, creating a sense of emptiness that is often addressed negatively, through the pursuit of power, wealth or fame, or through engagement in relations of dominance and subordination, but which can also be addressed positively, through the pursuit of human solidarity and through love and care for others. Love and solidarity are basic human needs that are consistently frustrated by capitalism. This created the need for a decentralised socialist society based on cooperation and self-management. Fromm's position hardly changed over two decades: in his later work he again complained that whilst 'industrial society has contempt for nature' (Fromm, 1976, p.17), a new form of humanity is possible, as 'Having and being as two different forms of human existence are at the centre of Marx's ideas' (Fromm, 1976, p.156).

Third example: in developing a theory of the human personality within Marxism, Lucien Sève, although himself opposed to Marxist humanism, argued for the formal characterisation of the problem caused by the absence of learning and development activity within the capitalist workforce of as a falling rate of progress in individual development over time, expressed in 'the general tendency of personalities to stagnation and ossification as the years pass' (Sève, 1978 [1974], p.360). Sève later advanced the example of successful retirement in Western society, surely beyond doubt a resource-intensive activity from which few as yet can benefit, as potential liberation from this downward spiral (Sève, 2008, p.417). It must be conceded that Sève's view did not go without challenge within the Marxist tradition. Louis Althusser went so far as to argue for the rejection of the conscious subject as an 'absolutely ideological conceptual device' (Althusser, 1971, p.157) From this theoretical debate, the paradox within Marxism therefore stands ready to emerge. Collectivist regimes may be more willing to use the tools historically associated with population targets, but their reasons, such as Mao's pragmatic concern with managing city size through migration (Lampton, 1974, p.687) are largely tactical, and by no means necessarily directed at the freedom of actual, living individuals. Whereas, Marxist humanists may have a much stronger strategic focus on the potentially negative implications of population growth for individual freedom, they are much more cautious in respect of the potential use of political tools to curb it and the balance between present and future individual freedom.

The second dimension is geographical, urban geography in particular. For a Marxist, true freedom cannot be found in endless multiplication of private spaces. Hence when Engels considered housing problems in the big cities of his day, he visualised that expropriation can end overcrowding (Engels, 1872). This rendered him open to the criticism that 'the problems of the city are displaced by the problems of revolution' (Merrifield, 2002, p.47). Today's Marxists are committed to a struggle against capitalist social relations, as well as economic ones: the contemporary city, as Marxists have persistently argued, has become a metaphor for the hopelessness of radical struggle and the location of huge inequalities. Poverty, overcrowding and resultant poor health and low life expectancy in major global cities have become unwelcome but recurrent reminders of the failure of capitalism to provide living conditions for the majority, lived environments in which individuals recognise that their freedom is permanent jeopardy (Jaffe et al., 2020, p.1015). The conclusion Marxists should draw is that individual freedom becomes progressively harder as population density passes a point that places psychological pressure on the individual. One example of this is the choice of location in Western cities: collectively, well-designed high-rise apartments with emphatic collective spaces are kinder on the environment and more conducive to interpersonal communication. Urban planners with Marxist leanings should however remember that many seek the suburbs because the prospect of apartment living fills them with dread. The result is urban sprawl, dreadful for the environment (Dietz & Rosa, 1997) and scarcely satisfying as a mode of living. It is no accident that the cities and countries that consistently win prizes for liveability are those with lower population densities, or that one of the almost inevitable corollaries of personal wealth is the accumulation of living space, often in multiple locations. No Marxist can want this to continue indefinitely.

But in developing responses, it is no use for Marxists to pretend that in making the world anew, they can ignore the reality of urban geography. High-density living and urban sprawl are physical, geographical facts as well socio-economic ones (Gonzalez, 2005, p.344). Yet Marxists of every stripe have always seemed largely determined to ignore the fact that the elimination of capitalism will not automatically remove geographical and natural constraints, nor instantly make the urban environment anew. Even when a Marxist recognises that human overpopulation 'is the single most important factor contributing to human destruction of the environment' (Andrews, 2013, n.p.), the focus is on environmental damage, although his analysis of the consequences of allowing all land to be shared comes very close to the point. That is, socio-economic change is of no use if the end-result is crippled by too many people – and there may already be too many people for individuals to be properly free, in a Marxist sense.

Caution and balance notwithstanding, the third dimension of the Marxist view of human freedom remains hope for the future. The freedom that is to be fought for now is that of generations to come. There is good reason to avoid potentially sterile Marxist exegesis. But if Marx's own words are to be cited, arguably the text that should be at the forefront of any debate over population and Marxism is in fact this well-known assertion:

'in communist society, where nobody has one exclusive sphere of activity but each can become accomplished in any branch he wishes, society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticise after dinner, just as I have a mind, without ever becoming hunter, fisherman, herdsman or critic' (Marx & Engels, 1970 [1846], p.53).

Traditionally, this paragraph has been considered solely as a metaphor for the end of the division of labour. But at least arguably it implies that the end of capitalism is simply no use if after its welcome demise, people are prevented from exercising those new-found freedoms from the division of labour by the size of human population. Problems posed by population for the exercise of human freedom as properly understood are no doubt endemic to capitalist society, but they will undoubtedly also persist after its demise. Marxists should certainly not ignore them.

Three neglected dimensions of genuine, unalienated freedom – and all of them with potential implications for the population policy Marxists should advocate.

## What should Marxists do?

The fundamental confusion for Marxists over population policy has been between the technical and the economic. At the root of the problem is an understandable, but nevertheless unforgiveable, confusion between two different causes with the same result. Marxists are right to lay the blame for the appalling conditions under which many people still live on capitalism. But Engels was equally right when he speculated that at some future point, the number of people might become so great that limits will have to be set to their increase. Engels suggested 'population control from the center' (Hollander, 2011, p.149):

'The abstract possibility that mankind will increase numerically to such an extent that its propagation will have to be kept within bounds does, of course, exist. But should communist society ever find itself compelled to regulate the production of humans in the same way as it has already regulated the production of things, then it, and it alone, will be able to effect this without difficulty. In such a society it would not, or so it seems to me, be particularly difficult to obtain deliberately a result which has already come about naturally and haphazardly in France and Lower Austria. At all events, it's for those future people to decide whether, when and how it's to be done and what means they wish to use. I don't consider myself qualified to supply them with suggestions and advice about this. Indeed, they will, presumably, be every bit as clever as we are' (Engels, 2010 [1881], pp.57-58]).

When Engels mused over population control, as with agricultural production, he was convinced that the issue would only ever be likely to confront humanity under communism, when society as a whole would solve the complex problem of making rational decisions in the interests of all existing and future people equally. In reality, it now seems exceptionally likely – indeed, throughout the world it has already been the case – that population policy will continue to be shaped under capitalist economic conditions. There is nothing unusual in that – the same applies to a multitude of issues of global concern, including gender relations and environmental controls more broadly. In no case are Marxists excused from taking a policy position on the ground that the founders of Marxism expected such issues to be resolved within the context of a socialist or even communist society. The time for endless apologies over the excesses of States propounding Marxist-Leninist ideologies is now firmly over as well.

Revisionism has never carried positive connotations within Marxism. Yet accommodation with the capitalist State is constantly necessary, whether to fight for workers' rights, campaign against injustice, or to protect the environment. Attitudes to population policy should be no exception. Much as revision to Marx need not always involve any kind of hypothetical exegesis, it does seem entirely unreasonable to leave Marx's debate with Malthus as the last word of Marxists in regard to population. This is especially so given that Marx himself throughout his work recognised the need to accept scientific advance as a cornerstone of economic and political change. At the very least the question should be left open.

The difficulty lies therefore not in accepting the principle of population policy within the context of a capitalist State. However many difficulties there have been historically, this may be not only desirable but entirely necessary for improved environmental outcomes essential to the eventual achievement of space and freedom for future generations of humanity, something on which Marxists may agree with many others. Rather, it is a complex question of political decision-making. It may be that global population of seven to ten billion is eventually perceived as inconsistent with human freedom and personal development, and population policy aimed at reducing this total in the long term is eventually adopted. This may occur whilst societies continue to be capitalist, in which case Marxists and others on the Left will have an important role to play in determining the practical way in which it is implemented. Under such circumstances, continued opposition would simply perpetuate the perception of Marxists will be to criticise the privatisation of reproductive rights, for example to exercise scepticism

towards any entirely market-driven solutions, such as the all-too plausible route of competitive auctions (Tobin, 1970, p. 271) or the lesser evil of equally allocated but tradeable reproduction rights (Lianos, 2018, p.93). Marxists should argue instead for socially determined population targets and the protection of the vulnerable, as the Left argues against private health and education. Victory in such a potential conflict may itself even play an important role in the wider political struggle against capitalism itself.

#### Conclusion: the revival of the human project

The conclusion to be drawn is surely this: Marxism – and socialism more widely – has always claimed to have at its centre, the theory and practice of human emancipation. Putting humanity at the centre of a political and environmental project will achieve much more than relegating it to the periphery, but only if by humanity we understand what Marx meant by it at the level of the individual. There is a need to shift away from silence over how capitalism can sustain ever larger global population, whilst at the same time criticising the consequence of environmental depredation that capitalism has continued to bring in its wake. Marxists would be better to look to the intersection of psychology, geography and hope to help shape their response to the challenge of global population growth and the population density it implies. The combination of a Marxist theory of human freedom, and practical politics based on realistic appreciation of how such freedom can best be promoted in the future, could well turn out after all to be the best prospect for the survival of the planet and the flourishing of humanity as a whole.

If so, in arguing for human freedom, Marxists cannot shirk the responsibility for advocacy of population policy, should it prove necessary – which will eventually be a technical question at the intersection of psychology, geography and forecasting, not a speculative matter for philosophy or a question of political slogans. This may yet turn out to be Marx's greatest legacy: to create real freedom, it may not only be necessary to surpass capitalism, but also to ensure that those future people who will benefit from its abolition are able to do so without crippling resource constraints, so that they can indeed hunt in the morning and fish in the afternoon, and not be forced to just criticise all day.

#### References

Althusser, L., 1971. *Lenin and philosophy and other essays*. Translated by B. Brewster. London: New Left Books.

Andrews, J., 2013. *Too big not to fail*? Available at: <https://dissidentvoice. org/2013/02/too-big-not-to-fail/> [Accessed 4 May 2020].

Angus. I. and Butler, S., 2011. Too many people? London: Haymarket Books.

Angus. I. and Butler, S., 2013. Is population control an anti-capitalist policy? *Links* [on line] March 10. Available at: <a href="http://links.org.au/node/3250">http://links.org.au/node/3250</a>> [Accessed 5 May 2020].

Benton, T., 1989. Marxism and natural limits. New Left Review. 178, pp.51-86.

Benton, T., 2001. Marx, Malthus and the Greens: a reply to Paul Burkett. *Historical Materialism.* 8(1), pp. 309-331.

Bhattacharya, T., 2020. Liberating women from political economy. *Monthly Review.* 71(8), pp.1-13.

Brenkert, G.G., 2013. Marx's ethics of freedom. London: Routledge.

Burkett, P., 2014. *Marx and nature: a red green perspective*. 2<sup>nd</sup> edition. London: Haymarket Books.

Butler, S. and Angus, I., 2011. Is the environmental crisis caused by the 7 billion or the 1%? *Grist* [on line] October 26. Available at: <a href="https://grist.org/population/2011-10-26-is-the-environmental-crisis-caused-by-7-billion-or-the-1-percent/">https://grist.org/population/2011-10-26-is-the-environmental-crisis-caused-by-7-billion-or-the-1-percent/</a> [Accessed 5 May 2020].

Cohen, J.E., 2017. How many people can the Earth support? *Journal of Population and Sustainability*. 2(1), pp.37-42.

Dietz, T. and Rosa, E.A., 1997. Effects of population and affluence on CO2 emissions. *Proceedings of the National Academy of Sciences*. 94(1), pp.175–179.

Engels, F., 1881 [1992]. Letter to Kautsky. 1 February 1881. In *Marx and Engels Collected Works* Volume 46. London: Lawrence and Wishart, pp.57-58.

FAO, 2005. Assessment of the World food security situation. Committee on World Food Security, Thirty-first Session, Rome, 23-26 May 2005. Rome: Food and Agriculture Organisation. Available at: <a href="http://www.fao.org/3/J4968e/j4968e00">http://www.fao.org/3/J4968e/j4968e00</a>. htm> [Accessed 8 May 2020].

FAO, 2019. Monitoring food security in countries with conflict situations. Rome: FAO. Available at: <a href="http://www.fao.org/3/ca3113en/CA3113EN.pdf">http://www.fao.org/3/ca3113en/CA3113EN.pdf</a>> [Accessed 8 May 2020].

Foster, J.B., 2000. Marx's ecology. New York: Monthly Review Press.

Foster, J.B., 2009. The ecological revolution: making peace with the planet. New York: Monthly Review Press.

Foster, J.B., 2011. The ecology of Marxian political economy. *Monthly Review*. 63(4), pp.1-16. pp.1-16. DOI: 10.14452/MR-063-04-2011-08\_1.

Foster, J.B., 2014. Paul Burkett's Marx and nature fifteen years after the robbery of nature. *Monthly Review*. 66(7), pp.56-62. DOI: 10.14452/MR-066-07-2014-11\_5.

Gonzalez, G.A., 2005. Urban sprawl, global warming, and the limits of ecological modernization. *Environmental Politics*. 14(3), pp.344-62

Gorz, A., 1994. Capitalism, socialism, ecology. London: Verso.

Hartmann, B., 1997. Population control: birth of an ideology. *International Journal of Health Services*. 27(3), pp.523-40.

Hollander, S., 2011. *Friedrich Engels and Marxian political economy*. Cambridge: Cambridge University Press.

Jaffe R., Dürr, E., Jones G.A., Angelini, A., Osbourne, A., and Vodopivec, B., 2020. What does poverty feel like? Urban inequality and the politics of sensation. *Urban Studies*. 57(5), pp.1015-1031. DOI:10.1177/0042098018820177.

Jones, G.S., 2020. Malthus, nineteenth-century socialism and Marx. *The Historical Journal*. 63(1), pp.91-106.

Klein, N., 2014. This changes everything. New York: Simon and Schuster.

Kovel, J., 2007. The enemy of nature. The end of capitalism or the end of the world? London: Zed Books.

Kovel, J., and Löwy, M. eds., 2001. *An ecosocialist manifesto*. Available at: http:// green.left.sweb.cz/frame/Manifesto.html [Accessed 17 September 2020].

Lampton, D., 1974. Health policy during the great leap forward. *China Quarterly.* 1974(60), pp.668-698.

Lianos, T.P., 2018. Steady state economy at optimal population. *Journal of Population and Sustainability*. 3(1). pp.75-99.

Löwy, M., 2017. Marx, Engels and ecology. *Capitalism, Nature, Socialism*. 28(2), pp.10–21.

Martin-Shields, C. & Stojetz, W., 2018. Food security and conflict. Empirical challenges and future opportunities for research and policy making on food security and conflict. FAO Agricultural Development Economics Working Paper 18-04. Rome: FAO.

Marx, K., 2009 [1844]. *Economic and philosophical manuscripts of 1844*. Available at: https://www.marxists.org/archive/marx/works/download/pdf/Economic-Philosophic-Manuscripts-1844.pdf.[Accessed 5 May 2020].

Marx, K., 2015 [1867]. *Das kapital*. Volume One. Available at: https://www.marxists. org/archive/marx/works/download/pdf/Capital-Volume-I.pdf [Accessed 3 July 2020].

Marx, K., 2010 [1894]. *Das kapital*. Volume Three. Available at: https://www. marxists.org/archive/marx/works/download/pdf/Capital-Volume-III.pdf [Accessed 3 July 2020].

Marx, K. and Engels, F. 1970 [1846]. *The German ideology.* New York: International Publishers.

Merchant, C., 1992. *Radical ecology: the search for a liveable world*. London, Psychology Press.

Merchant, C., 2005. *Radical Ecology: The search for a liveable world*. 2<sup>nd</sup> edition. London, Routledge.

Merchant, C., 2012. *Radical Ecology: The search for a liveable world.* 3<sup>rd</sup> edition. London, Routledge.

Merrifield, A., 2002. Metromarxism: a Marxist tale of the city. New York, Routledge.

Meublat, G., 1975. Au sujet de la théorie marxiste de la population, un débat entre Rosa Luxemburg et Otto Bauer. *Population*. 30(1), pp.197-219.

Monbiot, G., 2007. Heat. How we can stop the planet burning. London: Penguin.

Mosher, S., 2008. Population control—real costs, illusory benefits. Abingdon: Routledge.

O'Connor, J., 1988. Capitalism, nature, socialism. A theoretical introduction. *Capitalism Nature Socialism*. 1 (1): pp.11–38.

O'Connor, J., 1998. Natural causes. essays in ecological Marxism. New York: Guilford Press.

Perelman, M., 1987 Marx's crises theory: scarcity, labor, and finance. New York: Praeger.

Petersen, W., 1988. Marxism and the population question: theory and practice. *Population and Development Review*. 14 [Supplement: Population and Resources in Western Intellectual Traditions], pp.77-101.

Saito, K., 2016. Marx's ecological notebooks. *Monthly Review.* 67. pp.25-42. https://doi.org/10.14452/MR-067-09-2016-02\_3.

Saito, K., 2017. Karl Marx's ecosocialism capitalism, nature, and the unfinished critique of political economy. New York: Monthly Review Press.

Salleh, A., 1997. Ecofeminism as politics: nature, Marx and the postmodern. London: Zed Books.

Salleh, A., 2012. Green economy or green utopia? Rio+20 and the reproductive labor class. *Journal of World Systems Research*. 18(2), pp.141-145.

Sayers, S. 1998. Marxism and human nature. London: Routledge.

Schaff, A., 1970 [1965]. Marxism and the human individual. New York: McGraw-Hill.

Schaff, A., 1967. Marxism and the philosophy of man. In: E. Fromm, ed. 1967. *Socialist humanism*. New York: Anchor. pp.141-150.

Sève, L., 1974. *Marxisme et théorie de la personalité*. 3<sup>rd</sup> edition. Paris: Éditions Sociales. Translated from French by J. McGreal, 1978, as: *Man in Marxist theory and the psychology of personality*. Sussex: Harvester Press.

Sève, L., 2008. L'Homme (Penser avec Marx aujourd'hui, tome 2). Paris: Éditions La Dispute. Translated from French by James H. Membrez as *Thinking with Marx today, volume two. Man*? Unpublished.

Tanuro, D., 2003. Green capitalism: why it can't work. London: Merlin.

Tobin, J., 1970. On limiting the domain of inequality. *The Journal of Law & Economics*. 13(2), pp.263-277.

Walicki, A., 1988. Karl Marx as philosopher of freedom. *Critical Review.* 2(4), pp.10-58.

Williams, C., 2010. Are there too many people? *International Socialist Review*. 68. Available at: https://isreview.org/issue/68/are-there-too-many-people [Accessed 20 March 2020].

Wilde, L., 2000. The ethical Marxism of Erich Fromm. In M. Cowling, ed. 2000. *Marxism, the millennium and beyond*. London: Palgrave Macmillan. pp.55-73.