## Fully automated luxury barbarism

Aaron Bastani, Fully Automated Luxury Communism: A Manifesto (London: Verso, 2019). 288pp., £16.99 hb., 978 1 78663 262 3

'This is not a book about the future but about a present that goes unacknowledged', Aaron Bastani writes in Fully Automated Luxury Communism. Bastani does not set out to describe what an ideal communist society would look like. Instead, he spends the bulk of his book making the argument that capitalism is unable to cope with a set of problems that will eventually lead to its destruction and implores us instead to create a better economic model built around the creation and distribution of abundance. What makes the book interesting is that the problems its author identifies are primarily found in capitalism's relationship to technology; and in particular, in technology's potential to eliminate the scarcity that capitalism depends upon. Bastani argues that the capacity of technology to eliminate scarcity could, under the right social arrangements, lead to shared opulence: that is, Fully Automated Luxury Communism [FALC]. He paints a picture of a future where all people could live lives equivalent to that of modern-day billionaires: 'Luxury will pervade everything as society based on waged work becomes as much a relic of history as the feudal peasant and medieval knight'.

Yet, FALC is an improbable, unhelpful and frankly undesirable blueprint for our collective future: improbable because it glosses over the ecological reality of our desperate global predicament, unhelpful because at a time when we are heading for global ecological collapse FALC advocates more climate-wrecking economic activity, and undesirable because the theory is grounded on a discredited and corrosive vision of human wellbeing.

Fully Automated Luxury Communism begins in his first section by identifying five global crises set to worsen under existing social conditions: global over-heating, resource scarcity, an aging non-productive population, a growing surplus of the global poor, and technology-driven unemployment. While 'green' concerns occupy two of his great crises, Bastani considers technology-driven unemployment the most determinative threat to our society. The third section of the book is dedicated to outlining some of the features that FALC ought to con-

tain – notably, Universal Basic Services. However, the second section, which considers how technologies might undermine capitalism, occupies the bulk of the book. Here Bastani sets out to convince his readers that the current technological trajectory can eliminate poverty and deliver opulence if combined with new economic and social arrangements.

Fully Automated Luxury Communism is a love letter to technology. It sets out an ambitious stall about what our future could look like, making even the most ardent defenders of technophilic neoliberalism look like dour pessimists. Bastani claims that increasing automation will render much of the world's population surplus to economic requirements. He identifies the potential for limitless renewable energy to solve the climate crisis while continuing to increase production. Unfortunately, this is a non-sequitur for reasons made clear some time ago by ecological economist Nicholas Georgescu-Roegen and underscored by many recent analyses of renewable energy. Entropic limitations – not to mention resourcelimits (the key components of solar technology are called 'rare earths' for a reason) - make it unlikely that an Earth operating within ecological limits would make it possible to access to more than a small fraction of the current bonanza of energy that we experience in the flush of the fossil fuel bubble. Bastani falls into the common trap of modelling an allegedly exponentially-improving energy future on the exponential improvement (until recently) in digital technologies' capability. This widespread but ill-founded mode of modelling has, however, been comprehensively debunked; Bastani, in his enthusiasm for an energy-version of Moore's Law, ignores the Shockley-Queiser limit to the efficiency gains possible in solar-voltaic cells, a limit we are already quite close to, and he similarly ignores the Betz limit to improvements in the efficiency of wind turbines.

After outlining how scarcity in labour and clean energy will become negligible as technology-fuelled abundance is created, Bastani argues that asteroid mining could also render resource scarcity obsolete. Taken together,

these three claims are perhaps the most important for Bastani's book, as between them they outline how we can supposedly eliminate the need for labour (through automation), the need for limitless clean energy (through renewables), and resource scarcity (through asteroid mining).

Bastani does a good job of making asteroid mining seem a lot more plausible than may intuitively appear to be the case, and he delves into contemporary advances in all these areas. However, despite the care that evidently went into researching this project, there are good reasons to think that Bastani has fatally overstated the potential of technology to deliver us into the near-limitless abundance that FALC depends upon. In an era of fossil-fuelled climate breakdown, in which energy will necessarily be scarce, how can it possibly make sense to blow huge quantities of our small 'energy budget' on space travel of any kind? But the empirical failure of Bastani's technophilia is most apparent in his discussion of clean energy.

Bastani believes that through harnessing renewables we can eliminate carbon emissions of energy production.

However, despite growth in renewables globally, the last three years have broken records for global emissions (as well as 2016 breaking the record for temperature); in the context of a growthist economy, growing the renewables sector doesn't by itself necessarily accomplish any diminution of fossil fuels. The green economist Tim Jackson has done invaluable work in highlighting how the growth in climate-wrecking emissions is intimately tied up with growth in economic activity. His book Prosperity Without Growth tackles the myth that increased efficiency in the economy added to the growth of green energy makes continuing to grow the economy a feasible ecologically-compatible economic policy. Instead, he illustrates that the 'decoupling' of economic activity from emissions that neoliberals (and now FALC) have promised for so long is simply not happening at anywhere near the scale required to avert catastrophic global warming.

Bastani cites data that, 'In the UK for instance, energy consumption peaked at the turn of the millennium, and has fallen by 2 per cent every year since. This means that despite higher living standards and a larger population, Britain's energy use in 2018 is actually lower than it was



in 1970 – this in a country far from energy poor'. This paints an optimistic picture of progress meant to encourage readers that renewables are putting us on the right track to climate stability. Yet, the story of UK emissions falling by 2% a year does not include the embedded emissions present in all the products that the UK imports. Once you include embedded emissions, the UK's carbon footprint has reduced in the past twenty years by far less than 2% per annum, somewhere between 0.5% and 1% per annum at best. The reality is that the UK has simply outsourced its climate-wrecking emissions along with much of its production to overseas.

At a time when the scientific consensus is that catastrophe awaits if we do not drastically reduce carbon emissions, Bastani's naïve and hyper-optimistic political philosophy advocates creating conditions where everyone has the consumption patterns of billionaires. His position is completely dependent upon new renewable technologies advancing at a far faster rate than our climate and ecology collapses. This is irresponsible – a reckless bet, based on inadequate evidence. An ecologically wise politics requires serious reduction in consumption to go alongside heavy investment in growth in renewables and this is something that FALC does not countenance.

Fully Automated Luxury Communism argues that if automation massively increases, and if clean renewable technologies massively advance, and if asteroid mining becomes viable, then FALC is both possible and desirable. But these hypotheticals obscure a more likely outcome: if we fail to radically reduce emissions, then climate and ecological catastrophe certainly awaits.

Bastani demonstrates an awareness of these sorts of criticisms, but he tends to imply that a green politics of living within planetary limits is an austere and impoverished vision. For instance, he writes that, 'To the green movement of the twentieth century this is heretical. Yet it is they who, for too long, unwisely echoed the claim that "small is beautiful" and that the only way to save our planet was to retreat from modernity itself'. Consequently, Bastani makes his alternative pitch as 'advancing a red-green politics which revives ideals of progress and common plenty'. Yet, it is worth questioning whether increasing consumption patterns need form a part of this 'progress'. Would achieving the consumption patterns of billionaires really improve our wellbeing and allow

us to further develop our capacities than more modest levels of consumption? Probably not. The literature in economics on the decreasing marginal utility of wealth demonstrates that, beyond a certain level, increases in wealth do not lead to increases in self-reported happiness. Given that this is the case, one has to question what exactly is motivating the 'luxury' in fully automated luxury communism.

Bastani equates luxury with wellbeing and downplays other aspects of flourishing such as community and friendship. It is these sorts of values that a deep green philosophy can make room for while simultaneously reducing consumption. Automation and luxury are not necessary to human wellbeing, and certainly not essential enough to it to risk devastating the only home we have, our planet.

There is a telling line in the book when Bastani discusses resource scarcity and writes that 'the limits of the earth would confine post-capitalism to conditions of abiding scarcity. The realm of freedom would remain out of reach'. 'Freedom' in this passage is defined in much the same way in FALC as it is in neoliberalism: through access to opulence and through the capacity to consume. Though Bastani proposes a different model of wealth distribution, the values he shares with the neoliberal paradigm may explain part of the success of his book. There is something deeply conservative about his adherence to the values of materialism and consumerism. These values have participated in driving us to the edge of climatic and ecological collapse, which can only be averted by radically and rapidly transforming society.

Bastani's book can be read symptomatically as typifying a particular wish-fulfilment-fantasy style of thinking, characteristic of our time – more science fiction than practical manifesto. But while he has correctly identified some of the problems of the present, Bastani's vision of the future is ironically outmoded. A political vision that equates wellbeing with abundance needs to be retired, if intelligent life on this planet is to have any realistic chance of outlasting the ecological emergency. We urgently need to face the brutal reality that we are not flying out to the stars but heading towards ecological collapse. The only conceivable way to stave off disaster is to be free of outdated fantasies and to strive collectively to soften our crash-landing.

Atus Marigueo-Russell and Rupert Read