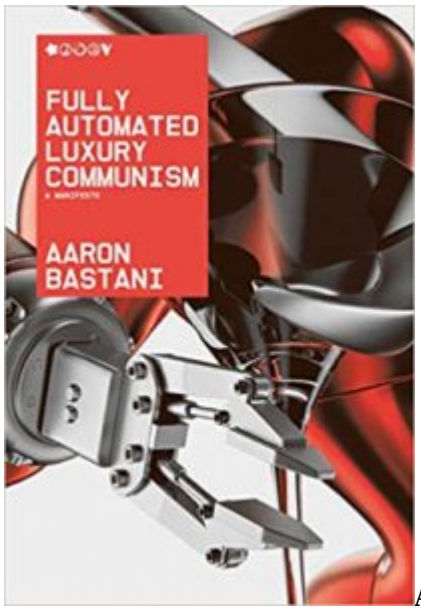
Climate, communism and the Age of Affluence?

written by Gareth Dale | June 4, 2019



Aaron Bastani
Fully Automated Luxury Communism
Verso Books, 2019.

Fully Automated Luxury Communism (FALC) was a slogan in search of a movement, and now it has its manifesto. The aim: to accelerate capitalism's positives (technological progress), curb its negatives (neoliberal globalisation), and to re-invent communism for the coming Age of Affluence.

Aaron Bastani's overriding concern is climate breakdown. Anything over a 2°C rise "could be cataclysmic, creating a cascade of feedbacks" that would accelerate global heating and the sixth mass extinction. The glaciers that provide drinking water for billions are evaporating, nine-tenths of the largest fish in the oceans have disappeared, and soils are suffering from industrial farming and salination.

Although "humanity's rise" was built on agriculture and on our "unique ability to reprogram the gifts of nature," the planet's natural limits are now being trampled with such violence that the prospect of human extinction begins to appear plausible. Our present course is worse than inaction. It is "rushing full speed to oblivion". We have a window of ten or twenty years.

How does Bastani propose we use that window? For starters, we need to recognise that it's "the meat and dairy consumption typical to diets of the Global North which have us living beyond our ecological means". Animal products are a "highly inefficient way of using finite resources to produce food". Ideally, we should completely eliminate them from our diets.

But even as this recognition dawns, the solution is arriving, in the shape of lab-grown meat, eggs and dairy products. This is the next glittering chapter of the Green Revolution, that "most important achievement of the last sixty years", and one that enabled us to see that "our mastery of nature could confer almost limitless abundance".

The Green Revolutionaries understood "that food is ultimately information" and that "information

wants to be free"— ergo, food wants to be free. Their successors are making the revolution permanent. Thanks to such salivatingly named companies as Finless Foods, Memphis Meats and Impossible Foods we can look forward to "using a 3D printer to 'print' steaks, bacon rashers or even a leg of lamb".

'Like a music video'

In bypassing the animal's whole-body processes, the shift to synthetic animal products will, notwithstanding the soy inputs required, enable savings in land use and labour. Yet, the overall energy inputs could be higher than in today's industrial agriculture, warns Bastani. He may be right. Methane emissions would fall but CO2 emissions could even rise.

But even as the vats fill with tissue-engineered proteins, the solution has arrived, in the form of ever cheaper and exponentially more abundant renewable energy.

Driven by a "tendency to extreme supply", Bastani foresees "the end of energy scarcity altogether". Thanks to the internet of things, "in just a few years saving energy—in your home, car and workplace—will be entirely automated". The fulcrum of the renewables revolution will be our four-wheeled friends. "Cars won't just be data processors on wheels, they'll be giant portable batteries."

With the exponential ramping up of wind turbines, solar panels, electric vehicles and batteries, Bastani recognises that the supply of such minerals as nickel, zinc, copper, lithium, platinum and rare earth metals —will "quickly become strained".

But even as the minerals-guzzling drive to a low-carbon economy revs up, the solution is arriving, in the shape of Elon Musk's SpaceX setting sail for the asteroids. Of those big ball bearings in the heavens, Bastani's telescope settles on one that gleams especially bright: 16 Psyche.

Suspended midway between Mars and Jupiter, 16 Psyche consists of iron, nickel and copper, with gold and platinum too. Its iron alone could be worth $10 quintillion, and if you scoop up a bunch of other asteroids their combined mineral wealth, "if equally divided among every person on Earth, would add up to more than $100 billion each."

From this he concludes that "under FALC, we will see more of the world than ever before … and lead lives equivalent, if we wish, to those of today's billionaires". Luxury communism indeed, and awash with glamour. "Yes, when you're relaxing," FALC "will look like a music video".

Now, how can we get our pickaxes into Psyche? A NASA mission may be launched in 2022 and, courtesy of a Mars gravity assist, might reach it by 2026. At some point after that, our guide assures us, Psyche can be harpooned and towed from its current location "into near Earth orbit" where—as soon as a bunch of technological obstacles are overcome—off-world mining can begin in earnest.

Asteroid mining is *the* prerequisite for FALC, because without it "the limits of the earth would confine post-capitalism to conditions of abiding scarcity [and] the realm of freedom would remain out of reach."

Seizing Psyche will mean "the limits of the earth won't matter anymore—we'll mine the sky instead". Mineral scarcity will cease to thwart our ambitions, and raw materials will become available in "extreme supply". This is the final link in a chain that will permit humanity "to entirely exceed our present limits".

Bastani's Law

There is metaphysics in the madness. It's there in the claim that "information, resources, energy, health, labour and food want to be free". This axiom is the cornerstone of the manifesto. Let's call it Bastani's Law. As he puts it, the "tendency to extreme supply" ensures that "*everything* will become *permanently* cheaper."

Bastani's Law permits us to seek techno-fixes to climate collapse — and indeed most other social problems — with a blasé shrug at issues of resource constraint and scalability. What will all the robots be made of? Megatonnes of stardust. What of energy-saving innovations such as the Passivhaus—how much concrete will be poured if the world's buildings are to be razed and replaced? Psyche will provide.

If we are to gamble the planet's future on Bastani's 10-Year Plan its calculations need to be as hermetic as a cosmonaut's suit. But they are nothing of the sort. The grasp of climate science—including current CO2 levels, and estimates of future heating—is wobbly, as is the claim that energy consumption is in secular decline in the world's richest countries.

When highlighting a recent fall in Britain's energy use it forgets that this is in large measure an accounting trick, given the massive and rising CO2 imports from China and elsewhere. It proposes, without warrant, that fossil fuel prices will remain high even if demand falls due to renewable alternatives.

Bastani can declare solar energy to be "Limitless, Clean, Free" only by pretending that no real doubts or debate exist over its EROI, by assuming that it displaces fossil energy rather than adding to it, and neglecting to mention either that there is a real prospect of its price ceasing to fall or that its sharpest cost plunge occurred when manufacturing was shifted to low-wage China — where, given coal-sourced power, the manufacture of photovoltaic panels is carbon-intensive as well as highly polluting.

Saudi sunlight

As the title suggests, this is a breathless manifesto. Its descriptions of technologies are gushing. Innovations are "dizzying", progress is "exponential". Plaudits are showered on any firm or state that has invested in solar photovoltaics, lab-grown meat, or asteroid mining.

Without hesitation or irony, Saudi Arabia is extolled for its solar-energy plans. They demonstrate "precisely the scale and ambition that is needed to move the world beyond fossil fuels by 2040".

With a steady patter of quotes from CEOs, the tone is often less manifesto than marketing brochure for SpaceX and other "disruptive" corporations. We are whisked from one marvellous fact or promise to the next. New medical technologies could "spell the end of age-related and inherited illness altogether", rockets can be 3D-printed using "lasers that melt a steady stream of aluminium wire into liquid metal", and so on.

Such gadgets may be cutting-edge but the tune is old. We hear the same notes as in Erasmus Darwin in the eighteenth century, Charles Babbage and John Ramsay McCulloch in the nineteenth, and we might almost hear Lenin's adage—Communism is "Soviet power plus electrification"—except that in this manifesto the pylons are towering, the rest is secondary.

Back to the *Future Shock*

New tech isn't just a source of awed admiration for Bastani, but the heartbeat of history, the wellspring of the great "disruptions" that drive progress. He identifies critical moments of disruption in which changing technology sparked social transformation.

Thanks to settled agriculture, humans accumulated surplus, began to cooperate in complex ways, asserted mastery over all other creatures, and began, “for the first time in their existence, to think about the future and make plans”.

Thanks to the printing press, Martin Luther and the Reformation triumphed. Thanks to the Industrial Revolution, the power of fossil fuels was unleashed, catapulting humanity to our present state of potential abundance. And now, with IT, we see exponentially accelerating progress in the “cost of collecting, processing, storing and distributing digital information”, leading to extreme supply and “making possible the Third Disruption”.

It’s a remarkably Whiggish account. It overlooks the dark side of the Neolithic revolution. It notes only in passing that transformed social relations *preceded* the Industrial Revolution. The leaps in productivity and cheapening costs over which Bastani effuses were enabled as much by imperialist land grabs and by altered organisations of production, often with the aim of disciplining and controlling workers, as by new technologies *per se*.

Bastani’s analysis of the three disruptions and the role of IT rehashes mid-twentieth century prophesies of the post-industrial order. It bears clear resemblances to Alvin and Heidi Toffler’s *Future Shock*, but Bastani draws especially on another prophet from the same era, the business guru Peter Drucker.

Drucker, having come to see that information “had become the primary factor of production” and was supplanting the traditional factors (labour, land and capital), then, in the 1990s, noticed that the economy had entered not merely a post-industrial but a “post-capitalist” phase.

Yet neither Drucker nor earlier prophets of post-capitalism (Bastani mentions Marx and Keynes) could foresee how the new information-based “mode of production would stitch itself into the fabric of the present.”

The genius who grasped that needlework was the neoliberal economist Paul Romer. His insight was that technological change is in essence *immaterial*: it amounts to “nothing more than an upgraded re-arrangement of previous information.” It follows that the most valuable input into commodities today, information, is “capable of infinite replication at near zero cost”.

From this Romerian yarn, Bastani spins his central thesis: the supply of resources under capitalism tends to infinity. But, he adds, in a departure from Romer, the gains won’t translate into fully democratic luxury under capitalist conditions. If there is one single shortcoming in capitalism it is “its inability to accept natural abundance” and to allow prices to fall as far as they should. Unlocking that cornucopia requires an automated *communist* cosmos.

Hand-mill, steam-mill, asteroid mines

If the FALC manifesto is idiosyncratic, it is because it splices the ideas of Romer and Drucker—and Keynes—together with those of Marx and Engels. Drucker and Keynes, it asserts, shared Marx’s prognosis of “how capitalism might lead to a system beyond it”. It’s a conclusion that Bastani can reach by reducing Marx’s work to a few crude motifs, almost all taken from his early work or from a brief fragment of the *Grundrisse*.

Through Bastani’s ventriloquism, Marx is a technological determinist. Tools and inventions are the active agent in history, ushering humanity from one “paradigm” to the next. Each “economic foundation” gives rise to its own “superstructure”: the hand-mill gives you feudalism, the steam-mill gives you capitalism, asteroid mining gives you FALC.

Technological change in capitalism is especially progressive, for in the continual substitution of machines for labour (both "animal and human"), capital "undermines labour as the central factor of production" until we reach the present day when capital, embodied in AI, itself "becomes labour".

The economic consequences are, first, "that the role of humans as the most important factor of production," and the creator of value, "is bound to diminish", and, second, a tendency to "ever cheaper and more efficient ways of producing commodities" and ceaseless improvements in the "goods and services available to consumers".

With this, Bastani arrives at capitalism's fundamental contradiction: competition drives down the price of the key factor of production, information, but in so doing it cuts off the fuel supply—profits—to the capitalist engine.

Capitalism is "a force of potential liberation". Its record was "impressive" right up until the early 1980s, but then, with the advent of the neoliberal era (and the birth of the prophet of FALC), it all turned south. Today, capitalism is disintegrating, for it is incompatible with the digital revolution it has unleashed. (Those familiar with Paul Mason's *PostCapitalism* or Nick Srnicek and Alex Williams' *Inventing the Future* will hear the echoes.)

Critique of political economy

All this makes a caricature of Marx. In the FALC manifesto, there is little need for a critical analysis of capitalist social relations—Marx's project—because communism will arrive automatically, through the acceleration of the logic of capitalist production, backed by state power.

Bastani's framing of capitalism as a delivery machine of ever-cheaper goods is rooted in the conceptual paradigms of bourgeois political economy, of which much of Marx's life's work was a critique. Marx slammed the 'factors of production' approach to economics to which Bastani subscribes, and whereas Bastani hails capitalism as profoundly progressive, Marx was ambivalent.

Marx didn't share Bastani's belief that businesses are systematically driven to improve goods and services, and while, yes, there is in capitalism a systematic drive to reduce production costs, it relentlessly displaces other costs ('externalities') onto people and nature.

Nor did he conflate technology with the "economic foundation," extracting it from the complexity of social life and attributing to it unlimited powers, as does Bastani. Capital, for Marx, is a social relation. It does not "become" labour; and knowledge and information are not separated out as a value-yielding "factor of production" that supplants labour.

Labour itself is not simply a factor of production, but the connecting tissue of social life: the agent of humanity's metabolic interaction with nature, and of our collective life-making, but at the same time a commodified force that is exploited and put to work by capital.

From the ensuing contradictions (exchange value versus use value) flow Marx's analysis of class struggle and the labour movement, terms that are pivotal to the Communist Manifesto but are mentioned only in passing in the FALC Manifesto—and even then, with the stipulation that movements must not seek "to turn down the volume on modernity".

Whiggish urges

In short: this is an entertaining but absurd book. It is quaint in its belief that its advocacy of a "disruptive green industrial policy" is in any meaningful sense radical—when this has already become the standard patter of international governmental organisations such as UNEP.

Its alloying of a Whiggish ideology of technological progress with a recognition of impending ecological disaster, and of an excoriation of neoliberalism with tech boosterism, give it a distinctive flavour. It will be seen as a cousin to other tomes of technophilic socialism, such as *Inventing the Future*.

Indeed the alikeness of Bastani's central slogans—Full Automation and Universal Basic Services (UBS)—and Williams and Srnicek's Full Automation and Universal Basic Income is hard to miss. But Bastani's book differs in taking environmental crisis seriously, and in disavowing the dogmatic antipathy to "localism" that defines the Williams-Srnicek mission. His arguments for economic "re-localisation", at least of finance and of workplace ownership, and for UBS, are well made.

In closing, we may ask why this matters. First, Bastani's book represents a new iteration of the view, propounded in different ways by theorists from Kautsky to Negri and Mason, that irresistible technological/economic forces lead inevitably to the dissolution of the capitalist system, and moreover that it is, behind everyone's back, already ending. It's a sanguine, 'ever-upwards' cast of determinist thought that, with its optimism of the intellect and pessimism of the will, can justify strategic inaction.

Secondly, Britain's Labour Party is calling for a Green Industrial Revolution but what sort of revolution will it be? Should it be from below, "built from the ground up," as some Labour members have argued? Or will it continue the project of the Industrial Revolution and the Green Revolution, potentially a bonanza for capital but at an exorbitant ecological and social cost?

Thirdly, in championing automation as the decisive and dynamic ingredient of social progress, Bastani is reproducing what Alf Hornborg identifies as the "central fetish of industrial capitalism". For capital, technology is the only solution — and it is one that promises profits. The FALC manifesto peddles the nostrum that technology will save the planet — arguably the greatest delusion of our times. The effect of technophilic fantasies is to spread complacency.

We saw it with BECCS at Paris. Just those three short years ago, BECCS was the wonder tech. The Paris Agreement was built on it. But it was quicksand. Today, it is increasingly apparent that BECCS is unviable at scale. The Paris Agreement is in tatters. Its magic bullet was a promissory note — that salvation lies through burning wood and burying the carbon — but the note was ink on paper, and it is now aflame.

FALC has been aptly described as "soft science fiction," an imaginary of magical sustainability that, in its techno-fetishism, bears the stamp of "the same fossil-fuel dependent system that it seeks to criticize". Bastani may wish to reach to the heavens, to grapple with that scintillating Psyche, but we'd be better off looking for solutions below.

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