

Received: 29 August 2021 Accepted: 30 August 2021

DOI: <https://doi.org/10.33182/joe.v1i1.1784>

## Book Review

Heinberg, Richard, (2021). **Power: Limits and Prospects for Human Survival**, New Society Press, 2021, 398 pages. US\$22.99  
ISBN: 9781550927610

Martin M. Tweedale<sup>1</sup>

Richard Heinberg has been well known for the past couple decades as a journalist and thinker writing in numerous books and essays about the worldwide prospects for energy use and resource extraction in the rest of this century. He was for a time one of the foremost predictors of an imminent end to cheap fossil fuels, a forecast that was partially upended by the deployment of fracking. He became and remains a luminary at the Post Carbon Institute, whose purpose is, in the main, to think about how society in America and worldwide might react to and cope with an era in which reliance on fossil fuels for energy is nearly eliminated. With David Fridley he produced in 2016 *Our Renewable Future* (Heinberg & Fridley, 2016), a careful study which concludes that such elimination in favor of renewable sources would require a major reduction in the total amount of energy humans deploy, leaving us with perhaps as little as a quarter of what we now use. This work has established Heinberg and the Post Carbon Institute as a leading source of scepticism regarding mainstream proposals for dealing with the looming climate catastrophe, while not at all being sceptical of the reality and depth of the crisis we face.

*Power* represents a major extension of Heinberg's interests and research in that it sets the environmental crisis in the broadest possible context: the way in which all living organisms deploy energy in more or less powerful ways. Out of this comes the "maximum power principle": "according to which, among directly competing biological systems, the one that harnesses available energy most effectively will prevail" (p.4). This implies that evolution has equipped nearly all organisms with a "will to power", in Nietzsche's famous phrase, and humans are no exception. Heinberg naturally moves on to discuss the gradual development of human uses of power from the very beginnings of the genus *Homo* to our current highly technological civilization. But this requires Heinberg to explore social power, i.e., the power of some humans to get other humans to do things, and here the will to power drives the changes that result in the shift humans made from a foraging life style to agriculture and civilization with cities, states, literacy and money. Like many anthropological researchers today, Heinberg sees this change as the origin of evils such as war, slavery, social inequality, the subjection of women, disregard for nature, and oppressive "Big-God" religion. The

---

<sup>1</sup> Professor emeritus of philosophy at the University of Alberta, Edmonton, Alberta, Canada.

Email: [martin.tweedale@ualberta.ca](mailto:martin.tweedale@ualberta.ca).



surplus energy that agriculture provided supported new means for exercising power, and this, in turn, enabled the abuses just mentioned.

But organisms can come to have too much power for their own long-term good. In finding ways to exert power to achieve short-term goals they can undercut the very things that are required for their continued survival. This is, in the human case, basically the story in whose denouement we are now living. According to Heinberg, once Western civilization in the 19<sup>th</sup> century developed the means to extract and put to use the energy of fossil fuels, power became so immense that the exercise of it led almost inevitably to a situation in which the human species and many other forms of life are faced with virtual extinction in the not too distant future. Nevertheless, Heinberg says, many organisms, humans included, have at times found ways to curb their own power and have followed what he calls the *optimum power principle*, in which they have learned, like a long distance runner, “to sacrifice some measure of power in the present so as to maximize power *over a longer period of time*” (p.260). In the human case this has in the past involved the inculcating of values of selflessness and devotion to the good of one’s fellows, as was taught in some of the “Axial-Age” religions and philosophies. The question naturally arises as to whether humanity can do this again, and in time to avert the impending calamity.

Heinberg addresses this query in *Power*’s final chapter, and this reviewer found what he says there the most interesting and thought-provoking part of the book. There are, he proposes, a whole spectrum of possible outcomes to our current crisis, ranging from “collapse and possible human extinction” to “systematic self-restraint regarding per-capita consumption levels and human numbers, with collapse largely averted” (p.304). Heinberg rejects as unrealistic the present mainstream prescription for arriving nearer the latter pole of the spectrum, namely, the decoupling of economic growth from increased use of raw materials and energy, with the comforting possibility of maintaining both population at current levels and per-capita consumption at an even higher level—in other words, growing economically while putting fewer demands on the environment. Here is where the findings of Heinberg’s earlier work with David Fridley provide the argument, and *Power* recapitulates some of that, especially the difficulties of relying on electricity produced entirely from renewables.

When it comes to more realistic proposals, Heinberg’s ideas are a mix of what he sees as desirable and what is at all feasible. There will be major changes—that is inevitable—and among the most likely ones are a breakdown in the present system of globalization and a halt to the continued advance of high-tech technology. This will mean more localized self-sufficiency and a greater reliance on labor-intensive production of the necessities of life. Heinberg certainly does not place any faith in some technological rescue of our present sort of economy. The changes could lead instead to a way of life based on horticulture and egalitarian institutions—an option that Heinberg himself finds not unattractive and believes could produce more general happiness than our current affluence does. But he is very aware of the tendency of those who have power to want to hold on to it and subject the rest of us to their will. He calls this “vertical social power” as opposed to “horizontal social power”, and if we are to avoid monstrous tyranny in the future we must right now promote moves toward the latter. His proposals on this score are very much in line with those in the environmental movement, such as Naomi Klein’s and the “Leap Manifesto”, which promote a coalition with groups seeking to empower the historically marginalized and oppressed, including women living under forms of patriarchy. He says:



The key to minimizing suffering and environmental damage, and to improving the prospects of succeeding generations, will be for groups and individuals interested in long-term power (via the optimum power principle) and power sharing (i.e., horizontal power) to overcome groups committed to maximizing vertical social power and power over nature. (p.342)

Assistance in nurturing horizontal social power over its vertical antithesis can come, Heinberg believes, from arts and spirituality, although he suggests in this area nothing as specific as T.J. Demos offers, (Demos, 2020) for example. He admits his vision at this point veers close to utopianism, and then reminds us that the restraints on our development and use of power are likely to come in large part not from some voluntary measures but from the natural catastrophes that on their own may cut deeply into our population and our consumption. But the more these restraints are planned and managed the less suffering there is likely to be. It is not at all a devastating criticism of *Power* that it fails to deal much with how humanity is likely to react to the natural disasters that will probably befall the planet in increasing frequency as this century proceeds, but I would like now to offer some thoughts on this prospect.

The overall catastrophe is likely to progress slowly but in a non-linear fashion. There will be sudden collapses of global economic infrastructure followed by periods of gradual but partial recovery, followed by another sudden collapse. (The disintegration of the Roman Empire in the West followed this pattern). During this time many human communities will be desperately deploying any means at hand to stay afloat, including using fossil fuels and whatever other sources of energy they can lay their hands on. But at the same time some of the denser human communities, at least, will be suffering population loss through famine, war, pestilence, water shortages, etc., so that after a while total human demands for energy and resources will decline absolutely. How long this downward, destructive trajectory will last is impossible to say, but we can hope that eventually the human presence becomes small enough and sufficiently undemanding as to be compatible with a planetary eco-system that can sustain it. Then, at least in some places, human communities will survive, but, of course, at a much reduced level of population and material consumption. During the downward trajectory life for at least a portion of humanity can be meaningful in the way that fighting against terrible odds can make life meaningful. It will call for human virtues like courage, moderation, fairness, and wisdom, so well known to ancient philosophers. The life of poverty, once highly honoured, may again be seen as admirable. Above all, communal solidarity will be needed, and here Heinberg's praise of horizontal social power is very appropriate, for otherwise the solidarity is likely to take the form of domination by a small elite possessing the means of coercion. This is where Heinberg's thinking intersects with the Climate Justice movement and its insistence on tying remedies for environmental destruction to redistribution of power and wealth. Indeed, as long as modern forms of weaponry and mass communications are able to be maintained to some extent, brutal rule by a minority of the relatively well-off over the rest, something in the manner of the Spartans over the helots, is a very real threat. On the other hand, since the current globalization of the economy and culture is likely to collapse early on, societies in different locales will have different ways of trying to survive, and thus such a cruel rule of the elite over the whole of the human remnant will be impossible, although still possible over those in certain regions. This is why, in both Heinberg's opinion and this reviewer's, it is right now so important to press forward with demands for more equitable societies around the world.

The great strength of Heinberg's book is that it sees that the roots of the problem are psychological and cultural, not technological, and that a transformation of thinking, valuing, and our way of living together, not some technical fix like switching to renewables, is what is really required to save at least some portion of humanity and some amount of the biodiversity we depend on. *Power*, I believe, has set the parameters for all future discussion of our ecological predicament among those clear-sighted enough to see through the current popular forms of denial.

## References

- Demos, T.J., 2020, *Beyond the World's End: Arts of Living at the Crossing*, Duke University Press  
Heinberg, R. and Fridley, D., 2016, *Our Renewable Future: Laying the Path for One Hundred Percent Clean Energy*, Island Press

