Routledge Environmental Humanities series



The Philosophical Foundations of Ecological Civilization

A manifesto for the future

Arran Gare



The Philosophical Foundations of Ecological Civilization

A manifesto for the future

Arran Gare





First published 2017
by Routledge
2 Park Square Milron Park, Abinedon

2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge 711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2017 Arran Gare

The right of Arran Gare to be identified as author of this work has been asserted by him/her in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

Names: Gare, Arran, 1948– author. Title: The philosophical foundations of ecological civilization: a manifesto for the future / Arran Gare.

Description: New York, NY: Routledge, 2016. | Includes bibliographical references and index.

Identifiers: LCCN 2016006617 | ISBN 9781138685765 (hardback) | ISBN 9781315543031 (ebook)

Subjects: LCSH: Environmental ethics. | Human ecology--Philosophy. |

Environmentalism--Philosophy.

Classification: LCC GF80 .G44 2016 | DDC 179/.1—dc23 LC record available at HYPERLINK "https://protect-us.mimecast.com/s/1drmB5uRr3eOtZ" https://lccn.loc.gov/2016006617

ISBN: 978-1-138-68576-5 (hbk) ISBN: 978-1-315-54303-1 (ebk)

Typeset in Bembo by Saxon Graphics Ltd, Derby

The Philosophical Foundations of Ecological Civilization

The global ecological crisis is the greatest challenge humanity has ever had to confront, and humanity is failing. The triumph of the neo-liberal agenda, together with a debauched 'scientism', has reduced nature and people to nothing but raw materials, instruments and consumers to be efficiently managed in a global market dominated by corporate managers, media moguls and technocrats. The arts and the humanities have been devalued, genuine science has been crippled, and the quest for autonomy and democracy undermined. The resultant trajectory towards global ecological destruction appears inexorable, and neither governments nor environmental movements have significantly altered this, or indeed, seem able to. *The Philosophical Foundations of Ecological Civilization* is a wide-ranging and scholarly analysis of this failure.

This book reframes the dynamics of the debate beyond the discourses of economics, politics and techno-science. Reviving natural philosophy to align science with the humanities, it offers the categories required to reform our modes of existence and our institutions so that we augment, rather than undermine, the life of the ecosystems of which we are part. From this philosophical foundation, the author puts forth a manifesto for transforming our culture into one which could provide an effective global environmental movement and provide the foundations for a global ecological civilization.

Arran Gare is Associate Professor of Philosophy and Cultural Inquiry at Swinburne University of Technology, Australia.

Endorsements

'Gare's outstanding environmental Manifesto should be widely meditated at a time of looming human extinction. By philosophers ... By academics ... By scientists, of course ... And, perhaps more importantly, by educated people. Gare's ... approach ... is urgently needed to trigger a cultural epoch adequate to the current challenges.'

Michel Weber, Director of the Centre for Philosophical Practice, Belgium

'In his sweeping survey of the damage done to Life and Thought by the predominant modern interpretation of naturalism called scientism, Arran Gare outlines a radically nonmodern `speculative naturalism.' Aiming to revivify a degraded philosophical language which can overcome this allegedly enlightened culture's lemming-like rush to ecocide, Gare thus holds out hope for the emergence of a more responsible collective attitude towards Nature and all its creatures which might well justify the hubristic self-description *homo sapiens*.'

Murray Code, Guelph University, Canada

'Gare's Manifesto is a clarion sounding against nihilism. Prevailing technoscience is a monism built upon minimalist models that yields only heat death in the long term and human extirpation in the more immediate future. Gare posits instead a "speculative naturalism" that explores a dialectical worldview in terms of those feedbacks among social and material processes that provide meaning and 'happiness' in terms of a life fulfilled. A philosophical and ecological guide to survival in necrophilic times!

Robert E. Ulanowicz, Department of Biology, University of Florida, USA.

'From a scientific perspective, Arran Gare in this work struggles with problems raised by the mutually reinforcing practices of Newtonian science and analytical philosophy, which have motivated the ascendency of 'technoscience' and the eclipse of a more holistic 'ecological science'. His own perspective on science-in-society emerges from a generally phenomenological viewpoint. Taking a dialectical stance, he urges that our conceptual world needs to get beyond focus on Analysis and some timid tentative Synopses. Intellectual work needs instead to go all the way toward forming working Syntheses which can serve as guiding frameworks for scientific investigations. He urges Speculative Naturalism, in the form founded by Schelling, which transcends both British analytical philosophy and French structuralism as being suitable for guiding scientific inquiry. This would place scientific investigations in a generally developmental framework, which would be accessible as well to perspectives in the humanities as a philosophy of science. Then, as well, importantly, such an approach potentially presents a framework informative for environmentalism. This latter connection points toward the goal of creating an 'ecological civilization'.'

Stanley Salthe, Brooklyn College of the City University of New York, USA

'Arran Gare has written a passionate, urgently needed, and compelling manifesto to help us avoid a global, imminent, ecological catastrophe. Widely and deeply researched, this book is a challenge and a wake-up call for philosophers and non-philosophers alike. He joins theory and practice to show the

inadequacy of most contemporary philosophies and economic/political policies for creating "an ecologically sustainable civilization."

William S. Hamrick, Professor Emeritus of Philosophy, Southern Illinois University Edwardsville; author of Kindness and the Good Society and co-author of Nature and Logos

'In the modern value free research university, history of any kind is reduced to information about this or that past event. The effort to understand what is happening by describing the way the present has come to be has been largely excluded at a time when such understanding is essential for wise response to unprecedented global crises. When universities awaken from their dogmatic slumber, Gare's account of the history of thought will become the classic basis for building new institutions responding to urgent needs.'

John Cobb Jr., Professor Emeritus of Theology, Claremont School of Theology, Claremont, California

Table of Contents

Preface

Introduction: Why Turn to Philosophy

Chapter I: The Ultimate Crisis of Civilization

The Crisis of Philosophy and the Humanities

The Two Cultures and the Triumph of Scientism

Continuing the Struggle Against Nihilism

Castoriadis and the Challenge of the Radical Enlightenment

Reconfiguring the History of Philosophy after Kant

Speculative Naturalism, the Radical Enlightenment and Ecological Civilization

Chapter II: From Analytic Philosophy to Speculative Naturalism

The Eclipse of Speculative Philosophy from Bolzano and Frege to Wittgenstein

Quine and the Naturalist Turn in Analytic Philosophy

Hintikka's Critique of Quine

The 'Continental' Alternative to Analytic Philosophy: Neo-Kantianism and Idealism

Recovering the Tradition of Speculative Naturalism: From Schelling to Process Metaphysics

From Transcendental Deductions to Dialectics: From Kant to Hegel

Defending Speculative Naturalism through Dialectics: From Hegel to Schelling

Chapter III: Dialectics: From Marx to Post-Marxism

Marx's Dialectics

Dialectics After Marx and Engels: Hegelian Marxism, Existential Phenomenology and Jean-Paul Sartre

The Structuralist Reaction to Phenomenology

Genetic Structuralism and Dialectics

Pierre Bourdieu as Genetic Structuralist

Narratology and Dialectics

Synthesising Genetic Structuralism and Narratology to Overcome Sartre's Limitations

The Limitations of Marxist Dialectics

Chapter IV: The Dialectics of Speculative Naturalism

Extending Dialectics into Speculation: Collingwood, Peirce and Whitehead

Dialectical Thinking in Post-Positivist Philosophy of Science

Speculative Naturalism versus the Naturalism of Analytic Philosophers

Speculative Naturalism and Post-Newtonian Science: The Schellingian Tradition

Speculative Naturalism versus Speculative Materialism: Alain Badiou or Robert Rosen

Chapter V: Reviving the Radical Enlightenment Through Speculative Naturalism

The Triumph of Techno-Science over the Humanities and its Consequences

The Radical Enlightenment and the Struggle for Democracy

Speculative Naturalism, Philosophical Anthropology and the Humanities

Naturalizing Neo-Hegelian Social Philosophy: The Radical Spirit

Objective and Absolute Spirit

Subjective Spirit

Chapter VI: From the Radical Enlightenment to Ecological Civilization: Creating the Future

Ecology, Eco-semiotics and Human Ecology

The Politics of Eco-Poiesis

The Ethics of Eco-Poiesis

Human Ecology, the Human Sciences and Technology

The Dialogic Grand Narrative of Ecological Civilization

Conclusion: Ecological Civilization and 'Life, Liberty and the Pursuit of Happiness'

Bibliography

Preface

Working as an historian and philosopher of science and mathematics and a social and environmental philosopher in one of the most environmentally destructive, anti-intellectual and nihilistic nations on Earth, research on this book has involved continual struggle just to defend the conditions for independent research. It has involved a struggle against the corruption of universities and other public institutions, and against the paralyzing intellectual fragmentation promoted by government policies. However, the advantage of working in this environment has been that the inter-connections between passive nihilism, the marginalization of genuine philosophy, the fragmentation of intellectual culture, the corruption of public institutions – most importantly, universities and research institutions, subversion of democracy, depoliticization of the population, domination by transnational corporations, plundering of public assets and ecological destruction, that is, the forces driving the whole of humanity to ecocide, have been far easier to see. Concomitantly, it has also been easier to see the immense importance of developing fully fledged philosophy to overcome people's disorientation, to free their minds to understand the world in all its complexity, to appreciate the meaning of life and its history and to face up to the problems confronting them, and to envisage new and realistic possibilities for the future. And it has been far easier to appreciate the immense importance and the value of solidarity of those challenging power elites and the corruption of intellectual life, both locally and internationally. Locally, I owe an immense debt of gratitude to Alan Roberts, Glenn McLaren and other members of the Complex Processes Research Group at Swinburne University; internationally, to John Cobb Jr., Murray Code, David Ray Griffin, Michel Weber, James O'Connor, Joel Kovel, Michael Zimmerman, Takis Fotopoulos, Stan Salthe, Jesper Hoffmeyer, Kalevi Kull, Plamen Simeonov, Stuart Kauffman, Sasa Josifovic, Iain McGilchrist, Zhihe Wang, Xu Chun and Shuji Ozeki, among others. I am indebted to Juliet Bennett, Andrew Dawson and Stan Salthe for comments on various drafts of this work. I would also like to pay tribute to Pan Yue who has vigorously promoted the goal of ecological civilization in China.

Introduction

Why Turn to Philosophy

If the world's leading climate scientists are right, and there is no reason to believe they are not, unless very drastic action is taken to stop greenhouse gas emissions, we are in danger of producing a runaway greenhouse effect that will be unstoppable. It will transform the global ecosystem so radically that billions of people will die and civilization might not survive. Even without a runaway greenhouse effect, the melting of Greenland and Antarctic ice will flood river deltas and coastal plains, which grow much of our food and where many of world's major cities are located. There will be more extreme weather events and more precipitation, but this will be over the oceans and the polar regions. In the tropics, where much food is grown, it will be hotter and much drier. The die off of species occurring at present matches the great die offs that marked the end of past geological eras. It is predicted that by mid-century the Amazon rainforest will have been destroyed, along with all ocean fisheries. European honey bees, which have co-evolved with flowering plants and humans and are responsible for the fertilization of plants that produce up to a third of our food, are dying off in huge numbers. In Asian cities such as Beijing the air is often barely breathable, with 4000 people in China dying each day from the effects of air pollution. These are only some of the most obvious signs of a looming global ecological catastrophe. As Ulrich Beck summed up our predicament:

The transformation of the unseen side-effects of industrial production into global ecological trouble spots is ... not at all a problem of the world surrounding us – not a so-called 'environmental problem' – but a far-reaching institutional crisis of industrial society itself. ... What previously appeared 'functional' and 'rational' now becomes and appears to be a threat to life, and therefore produces and legitimates dysfunctionality and irrationality. ... Just as earlier generations lived in the age of the stagecoach, so we now and in future are living in the hazardous age of creeping catastrophe. What generations before us discovered despite resistance, and had to shout out loud at the world, we have come to take for granted: the impending 'suicide of the species.' (Beck 1996, p.32, 34 & 40)

Yet as George Monbiot (2006) has shown, action to address this situation is obscenely inadequate.

Notwithstanding the agreements reached at the 2015 conference in Paris on reducing greenhouse emissions, it appears that governments are more pre-occupied with economic growth than the survival of humanity. Concern with growth is often justified as the only way to overcome unemployment, a threat that nowadays hangs over almost everyone. But governments are more pre-occupied with technological advances that will throw people out of work, supposedly in order to improve productivity, than employment. Perhaps this is their real concern. But the evidence is that apart from the manufacture of computer chips, since the 1970s these technological advances have reduced labour productivity (although this varies between countries), while new technologies are, on aggregate, producing more greenhouse gases and putting greater stress on ecosystems (Friedman 2005, p.91). Still, it is held to be obvious that economies have flourished over the last forty years through the liberation of markets from bureaucracies and parochial national self-interest. However, quite apart from recurring financial crises that threaten to cripple the global and many national economies, the underlying causes of which have not begun to be addressed, studies by Perelman (2007, p.3ff.) and Piketty (2014, p.571ff.) reveal that the vast majority of working people in the advanced Western countries have become worse off since 1973 (although this also varies between countries). They have to spend more time in education to get work and then, when they are properly employed, have to work longer hours for the same or less income. Also, most work has been transformed by the McDonaldization of the economy, making it soul destroying rather than fulfilling. And employment is not guaranteed, with young people now facing permanent precarious employment and precarious economic futures, forming a new class, the precariat, just above the growing class of permanently unemployed.

Perhaps our altruistic ruling elites have concluded that the welfare of people in affluent countries had to be sacrificed so that the rest of the world could develop their economies and share the benefits of economic growth. But the vast majority of people in these developing economies are also worse off. As Vandana Shiva and others have shown, they have been and continue to be pushed off their land by agribusinesses which are replacing sustainable agriculture with unsustainable agriculture. Rural populations have moved and are being moved into the slums of cities, creating what Mike Davis (2006) characterized as a planet of slums. To survive, they are then forced to work in ecologically inefficient factories in conditions reminiscent of early nineteenth century Britain, or join criminal gangs. Either way they are contributing to expanding the ecological footprint of humanity which is already unsustainable, although not contributing as much as the obscenely wealthy elites in these developing countries, among the true beneficiaries of these policies, at least in the short term.

One would expect under these circumstances that political movements and political leaders would emerge, charting new directions for their societies. However, most radical political movements now appear only interested in protesting; they have no alternative visions for the future and appear uninterested in developing them. Even when they gain power, political radicals squander their opportunities. It seems that whichever politicians gain power, whether they call themselves conservatives, liberals, social democrats or communists, with minor variations they pursue the same policies, freeing markets, promoting managerialism, selling public assets, undermining work security and replacing workers with new forms of technology, further empowering the super-wealthy and adding to the ecological footprint of humanity. Alternatively, they become corrupt, ingratiating themselves to the rich and attempting to buy support from the poor with handouts, usually at the expense of productive workers. With very few exceptions, the only real alternatives are offered by religious fundamentalists and paranoid nationalists, who are hostile to environmentalists. The few other alternatives that have been offered have been derided or dismissed, whether justly or not, as efforts to return to the past, or as being totally unrealistic.

Understanding all this is impossible through the received interpretative schemes of common sense. And if common sense is inadequate, then unless people accept their depoliticization, as many have, they have to turn to academics to provide better interpretative schemes. What they find here is a multiplicity of perspectives associated with an increasing number of schools of thought and a growing number of disciplines and sub-disciplines, coming into and going out of fashion at faster and faster rates, sometimes supporting each other, sometimes opposing each other, fragmenting further people's capacity to understand the world. Even Marxism has fragmented. The credibility of the humanities has been almost completely destroyed by such fragmentation, but the situation is little better in the human sciences, or even in the natural sciences. Radical economists argue that mainstream economics legitimating neoliberal agendas has been totally discredited, but they are divided among themselves. They are ignored by the mainstream economists who maintain their control over economics departments and leading journals and have exclusive access to politicians and government officials. The natural scientists have been wrong so often on simple matters such as what is a good diet that they have lost credibility. Some supposed experts, claiming to be skeptical environmentalists, still claim there is no environmental crisis. If in quest of more solid foundations for our beliefs, we fall back to the physical sciences, and finally to physics as the most successful science in history, and for reductionists, the ultimate science which must explain the findings of all other sciences, we find incompatibilities between the major theories and no progress in dealing with these. Some physicists claim that the dominant research program, designed to overcome this situation, is not really science at all. As Peter Woit (2007) put it, it is not even wrong. If we ignore such critics of the state of physics and accept the mainstream view we are told that nature can only be understood through mathematics which now cannot be interpreted in non-mathematical language, and the mathematics used in advanced physics requires at least a doctorate in theoretical physics or mathematics. In other words, we are being told to forget about trying to understand the cosmos and our place within it, and to leave this to the experts, who can't even agree on what science is.

It is only natural under these circumstances to turn to philosophy and philosophers, which apparently, at least some young people are doing. What they find is the increasing dominance of analytic

philosophers who have fragmented philosophy itself, either defending scientism, handing over to the floundering scientists (and the experts) the power to define reality, or in the case of those opposing scientism, defending commonsense, despite its obvious inability to comprehend the complexity of the world in which we now live. If young people turn to 'continental' philosophers they find French philosophers have embraced structuralism, which is another form of scientism, or poststructuralism, with poststructuralists deconstructing the humanities, claiming that even the quest for a comprehensive understanding of the world is oppressive. It is somehow seen as radical chic to debunk the assumptions on which democracy is based. There remains the alternative of some form of Idealism still defended by German philosophers, but Idealism is hardly the best philosophy for grappling with ecological problems, and in the light of the apparent progress of the sciences and skeptical attacks on Idealism by deconstructive postmodernists, young people have good reason for seeing Idealism as implausible and irrelevant to facing up to global ecological destruction. Just when philosophers are desperately needed, it seems most have decided to redefine philosophy to render it irrelevant to the challenges facing civilization, except perhaps to contribute to the development of information technology and the entertainment industry.

The argument presented here is that there are alternative ideas that have been and are being developed that are adequate to the crises we are facing, but to be effective, they need to be identified, integrated and further developed. Such ideas are marginalized for the very good reason that they really do challenge the current structures of power and its power elites, and more fundamentally, the culture through which most people define themselves and their goals. What is required is the means to achieve this integration in order to mobilize humanity to redefine its place in the cosmos and its destiny, and then on this foundation, to create a society that augments life and the current regime of the global ecosystem. This will require a reorientation of philosophy to overcome fragmentation and replace the defective philosophical assumptions that have dominated modernity, including mainstream science. It will require a revival of speculative philosophy and the philosophy of nature. It is to this end that this book is a manifesto for ecological civilization; but it is also a manifesto for the philosophy of nature and for speculative philosophy. It is a manifesto for 'speculative naturalism' along with 'speculative dialectics' as a condition for creating an ecological civilization.

There is a further problem that, in the current intellectual and cultural environment, philosophy has been so discredited that to lay claim to being philosophical, and more than that, to invite people into the quagmire of arguments over which philosophy to embrace, is still to invite dismissal as being of no practical relevance. The eminent Spanish/Argentinian/Canadian philosopher of science (my own base discipline) Mario Bunge (2001, p.9) observed, 'academic philosophy has become rather stale. It is obsessed with its own past, suspicious of radically new insights, inward-looking, largely removed from worldly concerns, and therefore of hardly any help in tackling most of the issues faced by ordinary people.' This is how most people now see academic philosophy, at least in Anglophone countries. Philosophy is an intellectual labyrinth that philosophers themselves have demonstrated leads nowhere. But this is to identify philosophy with what most academic philosophers now do, ignoring the tendency, noted by George Orwell, for words to be used to signify the exact opposite of what they originally meant. Much of what presently purports to be 'philosophy' is really anti-philosophy, if one understands what philosophy was in the past.

Philosophy in the past has been central to the formation of civilizations. It is, as Alfred North Whitehead (1932, p.x) argued, 'the most effective of all the intellectual pursuits.... It is the architect of the buildings of the spirit, and it is also their solvent:- and the spiritual precedes the material.' Philosophy underpins civilizations, whether done well or badly, taken seriously or ignored. As Whitehead observed:

... a philosophic outlook is the very foundation of thought and of life. The sort of ideas we attend to, and the sort of ideas which we push into the negligible background, govern our hopes, our fears, our control of behaviour. As we think, we live. This is why the assemblage of philosophic ideas is more than a specialist study. It moulds our type of civilization. (Whitehead 1938, p.63)

The argument running through this manifesto is that philosophy, along with the humanities generally, has a crucial and indispensable role to play in revealing the deficiencies of our culture, and in doing so, laying the foundations for the cultural transformations required to overcome the problems engendered by these deficiencies, and that work on this is being greatly hindered not only by governments, but also by academics, including those dominating the discourse of philosophy. They are locking in place the deficient assumptions of modernity while smothering efforts to develop radically new ways of thinking. This work is a protest against the gap between what philosophy should be and what it has become in Anglophone countries: the abstruse argumentation about minor issues characteristic of much of analytic philosophy (although there are prominent exceptions to this) or the quest to keep abreast of the latest intellectual fashions emerging from Paris characteristic of many devotees of 'continental philosophy', and consequently, withdrawal from the broader ambitions that defined philosophy in the past. Without such ambitious philosophy to relate all domains of culture, other disciplines inevitably fragment into a multiplicity of sub- and sub-sub-disciplines, corrupting the whole of academia and intellectual and cultural life generally. We need new concepts to overcome this fragmentation through which the problems of culture, society and civilization can be understood and effectively addressed, along with the means to develop and defend them. However, more than this is involved. These problems need to be addressed in such a way that these concepts are appropriated and embodied in practices, institutions and in people's orientation to life. It is in this way that the foundations for a future civilization can be put in place.

To create a viable future it will be necessary to open the way for questioning and replacing the prevailing reductionist form of naturalism, along with the scientism engendered by and supporting it; and correspondingly, for questioning and replacing the debased notions of life and humanity promoted by orthodox biologists, economists and psychologists. These are being insulated from such questioning by philosophers. What is wrong? C.D. Broad pointed out that, traditionally, philosophers utilized three 'methods': analysis, synopsis (that is, 'viewing together') and synthesis. Analytic philosophers privilege analysis, but have limited its role, in most cases now excluding any place for the analysis of experience. With the exception of Scandinavian analytic philosophers, most have also radically reduced the role accorded to synopses, narrowing their perspectives and blinding them to the incoherencies of culture and their complicity in its problems. Often, although not always, this is associated with a disdain for the history of philosophy, resulting in the contexts needed to make sense of the more important philosophical questions and arguments having been lost. Such analytic philosophers have acquiesced in the fragmentation of intellectual inquiry and culture. Most importantly, these analytic philosophers have excluded almost entirely any role for synthetic thought to overcome such fragmentation and to develop new ways of thinking and new concepts to replace prevailing defective thinking and defective concepts.

When philosophy has utilized all three methods to the full, its contributions to other disciplines, to the broader culture and to civilization have been immense. Again, as Whitehead proclaimed,

Philosophy is the welding of the imagination and common sense into a restraint upon specialists, and also into an enlargement of their imaginations. By providing the generic notions philosophy should make it easier to conceive the infinite variety of specific instances which rest unrealized in the womb of nature. (Whitehead 1978, p.17)

Such philosophy transforms culture, thereby creating new subjectivities with the strength of character and solidarity to change the direction of history. A work that explicitly aspires to do this, is a manifesto. As Mikhail Epstein pointed out:

[M]anifestos proclaim new ... cultural epochs, and they trigger these movements by the very act of their proclamation. Manifestos are performative rather than descriptive speech acts; they implement what they pronounce. ... Manifestos are neither factual nor fictional – they are formative. (Epstein 2012, p.14)

While there are profound intellectual and cultural reasons for promoting speculative naturalism, the most important is that it is required to challenge the reduction of science to techno-science, challenge the

radical devaluation of the arts, humanities and 'humanistic' human sciences, and challenge the subsequent nihilism and the consequences of this nihilism. Overcoming nihilism, it will be argued, is necessary to revive genuine democracy, to liberate people from the imperatives of the global market, from corporate managers and from technocrats, and that this is essential for effectively confronting and overcoming the threat of global ecological destruction. Post-nihilistic philosophy is required to lay the foundations for and to set humanity on the path to a new, ecologically sustainable civilization; or as the Chinese environmentalists have called for, an 'ecological civilization'.

With this in mind, some guidance on how to read this book is in order. Philosophers, philosophy students and those who already have a strong interest in philosophy, particularly those who have come to realize the enormity of the environmental crisis and the significance of the failure to deal with it, can usefully read the book straight through, although I would expect such people to read the pieces that most interest them before doing so. They will see that the aim of the book is to describe, defend and deploy a speculative dialectical approach to provide a synoptic overview of the development of modern philosophy and science, particularly after Kant, showing the relationship and the differences between rival philosophical traditions, and to defend and develop a new philosophical synthesis that can replace current orthodoxies. It is an attempt to explain the current marginal state of philosophy while showing that philosophy is far more important and has far more potential than is presently recognized. The book defends one largely overlooked tradition of philosophy, speculative naturalism, against others, through this speculative dialectical form of thinking. Finally, this highlights the challenges philosophy now faces and shows how philosophy should be advanced in the future, not only to deal with philosophical and theoretical issues and to advance the natural and human sciences, but to guide people in the present to deal with practical problems, to formulate policies, to engage in political struggle and to do so in a way that involves laying the philosophical foundations on which the future can be built.

For those grappling with environmental problems, such as academics, scientists and students in diverse disciplines other than philosophy, green activists, civil servants, members of green political parties and political leaders previously uninterested in philosophy, reading this book is not so straightforward. Although I wrote this book with this readership in mind, I would discourage such readers from reading the book from beginning to end in the order that it is written. Without a prior interest in philosophy it is difficult to see why any time should be taken examining and critiquing leading analytic philosophers, or examining the history of French philosophy and its relation to Marxism. While it might not seem so irrelevant, such practically oriented people are unlikely to see why they should examine the crippling influence of logical positivism, not only on the arts and the humanities, but also on science, and why speculative natural philosophy is essential to the progress of all of these.

These readers, after reading this introduction, would be better off reading the conclusion first, then the first chapter, followed by Chapters Five and Six. Chapter Five identifies the 'Radical Enlightenment' (as opposed to the mainstream 'Moderate Enlightenment') as the suppressed tradition upholding the social imaginary of autonomy, liberty and democracy. Chapter Six offers a new world-orientation and vision of the future to aim at, utilizing developments in ecology and human ecology to rethink the Radical Enlightenment. It is shown how this world-orientation could enable environmentalists to be more effective, how it could unite them into a global movement to transform civilization. These chapters suggest that without this world-orientation and without such a new vision of the future, encapsulated in the notion of ecological civilization, environmentalists, including green political parties, will have only a marginal impact, even if they gain some power, and a global ecological catastrophe will be unavoidable. At the same time these chapters point to the significance of work being undertaken in diverse disciplines having far less impact than it should because of the failure to link it with other work; and they do link such work, for instance, work in political philosophy and ethics with work in ecology.

However, if the perspective offered here is not to be seen as just another point of view which can be dismissed by power elites and ignored by the rest of the population, it is necessary to ground and defend the claims being made in these chapters. It should then be evident why it is necessary to read chapters three and four to understand the failures of Marxism and the importance of natural philosophy to defend and advance genuine science, as opposed to technoscience. Finally, to understand and to challenge

philosophical doctrines that have been crippling the advance of philosophy, undermining the humanities, legitimating defective economic, ethical and political philosophies, supporting outmoded ideas in science and undermining any solidarity among those oppressed by power elites, it is necessary to read the second chapter. Here the work of the most influential American philosopher of the twentieth century, W.V. Quine, characterized by Hilary Putnam (1990, pp.268-277) as 'The Greatest Logical Positivist', is placed in historical context, revealing its limitations, its fundamentally defective assumptions and its paralyzing effects. These deficiencies are highlighted by a brief description of the work of rival analytic philosophers, most importantly, Jaakko Hintikka, and of the tradition of Idealism, but are shown to be more fundamentally challenged by Friedrich Schelling's conception of philosophy. Schelling is defended as the philosopher who successfully overcame the dualisms of Kant's philosophy, reconciling natural philosophy, history and art. His work exemplifies a form of speculative dialectics. It offered the path that modern philosophy should have taken, the path taken by process metaphysicians. This is the philosophy being revived by philosophically oriented scientists and mathematicians and is being defended throughout this work.