Blackwell Companions to Philosophy

A Companion to Environmental Philosophy

Edited by DALE JAMIESON



For Richard Sylvan

In Memoriam

A Companion to Environmental Philosophy



Blackwell Companions to Philosophy

This outstanding student reference series offers a comprehensive and authoritative survey of philosophy as a whole. Written by today's leading philosophers, each volume provides lucid and engaging coverage of the key figures, terms, topics, and problems of the field. Taken together, the volumes provide the ideal basis for course use, representing an unparalleled work of reference for students and specialists alike.

Already published in the series:

The Blackwell Companion to Philosophy Edited by Nicholas Bunnin and Eric Tsui-James

A Companion to Ethics Edited by Peter Singer

A Companion to Aesthetics Edited by David Cooper

A Companion to Epistemology Edited by Jonathan Dancy and Ernest Sosa

A Companion to Contemporary Political Philosophy

Edited by Robert E. Goodin and Philip Pettit

A Companion to Philosophy of Mind Edited by Samuel Guttenplan

A Companion to Metaphysics Edited by Jaegwon Kim and Ernest Sosa

A Companion to Philosophy of Law and Legal Theory Edited by Dennis Patterson

A Companion to Philosophy of Religion Edited by Philip L. Quinn and Charles Taliaferro

A Companion to the Philosophy of Language

Edited by Bob Hale and Crispin Wright

A Companion to World Philosophies Edited by Eliot Deutsch and Ron Bontekoe

A Companion to Continental Philosophy Edited by Simon Critchley and William Schroeder

A Companion to Feminist Philosophy Edited by Alison M. Jaggar and Iris Marion Young A Companion to Cognitive Science Edited by William Bechtel and George Graham

A Companion to Bioethics Edited by Helga Kuhse and Peter Singer

A Companion to the Philosophers Edited by Robert L. Arrington

A Companion to Business Ethics Edited by Robert E. Frederick

A Companion to the Philosophy of Science

Edited by W. H. Newton-Smith

A Companion to Environmental Philosophy Edited by Dale Jamieson

Forthcoming:

A Companion to African American Philosophy

Edited by Tommy Lott and John Pittman

A Companion to African Philosophy Edited by Kwasi Wiredu

A Companion to Genethics Edited by John Harris and Justine Burley

A Companion to Ancient Philosophy Edited by Mary Louise Gill

A Companion to Analytic Philosophy Edited by A. P. Martinich and David Sosa

A Companion to Early Modern Philosophy Edited by Steven Nadler

A Companion to Philosophical Logic Edited by Dale Jacquette

A Companion to Medieval Philosophy Edited by Jorge J. E. Gracia, Greg Reichberg, and Timothy Noone

Blackwell Companions to Philosophy

A Companion to Environmental Philosophy

Edited by DALE JAMIESON



Copyright © Blackwell Publishers Ltd 2001

First published 2001

24681097531

Blackwell Publishers Inc. 350 Main Street Malden, Massachusetts 02148 USA

Blackwell Publishers Ltd 108 Cowley Road Oxford OX4 1JF UK

All rights reserved. Except for the quotation of short passages for the purposes of criticism and review, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the publisher.

Except in the United States of America, this book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, resold, hired out, or otherwise circulated without the publisher's prior consent in any form of binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

Library of Congress Cataloging-in-Publication

A companion to environmental philosophy / [Dale Jamieson, editor].

p.cm.—(Blackwell companions to philosophy)

Includes bibliographical references and index.

ISBN 1-55786-910-3 (alk. paper)

1. Environmental sciences—Philosophy. I. Jamieson, Dale. II. Series.

GE40 .C66 2000 363.7'001—dc21

00-039772

British Library Cataloguing in Publication Data

A CIP catalogue record for this book is available from the British Library.

Typeset in 10 on 12.5pt Photina by Kolam Information Services Pvt Ltd. Pondicherry, India Printed in Great Britain by TJ International, Padstow, Cornwall

This book is printed on acid-free paper.

Contents

List	of contributors	X
Pre	refac <i>e</i>	
PAI	RT I: CULTURAL TRADITIONS	1
1	Indigenous perspectives LAURIE ANNE WHITT, MERE ROBERTS, WAERETE NORMAN, AND VICKI GRIEVES	3
2	Classical China KARYN L. LAI	21
3	Classical India O. P. DWIVEDI	37
4	Jainism and Buddhism CHRISTOPHER KEY CHAPPLE	52
5	The classical Greek tradition GABRIELA R. CARONE	67
6	Judaism ERIC KATZ	81
7	Christianity ROBIN ATTFIELD	96
8	Islam S. NOMANUL HAQ	111
9	Early modern philosophy CHARLES TALIAFERRO	130
10	Nineteenth- and twentieth-century philosophy ANDREW BRENNAN	146
PAl	RT II: CONTEMPORARY ENVIRONMENTAL ETHICS	161
11	Meta-ethics JOHN O'NEILL	163
12	Normative ethics ROBERT ELLIOT	177

	CONTENTS
VIII	CONTRACTO

13	Sentientism GARY VARNER	192
14	The land ethic J. BAIRD CALLICOTT	204
15	Deep ecology FREYA MATHEWS	218
16	Ecofeminism VICTORIA DAVION	233
PAF	RT III: ENVIRONMENTAL PHILOSOPHY AND ITS NEIGHBORS	249
17	Literature SCOTT SLOVIC	251
18	Aesthetics JOHN ANDREW FISHER	264
19	Economics A. MYRICK FREEMAN III	277
20	History IAN SIMMONS	291
21	Ecology KRISTIN SHRADER-FRECHETTE	304
22	Politics ROBYN ECKERSLEY	316
23	Law SHEILA JASANOFF	331
PAI	RT IV: PROBLEMS IN ENVIRONMENTAL PHILOSOPHY	347
24	Wilderness MARK WOODS	349
25	Population CLARK WOLF	362
26	Future generations ERNEST PARTRIDGE	377
27	Sustainability ALAN HOLLAND	390
28	Biodiversity HOLMES ROLSTON III	402
29	Animals PETER SINGER	416

		contents ix
30	Environmental justice ROBERT FIGUEROA AND CLAUDIA MILLS	426
31	Technology LORI GRUEN	439
32	Climate HENRY SHUE	449
33	Land and water PAUL B. THOMPSON	460
34	Consumption MARK SAGOFF	473
35	Colonization KEEKOK LEE	486
36	Environmental disobedience NED HETTINGER	498
Ind	ex	510

Contributors

Robin Attfield is Professor of Philosophy at Cardiff University, Philosophy Section, ENCAP, Cardiff University, P.O. Box 94, Cardiff CF10 3XB, United Kingdom. He has also taught in several places in Africa. His books include Environmental Philosophy: **Principles** and Prospects (1994), Value, Obligation and Meta-Ethics (1995), and The Ethics of the Global Environment (1999), Environmental Ethics: An Overview for the Twenty-First Century (2002). He can be contacted on the internet at attfieldr@cardiff.ac.uk.

Andrew Brennan is Professor of Philosophy at the University of Western Australia, Perth, WA 6907, Australia. His most recent book is *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (1999), co-edited with Nina Witoszek. He is presently working on a book on animals, ethics, and science. He can be contacted on the internet at abrennan@cyllene.uwa.edu.au.

J. Baird Callicott is Professor of Philosophy and Religion Studies at the University of North Texas, Denton, TX 76203. He is editor or author of a dozen books and more than a hundred book chapters, journal articles, and book reviews in environmental philosophy, the most recent of which is *Beyond the Land Ethic: More Essays in Environmental Philosophy* (1999). He can be contacted on the internet at callicott@unt.edu.

Gabriela R. Carone is Assistant Professor of philosophy at the University of Colorado at Boulder, CB 232, Boulder, CO 80309. She has published in both Spanish and English on Plato's cosmology and its relation to his ethics together with its impact on Neoplatonism. She has also published various articles on the moral philosophy of Socrates. Carone is working on a book on Plato's cosmology in relation to his ethics. She can be contacted on the internet at carone@stripe.colorado.edu.

Christopher Key Chapple is Professor of Theological Studies and Director of Asian and Pacific Studies at Loyola Marymount University, 7900 Loyola Blvd, Los Angeles, CA 90045. He has published eight books and is the editor of two forthcoming volumes: Hinduism and Ecology and Jainism and Ecology. He can be contacted on the internet at cchapple@lmu.edu. His home page is clawww.lmu.edu/faculty/cchapple/cchapple.html.

Victoria Davion is Associate Professor of Philosophy at the University of Georgia, Athens, GA 30602. She is the founding and current editor of the international journal *Ethics and the Environment* and is co-editor (with Clark Wolf) of *The Idea of a Political Liberalism: Essays on Rawls* (1999). She can be contacted on the internet at vdavion@arches.uga.edu.

O. P. Dwivedi is Professor of Public and Environmental Administration at the University of Guelph, Guelph, Ontario, Canada, N1G 2W1. He has published 29 books and many articles in refereed journals and chapters in books, and is a Fellow of the Royal Society of Canada. He can be contacted on the internet at odwivedi@uoguelph.ca.

Robyn Eckersley teaches in the School of Political and Social Inquiry, Monash University, Wellington Road, Clayton 3168, Victoria, Australia. She has published widely in the fields of environmental philosophy, green political theory, and environmental policy. She can be contacted on the internet at robyn. eckersley@arts.monash.edu.au.

Robert Elliot is Professor of Philosophy at University of the Sunshine Coast, Maroochydore DC, Queensland, Australia. He is the author of *Faking Nature* (1997). He can be contacted on the internet at elliot @usc.edu.au.

Robert Figueroa is Visiting Assistant Professor at Colgate University, 13 Oak Drive, Hamilton, NY 13346. He is currently working on comparative studies of environmental justice between global and domestic contexts, and is developing theoretical components of social justice on issues of climate affairs. He can be contacted on the internet at rfigueroa @mail.colgate.edu.

John Andrew Fisher is Professor of Philosophy at the University of Colorado at Boulder, CB 232, Boulder, CO 80309. He is the author of *Reflecting on Art* (1992). He has also written articles about animal minds and anthropomorphism and articles on various aesthetic themes, including rock music,

the ontology of recordings, and the aesthetics of nature. He can be contacted on the internet at jafisher@spot.colorado.edu.

A. Myrick Freeman III is William D. Shipman Research Professor at Bowdoin College, Department of Economics, 9700 College Station, Brunswick, Maine 04011. The Economic Approach to Environmental Policy (1998) is a selection of his essays. He can be contacted on the internet at rfreeman@bowdoin. edu.

Lori Gruen is Assistant Professor of Philosophy at Wesleyan University, 350 High Street, Middletown, CT 06459. She can be reached on the internet at lgruen@wesleyan.edu.

S. Nomanul Haq is Assistant Professor in the Department of Religion, Rutgers University, New Brunswick, NJ 08901, and a visiting scholar at the University of Pennsylvania in Philadelphia. He is General Editor of the Studies in Islamic Philosophy of Oxford University Press, and is currently working on Arabic metaphysical texts. Haq can be contacted on the internet at nomanhaq@rci.rutgers.edu.

Ned Hettinger teaches social, political, and environmental philosophy at the College of Charleston, Charleston, SC 29424. He is currently writing a book about respect for nature's autonomy that allows for a positive role for humans in nature. He can be contacted on the internet at hettingern@cofc.edu. His home page is http://www.cofc.edu/~philo/dept.htg/hettinger.htm.

Alan Holland is Professor of Applied Philosophy at Lancaster University, Furness College, Lancaster University, Lancaster, LA1 4YG, United Kingdom, and is editor of *Environmental Values*. He recently co-edited *Animal Biotechnology and Ethics* (1998). He is a newly appointed member of the UK government's Animal Procedures Committee. He can be contacted on the internet at a.holland@lancaster. ac.uk.

Sheila Jasanoff is Professor of Science and Public Policy at Harvard University's John F. Kennedy School of Government, 79 John F. Kennedy Street, Cambridge, MA 02138. She is currently completing a book on biotechnology regulation in Europe and the USA. She can be contacted on the internet at sheila_jasanoff@harvard.edu.

Eric Katz is Associate Professor of Philosophy and Director of the Science, Technology, and Society Program at the New Jersey Institute of Technology, University Heights, Newark, NJ 07102–1982. He has been an invited speaker at the United Nations and is the author of Nature as Subject (1997) and editor of Environmental Pragmatism (1996) and Beneath the Surface: Critical Essays in the Philosophy of Deep Ecology (2000). He can be contacted on the internet at katze@admin. njit.edu.

Karyn L. Lai lectures at the School of Philosophy at the University of New South Wales, PO Box 1, NSW 2052, Australia. She works in moral philosophy, applied ethics, environmental ethics, and Confucian and Daoist philosophy. She can be contacted on the internet at K.Lai@unsw.edu.au.

Keekok Lee is with the Philosophy Department, in a research position, at

the University of Lancaster, Furness College, Lancaster University, Lancaster, LA1 4YG, United Kingdom. Her most recent book is *The Natural and the Artefactual: The Implications of Deep Science and Deep Technology for Environmental Philosophy* (1999). She can be contacted on the internet at keekok.lee@man. ac.uk.

Freya Mathews is Senior Lecturer in the School of Philosophy at La Trobe University, Bundoora VIC, 3083, Australia. Her most recent book is *Ecology and Democracy* (1996), and she is currently developing a theory of ecological "countermodernity." She can be contacted on the internet at F.Mathews@latrobe.edu.au. Her homepage is http://www.latrobe.edu.au/www/philosophy/.

Claudia Mills is Associate Professor of Philosophy at the University of Colorado at Boulder, CN 232, Boulder, CO 80309–0232. She writes on a wide range of topics in ethics, practical ethics, and social and political philosophy, and is also the author of 30 books for children. She can be contacted on the internet at cmills@colorado.edu.

John O'Neill is Professor of Philosophy at Lancaster University, Furness College, Lancaster, LA1 4YG, United Kingdom, before which he taught in Beijing and Sussex. His books include *The Market: Ethics, Knowledge and Politics* (1998) and *Ecology, Policy and Politics* (1993). He is currently working on a research project on the environmental dimensions of the socialist calculation debates. He can be contacted on the internet at j.oneill@lancaster.ac.uk.

Ernest Partridge is a Research Philosopher at the University of California – Riverside, 900 University Ave., Riverside,

CA 92521, where he is currently studying ecological theory and ethics with a grant from the National Science Foundation. He can be contacted on the internet at gadfly@igc.org. His homepage is http://www.igc.org/gadfly.

Holmes Rolston III is University Distinguished Professor and Professor of Philosophy at Colorado State University, Fort Collins, CO 80523. His most recent book is *Genes, Genesis and God* (1999). He gave the Gifford Lectures at the University of Edinburgh in 1997–8. He can be contacted on the internet at rolston@lamar.colostate.edu. His homepage is http://lamar.colostate.edu/~rolston/.

Mark Sagoff is Senior Research Scholar at the Institute for Philosophy and Public Policy in the School of Public Affairs, 3111 Van Munching Hall, College Park, MD 20742. He is the author of *The Economy of the Earth* (1988) and has served as President of the International Society for Environmental Ethics. He can be reached on the internet at ms2@umail.umd.edu.

Kristin Shrader-Frechette is O'Neill Family Chair, Professor of Philosophy, and Concurrent Professor of Biological Sciences at the University of Notre Dame, Notre Dame, Indiana, 46556. Most of her 14 books and 280 articles are on quantitative risk assessment, philosophy of science, and environmental ethics. With Swedish physicist Lars Persson, she currently has a multi-year NSF grant to examine ethical and scientific problems with workplace standards for ionizing radiation. She can be contacted the internet at kristin.shraderfrechette.1@nd.edu. Her home page is http://www.nd.edu/~kshrader.

Henry Shue is the Wyn and William Y. Hutchinson Professor of Ethics and Public Life, and Professor of Philosophy, at Cornell University in Ithaca, NY 14853–2801. Best-known for *Basic Rights* (1996), he has also recently written a series of ten articles on climate change and international justice. He can be contacted on the internet at hs23@cornell.edu.

lan Simmons is a part-time Professor in the Department of Geography in the University of Durham, Durham DH1 3HP, United Kingdom. He has recently written an environmental history of Great Britain in the last 10,000 years and will soon embark on a similar book about the world. He can be contacted on the internet at i.g.simmons@durham.ac.uk.

Peter Singer is DeCamp Professor of Bioethics at Princeton University, Princeton, NJ 08544. His books include *Animal Liberation* (1990), *Practical Ethics* (1993), *How Are We to Live?* (1995), *Rethinking Life and Death* (1995), and *Ethics into Action* (1998).

Scott Slovic is Associate Professor of Literature and the Environment, and Director of the Center for Environmental Arts and Humanities at the University of Nevada – Reno, Reno, Nevada, 89557. He was the founding president of the Association for the Study of Literature and Environment, and currently he serves as editor of the journal ISLE: Interdisciplinary Studies in Literature and Environment. He can be contacted on the internet at slovic@unr.edu.

Charles Taliaferro is Professor of Philosophy and a member of the Environmental Studies Faculty at St. Olaf College, Northfield, MN 55057. His most recent book is *Contemporary* Philosophy of Religion (1998), and he is the co-editor of the Blackwell Companion to the Philosophy of Religion (1998). He can be contacted on the internet at taliafer@stolaf.edu.

Paul B. Thompson holds the Joyce and Edward E. Brewer Chair of Applied Ethics at Purdue University, West Lafayette, IN 47907. Most recently, he co-edited a collection of essays called *The Agrarian Roots of Pragmatism*. He is starting the Center for Food Animal Productivity and Well-Being at Purdue which will examine issues of animal welfare within a livestock production context. He can be contacted on the internet at pault @purdue.edu.

Laurie Anne Whitt teaches philosophy in the Humanities Department at Michigan Technological University, Houghton, MI. Mere Roberts teaches Maori Environmental Perspectives at the School of Environmental and Marine Sciences, University of Auckland, New Zealand. Waerete Norman teaches Maori language and culture in the Maori Studies Department, University of Auckland, New Zealand. Vicki Grieves teaches Aboriginal history at Macquarie University, Sydney, NSW, Australia. They are, respectively, of Choctaw, Tainui (Ngati

Apakura), Muriwhenua (Ngati Kuri), and Worimi-Kattang descent.

Clark Wolf is Associate Professor of Philosophy at the University of Georgia, Athens, GA 30602. He is currently writing a book on justice between generations. He can be contacted on the internet at cwolf@uga.edu. His home page is http://www.phil.uga.edu/faculty/wolf/.

Mark Woods is Assistant Professor in the Department of Philosophy at the University of San Diego, 5998 Alcala Park, San Diego, CA 92110–2492. Currently, he is writing a book on the concept of wilderness and the philosophy of wilderness preservation. He can be contacted on the internet at mwoods@acusd.edu.

Gary Varner is Associate Professor in the Department of Philosophy at Texas A&M University, College Station, Texas, 77843–4237. He is the author of In Nature's Interests? Interests, Animal Rights, and Environmental Ethics (1998) and numerous articles on environmental ethics, animal rights, and environmental law. He can be contacted on the internet at g-varner@tamu.edu. His home page is http://www-phil.tamu.edu /~gary/index.html.

Preface

The late French director, François Truffaut, once said that every time he begins a project he hopes that it will turn out to be the best film ever made; halfway through, he wants only to finish the movie with his sanity intact. For me, commissioning and editing 36 new essays in environmental philosophy was a little like that. However, I still harbor the hope that this is the best single volume collection on the subject that is currently available.

The first environmental philosophy courses were offered in the 1970s, and over the last two decades they have steadily proliferated. Nearly every university and college in North America, Britain, and Australia now offers at least one class in environmental philosophy. Through most of the 1980s good materials were hard to find for use in these courses but in the last three years more than a half dozen new environmental philosophy anthologies have been published. Several of these are excellent, but since they mainly reprint articles published in professional journals they are fundamentally different from this book.

After an anarchic quarter century, environmental philosophy has yet to become fully defined as a field. Indeed, it probably has more than its share of divisions and academic infighting. My purpose in editing this volume is both to present a snapshot of the field as it currently exists, and to contribute to consolidating the field. I have been guided by the following principles. First, I have tried to be as inclusive as possible, presenting the rich diversity of work characteristic of this field. Second, I have tried to bring environmental philosophy into conversation with other fields and disciplines such as economics, ecology, and law. Third, I have been concerned to connect environmental philosophy to the cultural traditions from which it springs. Fourth, I have tried to keep a firm focus on the environmental problems that motivate the enterprise in the first place. Finally, without abandoning my editorial responsibilities, I have tried to let the contributors speak in their own voices to the greatest extent possible. My hope is that this book will be used as a primary text in courses on environmental philosophy, as a secondary text for courses in related fields, and as a reference book for those who are working on related topics. Most of all I hope that this volume finds its way into the hands of readers who simply want to learn something about the subject.

A project like this necessarily involves so many complicated interactions with people that I'm not quite sure whether to have a paragraph of acknowledgements or one with apologies. I'll start with the easy stuff. Carleton College has supported this project in various ways. Thanks to the students who assisted me with this book: Matthew Varilek, Kelly Knutson, and especially Max Wilson, whose work on the proofs, index, and just about everything else relating to this volume went beyond the call of duty. Thanks to Paula Lackie, my computer guru, for turning various virus-infected floppies in obsolete word-processing programs into readable text. The folks at Blackwell, who seduced me into this project, were unfailingly supportive. Thanks

especially to Sarah Dancy for her efficient copy-editing, Beth Remmes for her good humor, and Steve Smith for calmly presiding over the proceedings. (The subject of Blackwell reminds me that I should warn the reader that the text is governed by various conventions. Words that appear in small capitals refer to other chapters in the volume explicitly concerned with the topic to which the word refers. I leave it to the reader to decipher the other conventions.) So many of my colleagues in environmental philosophy provided me with helpful advice about who and what should be included in this book that I cannot even begin to acknowledge them here. And obviously, without the contributors, this book would not exist. I thank them all for putting up with a stream of hectoring phone calls and emails, punctuated by long silences, over a several-year period. I especially thank those who responded in a graceful and timely manner, making all of our lives a bit easier. While I feel honored by those who have contributed to this volume, I am also painfully aware that there are many people doing important work in this field who, for various reasons, did not contribute.

I have dedicated this book to Richard Sylvan, formerly Senior Research Fellow in the Research School of Social Sciences at the Australian National University, who died unexpectedly of a heart attack in Bali, Indonesia on June 16, 1996. His 1973 paper, "Is There a Need for a New, an Environmental, Ethic?", originally presented to the Fifteenth World Congress of Philosophy, subsequently published under the name "Richard Routley," marked the beginning of a new field. Not only is Richard's claim to be the founder of this field as strong as anyone's, but he also expressed many of the ideals of environmental philosophy in his life and work. There are many good "Richard stories" around, and I hope that this dedication will prompt those who knew him to pass a few on to those who continue to struggle with fundamental questions about the human relationship with the rest of nature.

Dale Jamieson Northfield, Minnesota May 2000

PART I CULTURAL TRADITIONS

Indigenous perspectives

LAURIE ANNE WHITT, MERE ROBERTS, WAERETE NORMAN, AND VICKI GRIEVES

Some years ago, the Cherokee mounted fierce resistance to the construction of the Tellico Dam and the subsequent flooding of the Little Tennessee Valley. Many of their objections were based on the threat it posed to their cultural heritage. Ammoneta Sequoyah, a medicine man who gathered healing plants in the valley, explained that his people believe that all that a person knows is placed in the ground with that person at the time of burial. So flooding the valley, or digging up the Indian graves there, will destroy "the knowledge and beliefs of [the] people who are in the ground" (Sequoyah v. Tennessee Valley Authority, 1980). It will also destroy what they have taught. Consequently, he believes that if the valley were flooded, he would lose his knowledge of medicine.

That knowledge and land are intimately bound to one another is a belief widely shared among indigenous peoples, as is the accompanying belief that the natural world is alive, spiritually replete. Consider Alice Benally, a Diné woman who expresses the incomprehensibility of her removal from Big Mountain by commenting that in the proposed relocation site the plants and animals would not know her – nor would she know them. She says: "If we are to make our offerings at a new place, the spiritual beings would not know us. We would not know the mountains or the significance of them. We would not know the land and the land would not know us" (in Jenny Manybeads et al. 1989, p. 248). Indeed, in some native languages such relocations are literally unthinkable. There is no term for them; no concept by which they are known.

Knowledge is tied to the natural world in different ways within indigenous and western knowledge systems; so too is knowledge transmission. Ammoneta Sequoyah realizes that if the valley is flooded his *knowledge* of medicine – and not just the medicinal plants themselves – will be lost. This knowledge is the cultural heritage and responsibility of his people. He also realizes that when he is buried this knowledge returns with him to the land in which it is embedded, and so continues to be present within the land for others to experience. This may seem strange to someone deeply committed to certain prevailing convictions in western philosophy and the science which it sustains – e.g. "knowledge of nature is ultimately distinct, and separable from, nature" and "what is known are true propositions about reality." One way of capturing the contrast between such convictions and those of Sequoyah would be to say that western science, western knowledge of the natural world, is representational. Indigenous science, indigenous knowledge of the natural world, is (if Sequoyah's and Benally's comments are taken as typical) presentational. Its continuation, its

transmission, its possibility turn vitally upon the presence of the natural world, and on the kind of experiences it offers.

We will say little more about this contrast, for it is the words of Sequoyah and Benally that concern us here. Spoken in the context of specific political struggles, they are not offered primarily as philosophical commentary, or as insight into the environmental ethics of their cultures. Nor should they be heard that way. They are part of political struggle. This essay ends as it begins, by reflecting on them. The words that lie in between belong to many different people(s). If they speak with one voice on any single issue, it may well be this: "We are indigenous people to this land…our brothers are all the natural world…remember that as long as [we] exist, so will you. But when we are gone, you too will go" (Oren Lyons, quoted in Dooling and Smith 1989, p. 274). Why this is so, how this is so, and the significance of granting that it is so, is what this essay relates.

Belonging and genealogical bonds

All around me are my ancestors, my unborn children.
I am the tear between them and both sides live.

(Linda Hogan)

Indigenous responsibilities to and for the natural world are based on an understanding of the relatedness, or affiliation, of the human and non-human worlds, which is best understood in its primary – genealogical – context. Genealogies provide stories of origins. They tell a person, or a people, where and from whom they are descended. In this sense they bind through time, showing how ancestors and descendants course together through a continuous, unfolding history. Properly told, they set out the changing contours and constitution of families, including how they have branched into and out of one another over time.

Genealogies need not, and for indigenous peoples typically do not, confine themselves to the human. Since they relate origins, they address themselves to specific places, and the non-human beings inhabiting them. So genealogies map affiliations spatially as well, placing individuals and families in relation to one another, and locating them in – by connecting them to – the earth. Insofar as everything has an origin, everything has a genealogy which situates it relationally in time – linking those who have been with those yet to be – and in space – linking everything to a particular place and to everything in that place. In this sense, genealogies are stories of temporal and spatial belonging. They relate how a person or a people belongs in a particular time and place, how the non-human things in that place have come to belong there, and how all of these belong to one another.

A genealogy draws a family or a people together, distinguishing them from others. It also acknowledges that members of a family or clan already are drawn together, and sets out how they are related to others. To recite a genealogy, to recall affiliational

ties, is to affirm a reciprocal bonding. It has the powerful function of reminding members of a family or clan of who they are, individually and collectively, and with this of their moral responsibilities to one another.

Genealogies, then, are potent sources of knowledge about the past and present, about the natural world and the beings that inhabit it. Integral aspects of many indigenous cultures, they locate a people spatially, temporally, and spiritually, investing them in certain lands with certain responsibilities at a particular time. They are sources of identity, binding individuals and groups to others, past, present, and to come. They also serve to integrate, and to reflect the integration of, the human and non-human worlds.

The centrality of whakapapa, or genealogy, within Maori culture cannot be overstated. The eloquent formal introductions which Maori use to identify themselves by reference to their mountain and river, to their ancestral dwelling place within the tribal landscape, are illustrative. This relationship of the people to the land is expressed through whakapapa. To Maori, whakapapa is a most fundamental form of knowing; it functions as an epistemological template. Hence, to know something is to locate it in space and time, and knowledge of whakapapa is essential to this: "To 'know' oneself is to know one's whakapapa. To 'know' about a tree, a rock, the wind, or the fishes in the sea – is to know their whakapapa" (Roberts and Wills 1998, p. 45). All beings, human and non-human, share descent; they have the same origin. As Erenora Puketapu-Hetet explains, harakeke (flax) "is a descendant of the great god Tane-mahuta…today's Maori are related to harakeke and all the other plants: Tane is their common ancestor" (1989, p. 18).

Among the peoples of the Andes, a similar sense of the pervasiveness and significance of genealogical bonding is evident. An ayllu – a group of related persons who live in a particular place – includes the human and the non-human. It refers to relationships between humans and between "all members of the *Pacha*": "the stars, the sun, the moon, the hills, lakes...the plants and animals...along with the rocks and the human beings . . . they are all relatives and are at once children, parents, and siblings" (Apffel-Marglin and Rivera 1995, p. 25). Rembarrnga storyteller Paddy Wainburranga relates that talking and singing to the country is "the law for the center of Arnhem Land...The law about singing out was made...to make you notice that all the trees here are your countrymen, your relations. All the trees and birds are your relations" (1988, p. 46). The depth and intimacy of such affiliational ties is also reflected in the Mayan concept of a nahual – a protective spirit, usually an animal, with which every child is born. The nahual, according to Rigoberta Menchu, is "the representative of the earth, the animal world, the sun and water, and in this way the child communicates with nature. The *nahual* is our double, something very important to us" (in Hogan et al. 1998, p. 27).

When affiliational bonding among families and clans is broadly conceived, the notion of unbreachable boundaries between the human and non-human worlds has no place. Human animals assume non-human form, and non-humans assume human animal form; it is possible to "become animal, without ceasing to be a person" (Hogan et al. 1998, p. 27). What is not assumed is fundamental difference. The human and non-human interpenetrate: "Aboriginals see themselves as part of nature. We see all things natural as part of us. All the things on Earth we see

as part human" (Neidjie 1986, p. 11). Given the interpenetration of the human and non-human, to speak of "pristine wilderness" (land devoid of humans) is to speak of something which does not, did not, and cannot exist, at least not on this planet.

The nature of a genealogy is such that individuals cannot appear in it without thereby assuming relational ties to all others within the genealogy; the Lakota prayer mitakuye oyasin ("I am related to all that is") reflects this. It is not possible to exist within genealogies and stand outside such affiliational ties, although one may fail to acknowledge their presence. Nor is it possible to exist in such genealogies and be "outside" of nature: "nature is not something apart from [the Native American...it is] an element in which he exists. He has existence within that element, much in the same way that we think of having existence within the element of air" (Momaday 1976, p. 84). An analogous perspective is evident in the Maori tendency to speak of themselves as mountains or rivers: "These cannot be objectified or externalized. They are not 'out there', but 'in here'... Maori cannot conceptualize an entity called 'Nature' as something separate from oneself and one's tribal identity" (Roberts and Wills 1998, p. 55). In a clear sense, it is simply not possible to exist outside a genealogy. Hence the psychological, spiritual, and physical trauma of tribal "relocations," which involve the severing of affiliational ties with the non-human world. ("Dislocations" would more accurately describe the wrenching, the pulling out of joint, that is involved in the removals of indigenous peoples from the lands to which they belong.)

The significance of human ties of affiliation with the non-human world is symbolically captured in many indigenous languages and practices. It can be seen in the Mayan custom of burying a newborn's umbilical cord in the parents' house "in the hope that when the baby reaches adulthood he or she will understand the importance of home and the dependence on land" (Chay 1993, p. 21). Or in the analogous Diné practice: "so the child will be familiar with the spiritual beings of the area...the woman offers the afterbirth to a young tree and buries the child's umbilical cord in Mother Earth. These things create spiritual ties between us and the land" (Jenny Manybeads et al. 1989, p. 230). It is captured by the Maori term whenua (meaning land as well as placenta), and hapu (meaning both pregnant and extended family or sub-tribe). The expression te u kai po refers to the area where you were brought up; it also means to be breast fed (Roberts et al. 1995, p. 10). As Waerete Norman notes, the burying of whenua

was also seen as helping to sustain the land. The practice of burial reflects the importance of tiaki whenua and tiaki taiao [caring for the land and environment] to ensure a future sustained by papatuanuku [earth mother]...whenua and placenta is one and the same land. (unpublished ms., p. 136–7)

These practices reveal how crucial affiliational ties between the human and nonhuman are. As one senior Gumadji clan leader observes:

Aboriginal belief systems based on affinity to land underpin Aboriginal existence. (Yunupingu 1997, pp. xv-xvi)

We believe the land is all life. We are part of the land and the land is part of us. It cannot be one or the other. We cannot be separated by anything or anybody. (Yunupingu 1996, p. 16)

Such practices affirm the presence and persistence of genealogical bonds which link the human and non-human. They are expressions of human belonging, of the intimate relationship between a people and a land. Aboriginal activist Mick Dodson comments that "our...reason for existence is the land...We have grown the land up...Removed from our lands, we are literally removed from ourselves (in Yunupingu 1997, p. 41). For Maori too, "People belong to earth. Earth is not a possession of the people" (Norman unpublished ms., p. 131).

If a people belongs to a land, and land inheres in a people, it cannot be alienated or disowned. It cannot be reduced to a commodity. It cannot be replaced or done without. Haunani-Kai Trask notes that the Hawaiian language has two ways of showing possession: the "a" possessive indicates acquired status and the "o" possessive indicates inherent status. While most material objects take the "a" form, land – like one's body and one's parents – takes the "o" form: "Thus, in our way of speaking, land is inherent to the people; it is like our bodies and our parents. The people cannot exist without the land, and the land cannot exist without the people" (1993, p. 152). A comparable observation is made by Aboriginal author Bill Neidjie:

So I'm saying now, earth is my mother or father... Tree is mine. In my body that tree. (1989, p. 170)

And for Maori "land was not something that could be owned or traded. [They] did not seek to own or possess anything, but to belong. One belonged to a family that belonged to a hapu that belonged to a tribe. One did not own land. One belonged to the land" (Eddie Durie, in Phillips 1987, p. 78).

When possession or ownership is understood as an inherent, rather than acquired, status, the term "belong" becomes especially apt. To belong to land is to be attached or bound to it by birth, by allegiance, and by dependence. The resulting relationship of belonging may be characterized as one of intimacy, or inherency. The land is involved in the constitution of a people. It characterizes them, as they do it:

The relationship between the crocodile and myself and all my clansmen is a very special relationship...I see a crocodile as an animal that is part of me and I belong to him, he belongs to me. It's a commonness of land ownership...Crocodile, he's the creator and the land giver to the Gumatj people... we have always treated crocodile in a way that it is part of a family. (Galarrwuy Yunupingu, in Watson and Chambers 1989, p. 26)

The land and living entities which make it up are not apart from, but part of, the people. Nor is "the environment" something surrounding a people. The relation of belonging is ontologically basic.

With inherent possession, agency is sometimes held to be reciprocal — a people belongs to/owns the land, and the land belongs to/owns a people. Sometimes it is the inverse of that implied by acquired possession — while a people belongs to the land or the land owns a people, a people do not own land nor does land belong to a people. Several Maori commentators, for example, reject the notion of stewardship as a translation of the term *kaitiaki* because it connotes guarding someone else's property: "ownership of property was a foreign concept... the earth did not belong to man, but rather man belonged to the earth" (Roberts et al. 1995, p. 14). Dell Wihongi concurs: "It is wrong to think that we humans act as '*kaitiaki*' (guardians) of nature... The earth *kaitiaki*'s us" (ibid, p. 14). According to the Muriwhenua Land Report: "Maori saw themselves as users of the land rather than its owners. While their use must equate with ownership for the purpose of English law, they saw themselves not as owning the land but as being owned by it" (1997, p. 23).

Belonging or inherent possession is the type of relationship that genealogical bonds affirm. As such, it endures; it does not cease to be as the result of "removals," nor is it ended by death. Progenitors and progeny continue to belong to, to inhere in, one another. When the constancy of affiliational ties is conjoined to widespread beliefs regarding the cyclical nature of time and of the natural order, the full sense of Linda Hogan's words at the start of this section becomes plain. It is a theme taken up by Darcy Nicholas as well:

Nothing dies in the Maori world. Things merely move through different dimensions – the flax, for example, becomes a cloak of immense beauty. Those we love become part of the beautiful land around us. This is our bond with the land. It is our ancestor and as such part and parcel of what we are. It has sustained the life of our people for hundreds of years. (1980, p. 32)

Beholdenness and reciprocal relations

Because genealogies affirm affiliational ties that exist between individual beings and between generations, they also establish moral bonds. Individual beings are situated within a family, within a generation, and within a land filled with other beings — human and non-human. Genealogically embedded individuals are bound, and answerable, to one another. At the most fundamental level, they are responsible for one another, ontologically and morally.

The moral implications of genealogical bonding are expressed directly in the system of *gurrutu* embraced by the Yolngu people: "these precise relationships are those of kinship and thus entail certain obligations and responsibilities: certain types of beholdenness like those of sister to brother or parent to child" (Watson and Chambers 1989, p. 36). A stranger with whom Yolngu expect prolonged contact will be given a Yolngu name and instructed in his or her genealogical relations: "To be a 'real' entity in Yolngu life, a person or place must be named, and thus located within the genealogical order" (ibid). One of the most important functions of the *gurrutu* system is that it brings orderliness to individual and group relations, to the land and to everything in the Yolngu world: "At a general level, it is a formally articulated system of beholdenness: it orders degrees and types of indebtedness" (ibid, p. 37).

Such beholdenness is decidedly not limited to the human. The Lakota speak of the *Nagila* "that dwells in everything...[part of the] force that makes all things and beings relatives to each other and to their common ancestor" (Arthur Amiotte, in Dooling and Smith 1989, p. 171). This common ancestry of the human and nonhuman grounds Maori responsibilities of care, or guardianship, toward the environment and the ancestors:

Everybody on this planet has a role to play as a guardian [kaitiaki]... to be a kaitiaki means looking after one's own blood and bones – literally. One's whanaunga (relatives) and tupuna (ancestors) include the plants and animals, rocks and trees. We are all descended from Papatuanuku (Earth Mother); she is our kaitiaki and we in turn are hers. (Carmen Kirkwood, in Roberts et al. 1995, p. 13)

Guardianship is a moral responsibility, an appropriate response to a sense of beholdenness in the presence of genealogical relatedness. It is the acknowledgement of a people that they are held by, and endebted to, their affiliational ties with the nonhuman world. These ties are as much prescriptive as descriptive; they suggest ways in which it is appropriate, or inappropriate, to behave. This idea of "appropriateness," Kiowa writer M. Scott Momaday suggests, "is central to the Indian experience of the natural world… [it] is a moral idea… a basic understanding of right within the framework of relationship" (1976, p. 82).

Like beholdenness, the moral responsibilities of genealogically-imbedded individuals also extend temporally beyond the present to include past and future generations. As the *Bining*, the community of traditional owners of the Kakadu National Park, have noted: "A main part of traditional culture is that *Bining* are responsible for caring for country — a responsibility with important obligations to past, current and future generations of traditional owners" (Kakadu 1996, p. 16). First Nations author Lee Maracle (1988, pp. 8–9) acknowledges this openly:

I do know that the farther backward in time that I travel the more grandmothers and the farther forward the more grandchildren. I am obligated to both.

The injunction to act always to protect the seventh generation is a particularly compelling example of this. Onondaga spiritual leader Oren Lyons observes that the first mandate of traditional Haudenosaunee chiefs is to ensure that their decision-making is guided by consideration of the welfare and well-being of the seventh generation to come: "What about that seventh generation? Where are you taking them? What will they have?" (1980, p. 174). The seventh generation principle applies to the ancestors as well. In honoring the ancestors, one expresses gratitude to them as the seventh generation, which they kept foremost in their decision-making and for whom they sacrificed. As a general injunction to live responsibly and respectfully, and

as a practical guide to specific moral decision-making, the seventh generation principle may be without equal:

We say that the faces of the coming generations are looking up from the earth. So when you put your feet down, you put them down very carefully – because there are generations coming one after the other. If you think in these terms, then you'll walk a lot more carefully, be more respectful of this earth. (Lyons 1995)

Genealogical bonds are normative bonds, generating moral responsibilities to the natural world and the living beings it sustains; they give rise to "reciprocal relations" which define "responsibilities...between humans and the ecosystem" (LaDuke 1994, p. 128). Relations of reciprocity involve mutual exchange or co-respondence, something that is shared, felt, and shown by both (or all) sides. While one may be in such relations without responding, or acknowledging them, one remains beholden to them. There is no escaping the fact of interdependency, even when the attendant obligation of reciprocity is ignored. In the words of April Bright (1995): "It is part of our responsibility [to be] looking after our country. If you don't look after country, country won't look after you" (p. 59).

Within Australia, the term "traditional owners" is frequently used to designate the relationship between diverse Aboriginal communities and their homelands, although the English understanding of "ownership" is very different from the Arrernte term, pmere-k-artweye, used to translate it. The latter acknowledges the custodial role responsibilities of indigenous peoples and the genealogical-embeddedness on which they rely. Pmere-k-artweye refers to those with "inherited or acquired responsibilities for the proper care and treatment of a site," with "the rights to speak for that site and determine what constitutes proper use" of it (Wilkins 1993, p. 24). The Arrente words for "the ancestors" ("those who have primary responsibility for looking after us properly") and for "parents" ("those who have primary responsibility for looking after a child properly") are linguistically parallel (ibid). As guardians, the Arrernte are charged with protecting and maintaining the lands they co-inhabit with the other beings that constitute the natural world.

That the human and non-human worlds are bound by relations of reciprocity has significant implications for appreciating the role responsibilities of indigenous peoples. They are obligated to provide their lands with sustenance, to sustain them by means of practices and ceremonies (and if needed, by protest and resistance), even as the land sustains them. Speaking from a Bundjalung perspective, Pauline Gordon notes:

Aboriginal people dance the corroboree . . . they're doing a traditional thing – they're making something happen. So they dance and sing, and as they dance their powers dance up. The spirit of the land replenishes the land, all the animals . . . And it comes from the land, that power...that's why for Aboriginal people it's our obligation to protect the land, those sacred sites - it's our life. And our Law. (Ishtar 1994, p. 9)

Assuming responsibility for a sacred site involves being responsible for maintaining the power of the site, tending it, through observance of proper ceremonies (Thornton 1996, p. 11). One aboriginal man acknowledges that

the Bandhamarr track is his track . . . his responsibility. He has to know the route and the purposes of following it in the order he takes – in the footsteps of the ancestors. He has to maintain it by acting in accordance with this knowledge, following practices and performing ceremonies in the course of everyday life. (in ibid, p. 20)

What such spirituality secures for the natural world is health, balance, and survival – the holding of disintegration at bay (ibid, p. 15). This, in turn, is what the natural world secures for its people. Maori lawyer Moana Jackson remarks that among the duties of traditional Maori law was "the ancestrally defined responsibility to maintain order and protect the land by ensuring a balance between the interlinked animal, plant, spirit and human worlds" (1988, p. 40).

The reciprocity of human and non-human relations, the mutuality of beholdenness, is aptly expressed by Jake Swamp's account of how the Mohawk are trained to gather medicinal herbs:

What I was taught was that when you see that plant, to first see that it's the one you offer thanksgiving to, that plant is still here with us, still performing its duty and that you wish it to continue. You walk past it and you look for the other one, and that one you can pick. For if you take that first one, who is to know, maybe that's the last one that exists in the world. (Quoted in Barreiro 1992, p. 21)

Humans may, of course, interfere with a plant's, or the planet's, ability to continue performing its duty. Given the reciprocity of relations, however, when country is treated improperly and desecrated, the natural world becomes unbalanced and all within it are affected. For the Mayans, because every human has an animal counterpart and every animal has a human counterpart, to harm one is simultaneously to harm the other (Hogan et al. 1998, p. 27). Laguna Pueblo author Leslie Silko makes a comparable point:

According to the elders, destruction of any part of the earth does immediate harm to all living things. Teachers at Indian School would ridicule these ideas; they would laugh and say, "how stupid you Indians are! How can the death of one tree in the jungle possibly affect a person in NYC? But isn't it far more obvious these days how important that single tree in the rain forest of Brazil is to the Manhattanite? (1996, pp. 131–2)

However desecrated a place, a people's custodial responsibilities remain. No matter how damaged, the land retains its power and significance:

RF: the place that they've smashed to pieces, is it still a tywerrenge for you, is it still sacred to you?

MC: It's gotta be. It's a tywerrenge, a sacred place right down to and inside the ground. It was created that way. (Wilkins 1993, p. 73)

The perspective from another people in another hemisphere is the same, warning of the danger of valuing only the "pristine" and of recognizing only some places as sacred:

No part of the earth is expendable...Those who claim to love and protect the Mother Earth have to love all of her, even the places that are no longer pristine. *Ma ah shra true ee*, the giant serpent messenger, chose the edge of the uranium mining tailings at Jackpile Mine for his reappearance; he was making this point when he chose that unlikely location. (Silko 1996, pp. 94–5)

The contrast between country that has been cared for by its people and country that has been either neglected or abused is captured by a Ngarinman distinction between "quiet" and "wild" country. Daly Pulkara, one of the senior custodians of Ngarinman land allocated by the Australian government to pastoral leaseholders for many years, was asked what he called the heavily cattle-eroded area:

He looked at it for a while and said, "It's the wild, just the wild"...where life is absent, where all the care, intelligence and respect that generations of Aboriginal people have put into the country have been eradicated in a matter of a few short years. (in Rose 1988, p. 386)

Quiet country is tame, domesticated: "country in which those who know how to read the signs see human action of the most responsible sort" (ibid). Frank Gurmanamana, a Gidgingali man, had a similar response while visiting Australia's capital city. What he found in Canberra was barrenness and disorder. He said that once long ago, "Aborigines had lived there and that they would have known these attributes of the land which still existed somewhere, but that now, in his own words, 'this country bin lose 'im Dreaming.' He was disturbed by this" (in Donaldson and Donaldson 1985, p. 207).

The state of a land that has lost its guardians, and of a people who have lost their land, are comparable: abandonment and banishment. The words of Mary Tall Mountain (quoted in Hobson 1979, pp. 404–5) bring the two together – the last wolf in an abandoned city and an Athabascan Indian woman alone in an empty hospital room:

the last wolf hurried toward me through the ruined city... baying his way eastward... through clutter and rubble of quiet blocks

I heard his voice ascending the hill and at last his low whine as he came floor by empty floor to the room where I sat in my narrow bed looking west, waiting....

he laid his long gray muzzle on the spare white spread and his eyes burned yellow his small dotted eyebrows quivered

Yes, I said, I know what they have done.

Respect, or the wish-to-be-appreciated

Truganinny, the last of the Tasmanians, had seen the stuffed and mounted body of her husband and it was her dying wish that she be buried in the outback or at sea for she did not wish her body to be subjected to the same indignities. Upon her death she was nevertheless stuffed and mounted and put on display for over eighty years. (Paul Coe, Aboriginal Activist)

We have seen that the genealogical bonds joining human to human, and human to non-human, have both descriptive and normative aspects. The concept of belonging helps to demonstrate the full significance of the former, while the notion of beholdenness captures the normative implications of relatedness. Since genealogical bonds acknowledge relations of reciprocity, they entail mutual obligations and responsibilities. They recognize that beings are related and endebted to one another, and are to respond to one another in ways which respect that fact. We can turn now to the concept of respect, the central and perhaps single most widely shared moral principle among indigenous peoples. The Iroquois also refer to it as the "wish-to-be-appreciated", the "fundamental shared perception – the first principle – of existence. As long as everything is appreciated for what it does and what it shares to sustain the cycles of Creation, the world will be in balance and life will continue" (Barreiro 1992, p. 28). It actively informs a vast number of diverse practices, teachings, and beliefs regarding how the natural world and its constituent beings are to be treated.

Respect, in this context, is best understood as a matter of appreciating the inherent value of some entity or activity, the value it has by virtue of the fact that it inheres in, or belongs to, the natural world. This involves realizing the vital role it plays in sustaining the natural world. "No part of the earth," Silko reminds us, "is expendable." To realize that (and how) some individual or group is integral to the completeness and continuation of the whole, and to appreciate that its contribution to the natural world is indispensable, requires intimate knowledge, familiarity with it. Respect consists of a continuum of behaviors informed by such knowledge, and ranges from avoiding inappropriate treatment of something to responding to it in ways that actively maintain its ability to continue performing its vital function.

Knowledge or familiarity may come from prolonged, intimate contact with a being or a place. The Diné translatation of "sense of place," kétl'óól, implies a rootedness in the earth, a familiarity "that breeds respect and symbiosis rather than contempt and exploitation" (Semken 1997, p. 2). Such familiarity extends to non-human beings. Kee Shay speaks of "the land where we are known": "Here on our land we are familiar with the springs, rocks, mountains, hills, etc., they are familiar with us...each day I come to know my relatives here a little better" (in Jenny Manybeads et al. 1989, pp. 228, 239).

Alternatively, the simple awareness of relatedness may ground respect. Among the Cree, for example, one of the main reasons for showing respect to game animals is that humans and non-humans are related. While respect involves avoiding acts that degrade or ignore the integral value of game, it also involves performing acts that reflect and sustain that value. The reciprocal relations between geese and hunters are honored by the practice of *pwaatikswaau*, or smoking to the game, which expresses gratitude for the gift of geese. When the hunter is successful and a goose falls, "the gift is respectfully admired by the hunter and later received as a guest into the lodge by the women of the hunter's household" (Scott 1996, p. 82).

That respect for the land involves acknowledgement of reciprocity and active observance of certain ritual activities is also evident in the practices of Andean peoples. The expression "criar y dejarse criar" ("to nurture and let oneself be nurtured") forms the basis of agricultural activities. According to Modesto Machaca (Apffel-Marglin 1995), to open a chacra "I must ask permission of the Pachamama so that she will allow me to work this soil.... I tell her that I will cultivate this soil with love, without mistreatment and the fruits she gives me we will all eat" (quoted in Apffel-Marglin and Rivera 1995, p. 25). All the activities that go on in the chacra (sowing, weeding, hilling, harvesting, and even the storage, transformation, and consumption of harvested products) are ritual activities that embrace and cultivate relatedness. These rituals express the Andeans' attitude of love, respect, and gratitude to the earth for its gifts, including the gifts of knowledge regarding how to cultivate a chacra. Cultivating a chacra is a reciprocal activity, necessarily involving both humans and the land. In this sense, Andean agricultural knowledge itself is tied or tethered to the land, or better perhaps, generated from it:

To raise a *chacra* is not merely to domesticate plants and animals; it is to nurture lovingly and respectfully, in other words, to nurture ritually, together with plants and animals, the soils, waters, micro-climates and, in general, the whole land. (ibid, p. 24)

Given the affiliational ties that bind humans to the non-human, to the land and its constituent beings, respect is the most fitting and revealing moral response. It requires: constant attentiveness to the value of some thing or some one; appreciation of the fact that that individual has its own contribution to make which is vital to the natural order; awareness of the constraints and limitations which characterize and contextualize it; and gratitude for all of this. None of this is possible without careful thought and observation, so that one can better understand what its function or contribution is; what conditions are needed to permit its continuation; how not to interfere with it; and how best to enable it. This is to suggest that respect is as much a cognitive as it is a moral virtue, that knowing and valuing are integrated activities (Whitt 1995).

Maori weaving offers an example of the richness of the indigenous understanding of respect. According to Puketapu-Hetet, "we have a responsibility to this life force" (1989, p. 5):

It is important to me as a weaver that I respect the *mauri* (life force) of what I am working with. Once I have taken [flax] from where it belongs, I must give another dimension to its life force so that it is still a thing of beauty. (Quoted in Nicholas 1980, p. 40)

The weaver must respect the materials used. One aspect of this consists in knowing where the materials come from and how they will be used; another lies in ensuring

that they are put to proper use. Ensuring that that life force is respected and that the forest or river is able to continue to fulfill its vital role in the natural order are part of the Maori's kaitiaki (guardian) responsibilities:

kaitiaki must ensure that the mauri or life force of their taonga [treasures] is healthy and strong. A taonga whose life force has been depleted . . . presents a major task for the *kaitiaki*...[they] must do all in their power to restore the *mauri* of the *taonga* to its original strength. (Roberts et al. 1995, p. 14)

One obvious way to fail to appreciate the value of something is to distort or diminish its value. The treatment of the bodies of Truganinny and her husband, described above, is a particularly egregious instance of disrespect. But there are others deserving of mention. The relation of belonging or inherent possession which binds a people to a land is at odds with the alienation and acquisition that accompanies commodification. Aboriginal writer Liz Johnson makes this point directly: "The land is our old people and those of us who are still here today are of that same land. When I take a handful of dirt and say 'This is ME,' it's true, the same as it was true when my early forefathers said it" (1981, p. 13). And land, as Maori would say, has its own mauri, or life force (Rangihau, in King 1992, p. 171). It is not a commodity whose value is determined by the marketplace; it is heritage, life itself. Many indigenous cultures recognize that the process of commodification distorts something's value and significance, and results in a failure to meet one's custodial responsibilities regarding it.

Knowledge, inherent value, and landkeeping

We cannot separate our place on earth from our lives on the earth, nor from our vision nor our meaning as a people. (Jimmie Durham)

Respect, we have suggested, requires appreciating something's inherent value, the value which it has by virtue of the fact that it inheres in, or belongs to, the natural world. To treat something with respect involves knowledge - minimally, the knowledge that it plays an integral role in sustaining the natural order. To know more than this, to know something of what that role is and how it plays out, to know its limitations and constraints as well as its possibilities, positions one to be more respectful towards it, i.e. better situated to avoid behaviors that diminish it and to adopt those behaviors which enable its continued functioning. To come to know such things is to know better just how something inheres in, or belongs to, the natural order. But how does one come to know such things? How does one learn? And when one does, to return to Sequoyah and Benally – is it possible to separate that knowledge from what is, and from where it is, known?

It is by remembering and listening to stories that one learns. Vehicles for knowing and respecting the natural world, stories are vital components of indigenous knowledge and value systems. They are themselves generated from the land, and so are inseparable from it. Leslie Silko maintains that Laguna Pueblo stories are so much a part of the ancestral lands "that it is almost impossible for future generations to lose them":

there is a story connected with every place, every object in the landscape. Dennis Brutus has talked about the "yet unborn" as well as "those from the past," and how we are still all in this place, and language – the storytelling – is our way of passing through or being with them, of being together again. (1996, p. 59)

Storytelling is a form of conversing with the natural world, part of the way in which things come to be known. It transmits important information about the nature of that world, its beings and processes. Stories are a means of relating knowledge and of correlating behavior. They show how "those from the past" are bound to the land, to those from the present, and to those "yet unborn," and how those from the present should conduct themselves in light of this.

Since many stories relate accounts of humans listening, speaking to, and communicating with the non-human, they emphasize the importance of conversing with (etymologically, of "living or keeping company with") the natural world and its constituent beings. Andean agriculture testifies to a similar view by placing conversing and dialogue at the center of the process of mutual nurturance between humans and the non-human world: "We have great faith in what nature transmits to us...it is the voice of nature itself which announces to us the manner in which we must plant our crops" (Rengifo, quoted in Apffel-Marglin and Rivera 1995, p. 10).

The potency and significance of conversing with the natural world is also evident within Maori stories about ancestors claiming territory, naming landmarks after parts of their bodies and leaving these names behind: "most of the names evoke ancestral histories. A child would often be taught a particular account in that place, so that the place and its knowledge were one" (Salmond 1982, pp. 84–5). Tribal understanding is thereby "locked together... with the entities themselves so that a place and its knowledge could not be separated" (Roberts and Wills 1998, p. 49). One result of this is that the land itself serves as the repository of knowledge and place names function as "mnemonic devices whereby the narrative related to that particular place, and its meaning, can be recalled. Recounting the narrative at that very location enables the knowledge associated with the name to be experienced; to be felt as well as heard" (ibid, p. 55). It is in this sense that indigenous knowledge of the natural world is presentational. The presence of the natural world is a condition for the very possibility of knowledge. Knowledge is located in the world as much as it is located in a people or a person; it is part of what relates the human and non-human. And it is thoroughly contextualized: specific knowledge requires specific places whereby it can be recalled and experienced.

Thus, Ammoneta Sequoyah's knowledge cannot be severed from the natural world, and stored elsewhere - in libraries or data banks - for later "consumption". He is deeply aware that if his knowledge of medicinal herbs is to continue, the plants must remain in their familiar places, where he may continue to exercise his custodial responsibilities towards them. His knowledge depends on his continued appreciation of their inherent value, of how they belong to, contribute to, and function within, the natural order. And Alice Benally expresses how forced relocation constitutes dislocation – the disruption of the natural order and the severing of the affiliational ties that bind people to the land. To sever those ties is to sever the knowledge embedded in them, and to abandon one's role responsibilities as guardian of that portion of the natural world. It is to estrange, if not destroy, an entire knowledge and value system:

When the white man talks of relocation he talks of finding a new place to live, a new job, a new place to pray to his God...The white man can practice his religion anywhere, he does not know the earth. The Diné are different, the land is sacred to us, we cannot practice our religion elsewhere, only on the land where we are known...It is like your family...You could not leave your relatives if they were sick - it is in this way that we must stay with this land, our relative. (in Jenny Manybeads et al. 1989, pp. 228, 230)

Jimmie Durham's statement that indigenous peoples cannot separate their place on earth from their life on earth, nor from their meaning or vision as a people, expresses a similar commitment to the duties inherent in belonging to land, to the responsibilities of landkeeping. This commitment is being vigorously embraced by an increasing number of indigenous peoples who are asserting their legal and moral rights as guardians, or keepers of the land. This chapter has offered one possible way of understanding the foundation of indigenous responsibilities as guardians of the land and of future generations. Insofar as a people inheres in or belongs to land, they are bound to it ontologically and morally. Their role as guardians of the land is indispensable; it is essential to the completeness and continuation of the natural world. To conclude with the words with which we began:

We are indigenous people to this land. We are like a conscience...We are the landholders, we are the landkeepers...[It is] time to challenge the destruction of your grandchildren...and think about the coming generations. (Lyons, quoted in Dooling and Smith 1989, p. 274)

References

- Apffel-Marglin, F. and Rivera, J. V. (1995) Regeneration in the Andes (Québec: Intercultural Institute of Montréal). [A discussion of traditional Andean agricultural knowledge and practices being regenerated today.]
- Barreiro, J. (1992) "The search for lessons," Akwe: kon IX, pp. 18-39. [Akwe: kon, now called Native Americas, is a leading journal devoted to indigenous issues.
- Bright, A. (1995) "Burn Grass," in Country in Flames (Canberra: Department of the Environment, Sport and Territories), pp. 59-62. [Yinirrakun, a MakMak Marranunggu woman, describes the practice, purpose and responsibilities of burning as a means of caring for
- Chay, R. Q. (1993) "The Corn Men have not forgotten their ancient gods," in Story Earth, ed. Inter-Press Service (San Francisco: Mercury House), pp. 19–30. [An anthology of indigenous responses to various aspects of the global environmental crisis.]
- Donaldson, I. and Donaldson, T. (1985) Seeing the First Australians (Sydney: Allen and Unwin). [Frank Gurrmanamana's response to the chaos of Canberra is described in the essay "Ordering the Landscape."]
- Dooling, D. M. and Smith, P. J., eds. (1989) I Become Part of It (New York: Harper Collins). [A collection of tribal stories, artwork, and essays from Native North America emphasizing the interconnectedness of the human and non-human world.]

- Hobson, G. (1979) *The Remembered Earth* (Albuquerque: University of New Mexico Press). [One of the first major anthologies of work by American Indian writers and poets.]
- Hogan, L., Metzger, D., and Peterson, B., eds. (1998) Intimate Nature (New York: Ballantine).
 [Reflections by indigenous and non-indigenous women writers and field scientists on the bond between women and animals.]
- Ishtar, Z. (1994) *Daughters of the Pacific* (Melbourne: Spinifex). [Stories of survival and struggle against colonization and its effects by indigenous women from across the Pacific.]
- Jackson, M. (1988) The Maori and the Criminal Justice System, Part 2 (Wellington: Department of Justice). [A well-known Maori lawyer and activist critiques the criminal justice system of Aotearoa/New Zealand.]
- Jenny Manybeads et al. v. United States of America et al. (1989) 730 F. Supp. 1515 (US Dist. AZ) (No. 88–410) Affidavits of Alice Benally, Kee Shay, and Mae Tso. [A legal case prompted by the controversy surrounding the recent, federally mandated removal of some 10,000 Diné from their ancestral homelands on Big Mountain.]
- Johnson, L. (1981) "Cultural revitalization," *Identity* 4, no. 2, pp. 13–14. [An Aboriginal woman discusses cultural revitalization and the role of the land therein.]
- Kakadu Board of Management (1996) *Kakadu National Park Draft Plan of Management* (Canberra: Australian Nature Conservation Agency). [The Kakadu National Park is the site of an ongoing struggle against uranium mining led by the Mirrar people, the traditional owners of the affected areas.]
- King, M., ed. (1992) *Te Ao Hurihuri: The World Moves On* (Auckland: Reed). [The 1975 edition of this influential book was the first published collection of writings on Maori issues by Maori writers.]
- LaDuke, W. (1994) "Traditional ecological knowledge and environmental futures," *Colorado Journal of International Environmental Law and Policy* 5, pp. 127–48. [Winona LaDuke is one of the leading indigenous environmental activists in North America.]
- Lyons, O. (1980) "An Iroquois perspective," in *American Indian Environments*, ed. C. Vecsey and R. Venables (Syracuse: Syracuse University Press), pp. 171–4. [A diverse collection of essays by native and non-native authors addressing changes in American Indian environmental experiences.]
- ——(1995) A Gathering for the Earth (National Earth Day Video Conference) (Washington, DC: Project Earthlink). [A panel of American Indian elders discuss human impacts on the land and on present and future generations.]
- Maracle, L. (1988) *I Am Woman* (Vancouver: Write-On Press). [One of many publications by this major contemporary First Nations writer and poet.]
- Momaday, N. S. (1976) "Native American attitudes to the environment," *Seeing With a Native Eye*, ed. W. Copps (New York: Harper and Row), pp. 79–85. [Transcribed from oral remarks by a widely published Kiowa author and scholar.]
- Muriwhenua Land Report (1997) *Report to the Waitangi Tribunal* (Wellington: GP Publications). [Official report regarding the seven land claims in the northernmost district of Aotearoa/New Zealand.]
- Neidjie, B. (1986) Kakadu Man (Darwin: Resource Management Pty Ltd.). [A traditional owner of Kakadu National Park, Neidjie expresses his concern over threats to the Kakadu's culture and environment.
- ——(1989) Story About Feeling (Perth: Magabala Books). [Neidjie's stories about the natural world and Aboriginal relations to it.]
- Nicholas, D. (1980) *Seven Maori Artists* (Wellington: V. R. Ward). [In a series of personal interviews, seven well-known Maori artists describe the cultural dimensions and significance of their work.]

- Norman, W. (unpublished ms.) "Tikanga Wahine In a Changing World." [This dissertation in process is a comprehensive study of Maori women and their cultural responsibilities both historically and today.]
- Phillips, J. (1987) *Te Whenua Te Iwi: The Land and the People* (Wellington: Allen and Unwin). [A collection of essays exploring both the uses and the culture of the land in Maori and Pakeha society.]
- Puketapu-Hetet, E. (1989) *Maori Weaving* (Auckland: Pitman). [A renowned Maori weaver explains the spiritual and philosophical aspects of her art.]
- Roberts, M., Norman, W., Minhinnick, N., Wihongi, D., and Kirkwood, C. (1995) "Kaitiakitanga: Maori perspectives on conservation," *Pacific Conservation Biology* 2, pp. 7–20. [An introductory account of the Maori environmental concept of kaitiakitanga, or guardianship.]
- Roberts, M., Norman, W., Minhinnick, N., Wihongi, D., Kirkwood, C., and Wills, P. R. (1998) "Understanding Maori epistemology," in *Tribal Epistemologies*, ed. H. Wautischer (Brookfield: Ashgate), pp. 43–77. [Maori epistemology is contrasted with that of western science.]
- Rose, D. B. (1988) "Exploring an Aboriginal land ethic," *Meanjin* 47, 378–87. [Focuses on the Yarralin peoples' understanding of ecosystems.]
- Salmond, A. (1982) "Theoretical landscapes," in *Semantic Anthropology*, ed. D. Parkin (London: Academic Press), pp. 65–87. [Addresses cross-cultural conceptions of knowledge.]
- Scott, C. (1996) "Science for the West, myth for the rest?," in *Naked Science*, ed. L. Nader (New York: Routledge), pp. 69–86. [An account of knowledge construction and epistemology among the James Bay Cree.]
- Semken, S. (1997) "Kéyah: a geological sense of place," Diné College Instructor's Guide, Tsaile, Arizona. [Attempts to integrate Diné concepts of the importance of the land and natural processes with those of western geological science.]
- Sequoyah v. Tennessee Valley Authority (1980) 620 F. 2d 1159. [A lawsuit which states Cherokee objections to the flooding of their sacred lands along the Little Tennessee Valley.]
- Silko, L. M. (1996) Yellow Woman and a Beauty of the Spirit (New York: Simon and Schuster). [Essays on diverse topics by one of Native America's foremost literary voices.]
- Thornton, M. B. (1996) *Living Maths* (Melbourne: Boulder Valley Films). [A book of the video on Garma Living Maths which articulates the formal logical and mathematical concepts of the Yolngu people.]
- Trask, H. (1993) From a Native Daughter (Maine: Common Courage Press). [A leader in the Native Hawaiian sovereignty movement discusses colonialism and sovereignty issues.]
- Wainburranga, P. F. (1988) "Talking History," *Land Rights News* 2, p. 46. [*Land Rights News* is an excellent source for information regarding Australian Aboriginal activism with regard to land rights.]
- Watson, H. and Chambers, W. (1989) Singing the Land, Signing the Land (Geelong, Victoria: Deakin University Press). [Analyzes the interaction of European and Aboriginal knowledge systems in a format intended to demonstrate the cultural dimensions of human perception of the environment.]
- Whitt, L. A. (1995) "Indigenous peoples and the cultural politics of knowledge," in *Issues in American Indian Cultural Identity*, ed. M. Green (New York: Peter Lang), pp. 223–71. [Contrasts some of the distinctive features of indigenous knowledge systems with those of western cultures.]
- Wilkins, D. P. (1993) "Linguistic evidence in support of a holistic approach to traditional ecological knowledge," in *Traditional Ecological Knowledge*, ed. N. Williams and G. Baines (Canberra: Australian National University), pp. 71–93. [A linguistic approach to understanding the ecological knowledge of the Mparntwe Arrente.]

- Yunupingu, G. (1996) "Land Rights Conference," Land Rights News 2, p. 16. [A formidable advocate for Aboriginal peoples and the chair of the Northern Land Council emphasizes the importance of defending land rights.]
- (1997) Our Land Is Our Life (Queensland: University of Queensland Press). [Some of indigenous Australia's most influential leaders speak to issues of social justice and land rights for their people.]

Further reading

- LaDuke, W. (1999) All Our Relations (Cambridge: South End Press). [A series of essays by a wellknown Anishinabe activist relating contemporary Native struggles for survival and sover-
- Weaver, J. (1997) Defending Mother Earth (New York: Orbis Books). [A collection documenting Native North American resistance to environmental injustices by those engaged in the struggle.]

Classical China

KARYN L. LAI

Introduction

The schools of thought in ancient China varied widely in terms of their doctrines and teachings. Scholars belonging to the different schools were constantly engaged in debate about a wide range of issues. Such philosophical activity first flourished in a significant way during the Spring and Autumn period (722–481 BCE) and the Warring States period (403–221 BCE). This span of about five hundred years in Chinese intellectual history saw the formation of numerous different schools of thought. It has been characterized by many scholars as the first phase in Chinese philosophy, associated with influential thinkers, such as Confucius (Kongzi) (551–479 BCE), Laozi (ca. 6th or 4th century BCE?) Mozi (479–438 BCE), Zhuangzi (399–295 BCE), Hui Shi (380–305 BCE), Gongsun Long (b. 380 BCE?), Mencius (Mengzi) (371–289 BCE), Zou Yan (305–240 BCE), Xunzi (298–238 BCE) and Han Fei (b. 233 BCE). By the time of the Warring States period, so numerous, indeed, were the schools of thought in this first phase, that the era was dubbed the period of the hundred schools (baijia) (Fung 1951, Vol. 1, pp. 132–69).

The end of the Warring States period was a significant moment in Chinese history and had important implications for the development of philosophy. Existing feudal structures suffered a final blow through the efforts of the emperor Qin Shi Huangdi (259–210 BCE) to unify the empire. One of the methods by which Shi Huangdi sought to achieve the centralization of power and authority was to order the "Burning of the Books' in 213 BCE, an edict prohibiting the private possession of books of poetry, history, and philosophy. The burning of privately owned books greatly affected the development of Chinese thought in the existing schools, and possibly prevented the formation of new schools. It is significant that, beginning from this period, relatively few new doctrines and schools of thought were introduced, as compared with the 500 years immediately prior to it. From this period on, much philosophical activity centered around the study, explication, and analysis of theories and doctrines of existing schools of thought. Indeed, philosophy in the Han (206 BCE-CE 220), the period immediately following the Qin (221–206 BCE), consisted mainly of syntheses of existing doctrine and teaching. Since then, the method of synthesis has permeated Chinese philosophy such that it became common for thinkers to appropriate concepts from other schools and traditions and to adapt them to their own teachings.

This feature of classical Chinese philosophy renders it impractical to provide a systematic, chronological account of attitudes to nature in the different Chinese philosophical schools. For this reason, this survey is organized thematically, according to concepts, rather than chronologically: it involves an analysis of the range of

concepts in Chinese philosophy which figure significantly in discussions of the natural world. These concepts include *tian* (heaven), *dao*, *zhiran* (natural, spontaneous), *wuxing* (five elements), *yin-yang*, and *qi* (stuff).

The background: correlative thinking

A prominent feature of the ancient Chinese world-view was the notion that human life is inextricably bound up with the rhythms, processes, and phenomena of the natural world. Since the Shang (1751–1112 BCE), belief that forces and powers which were beyond human control, which yet affected human life, has been a prominent feature of Chinese thinking. For many ancient Chinese people, life was, to varying extents, caught up in attempts to discern some of these forces and powers through divination processes. While some of these practices were religious, centering on pacifying spirit beings, many of them included a naturalistic aspect, focusing on the rhythms of the natural environment such as the seasons and the weather.

The philosophy of the early Chinese, which brought together the many different aspects of life, has been dubbed "correlative thinking" (Graham 1986). Correlative thinking was a significant part of the larger context within which much philosophical inquiry took place. Many of the schools of thought in classical China subscribed, in some way or other, to this belief. The view of correlative thinking was that it was not merely the case that there were similarities or analogies between the operations and processes of the natural world and those deriving from human design, but that changes in the natural world and events in the human world were interlocking.

Such a view was a feature of Chinese thought from the time of the earliest historical records — early Han thought, in particular, set out consciously to demonstrate that some of the correlations between human life and cosmic processes were regular and predictable (Major 1993, p. 31). For instance, some thinkers in this period posited correspondences between human communal and socio-political life and the processes of the cosmos. In addition, the interaction between different spheres and forms of life was explained in terms of groups and sets of numerical balances and contrapositions such as the four seasons, four directions, five colors, five sounds, five tastes, five smells, five phases, and eight trigrams and sixty-four hexagrams (Graham 1986, p. 1). For example, thinkers belonging to the Huang-Lao School (see Schwartz 1985, pp. 237–54), a prominent school of the Han period, postulated a unified system of cosmology based on mutual interaction between the human and natural worlds:

In Huang-Lao cosmology, the principal means by which the ruler was advised to make his actions conform to the natural rhythms and processes of the cosmos emerged from a thorough understanding of systems of correspondence...In this mode of thought, all things in the world can be grouped into numerical categories; things within a category resonate with each other more strongly, reliably and predictably than do things that are not in the same category...Resonance (*ganying*) between or among things within a class is conveyed through *qi*, conceived of as both the basic stuff of concrete phenomena and as an intangible vibrating medium pervading empty space. (Major 1993, pp. 28–30)

As stated previously, while such systematic correlative thinking is a distinctive feature of early Han thought, elements of correlative thinking – balance, proportion, and harmony – though unarticulated, were already pervasive both in the content and methodology of ancient Chinese thought (Cheng 1977).

Tian

The term tian (heaven) had a variety of different meanings because it figured in popular religious beliefs as well as in somewhat more abstract philosophical systems. Tian was variously thought to be: a superhuman entity or force; a being with anthropomorphic features; an overseer and judge of human ethical conduct; and the origin or source of all existence including day and night, the four seasons, and flora and fauna (Forke 1925, pp. 62–7). In some other cases, however, tian simply meant the physical sky (Fung, 1951, Vol. 1, pp. 30ff).

Within the various schools of thought, tian was evoked to provide justification for a range of philosophies. Depending on the frameworks within which tian was used, it was functional in providing legitimation for rulership, in serving as the infrastructure upon which morality was grounded (and more narrowly as the source of human ethical conduct and of social order), and in justifying a naturalistic conception of the universe.

With regard to the idea of divine rulership, the concept tian became prominent towards the end of the Shang. In the context of the changeover of dynasties (from Shang to Zhou), the god-ruler of the Shang dynasty (Shangdi) needed replacement. Both philosophically and psychologically, tian served this purpose (Chan 1963, pp. 3-13).

The divine legitimation of ruling power gave much authority to the emperor. However, because he was, as it were, appointed by tian, he was also held responsible, at least indirectly, for almost every conceivable event and state of affairs in the life of the nation. For example, many social, economic, and political problems within the nation were explained in terms of the inappropriate behaviors or practices of the emperor; the latter were said to be the direct cause of the former (see, e.g., Shujing, Hongfan section in Legge (trans.) 1960, Vol. 3). In addition, the emperor was, in some cases, held responsible for natural disasters such as droughts and floods; these occurrences were thought to be due to the emperor's failure properly to coordinate or perform the sacrifices which were necessary for the maintenance of the various harmonies of life at different levels (See, e.g., Shujing, Shuntian section, in Legge (trans.) 1960, Vol. 3). Accordingly, the remedies to a range of problems faced by the nation lay in the rectification of the inappropriate behaviors or practices of the emperor. There was sometimes an ultimatum attached to this belief, that the emperor or the dynasty itself might lose divine sanction (Fung 1951, Vol. 1, p. 22ff).

The demystification of the notion of divine rulership gradually came about as a result of an enlightened conception of human capacities and abilities, and of the human situation. At the level of ideas, this demystification was sometimes expressed in terms of the view that there was a tripartite cooperation between tian, di (earth), and ren (man). On this view, tian, di, and ren each had specific spheres of activity, and

the well-being of the universe depended on the successful cooperation of the three agents or forces in their respective spheres.

In the case of some variants of this view, *ren* was used to denote the emperor, and not the common person. In some other cases, *ren* was used generically to refer to all human beings. With regard to the former usage of *ren*, it is worth noting that, while the *tian-di-ren* view of the emperor resembles the notion of divine kingship, there was an essential difference between the two. The *tian-di-ren* view upholds the emperor's cooperation with *tian* and *di*, whereas the view of divine kingship holds that the emperor is a mere conduit or a representative of *tian*.

While, at first glance, it might seem that the *tian-di-ren* formulation is anthropocentric, it was not always used to express the exclusivity of human beings. The relationships between the three agents or agencies, their comparative power and authority, and the responsibilities and obligations arising from the relationships posited varied according to the philosophies of the different schools. In particular, there was a primary difference between the schools of thought in the Daoist and the Confucianist traditions regarding the tripartite relationship. In the Confucian tradition – which had an essentially humanistic focus – the main point of drawing the tripartite relationship was to emphasize the significance of human effort and action, and, hence, psychologically to empower human beings for socio-political activity. In the Daoist tradition, the tripartite relationship was evoked in order to emphasize that human beings should model themselves after *tian* and *di* which were, in turn, modeled according to the primordial and naturalistic *dao*.

In the Confucian tradition, the connection between *tian*, *di*, and *ren* are articulated in a number of earlier Confucian texts such as *Mengzi*, *Xiaojing*, *Liji*, *Zhongyong*, *Daxue*, and *Chunqiu Fanlu*, as well as in the works of Neo-Confucian thinkers, such as Li Ao (d. ca. 844), Zhang Zai (1020–77), Cheng Hao (1032–85), Cheng Yi (1033–1108), Zhu Xi (1130–1200), Lu Xiangshan (1139–93), Wang Yangming (1472–1529), Wang Fuzhi (1619–93) and Yan Yuan (1635–1746) (Fung 1953, Vol. 2; see also Legge (trans.) 1960).

In the *Liji*, the connection between *tian*, *di*, and *ren* is discussed in detail. Specifically, the three are positioned according to a hierarchical structure, and parallel hierarchies are thought to exist amongst different species:

Heaven is honorable, Earth is lowly, and likewise the positions of ruler and subject were both made definite... Animals are grouped according to their kind, and plants are divided according to their family. Thus the natures and endowments of things are not the same... The yin and the yang act upon one another, and the [qian] (heaven) and the [kun] (earth) agitate each other. They are drummed on by thunder, excited by wind and rain, moved by the four seasons, warmed by the sun and moon, and all the processes of change and growth vigorously proceed. (Legge (trans.) 1966, Vol. 28, pp. 102-5)

By contrast to the *Liji*, it seems that a hierarchical conception of *tian-di-ren* is not a primary concern in the *Xunzi* text. What is important, in the latter, is that, from a pragmatic and humanistic point of view, the ruler is the selected man on par with *tian* and *di*. For *Xunzi*, it is a mistake to attempt to be like *tian* or *di*, or to replicate their

processes, because, while the three are connected, man has his own special needs and concerns. In that connection, Xunzi advocates a "division of labor" approach, setting out the boundaries of each sphere:

Heaven has its seasons, Earth has its wealth, and man has his government. This is how they are able to form a triad. To neglect (human actions) which constitute man's part in the triad and put one's hope in those with which he forms a triad is indeed a mistake...The fixed stars rotate in succession, the sun and moon shine alternately, the four seasons follow one another, yin and yang effect their great transformations...Instead of regarding Heaven as great and admiring it, why not foster it as a thing and regulate it? Instead of obeying Heaven and singing praise to it, why not control the Mandate of Heaven and use it? (Section 17, Chan 1961, pp. 117–22; see Dubs 1928)

The Xunzi approach insists, as it were, that there are some affairs which rightly belong to humankind, and that these are the only affairs humans should concern themselves with; conversely, attempting to replicate the movements and processes of tian is not within the sphere of proper human action and will, if undertaken, prove deleterious to humankind. Xunzi's view is interesting because it attempts to empower human beings both by establishing a connection between heaven, earth, and man in a special, triadic relationship, and by insisting on the relatively separate spheres of action of each of these three agencies such that the realm of human action should not be seen merely as epiphenomena of tian.

In the Chunqiu Fanlu, man's special (moral) capacities are emphasized: human beings are capable of manifesting humanity (ren) and rightness (yi), two distinctly Confucian values. These special capacities are an endowment from tian. Furthermore, man's superior status, compared with the status of other species, is upheld:

Nothing is more refined than the (yin and yang) ethers, richer than Earth, or more spiritual than Heaven. Of the creatures born from the refined essence [qing] of Heaven and Earth, none is more noble than man. Man receives the Decree (ming) of Heaven, and therefore is loftier (than other) creatures. (Other) creatures suffer troubles and distress and are unable to practice love [ren] and righteousness [yi]; only man is capable of practicing them. (Other) creatures suffer trouble and distress and are unable to match themselves with Heaven and Earth; only man is capable of doing this. (Section 56, Fung 1953, Vol. 2, pp. 30–1)

From passages like this, it seems that the low status of non-human species is a corollary of the elevated status of the human species. Indeed, it could be said in general of the thought of the Confucian tradition that, in emphasizing humanism, it requires that clear distinctions and dichotomies be formulated in order to distinguish the human from the non-human. This is particularly true in the case of Mengzi, Confucius's most prominent disciple, who strongly asserted that human beings and other animal species are incomparable in a most important way: the latter, in not having human nature (xing) and the human heart-mind (xin), lack the capacity for morality (yi), humaneness (ren), propriety (li) and wisdom (zhi) (Mengzi, sections 2A, 6A).

Compared with the humanism of Confucian thought, Daoist thought is much more inclusive. In the *Laozi* and *Zhuangzi* texts, for instance, a perspective favoring the human is ridiculed and, to some extent, seen as morally reprehensible. In these texts, *tian*, and sometimes both *tian* and *di*, are variously portrayed as the source or origin of all existence or as an inscrutable judge of all (*Laozi*, sections 73, 74; *Zhuangzi*, sections 17, 18); both these views transcend the merely anthropocentric. An interesting aspect of Daoist philosophy with regard to *tian*, *di* and *ren* is that man learns from *tian* and *di* to not overvalue human concerns. In the *Laozi* (section 5, Chan 1961, p. 141) the rejection of anthropocentric (Confucian) institutions and structures as impermanent artefacts of civilization, is a lesson the Daoist sage learns from *tian* and *di*:

Heaven and Earth are not humane [ren] They regard all things as straw dogs. The sage is not humane. He regards all people as straw dogs. How Heaven and Earth are like a bellows! While vacuous, it is never exhausted.

Straw dogs were items used in sacrificial rites, to be discarded after use; they had only instrumental value. In this passage, it is explicitly stated that the Daoist sage, modeling his behavior according to some characteristics of *tian* and *di*, is not humane in that he does not accord special priority to human life or human concerns. The impartiality of *tian* and *di* is upheld and human beings are called upon to be likewise.

The conception of the holistic interconnectedness of all things is somewhat fuller in the *Zhuangzi* than in the *Laozi*. While both are critical of anthropocentricism, the *Zhuangzi* text takes an additional step to challenge even the value placed on human life. An often-quoted passage (section 18, Chan 1961, pp. 204, 209), regarding Zhuangzi's attitude to the death of his wife, is expressive of such a stance:

When she died, how could I help being affected? But as I think the matter over, I realize that originally she had no life; and not only no life, she had no form; not only no form, she had no material force $[qi]\dots$ The material force was transformed to be form, form was transformed to become life, and now birth has transformed to become death. This is like the rotation of the four seasons, spring, summer, fall and winter... Man again goes back into the originative process of Nature. All things come from the originative process of Nature and return to the originative process of Nature.

In this chapter, Zhuangzi's sorrow over the death of his wife is mediated by his ability to move beyond what is seen as the excessive value placed on human life by human beings. This is one of the lessons he has learnt from observing the processes of nature. Zhuangzi likens the course of human life and death to the movement of the four seasons. In the context of Daoist naturalism, Zhuangzi, in his appreciation of matters of (human) life and death, is applauded for having successfully transcended the merely human perspective.

Comparing Confucian and Daoist thought, it is interesting to observe that the notion of the tripartite relationship between tian, di and ren is utilized as a justification for two exactly opposite world-views. In the context of Confucian humanism, the tripartite relationship affirms man's position within the universe as central or apical. By contrast, Daoist philosophy views all forms of existence as ontologically equal. This equality is seen to derive from the fact that everything is "formed by a process of selfand mutual transformation" (Cheng 1997, p. 121), where nothing can be seen to have intrinsic value in and of itself (see DEEP ECOLOGY). In emphasizing impartiality, Daoist philosophy is non-hierarchical in its conceptualization of differences between species; in emphasizing mutuality and connectedness, Daoist philosophy upholds an inclusive and holistic view of all forms of existence.

Wuxing (five elements) and yin-yang (yin and yang)

The concept wuxing refers to the five natural elements of water, fire, wood, metal, and earth. It has been argued that the idea of a set of five categories dates back to the Shang dynasty, with the four directions (north, south, east, and west) plus, implicitly, the center (Allan 1991, pp. 74-111). In its usage, the concept wuxing was not primarily understood literally, that is, to signify some physical or material composition of existing things. Rather, it was a metaphysical concept to do with balance and proportion, sugesting harmony (he) as opposed to identity (tong). As such, it was applied variously to a range of human concerns and activities (in particular, those relating to government and to social relationships), as well as to non-human states of affairs (for instance, the weather, the seasons, and to some extent the heavenly bodies). Thus, for instance, in the Zuozhuan, the idea of balancing proportions is seen as central to the ways of tian, di, government, social norms, and institutions, the categories used in discrimination, and the processes and structures of the natural world. In addition, all these different spheres were seen to be intertwined:

Heaven and Earth have their standards, and men take these for their pattern, imitating the brilliant bodies of Heaven and according with the natural diversities of Earth. (Heaven and Earth) produce the six atmospheric conditions and men make use of the Five Elements. These conditions produce the five tastes, make manifest the five colors, and make evident the five notes... The duties of government, requisitions of labour, and conduct of affairs were made to accord with the four seasons. Punishments and penalties, and the terrors of legal proceedings were instituted to make the people stand in awe, resembling the destructive forces of thunder and lightning. Mildness and gentleness, kindness and harmony, were made in imitation of the creating and nourishing action of Heaven. The people had feelings of love and hatred, pleasure and anger, grief and joy, produced by the six atmospheric conditions. (Legge (trans.) 1960, Vol. 5, pp. 708–9)

Apart from the idea that particular and appropriate proportions of each of the five elements were required, it was also believed that these elements, engaged in constant flux, took turns in being ascendant and flourishing. This meant that when a particular element was in its ascendancy, processes and events ran according to that element. For example, in the Lushi Chunqiu, it is recorded that when the element earth is ascendant, yellow, the color correlated with earth, is adopted by the Yellow Emperor, who models himself according to earth (Fung 1951, Vol. 1, pp. 161f; see also de Bary et al. 1960).

In many of the classical Chinese texts, the emperor is seen to have primary responsibility for the coordination of this delicate juggling act. For example, in the *Hongfan* section of the *Shujing*, the earliest recorded mention of *wuxing*, he is advised to be heedful of *wuxing* and its correlations in his handling of various affairs. Thus, he must be careful to ensure that his actions properly coordinate and balance the different proportions of the five elements and their respective correlations, together with the transformations that occur between them (Forke 1925, pp. 227–42). Many examples are given of inappropriate actions and behaviors of the emperor which were believed to have sent both human affairs and natural processes into disarray (see Legge (trans.) 1966, Vol. 3, pp. 138–41; Fung 1951, Vol. 1, pp. 164–5).

The best-known early interpretation of the *wuxing* theory was by Zou Yan (350–270 BCE). He attempted to account for the rise and fall of dynasties by reference to the ascendancy of one of the five elements at particular historical periods. Furthermore, he propounded a theory of the flux and interplay of *wuxing* and other aspects of existence which involved not only the topography of the earth, fauna, flora, and the effects of the movements of the soil and waters, but also the continents and the seas (Day 1962, p. 19).

Zou Yan's discussions of *wuxing* often included references to *yin-yang* as well; this dual reference seems to be a feature of thinkers of the Yin-Yang School. It has been argued that there was another school called the School of Five Elements and that, from the Han period, the phrases "Yin-Yang School" or "School of Five Elements" referred to one set of teachings, or a group of thinkers associated with such teachings. Indeed, this school was at times referred to as the "Yin-Yang and Five Elements School" (Fung 1953, Vol. 2, pp. 7–8).

It appears, however, that wuxing and yin-yang were not always thought of as connected theories or concepts. Indeed, prior to the period of the former Han (206 BCE—CE 8), the wuxing and yin-yang theories were referred to as mutually exclusive. In the Yueling section of the Lushi Chunqiu, a work of the late fourth or third century BCE, there is mention of wuxing but not of yin-yang. Conversely, in the Shiyi (Appendices to the Book of Changes), a work dated at third century BCE, yin-yang is mentioned, but not wuxing (Day 1962, p. 8).

It needs to be noted that, even within the context of the Yin-Yang School, wuxing and yin-yang were retained as separate concepts and each was irreducible to the other, though many theorists maintained that their movements and processes were intricately intertwined. Significantly, the concepts yin and yang were used, like the concept wuxing, to signify balance and proportion. While there was also some reference to yin-yang as the primary elements associated with tian and di, the sun and moon, the seasons and the weather, these references are relatively few (Forke, 1925, pp. 163–200). On the whole, it is quite clear that yin-yang was treated differently from wuxing in that, while the two concepts are often referred to in a particular passage, the terms were not used co-extensively or synonymously.

It seems that *yin-yang* entered the Chinese vocabulary sometime during the early to mid-Warring States period, with the original meanings "the shady and sunny sides of

a hill side" and "cool and warm." Both uses imply gradients on a scale rather than polar opposites. As employed by Zou Yan and others in the Yin-Yang School, yin and yang became paradigms of a complementary (non-antagonistic) dualism, whereby phenomena could be analyzed in terms of shifting proportions of yin and yang; a predominantly yin phenomenon always contained at least a germ of yang and vice versa (Major 1993, pp. 28f).

Thinkers belonging to the Yin-Yang School, in keeping with a trend set by others before them, practiced divination using the yin-yang and wuxing concepts (Fung 1951, Vol. 1, ch. 7, esp. pp. 159-69). It is apparent why these thinkers took on the practice of divination. Believing in a correlative cosmology, it would have been integral to their perspective on existence, to decipher and interpret the workings of wuxing, yin-yang, their respective correlations, and their transformations.

Perhaps the most prominent text of the Han period which expounded on such correlative thinking, involving *yin-yang* and *wuxing*, as well as a range of processes, species, forces, and events, was the Huainanzi. The Huainanzi is thought to be a compilation which included ideas that were relatively more mature than many other works from the same period (Major 1993, pp. 30f). In this regard, it presents fairly explicit descriptions of interconnectedness between the different forms and modes of life, articulating rather clearly the origin of form, matter, and species.

Chapter 4 of the *Huainanzi* focuses on topography in a broad and general way, discussing how the various aspects of the earth (such as the nine continents, the eight winds, and the six rivers) combine to have different effects on different creatures and on the formation of minerals. Further, the chapter contains a discussion of the origin and taxonomy of minerals and species, specifically regarding how yin and yang variously combine to generate difference:

birds (feathered creatures) are correlated with phase fire [one of the five elements]; they are *yang*, in that they fly, but *yin*, in that they are oviparous. In modern terms, the set of living creatures has a subset, creatures correlated with phase fire; this subset is intersected by a set of yin attributes and a set of yang attributes. The small area where the sets are congruent yields the category "birds." (Major 1993, pp. 30f)

In addition to discussions of the connection between diets and characteristic features of different species, the Huainanzi propounds an evolutionary theory of different animal and plant species (ibid, pp. 141–215).

The idea of correlative cosmology was so pervasive during the Han period that even thinkers associated with the Confucian tradition – noted for its humanistic emphasis – engaged fully in debates regarding such issues. For instance, an important point of debate between members of the New Text School (Jinwenjia) and the Old Text School (Kuwenjia) was the topic of divination and prognostication. Members of each school claimed that their respective ideas were closer in spirit to early Confucianism than those of the other. Dong Zhongshu (?179–?104 BCE), a prominent member of the New Text School, upheld the notion of a unified and interconnected cosmology, as well as divination practices associated with that cosmology. In opposition, members of the Old Text School, such as Wang Chong (ce 27-100) argued that the superstitions and

supernatural beliefs of those in the New Text School seem incommensurable to early Confucianism (Fung 1953, Vol. 2, pp. 152ff).

If there is a need to pick a "winning side" in this debate, it might be noted that many thinkers of the Han period accepted correlative cosmology. Indeed, this view was so popular and pervasive in this period that it has been commented, regarding philosophy during this period of Chinese intellectual history, that, "[i]t makes no difference whether the thinkers of that era regarded themselves as Taoists or as Confucianists; all the viewpoints embodied the viewpoint of the Yin Yang School and its essential spirit" (Fung 1947, p. 116).

While there were subtle differences in the ways the concepts wuxing and yin-yang were used in various philosophical systems in ancient China, they were always used to provide the metaphysical infrastructure for a cosmological theory of interdependence between processes and events in the natural and human worlds.

At the level of popular belief, correlative cosmology was manifest in superstitious beliefs regarding the consequences of certain human actions for the natural world and its processes, and vice versa. Indeed, in some cases the correlation between states of affairs in the natural and human worlds was thought to be so strongly causal in either or both directions that little action was carried out prior to the undertaking of some divination procedure (Fung 1951, Vol. 1, pp. 159–69). Such a strong view of correlation and interdependence would render distinctions between the human and the non-human, or the human and the natural, meaningless.

Dao

Within the Daoist tradition, the concept *dao* figures significantly in discussions about the natural world. The term was used variously to signify ultimate reality, or some principle of reality, by the early Daoists in reference to an all-encompassing and inclusive cosmology and ontology.

The usage of *dao* by the Daoists to refer to a reality set well beyond human life and concerns stands in clear contrast to the classical Confucian *dao*. In the *Lunyu* (section 15: 29; see Legge (trans.) 1960), the primary classical Confucian text, Confucius purportedly articulates the view that *dao* is the process of *human* self-cultivation, and is fully defined by human beings: "It is not *dao* that makes man great; it is man that makes *dao* great."

Here, Confucius could be understood to be refuting the Daoist conception of *dao*. The point is made, rather emphatically, that a transcendent *dao* so defined, abstracted, and independent of lived human reality, has nothing useful to offer as far as human cultivation and development are concerned. Similarly, in another Confucian text, the *Mengzi, dao* has the rather plain meaning of "teaching"; there is, for example, Mozi's *dao*, Yangzhu's *dao* and the undesirable *dao* of the contemporary world (sections 3B: 9.9 and 3B: 2; see Legge (trans.) 1960).

By contrast, *dao* in the Daoist tradition is not restricted merely to the socio-political dimension. While there are chapters both in the *Laozi* and *Zhuangzi* texts which discuss only this aspect of *dao*, it would be reductionist to conceive the Daoist enterprise solely in these terms. Thus, in most chapters of the Daoist texts, such as chapter 77 of the *Laozi*, many aspects of *dao* emerge:

Heaven's [dao] is indeed like the bending of a bow. When (the string) is high, bring it down. When it is low, raise it up. When it is excessive, reduce it. When it is insufficient, supplement it. The [dao] of Heaven reduces whatever is excessive and supplements whatever is insufficient. The [dao] of man is different. It reduces the insufficient to offer to the excessive. Who is able to have excess to offer to the world? Only the man of Tao.

Two important aspects of dao are alluded to in this chapter. The first is that the dao of man, in embodying a goal contrary to that of Heaven, falls short of the mark. Specifically, while tian seeks to balance and reduce differences between the excessive and the insufficient, the dao of man - plainly manifest in government and other human institutions – serves to widen the gap (between superior and inferior and great and small). The values of the then contemporary Chinese society, by comparison, are inadequate and hence rejected.

The other important point is the contrast made between the dao of man and the man of dao: the former is ridiculed as being impermanent, shallow, and inequitable while the latter is upheld as the proper approach of the Daoist sage. This man of dao is antithetical to the Confucian gentleman (junzi), who creates his own dao. These two approaches to human existence project different values, goals, and methodologies. The dao of man is a constructed, impermanent goal which has a narrow, restricted (anthropocentric) focus; the way to attain that goal is through the implementation of structures and institutions which allow men to strive towards those goals. By contrast, the tenor of the Laozi is that a more complete life for all forms of existence can be achieved only through a full appreciation of the connectedness of all beings. Hence, the man of dao attempts to replicate the aims of tian and dao and, in so doing, sees himself as merely a part of the permanent, enduring, holistic reality. From the Daoist point of view, the only perspective that properly reflects the nature of reality is a view that all forms of existence are connected and, correspondingly, that reality is holistically comprised by the continuous interaction of all forms of being. In this connection, it has been argued that Daoist philosophy provides the basis for an aesthetic structure of the world (Ames 1986; see also AESTHETICS).

The metaphysical, ethical, and ontological aspects of Daoist philosophy call for attention. In the first instance, there is a call to human beings to observe and follow the ways of nature. This is articulated in terms of Daoist counter-values such as nonassertiveness, weakness, and spontaneity; dao is sometimes presented as a principle of spontaneity, modeled according to the natural (zhiran) (Laozi, sections 17, 25; cf. Schwartz 1985, pp. 203ff).

For the Daoist sage to act in a manner in accord with zhiran is for him not to create and facilitate, and perhaps to demolish, man-made, artificial norms, values, and institutions which, when superimposed on to human lives, forcibly alienate human beings both from other human beings and from their natural context (Laozi, sections 2, 28, 30, 32; see Chan 1961). In fact, the Daoist dictum requiring human beings to

act according to the principle of spontaneity can be seen as an encouragement to take "lessons" from the natural world. Within this framework, striking images and metaphors of water, the infant, and the female are utilized in the *Laozi* to illustrate the necessity of non-assertive spontaneity in one's actions (e.g., Laozi, sections 36, 55, 66, 76, 78; see Chan 1961). In the Zhuangzi, too, such imagery is expressed through the personification of the processes of nature:

"Then what shall I do?" asked Uncle River. "What shall I not do? Should I accept or reject, advance or withdraw?"

The Spirit of the North Sea said, "From the point of view of Tao, what is noble and what is humble? They all merge into one. Never stick to one's own intention and thus handicap the operation of Tao. What is much and what is little? They replace and apply to each other. Never follow one stubborn course of action and thus deviate from Tao." (Section 17; see Chan 1961, p. 206)

It needs to be noted, too, that while *zhiran* was often used to refer to style or method or modus operandi, some discussions of zhiran dealt with the concept at a metaphysical level. This is true especially of later commentaries on the Laozi and Zhuangzi texts by thinkers belonging to the neo-Daoist school, such as Xiang Xiu (ca. ce 221–300) (Fung 1953, Vol. 2, p. 208), and even by those belonging to the Confucianist Old Text School, such as Yang Xiong (53 BCE—CE 18) (Fung 1953, Vol. 2, pp. 139ff).

Another important feature of the Daoist dao is its ontology of holistic connectedness, reflected in the Daoist ideal to "identify all things as one" (Chan 1961, p. 184). In some chapters of the *Laozi* and *Zhuangzi* texts, the ideal of holistic connectedness is associated with an evaluative judgment concerning the equality of all forms of being. For instance, the *Zhuangzi* points out the unjustified exploitation of other animals by human beings as a manifestation of the artificially-constructed power hierarchy:

"What do you mean by Heaven [tian] and what do you mean by man?"

"A horse or a cow has four feet. That is [tian]. Put a halter around the horse's head and put a string through the cow's nose, that is man. Therefore it is said, 'Do not let man destroy [tian]. Do not let cleverness destroy destiny [ming]. And do not sacrifice your name for gain.' Guard carefully your [tian] and do not let it go astray. This is called returning to one's true nature." (Section 17; see Chan 1961, p. 207; see also Zhuangzi, sections 1, 12, and 33; Fung 1933)

One is invited in this chapter to adopt a standpoint that transcends the anthropocentric and to see each form of existence as equal to all other forms. A neo-Daoist text, the Liezi, is explicit in its criticism of a hierarchy of existence imposed by human beings upon all other species:

Mr. T'ien of Ch'i was holding an ancestral banquet in his hall, to which a thousand guests were invited, some of whom came forward with presents of fish and geese. Eying them, Mr T'ien exclaimed: "How generous is Heaven to man! It causes the five kinds of grain to grow, and creates fish and birds, especially for our use."...The twelve year old son of a Mr Pao, who, regardless of seniority, came forward and said: "It is not as you say, my lord. All the creatures in Heaven and Earth have been created in the same category as ourselves, and one is of no greater intrinsic value than another. It is only by reason of size, knowledge, or strength that some one of them gains the mastery, or that one preys upon another. None are produced in order to serve the needs of others. Man catches and eats those that are fit for food, yet can it be said that Heaven creates these expressly for man's use? Mosquitoes and gnats, moreover, bite his skin, and tigers and wolves devour his flesh, yet can it be said that Heaven creates man expressly for the benefit of mosquitoes and gnats, or to provide flesh for tigers and wolves?'' (Section 8, Fung 1953, Vol. 2, pp. 190–4)

In this passage, the boy refutes the suggestion that a hierarchy amongst species exists as an inherent feature of the natural order. Indeed, the superimposition of a hierarchy on to nature is presented as being contrived, arbitrary, and misleading, as a mere product of human invention. In Daoist thought, indeed, the structuring and categorizing characteristic of human existence is projected as a symptom of improper interference and dogmatism, creating a hierarchy of modes of existence where, in the natural world, no such separation or hierarchy exists. The effects of such categorization and structuring are only negative, both for human beings and for all other forms of existence.

It is noteworthy that Chinese philosophers – in particular, those belonging to the Daoist tradition – during the classical period questioned not only the ethics of a separatist and hierarchical attitude to nature, but also attempted in some way to analyze the reasoning and rationale underlying such attitudes.

Qi (stuff)

"Qi" is a term used to connote some pervasive, basic stuff or energy. References to qi in pre-Qin (221–206 BCE) Chinese philosophy were sporadic. There is some mention of qi in Zuozhuan, Lunyu, Mengzi, and Huainanzi, though the use of the concept in these texts is not systematic. In the Lunyu, qi seems to refer to breath or vapor; in the Zuozhuan it refers sometimes to a primordial energy, and at others to personal states of emotion or attitudes (Schwartz 1985, pp. 179f). Mengzi discusses qi in the context of forging a (moral) connection between human nature and tian (section 2A: 2; see Legge (trans.) 1960) and the *Huainanzi* enlists qi as part of the cosmic evolutionary process, together with tian and di, yin and yang, and the principles of non-being (wu) and being (yu) (Fung 1947, pp. 113-15). Prior to the pre-Qin period, qi was often used to denote a normative standard for any thing or states of affairs. Thus, there are the qi of yin and of yang and of tian and di, of each of the wuxing, and of morality and social order (there is even a qi for negative features such as human greed) (ibid, pp. 119–23). It seems that the notion of qi as pervasive material stuff or energy is far less central in pre-Qin thought than the concept of a total cosmic and social order often referred to by dao (Schwartz 1985, p. 183).

There is, however, some reference to qi as the pervasive primordial material of all existence in the *Huainanzi* (Major 1993, p. 27), which seems to have pre-empted the Song (CE 960–1279) neo-Confucian usage of qi as the concrete manifestation of different species patterns. In the works of Zhang Zai (1020–77), Cheng Hao (1032–85), Cheng Yi (1033–1108), for example, qi is used in conjunction with li (ideal

principle or pattern) to sketch a theory of existence: *qi* is the raw material in and through which *li* are actualized (Chan 1961, pp. 495–571). In the way the Song neo-Confucianists express the interplay between *li* and *qi*, it would appear that, while each is necessary for existence and non-reducible to the other, *qi* has lost the sense it previously had of normative significance, whereas *li* carries the definitive form or mode of existence.

Chinese Buddhism and the Buddhist view of nature

To date, the discussion has focused on Daoist and Confucian attitudes to nature. Buddhism was introduced into China from India as early as 2 BCE (Chan 1961, p. 336). Because it was a foreign philosophy, many Chinese Buddhist thinkers, anxious to promote Buddhism, attempted to explain Buddhist concepts via the "method of analogy" (*geyi*). During the Han and Wei periods, these thinkers were engaged in the matching of Buddhist concepts to existing Confucian and Daoist concepts (de Bary et al. 1960, Vol. 1, pp. 274–9; Fung 1953, Vol. 2, pp. 240–2).

Being strongly focused on metaphysical issues such as existence, causation, and reality, Buddhist thinkers found more affinity with Daoist than with Confucianist ideas. For instance, the Buddhist kong (empty; Sanskrit: sunyata) was likened to the Daoist notion of non-being (wu), as opposed to being (yu). Through the method of analogy, neo-Daoism was instrumental in the growth of the earliest Chinese Buddhist schools of thought.

On the other hand, Chinese Buddhism still managed to retain many basic features of its Indian form. This was partly because some Buddhist concepts and ideas were simply untranslatable into existing Daoist and Confucian concepts. For instance, Buddhism abhors the (Confucian) social and (Daoist) natural definitions of humanity, upholding a pneumatic, universal mind that transcends nature and even the cosmos (Lai 1997, p. 576).

One of the fundamental and distinctive tenets of Buddhism is that [t]here has been no single act of divine creation that has produced the stream of existence. It simply is, and always has been, what it is. Even the gods in the Buddhist heavens are attached to the wheel of life and death and are not its creators...[P]henomenal "existence," as commonly perceived by the senses, is illusory; it is not real inasmuch as, though it exists, its existence is not permanent or absolute. Nothing belonging to it has an enduring entity or "nature" of its own; everything is dependent upon a combination of fluctuating conditions and factors for its seeming "existence" at any given moment. This is the Buddhist theory of causation. (Fung 1953, Vol. 2, p. 237)

For two important reasons – a preoccupation with the adaptation of Buddhist concepts to existing frameworks of Chinese thought, and a focus on the topics of mind and consciousness transcending both the human and the natural worlds – there was relatively little discussion of the natural world and its processes during the classical period in Chinese philosophy in Buddhist thought. Instead, there was much discussion of the experience of transcendence, ideas of Buddhahood and

existence, and, in many Buddhist schools, meditation as fundamental Buddhist practice.

At around the period of the Eastern Jin (ce 317-420), the concept of Buddhanature was articulated by some Buddhist thinkers, such as Hui Yuan (ce 334-416) of the Pure Land sect (Day 1962, ch. 7 and 8) and Dao Sheng (ce 355-434), whose thoughts were esteemed by the later Chan Buddhists. A tenet associated with the Buddha-nature concept was that, given that Buddha was omnipresent (and not confined to bodily existence), it follows that Buddha-nature permeates all (sentient) beings (Lai 1997, pp. 578f; Fung 1953, Vol. 2, ch. 9). The theme of the universality of Buddha-nature was taken up at a later stage by the Chan Buddhists, a sect which appeared during the period of the South and North Dynasties (ce 420-589) (Lai 1997, p. 579). In some Chan Buddhist texts, there were references to the universal Buddha-nature as permeating all sentient (see Sentientism), enlightened existence: "without enlightenment, a Buddha is no different from all living beings, and with enlightenment, all living beings are the same as a Buddha" (Platform Scripture of the Sixth Patriarch, Section 30, in de Bary et al. 1960, Vol. 1, p. 355).

In another Chan Buddhist text, there is reference to the universal Buddha-nature in all existence, sentient and non-sentient: "Ouestion: What is the basic meaning of the Law of the Buddha? The Master said: Filling all streams and valleys" (Recorded Sayings of Ch'an Master Pen-Chi, no. 21, in de Bary et al. 1960, Vol. 1, p. 368).

In conclusion, while a number of Chinese Buddhist schools could accommodate the view of an all-encompassing and inclusive reality, there is little or no specific mention of the natural world and its processes in many of the schools. In other words, while inferences could be made from passages such as those just quoted that sentient and non-sentient beings are included in the enlightenment process and in the realization of the Buddha-mind, Buddha-nature, or some such ultimate reality, such inferences need to be made with caution because the Chinese Buddhist Scriptures and texts do not explicitly deal with this topic in a substantial manner (see also JAINISM and BUDDHISM).

References

Allan, Sarah (1991) The Shape of the Turtle: Myth, Art and Cosmos in Early China, USA: SUNY Press. [A scholarly and philosophical treatment of how religious and ritual practices during the Shang Dynasty were connected to ancient Chinese Cosmology.]

Ames, R. (1986) "Taoism and the nature of nature," Environmental Ethics 8, Winter. [A fresh approach to environmental ethics, drawing on Daoist ideas.]

Chan, W. T. (1961) A Source Book in Chinese Philosophy (Princeton: Princeton University Press). [A primer that introduces the classical Chinese schools of thought.]

Cheng, C. Y. (1997) "The origins of Chinese philosophy," Companion Encyclopedia of Asian Philosophy, ed. B. Carr and I. Mahalingam (London: Routledge), pp. 493-534. [This piece, though its aims are introductory, includes thoughtful consideration of the subject-matter.]

Day, C. B. (1962) The Philosophers of China (London: Peter Owen). [Introductory and interesting presentation of the Chinese world-view.]

De Bary, W. T., Chan, W. T., and Watson, B. (1960) Sources of Chinese Tradition, 2 vols. (New York and London: Columbia University Press). [A comprehensive source book which includes

- translations from sections of Lushi Chunqiu (Spring and Autumn of Mr Lu) and of the "Great Appendix" to the Book of Changes.
- Dubs, H. H. (1928) The Works of Xunzi (London: Probsthain). [Xunzi was a thinker belonging to the Confucian school.]
- Forke, A. (1925) The World-Conception of the Chinese: their Astronomical, Cosmological and Physico-Philosophical Speculations (London: Probsthain). [A good introduction to the subject.]
- Fung, Y. L. (1933) Chuang Tzu, a New Selected Translation with an Exposition of the Philosophy of Kuo Hsiang (Shanghai: Commercial Press). [Zhuangzi is a key figure in early Daoism, Fung's translation is often taken as authoritative.
- Fung, Y. L. (1947) The Spirit of Chinese Philosophy, trans. E. R. Hughes (London: Kegan Paul). [Fung examines and analyzes the assumptions behind Chinese thought.]
- -(1951, 1953) A History of Chinese Philosophy, 2 vols, trans. Derk Bodde (Princeton: Princeton University Press). [A comprehensive work which focuses on the developments in Chinese intellectual history.]
- Graham, A. C. (1986) "Yin-Yang and the nature of correlative thinking," IEAP Occasional Paper and Monograph Series 6 (Singapore: Institute of East Asian Philosophies). [A detailed, philosophical exploration of correlative thinking that does not skim over complexities.]
- Lai, W. (1997) "Buddhism in Chinese philosophy," in Companion Encyclopedia of Asian Philosophy, ed. B. Carr and I. Mahalingam (London: Routledge). [A terse encyclopedia entry on Buddhism within Chinese thought.]
- Legge, J. (trans.) (1960) The Chinese Classics, 5 vols. (Hong Kong: Hong Kong University Press; reprinted from the editions 1893-1895 of the Oxford University Press). [Legge has carried out extensive translations of classical Chinese texts, including Vol. 1: Lunyu (Confucian Analects), Daxue (Great Learning), and Zhongyong (Doctrine of the Mean); Vol. 2: Mengzi (Mencius); Vol. 3: Shujing (Book of Documents); Vol. 4: Shijing (Book of Poetry); Vol. 5: Chunqiu (Spring and Autumn Annals) and Zuozhuan (Commentary on the Spring and Autumn Annals).
- Legge, J. (trans.) (1966) Sacred Books of the East (Delhi: Motilal Banarsidass; reprinted from Clarendon Press 1885 edition) [Vol. 3: Shujing, Shijing and Xiaojing (Book of Filial Piety); Vol. 16: Yijing (Book of Changes); Vols. 27 and 28: Liji (Book of Rites)].
- Major, J. S. (1993) Heaven and Earth in Early Han Thought (Albany: State University of New York Press). [Includes excellent translation of and commentary on chapters 3, 4, and 5 of the Huainanzi.]
- Schwartz, B. (1985) The World of Thought in Ancient China (Cambridge: Belknap Press). [A thoughtful, philosophical analysis of Chinese intellectual history.]

Further Reading

- Special issues of two journals, Philosophy East and West 37, no. 2 (April 1987) and Environmental Ethics 8 (Winter 1986), contain collections of conference papers on environmental ethics and Asian and comparative philosophy.
- There is an excellent collection of essays on environmental philosophy in Asian traditions, edited by J. B. Callicott and R. T. Ames, Nature in Asian Traditions of Thought: Essays in Environmental Philosophy (Albany: SUNY Press, 1989).

Classical India

O. P. DWIVEDI

Introduction

In the 1960s, when people started to recognize the gravity of environmental pollution, historian Lynn White Jr. (1967), wrote an article in *Science* on the historical roots of the ecological crisis. According to White, what people do to their environment depends upon how they see themselves in relation to nature. White asserted that the exploitative tendency that has generated much of the environmental crises, particularly in Europe and North America, is a result of the teachings of late medieval Latin Christianity, which conceived of humankind as superior to the rest of God's creation and everything else as created for human use and enjoyment. He suggested that the only way to address the ecological crisis was to reject the view that nature has no reason to exist except to serve humanity. White's proposition impelled scientists, theologians, and environmentalists to debate the basis of his argument that religion could be blamed for the ecological crisis.

In the course of this debate, examples from other cultures were cited to support the view that, even in countries where there is religious respect for nature, exploitation of the environment has been ruthless. Countries where Hinduism, Buddhism, Taoism, and Shintoism have been practiced were cited to support the argument of Thomas Derr, among others, that "we are simply being gullible when we take at face value the advertisement of the ecological harmony of nonwestern cultures." Derr goes on to say:

even if Christian doctrine had produced technological culture and its environmental troubles, one would be at a loss to understand the absence of the same result in equally Christian Eastern Europe. And conversely, if ecological disaster is a particularly Christian habit, how can one explain the disasters non-Christian cultures have visited upon their environments? Primitive cultures, Oriental cultures, classical cultures – all show examples of human dominance over nature which has led to ecological catastrophe. Overgrazing, deforestation and similar errors of sufficient magnitude to destroy civilizations have been committed by Egyptians, Assyrians, Romans, North Africans, Persians, Indians, Aztecs, and even Buddhists, who are foolishly supposed by some Western admirers to be immune from this sort of thing (Derr 1975, p. 43).

This chapter responds to Derr's challenge by explaining how the Hindus' attitude toward nature has been shaped by the religion's view of the cosmos and creation. Such an exposition is necessary to explain the traditional values and beliefs of Hindus