# VOLUME I CONNECTING ENVIRONMENT AND EDUCATION

	Acknowledgements Chronological table of reprinted articles and chapters	X1X XXII
	The Paris modelines for makenine the specific party of the property of the parish	
	Preface: What do people care about in Environmental Education?	1
	The Major Works of Environmental Education: an introduction	9
	Environmental Education: the major work of ensuring quality and outcomes in connecting environment and education	23
PA	to alternaty of anchanging ideas	
Co	onnections	49
1	1 The challenge of environmental education JAMES SWAN	51
1	2 The concept of environmental education WILLIAM B. STAPP ET AL.	57
	3 Extracts from Think Little WENDELL BERRY	61
4	4 Education and environment WALTER P. FENWICK	67
4	5 The greatest resource – education E. F. SCHUMACHER	75
(	6 Whose environment?	91

7	Extract from Pilgrim at Tinker Creek ANNIE DILLARD	100
8	Extract from Zen and the Art of Motorcycle Maintenance: An Inquiry into Values ROBERT M. PIRSIG	101
9	What makes environment educational? NOEL MCINNIS	108
10	Good education is environmental EDWARD CLARK	117
11	Environmentalism and education TIMOTHY O'RIORDAN	123
12	Ecophilosophy, utopias, and education GEORGE SESSIONS	140
13	Living lightly and inconsistently on the land DONELLA MEADOWS	172
14	Ecology, education and the real world HENRYK SKOLIMOWSKI	175
15	What is education for?  DAVID W. ORR	183
16	An eternity of unchanging ideas  DAVID ABRAM	191
17	Imagine a world AMORY B. LOVINS	196
18	Learning to care: education and compassion  JOHN FIEN	199
19	We must educate for elementality ALASTAIR MCINTOSH	216
20	Widening our options JOHN FOSTER	218
21	Living in the Earth: towards an education for our times STEPHEN STERLING	234
22	The co-evolution of ESD and EE MARTHA C. MONROE	241

	NORTH AMERICAN ASSOCIATION FOR	388
	88 The Thessaloniki Declaration: a wake-up call for environmental education?  DOUG KNAPP	391
	Selective traditions within environmental education KLAS SANDELL, JOHAN ÖHMAN AND LEIF ÖSTMAN	409
4	Conference Reflection: reflections on the '3rd World Environmental Education Congress: Educational pathways towards sustainability', Italy, 2005  HEILA LOTZ-SISITKA	421
4	1 The Ahmedabad Declaration 2007: a call to action: education for life: life through education  UNESCO EXECUTIVE BOARD, HUNDRED AND SEVENTY-SEVENTH SESSION	427
42	Three decades of international guidelines for environment-related education: a critical hermeneutic of the United Nations discourse LUCIE SAUVÉ, TOM BERRYMAN AND RENÉE BRUNELLE	430
43	Bonn Declaration UNESCO	452
44	Guidelines at a glance NORTH AMERICAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION (NAAEE)	459
45	Summary of the Excellence in Environmental Education: Guidelines for Learning (K-12)  NORTH AMERICAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION (NAAEE)	461
46	Summary of the Environmental Education Materials: Guidelines for Excellence  NORTH AMERICAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION (NAAEE)	463
47	Tbilisi Communiqué: educate today for a sustainable future GOVERNMENT OF GEORGIA	465
	Future scenarios and environmental education HELEN KOPNINA	472

# VOLUME II CHANGING PATTERNS IN THOUGHT AND PRACTICE

	Acknowledgements	ix
PAR Dev	T 3 reloping and changing patterns for Environmental Education	1
49	New horizons for environmental education WILHELMINA HILL AND ROY C. WHITE	3
50	Environmentalism and education: a context for 'conservation' I. G. SIMMONS AND C. M. SIMMONS	10
51	From the Editor's eyrie: whither EE? THE EDITOR	19
52	Editorial MATTHEW BRENNAN	21
53	Logs, universities, and the environmental education compromise RODERICK NASH	23
54	Stockholm to Tbilisi: the evolution of environmental education PETER J. FENSHAM	33
55	Conceptual development and environmental education ROBERT E. ROTH	46
56	Where are we and what time is it?  MATTHEW J. BRENNAN	54
57	Identification of key characteristics of environmental education E. P. HART	57
58	Yes, EE does have definition and structure HAROLD R. HUNGERFORD, R. BEN PEYTON AND RICHARD J. WILKE	66
59	Environmental education  JOHN HUCKLE	69
60	Reflections on environmental education: past development and future concepts	83

61	What research says: environmental education's definitional problem  JOHN F. DISINGER	89
62	Ways of thinking environmentally (and some brief comments on their implications for acting educationally) WARWICK FOX	99
63	The concept of environmental education and the development of environmental education in South Africa  PAT IRWIN	107
64	Environmental literacy  JOHN DISINGER	116
65	The renaissance of the naturalist MIKE WEILBACHER	121
66	The action competence approach in environmental education BJARNE BRUUN JENSEN AND KARSTEN SCHNACK	127
67	Ecological education: extending the definition of environmental education  GREGORY A. SMITH AND DILAFRUZ R. WILLIAMS	145
68	Expanding environmental education: thinking critically, thinking culturally  DARIN SAUL	160
69	Education, environment and sustainability: what are the issues, where to intervene, what must be done?  TIMOTHY W. LUKE	167
70	A letter from the future: UNESCO and the Decade of Education for Sustainable Development  JOHN FIEN	186
71	A framework for environmental education strategies  MARTHA C. MONROE, ELAINE ANDREWS AND KELLY BIEDENWEG	196
72	Environmental education, resilience, and learning: reflection and moving forward  MARIANNE E. KRASNY, CECILIA LUNDHOLM AND RYAN PLUMMER	213
73	Learning our way to sustainability ARJEN E. J. WALS	222

	PART 4 Environmental Education and Sustainable Development	
74	Environmental education for sustainable development?  JOHN F. DISINGER	235
75	Education for sustainability: assessing pathways to the future JOHN HUCKLE	243
76	Education and sustainability: an approach DAVID W. ORR	264
77	Conceptual analysis in environmental education: why I want my children to be educated for sustainable development  JUDY VAN ROSSEN	272
78	Environmental education for sustainability: defining the new focus of environmental education in the 1990s  DANIELLA TILBURY	281
79	Environmental education and sustainable development: a further appraisal LUCIE SAUVÉ	302
80	Environmental education: the beginning of the end or the end of the beginning?  JOHN SMYTH	325
81	Challenges in educating for ecologically sustainable communities C. A. BOWERS	329
82	Education for sustainability as a frame of mind MICHAEL BONNETT	339
83	Education for sustainability T. O'RIORDAN	353
84	EE ≠ ESD: defusing the worry ROSALYN MCKEOWN AND CHARLES HOPKINS	360
85	Tensions and transitions in policy discourse: recontextualizing a decontextualized EE/ESD debate ROBERT B. STEVENSON	374
86	Learning for a change: exploring the relationship between education and sustainable development  PAUL VARE AND WILLIAM SCOTT	390

98	Narrative and nature: unsustainable fictions in environmental education  NOEL GOUGH	102
99	Common values and value conflicts in environmental education MATTHIAS DÖBLER	116
100	Making multicultural environmental education a reality DORCETA E. TAYLOR	127
101	Deschooling environmental education ANTHONY WESTON	134
102	Social change and environmental education PETER POSCH	143
103	Gesturing toward an intercultural conversation in environmental education  PAT O'RILEY	155
104	Complexity in environmental education EDGAR GONZÁLEZ-GAUDIANO	159
105	Weak and strong conceptions of environmental literacy: implications for environmental education ANDREW STABLES AND KEITH BISHOP	175
106	Queering environmental education  CONSTANCE L. RUSSELL, TEMA SARICK AND  JACQUELINE KENNELLY	185
107	Taking the future seriously: on the inadequacies of the framework of liberalism for environmental education DIRK WILLEM POSTMA	197
108	On learners and learning in environmental education: missing theories, ignored communities JUSTIN DILLON	213
109	Embodiment, social praxis and environmental education: some thoughts LESLEY LE GRANGE	227
110	Expanding the field: revisiting environmental education principles through multidisciplinary frameworks	242

111	Towards ecopedagogy: weaving a broad-based pedagogy of liberation for animals, nature, and the oppressed people	
	of the Earth RICHARD KAHN	255
112	Three "big ideas" and environmental education SEAN BLENKINSOP AND KIERAN EGAN	280
113	Reanimating the universe: environmental education and philosophical animism  HEESOON BAI	291
114	'Getting and spending, we lay waste our powers': environmental education and the culture of the school MICHAEL BONNETT	313
PAR Exp	erience from and through Environmental Education	319
115	What is environmental education? GEORGE E. ARNSTEIN	321
116	A critique of behavior objectives methodology in environmental education THOMAS B. COLWELL, JR.	327
117	The need for education, not indoctrination  DON KAUCHAK, FLO KRALL AND KIM HEIMSATH	333
118	Significant life experiences: a new research area in environmental education  THOMAS TANNER	339
119	A sense of earth wisdom WILLIAM DEVALL	350
120	Founders in environmental education  A. GREENALL GOUGH	354
	Extracts from Children as Catalysts of Environmental Change: Final Report  DAVID UZZELL	360
122	Learning to govern oneself: environmental education pedagogy and the formation of an environmental subject	373

123	'Not greenies' at school: investigating the discourses of environmental activism in regional Australia HILARY WHITEHOUSE	382
124	Traversing the gap: concientización, educative-activism in environmental adult education  DARLENE CLOVER	394
125	Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?  ANJA KOLLMUSS AND JULIAN AGYEMAN	405
126	Participation and the ecology of environmental awareness and action LOUISE CHAWLA	431
127	The new environmental paradigm scale: from marginality to worldwide use RILEY E. DUNLAP	445
128	Understanding behavior to understand behavior change: a literature review  JOE E. HEIMLICH AND NICOLE M. ARDOIN	467
129	"My father was told to talk to the environment first before anything else": Arctic environmental education in the language of the land  DEREK RASMUSSEN AND TOMMY AKULUKJUK	496
130	Making 'place' for ecological sustainability in early childhood education IRIS DUHN	514
vo	LUME IV QUESTIONS AND INQUIRIES ABOUT TRADITIONS AND HORIZONS	X 221
	Acknowledgements	ix
PAR Res	earching, assessing and evaluating Environmental Education	1
131	Orientation of research in the field of environmental education VICTOR KOLYBINE	3

132	What research says to the educator: Part one: environmental education and the affective domain LOUIS A. IOZZI	7
133	Social critique or social control: some problems for evaluation in environmental education  IAN ROBOTTOM	21
134	Starting points: questions of quality in environmental education PAUL HART, BOB JICKLING AND RICHARD KOOL	32
135	Educational interventions that improve environmental behaviors: a meta-analysis LYNNETTE C. ZELEZNY	51
136	Extract from A critical analysis of research in environmental education  PAUL HART AND KATHLEEN NOLAN	69
137	Learners and learning in EE: a review of recent research evidence MARK RICKINSON	81
138	Evaluating environmental education: the meaning of standardisation and the language of instrumentalism  A. E. J. WALS	89
139	Extract from Doing research in environmental education: touchstone theory and shaking things up  KIM WALKER	94
140	Environmental education evaluation: reinterpreting education as a strategy for meeting mission  JOE E. HEIMLICH	99
141	Identifying needs in environmental education research ALAN REID AND WILLIAM SCOTT	114
142	Tentative directions for environmental education research in uncertain times  ARJEN E. J. WALS, ROBERT B. STEVENSON,  MICHAEL BRODY AND JUSTIN DILLON	135
	T 8 riculum and pedagogy in Environmental Education – ral, critical and place-based considerations	147
143	Toward a curriculum in environmental education DOUGLAS C. COVERT	149

159	The contact zone: whose nature? whose sustainability?  R. SOETAERT AND A. MOTTART	279
160	The best of both worlds: a critical pedagogy of place DAVID A. GRUENEWALD	285
161	What if teaching went wild? ANTHONY WESTON	307
162	Moral values and the arts in environmental education: towards an ethics of aesthetic appreciation DAVID CARR	323
163	Leave no child inside: the growing movement to reconnect children and nature, and to battle "nature deficit disorder" RICHARD LOUV	343
164	Free-choice learning and the environment  JOE. E. HEIMLICH AND JOHN H. FALK	352
165	Educating for "collaborative intelligence": revitalizing the cultural and ecological commons in Detroit REBECCA A. MARTUSEWICZ	366
166	Justifying compulsory environmental education in liberal democracies  ANDERS SCHINKEL	385
167	The place of the city in environmental education  MILTON MCCLAREN	407
168	Look, don't touch: the problem with environmental education DAVID SOBEL	415
	Index	427