

Pathways Toward Planetary Health

*Half-Earth, Ecological Civilization,
Regenerative Economics, and Pervasive Altruism*

SYMPOSIUM, APRIL 17-19, 2018





On April 17-19, 2018, the Garrison Institute convened a symposium—**Pathways Towards Planetary Health: Half-Earth, Ecological Civilization, Regenerative Economics, and Pervasive Altruism**—to explore the intersection of these four emerging ideas, and to find their convergence and the indications of the pathway forward towards planetary health.

The symposium underlined the need for an ethical framework that views planetary health through the lens of four integrated, mutually-supportive components: Half-Earth, Ecological Civilization, a regenerative economic system to promote and realize their development, and an altruistic world view as the generative field which makes possible their development.

Vincent Stanley of Patagonia discussed how companies can become part of the regenerative economy.





Top row: Chris Heltne of the Half-Earth Project talks about the planet's biodiversity crisis. Dr. Monica Sharma, formerly of the United Nations Development Programme, describes how a system's underlying values determine its outcome. Symposium participants Miguel Angel Escobar and Demo Rinpoche. Bottom Row: Roger Platt, Alan Gengschatz, and Dr. Kit Batten listen to a presentation. Melissa Nelson of San Francisco State University describes the human capacity to align with nature.

The symposium built upon the Garrison Institute's [Climate, Mind and Behavior Project](#), which explored the nature of the mind and the patterns of behaviors the mind gives rise to, to enhance our capacity to generate climate-change solutions.

The world is being reshaped by sweeping, human-caused mega-trends: climate change, massive extinction-level biodiversity loss, desertification, population growth, urbanization, and income inequality. All are a result of our contemporary, globally predominant way of organizing civilization and the values inherent in our current economic system. The consequence is declining planetary health. All these trends are projected to worsen as the century progresses. If humans and nature are to recover and live in a state of pervasive well-being, we need to evolve our forms of civilization and our economic system, and do so with speed and scale.

Fortunately, the solutions to these issues are becoming clear.

Values Drive Systems

Monica Sharma described systems, and how values embedded in a system determine its outcome. The importance of values was reiterated by each successive speaker, with many referring to Donella Meadows' Iceberg Model.

Half-Earth

The conference's thinking on biodiversity was inspired by the work of renowned biologist, researcher, and author, E. O. Wilson, who has proposed that the only way to forestall the sixth great extinction event is to set aside half of the earth as a protected, natural ecology. He projects that we will be able to maintain a viable level of ecological health if we preserve the interconnected zones and ecotones that generate the richest biodiversity. It is essential that any framework for civilization be grounded in protecting half the earth—or more—for planetary health.

Michelle Moore introduced the concept of Planetary Health to the symposium. Chris Heltne and Tom Lovejoy spoke eloquently about biodiversity and the need for biodiversity preservation. Melissa Nelson described the indigenous world view of the harmony of humans and nature, reflected in their origin stories and rituals, affirming the human capacity to develop cultures in alignment with nature.



Conservation biologist Thomas Lovejoy's presentation focused on the critical need to preserve biodiversity in the face of increasing extinctions. A senior fellow at the United Nations Foundation, he drew a values analogy between destroying ecological systems and destroying a library that serves as a vast storehouse of human knowledge: "The only time libraries are questioned by society is when they are the kind of society we don't even think qualifies as civilized. So is there a way to get people thinking about the library of life and giving it the same amount of attention and care? It really is a question of values."

Dr. Tom Lovejoy during a recent research trip to Peru





Ecological Civilization

While we need to protect half the earth to restore the health of our planet, we also need to evolve our complex, contemporary civilization into one that limits its adverse ecological impact, satisfies and deepens our connection to nature, and meets the needs of human beings as a species. There are many projects thinking through the concept of an ecological civilization, but the most comprehensive is a contemporary Chinese framework for the future of human civilization that co-evolves in alignment with the natural ecology towards planetary health and harmony, which draws from China's Daoist, Confucian, and Buddhist traditions.

Ivan Tse and Zack Walsh provided an overview of Ecological Civilization. Alan Organschi and Scott Francisco described projects that integrate natural lands preservation, sustainable timber production, and healthy urban systems.

Regenerative Organic Agriculture and Forestry

To help restore the health of nature and meet our own needs for sustenance, we need to enrich our soil, draw down carbon in the atmosphere, and safeguard our freshwater supplies by accelerating the growth of regenerative organic practices in farming and forestry. Ludwig Cramer Klett and Martin Ping both advocated for the importance of sustainable farming and food systems.



The Timber City research initiative of Gray Organschi Architecture in New Haven is exploring the large-scale use of wood as a building material, as a way of avoiding the high environmental costs of concrete, copper, steel and other construction staples. The new pavilion at Stamford's Mill River Park is an example. Timber has great potential in a regenerative economy.

Well-Tempered Cities

In describing urban spaces that successfully integrate human and larger natural systems, Jonathan F. P. Rose posed the concept of the Well-Tempered City. As the world rapidly urbanizes, cities must better integrate human needs with what natural systems provide—even, perhaps especially, in densely populated regions. Successful cities also equalize the landscape of opportunity for all, providing a pathway towards increased economic and social equality.

Adam Frank framed our human future within a planetary context by looking at an astro-biological perspective of sustainability.



Garrison Institute Board member and Conference Co-Organizer [Dr. Dan Siegel](#)



Garrison Institute Board Member [Monica Winsor](#) and Ivan Tse, founder of [The Global Friends](#)



[Jonathan F. P. Rose](#), Garrison Institute Board Member and Co-Founder, Conference Co-Organizer

Drawdown

We also now know of the top 100 strategies to mitigate climate change, grow ecologically enhancing jobs, and stabilize the economy. These have been outlined in [Project Drawdown](#) by Garrison Institute Board member [Paul Hawken](#) and provide a pathway towards planetary health.



Regenerative Economics

The world's current predominant economic system rewards the maximization of the firm, the individual, or the state, rather than the health of the whole. This has led to a vast increase in wealth but also the degeneration of the earth's biodiversity and a dramatic increase in inequality.

If we are to recover socially and ecologically we need an economic system that rewards regeneration and dis-incentivizes destructive behaviors. Regenerative economics applies nature's laws and patterns of systemic health, self-organization, and self-renewal to socio-economic systems, promoting equitable development and shared well-being while enhancing the capacity of ecosystems to thrive.

John Fullerton presented the core concepts of Regenerative Capitalism. Nili Gilbert discussed the current state of impact investing, a transitional step towards allocating capital to social and ecological good. Vincent Stanley and Ron Gonen spoke about the efficacy of current business practices that could become regenerative. Dr. Kit Batten discussed the capacity of businesses to help solve social and environmental problems.

Pervasive Altruism

Economist Eric Beinhocker notes that waves of social change are caused by either changes in technology or morality. Each of the aforementioned areas of thought has seen an astounding acceleration of technologies that could exacerbate or help relieve their causes.

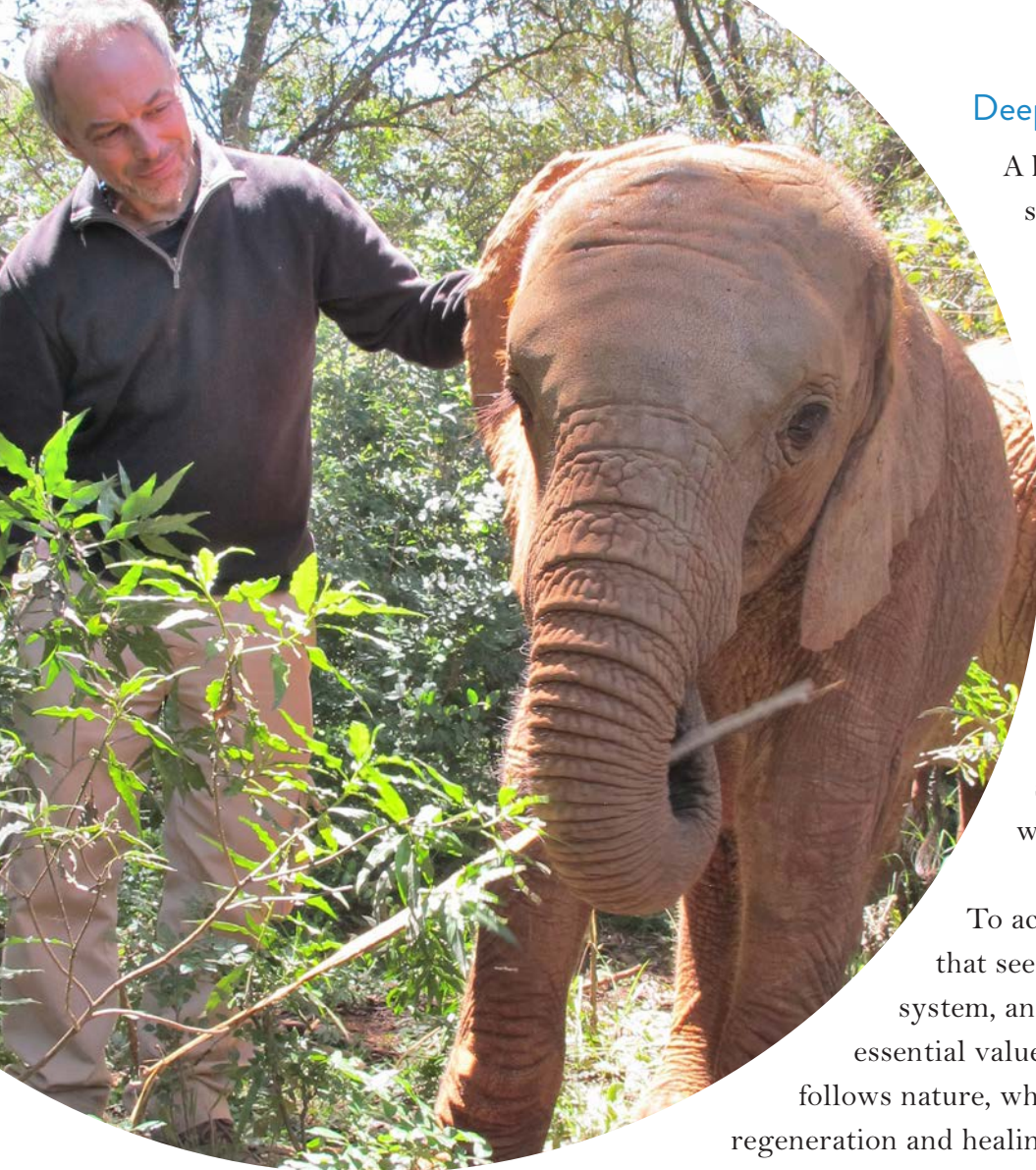
The pathways towards planetary health will only spread at the speed required to meet the ecological and social challenges of our time if they are grounded in an integrative morality. Morality is not just an abstract philosophy or religious concept; it is based in the evolutionary benefits of altruism. While altruism has been localized in the past to family, tribe, or community, we must now expand the bounds of our altruism to life itself.

Mary Evelyn Tucker, Leslie Parker, Elizabeth Allison, and Dr. Bill Vendley all presented a range of approaches to aspects of pervasive altruism. toward regeneration and healing.



Mary Evelyn Tucker of Yale University discusses altruism as an underlying value.





Deep Equanimity

A key pathway to a more altruistic society is found in the concept of equanimity, which lies deeply within many religious and ethical traditions. Equanimity calls on us to nurture a state of mind that sees all species and all peoples as equal participants in an ecological whole, each with an equal right to thrive. This leads to social and economic systems that favor the evolutionary value of optimizing the whole rather than maximizing the individual. It shifts the idea of survival of the fittest toward those who best fit together.

To achieve this, we need a world view that sees all of life as an inseparable system, and every species and person in it of essential value to the health of the whole. This follows nature, which, when disturbed, moves toward regeneration and healing.

Dr. Carl Safina of [The Safina Center](#) at Stony Brook University examined how animals think and feel, calling into question what makes us human.

Carl Safina gave a passionate presentation on the consciousness of all species, not just large mammals; Geshe Nege provided a meditation to equalize self and others; and Daniel Goleman described

the well-being benefits of compassion meditation. Dr. Dan Siegel introduced the Wheel of Awareness as a non-sectarian method of expanding one's consciousness to more easily see the wholeness of systems.

Politics, Communications, and Networks

On the symposium's final morning, George Frampton and Sarah Hunt led a discussion on the politics of a first step—a carbon tax. David Fenton, Andrew Revkin, Vincent Stanley, Jack Spengler, and Martin Ping shared insights on communications and various distribution networks needed to disseminate and implement the ideas explored during the symposium. Paul Lussier and Fred Rich then discussed the interconnected networks of reciprocity needed to share best practices and lessons learned.

These pathways are reflected in the [Sustainable Development Goals of the United Nations Development Programme](#), which provide a pathway to the just achievement of an ecological civilization.



Top Row: Sarah Hunt and Jack Spengler were among a group of speakers who closed the symposium with a discussion of politics and communications. Melissa Nelson and Lauren Zullo, back row, and John Fullerton, Nili Gilbert, and Elizabeth Allison listen closely to a presentation. Bottom Row: Tara Bennett-Goleman with two of the symposium's presenters, her husband, Daniel Goleman, who spoke about altruism, and Andrew Revkin, who discussed how to better communicate across cultural differences.

The Garrison Institute

The Garrison Institute will bring together various networks as a hub for continued exploration of the vision of planetary health discussed during the symposium. By drawing on our network of teachers, scientists, thinkers, and speakers, and using our core skills—convening, collaborating, storytelling—we will support the growth of the planetary health field. The Institute will be the leading contributor to the idea of Pervasive Altruism as we work to ensure our planet nourishes and sustains the diversity of life with which we co-exist and on which we depend.



Steering Committee



Jonathan F. P. Rose focuses his business, public policy and not-for-profit work on creating a more environmentally, socially, and economically responsible world. In 1989, Mr. Rose founded Jonathan Rose Companies LLC, a multi-disciplinary real estate development, planning, consulting and investment firm. The firm has completed \$2.3 billion of transformational work, in close collaboration with cities and not-for-profits. Mr. Rose is a thought leader in a wide range of urban issues, and the development of communities of opportunity. He has received the M.I.T.'s Visionary Leadership Award, The Urban Land Institutes's global award for Excellence, and many other awards for his work.

Mr. Rose's book on how to create resilient cities, *The Well-Tempered City: What Modern Science, Ancient Civilizations and Human Behavior Teach Us About the Future of Urban Life*, was published by Harper Wave in 2016, and won the 2017 PROSE Award for Outstanding Scholarly Work by a Trade Publisher.

Mr. Rose is a Trustee of Enterprise Community Partners and the Brooklyn Academy of Music. He is an Honorary Member of the American Institute of Architects and Honorary Trustee of the American Museum of Natural History and Jazz at Lincoln Center. Mr. Rose plays bass and blues harp.

Mr. Rose and his wife Diana Calthorpe Rose are the co-founders of the Garrison Institute and serve on its Board. The Institute is committed to harnessing the power of contemplative wisdom and practice—from many different traditions, and in many contemporary contexts—to build a more compassionate and resilient future for all.

Mr. Rose graduated from Yale University in 1974 with a B.A. in Psychology and Philosophy, and received a Masters in Regional Planning from the University of Pennsylvania in 1980. He spoke on the following topics during the Symposium. Mr. Rose, who focused on the themes of *The Well-Tempered City*, argued that great civilizations have a vision and a mission, and that the need now is to align those with environmental solutions and social solutions that will be regenerative over the long term.

John Fullerton is the Founder and President of Capital Institute, “a collaborative working to explore and effect the economic transition to a more just, regenerative, and thus sustainable way of living on this earth through the transformation of finance.” Through the work of Capital Institute, regular public speaking engagements, and university lectures, John has become a recognized thought leader in the New Economy space generally, and the financial system transformation challenge in particular.



John is also a recognized impact investment practitioner as the Principal of Level 3 Capital Advisors, LLC. Level 3's direct investments are primarily focused on sustainable, regenerative land use, food, and water issues. Through both Capital Institute and Level 3, John brings a unique theory and practice approach to financial system transformation.

Previously, John was a Managing Director of JPMorgan where he worked for over 18 years. At JPMorgan, John managed various capital markets and derivatives business around the globe, then shifted focus to private investments and was subsequently the Chief Investment Officer of LabMorgan through the merger with Chase Manhattan before retiring from the bank in 2001.

John was a member of the Long Term Capital Oversight Committee that managed the \$3.6 Billion rescue of the distressed hedge fund in 1998. He is a Co-Founder and Director of Grasslands, LLC, a holistic ranch management company in partnership with the Savory Institute, and a Director of New Day Farms, Inc., New Economy Coalition, and Savory Institute. He is also an Advisor to Armonia, LLC, a Belgian family office focused on impact investments, RSF Social Finance, and to Richard Branson's Business Leader's initiative ("B Team"). In spring 2014, John was humbled to receive a nomination to the Club of Rome; he is now a full member. He spoke on the following topics during the Symposium. Mr. Fullerton's presentation at the symposium focused on the need to transition from an economic system that exploits people and natural resources, and is ultimately unsustainable, to one that regenerates and nourishes itself.

Ludwig Cramer-Klett is a founder and active investor in a number of different businesses and non-for-profit projects. His Berlin-based company Contemporary Food Lab has created some of the cities most celebrated restaurants, Katz Orange and Panama. These restaurants founded the CFL Academy, offering free education on food and culture. Ludwig runs the multidisciplinary publication CFL journal and has acted as initiator, contributor, and advisor to multiple events and initiatives on the subject of food culture and systems, such as Little Wood Conference, Stadt-Land-Food, World Food Institute, and the Nordic Food Symposium.



Through his investment company, NRThinking, Ludwig has co-founded and invested in numerous startups and later stage companies in sectors such as, technology, food, agriculture, real estate, energy, medical care, and Blockchain.

Ludwig completed his undergraduate and postgraduate studies in economics, psychology, and financial science at the universities of Greenwich, London, and St. Gallen, Switzerland. He is currently studying Religious Studies and Anthropology at the postgraduate school of Humboldt University, Berlin. He spoke on the following topics during the Symposium. At the symposium, Mr. Cramer-Klett explained the role played by sustainable agriculture and food distribution networks in a regenerative economic system.



Ivan Tse is the founder of The Global Friends, a consortium of leading philanthropists committed to tackling the urgent challenges of our time. The organization's Climate Action Pledge (CAP) was introduced during Climate Week in New York City in October 2017. Launching in 2018, the CAP aims to double, within one year, the philanthropic sector's funding to address global warming.

Tse also serves as President of Hong Kong's TSE Foundation, a charitable organization started by his late grandfather. The Foundation advocates a robust public discourse about our collective values and goals, our social and political

infrastructure, and our legacy to future generations. Over the past twenty-five years TSE Foundation has funded a broad range of initiatives including those pertaining to education, the environment and climate change, the elderly, and the modernization of China.

Tse has been active in philanthropy for over fifteen years and has served on the boards of foundations in both China and the United States. He holds a B.A. from Boston College and M.A. from London's Architectural Association School of Architecture. He spoke on the following topics during the Symposium. Mr. Tse's presentation at the symposium focused on ecological civilization and the need to reimagine places and systems so that they embrace nature rather than exclude it, and so they are nurturing and life-affirming rather than exploitative.



Dr. Dan Siegel is a clinical professor of psychiatry at the UCLA School of Medicine and the founding co-director of the Mindful Awareness Research Center at UCLA. He is also the Executive Director of the Mindsight Institute which focuses on the development of mindsight, which teaches insight, empathy, and integration in individuals, families, and communities.

Dr. Siegel has published extensively for both professional and lay audiences. His four *New York Times* bestsellers are: *Mind: A Journey to the Heart of Being Human*, *Brainstorm: The Power and Purpose of the Teenage Brain*, and two books with Tina Payne Bryson, Ph.D: *The Whole-Brain Child* and *No-Drama Discipline*. His other books include: *The Developing Mind* (2nd Ed.), *Mindsight*, *The Mindful Brain*, *The Mindful Therapist*, *The Yes Brain* (also with Tina Payne Bryson, Ph.D), and his upcoming book *Aware* (2018). Dr. Siegel also serves as the Founding Editor for the *Norton Professional Series on Interpersonal Neurobiology*, which contains over sixty textbooks.

Vincent Stanley, co-author with Yvon Chouinard of *The Responsible Company*, has been with Patagonia on and off since its beginning in 1973, for many of those years in key executive roles as head of sales or marketing. More informally, he is Patagonia's long-time chief storyteller. Vincent helped develop the *Footprint Chronicles*, the company's interactive website that outlines the social and environmental impact of its products; the Common Threads Partnership; and Patagonia Books. He currently serves as the company's Director of Philosophy, and is a visiting fellow at the Yale School of Management. He is also a poet whose work has appeared in *Best American Poetry*. He and his wife, the writer Nora Gallagher, live in Santa Barbara. He spoke on the following topics during the Symposium. At the symposium, Mr. Stanley discussed how Patagonia embraced organic agriculture and progressive labor practices, in partnership with its suppliers, to become more sustainable.



Special Thanks

Dawn Mottram served as the Program Manager for the Symposium. She is the Chief of Staff at Jonathan Rose Companies, responsible for providing support to Mr. Rose in all aspects of the company's work, assisting in achieving their mission to develop communities that enhance opportunity for all. Ms. Mottram maintains a high level overview of all lines of business and projects, supporting the work of the organization through effective communication, liaison and expertise in the development of affordable housing and sustainable communities.

Prior to joining Jonathan Rose Companies, Ms. Mottram worked at a senior level for Southern Housing Group, a non-profit housing organization in the UK. There she directed a large and complex development program, focusing on the delivery of affordable, energy efficient, sustainable housing which transformed communities.

Ms. Mottram holds a Master of Arts degree in Sociology from the University of Glasgow.

Tom Andersen is the author of this report. He is the communications director for the Connecticut Audubon Society, where among other things he co-edits the organization's annual Connecticut State of the Birds report, is responsible for statewide news media strategy, and oversees online fundraising.

He is the author of *This Fine Piece of Water: An Environmental History of Long Island Sound* (Yale University Press). A Pound Ridge, N.Y., resident he co-curated (with his wife, Gina Federico) the Pound Ridge Historical Society's recent exhibition, "Modern in Pound Ridge: 20th Century Architecture + Lifestyle."

Tom spent almost two decades as a newspaper reporter in the New York suburbs, covering the environment, politics, and other issues. He established and raised the funding for Save the Sound's Westchester County office and worked for a decade for Westchester Land Trust, a period in which the amount of land it preserved increased ten fold.

Speaker Biographies

Elizabeth Allison is an associate professor of ecology and religion at the California Institute of Integral Studies in San Francisco, where she founded and chairs the graduate program in Ecology, Spirituality, and Religion. Her research and teaching explore the intersections of religion, ethics, and environmental practice, with attention to biodiversity, waste, ecological place, and climate change. She is co-editor of *After the Death of Nature: Carolyn Merchant and the Future of Human-Nature Relations* (Routledge, 2018, with Kenneth Worthy and Whitney Bauman), and is at work on a book titled *The Topography of Karma: Religion, Environment, and Development in Modernizing Bhutan*. Her articles appear in journals such as *WIREs Climate Change*; *Mountain Research and Development*; *the Journal for the Study of Religion, Nature, and Culture*; and in edited volumes. A former Fulbright scholar, she holds degrees in environmental management from the University of California, Berkeley and Yale University, and in religion from Yale University and Williams College.



Dr. Kit Batten is a recognized expert in climate change policy with fifteen years of sustainability leadership. As part of the Corporate Sustainability team at Pacific Gas and Electric Company (PG&E), Dr. Kit Batten leads a company-wide initiative to increase the climate resilience of PG&E's operations and infrastructure, as well as the resilience of the communities PG&E serves.

Prior to her role at PG&E, Dr. Batten served as Executive Director at the University of California, Davis Policy Institute for Energy, Environment, and the Economy, where she leveraged the university's expertise to inform California's energy, climate, and transportation policies bringing together scientific researchers and policy-makers. Dr. Batten also served as the Global Climate Change Coordinator at the U.S. Agency for International Development (USAID), where she led the agency's efforts to implement climate-resilient, low-carbon sustainable development programs in more than 40 countries.

Dr. Batten has also served as senior science and policy fellow and program director at the H. John Heinz III center for Science, Economics and the Environment; as science advisor to the Deputy Secretary of the U.S. Department of the Interior; and as senior fellow/managing director for energy and environmental policy at the Center for American Progress. She has also held positions in the offices of Senator Dianne Feinstein and Senator Joe Lieberman. Dr. Batten earned a bachelor's degree in chemistry from Oberlin College and master's and doctoral degrees in ecology from U.C. Davis.

David Fenton was named "one of the 100 most influential P.R. people" by *PR Week* and "the Robin Hood of public relations" by *The National Journal*. He founded Fenton in 1982 to create communications campaigns for the environment, public health, and human rights. Over four decades he has pioneered the use of PR, social media and advertising techniques for social change. Fenton has 60 employees in four offices – New York, Washington, Los Angeles, and San Francisco. Some of Fenton's best-known campaigns include aiding the rise of MoveOn.org, stimulating the rise in organic food sales, a decade representing Nelson

Mandela and the African National Congress, passing sanctions against apartheid, saving swordfish from extinction with a coalition of top chefs, working with Al Gore and the United Nations on climate change, public health campaigns against tobacco and endocrine-disrupting chemicals, publicizing the nation's first gay marriages, keeping hard-liquor ads off broadcast television, the founding of Business for Social Responsibility, and many others.

David and the firm have also worked with governments and international NGOs in Africa, Israel, Europe, Japan, Latin America, and the Caribbean. David is a member of the Council on Foreign Relations. David has helped incubate and launch a series of non-profit organizations, including the pro-peace, pro-Israel group, J Street, Climate Nexus, the Death Penalty Information Center, the Central America Media Project, the Southern Africa Media Project, New Economy Communications, Environmental Media Services (which later became Resource Media), and the American Freedom campaign against the abuse of executive power. He serves on the Board of New York City Energy Efficiency Corporation. Fenton started his career as a photojournalist in the late 1960s – his book *Shots: An American Photographer's Journal* was published in 2005. He was formerly Director of Public Relations at *Rolling Stone* magazine and Co-Producer of the No-Nukes concerts in 1979 at Madison Square Garden with Bruce Springsteen, Bonnie Raitt, James Taylor, Jackson Browne, and other artists. David is a native of Manhattan where he lives with his wife and two teenagers.

George T. Frampton, Jr. is a co-founder of The Partnership for Responsible Growth, a non-profit advocacy organization that is building broad-based public support for a national U.S. carbon tax. From 2009-2013 he was Senior of Counsel at Covington & Burling LLP in the firm's climate and clean energy practice; from 2001-2008 a partner at Boies, Schiller & Flexner LP. Mr. Frampton was Chairman of the White House Council on Environmental Quality (CEQ), 1998-2001; Assistant Secretary of the Interior for Fish, Wildlife and Parks, 1993-1997; and President of The Wilderness Society, 1987-1993.



At Interior, and then at CEQ, Frampton organized, and then saw to fruition and initial funding, the Clinton Administration's Everglades Restoration plan; steered the Roadless Forest Protection Rule to enactment; and served as lead federal trustee of the Exxon Valdez Oil Spill Restoration Fund. At the Wilderness Society, he organized a seminal conservation project of the "Group of Ten" major environmental organizations to build a national coalition to save ancient forests, including satellite mapping. As Assistant Secretary he helped put in place the Clinton Administration's multi-departmental Ancient Forest Protection Plan. Both the Roadless Rule and the Ancient Forest plan have remained intact and resilient.

As a partner at Rogovin, Huge & Lenzner, Washington DC, 1979-1996, he was involved in environmental litigation and served as Deputy Director and Chief of Staff during the Nuclear Regulatory Commission's investigation into the causes of the Three Mile Island nuclear accident.

Mr. Frampton served as Assistant Special Prosecutor on the Watergate Special Prosecution Force, working on the grand jury investigation and trial of President Nixon's aides; and Law Clerk to Justice Harry A. Blackmun, OT 1971. He graduated from Yale College (BA in Physics and Philosophy), the London School of Economics (M.Sc. Econ. in theoretical economics) and Harvard Law School, JD, where he was Treasurer (Managing Editor) of the *Harvard Law Review*.

Scott Francisco helps people and organizations envision new futures and re-design their culture and infrastructure for sustainable change. He works in the fields of architecture, urbanism, systems thinking, organizational and community development, ecology and sustainability. Scott holds degrees from M.I.T. and the University of Toronto, and has taught at McGill University, Stanford in New York, Parsons New School for Design, and University of Kentucky College of Architecture. He is the founder and director of Pilot Projects Design Collective and speaks and writes regularly on sustainability, architecture and participatory design. His clients include Saint Laurent Paris, The Smithsonian, US GSA, Princeton University, GSK, Hearst Media, Redeemer Presbyterian Church, charity: water, and the City of Westmount (Montreal).



Adam Frank is an astrophysicist and a leading expert on the final stages of evolution for stars like the sun. His computational research group at the University Rochester has developed advanced supercomputer tools for studying how stars form and how planets evolve. His current work also focuses on life in the Universe with an emphasis on the “Astrobiology of the Anthropocene.”

A self-described “evangelist of science,” he is committed to showing others the beauty and power of science, and exploring the proper context of science in culture. He is the author of the forthcoming book *Light of the Stars: Alien Worlds and the Fate of the Earth*. He has written two other books, *The Constant Fire: Beyond the Religion and Science Debate* and *About Time: Cosmology and Culture at the Twilight of the Big Bang*. He is the co-founder of National Public Radio’s *13.7: Cosmos and Culture* blog, a regular on-air commentator for *All Things Considered*, and an occasional contributor to the *New York Times*.

Nili Gilbert is Co-Founder and Portfolio Manager of Matarin Capital, with responsibility for hedge fund and long-only equity strategies. Matarin has been recognized as a performance leader and as a thought leader, with its research cited in such publications as *The Wall Street Journal* and *Barron’s*. Nili regularly appears on CNBC and Bloomberg television, as well. Prior to founding Matarin, she was Senior Director and Senior Research Analyst at Invesco, working in both New York City and Frankfurt, Germany, with responsibility for development of the firm’s global multi-asset models.

Nili received her BA from Harvard University, graduating magna cum laude in a Special Concentration in Economics and Social Studies, a major which she personally designed, and her MBA in Finance from Columbia Business School, where she was a Toigo Fellow. She is both a CFA and CAIA Charterholder.

Nili has been honored as a World Economic Forum Young Global Leader and by 100 Women in Hedge Funds as a Chartered Alternative Investment Analyst Scholar. She was also a proud inaugural winner of the Toigo Foundation’s \$100,000 Bridge to Business award for the founding of Matarin Capital.

Nili is a Board Member of Synergos Institute, and Chairwoman of the Board’s Finance and Investment Committees. She is also a member of the Investment Committee of the David Rockefeller Fund and of a Ford Foundation advisory group on Modernizing Financial Risk Frameworks, and sits on the Membership Committee of the Economic Club of New York. Previously Nili has served as Co-Chair of the Council on

Foreign Relations' Term Member Advisory Committee, and as a member of CFR's International Affairs Fellows Selection Committee. She has also sat on the Advisory Council of Winning Play\$, which provides financial literacy education. Nili speaks, reads, and writes both German and French with great proficiency, and enjoys mentoring, travel, and fitness.

Daniel Goleman, PhD, is a psychologist, science writer, and activist. Best-known for his books on emotional intelligence, he covered the brain and behavioral sciences for the *New York Times* for 12 years. His book *Ecological Intelligence* (Bantam, 2009) argued that radical transparency about the ecological impacts of the things we use and buy would create a market force favoring lessened harm to the planet. For the Dalai Lama's 80th birthday, he wrote *A Force for Good: The Dalai Lama's Vision for Our World*, which offers a theory of social change that urges everyone to act now, in whatever way they can, to create economic, social, and ecological improvements. With Peter Senge of M.I.T.'s Sloan School, he co-authored *The Triple Focus* (KeyStep Media, 2014), a map for schools to teach not just academic topics, but also social and emotional learning and systems thinking, so young people will go through life with the analytic tools social and ecological transformation requires; Senge and Goleman have also helped the International Baccalaureate schools develop a program in compassionate systems thinking. He co-edited *Ethics, Ecology, and Interdependence* (Wisdom Publications, Fall, 2018), an account of a meeting with the Dalai Lama, ethicists, and climate scientists tracing interconnections between daily habits, planetary meltdown, and potential solutions.

Ron Gonen is the Co-Founder and Managing Director of Closed Loop Partners, an investment platform that invests in sustainable consumer goods, recycling, and the development of the circular economy. Investors include many of the world's largest consumer goods companies and family offices interested in investments that provide strong financial returns and tangible social impact.

Prior to the Closed Loop Fund, Ron was the Deputy Commissioner of Sanitation, Recycling, and Sustainability for New York City. He joined the Bloomberg administration with the task of rebuilding NYC's recycling program, managing NYC's paper, metal, glass, plastic, textile, electronic, and organic waste, as well as public policy and legislation.

From 2004–2010, Ron was the Co-Founder and CEO of RecycleBank. During his tenure as CEO, the company grew from an idea into a company that serviced over 50 cities and over 1 million households. RecycleBank was recognized with a number of business and environmental awards including the Philadelphia Sustainability Award, The Conference of Mayors – Public/Private Partnership of the Year Award, and a Technology Pioneer award from the World Economic Forum.

Ron has been a recipient of a number of environmental and business awards including being recognized as a 'Champion of the Earth' by the United Nations Environment Program, which is the highest distinction for environmental protection given by the United Nations and recognizes outstanding visionaries and leaders in the fields of policy, science, and entrepreneurship, and the Medal of Excellence from Columbia University which recognizes alumnus under the age of 45 for excellence in scholarship, public service, and professional life.

Ron was a Henry Catto Fellow at the Aspen Institute, and a past term member of the Council on Foreign Relations. He is currently on the Board of Directors at Net Impact and serves as an advisor to Sidewalk Labs

(a Google venture focused on developing technologies for cities). Since 2010, he has personally invested in a number of early stage companies focused on merging strong financial returns and tangible social impact.

Chris Heltne is the Vice President for Engagement of the E.O. Wilson Biodiversity Foundation, and works to develop and implement engagement activities designed to spread the Half-Earth goal. Mr. Heltne is a strategic leader dedicated to making a difference in people's lives through positive partnerships and creative, integrated outreach approaches.

Mr. Heltne has more than 20 years of experience in marketing, communications, and engagement. He spent nine years with Conservation International, working with scientists, business experts, partner organizations, supporters and many others to bring CI's work to constituencies around the globe. Most recently, Mr. Heltne was Director of Marketing and Communications at Duke University Student Affairs, where he was a member of the Senior Leadership Team.

Sarah E. Hunt is a political consultant and co-founder of the Joseph Rainey Center for Public Policy. The Rainey Center is a post-partisan think tank advocating for policy for all people through inclusive governance.

Not one to shy away from challenging issues, Ms. Hunt is a conservative clean energy leader. She previously launched the clean energy and climate change programs at the American Legislative Exchange Council and the Niskanen Center, respectively. Her commentary on energy policy is sought by publications including the *Wall Street Journal*, *Politico*, *E&E Newswire*, and *Scientific American*.

She grew up home schooled in Maryland and New Mexico with her eight younger siblings. Today, Ms. Hunt volunteers her time as an advocate for the human rights of home school students. She is a founder of the Center for Home Education Policy, whose work to help young women escape abusive home school environments was profiled by the *Washington Post*.

Ms. Hunt is a graduate of the University of New Mexico, the Willamette University College of Law, Georgetown University Law Center, and the George Washington University Graduate School of Political Management. She is a member of Cultivate the Karass Campfire Cohort II and the Emerging Leaders in Environmental and Energy Policy Network, a joint project of the Atlantic Council and the Ecologic Institute.



Thomas Lovejoy is an innovative and accomplished conservation biologist who was the first to use the term “biological diversity” in 1980. He serves as Senior Fellow at the United Nations Foundation. In 2010 he was elected University Professor in the Department of Environmental Science and Policy at George Mason University. He served as President of the Heinz Center for Science, Economics, and the Environment from 2002-2008 and was the Biodiversity Chair of the Center from 2008-2013. Before assuming this position, Lovejoy was the World Bank's Chief Biodiversity Advisor and Lead Specialist for Environment for Latin America and the Caribbean as

well as Senior Advisor to the President of the United Nations Foundation. Spanning the political spectrum, Lovejoy has served on science and environmental councils under the Reagan, Bush, and Clinton administrations. At the core of these many influential positions are Lovejoy's seminal ideas, which have formed and strengthened the field of conservation biology. In the 1980s, he brought international attention to the world's tropical rainforests, and in particular, the Brazilian Amazon, where he has worked since 1965. In 1980 he produced the first projection of global extinctions for the Global 2000 Report to the President.

In 2001, Lovejoy was awarded the prestigious Tyler Prize for Environmental Achievement. In 2009 he was the winner of BBVA Foundation Frontiers of Knowledge Award in the Ecology and Conservation Biology Category. In 2009 he was appointed Conservation Fellow by *National Geographic*. In 2012 he was recognized by the Blue Planet Prize. From 2008–2013 he chaired the Scientific and Technical Panel (STAP) for the Global Environment Facility (GEF) which provides funding to developing countries to meet their obligations related to the international environmental conventions. From 2013 he has served as Senior Advisor to the Chair of STAP. He is currently serving as Science Envoy for the Department of State. Lovejoy holds B.S. and Ph.D (biology) degrees from Yale University.

Paul Lussier strategizes and develops systems-based communications platforms and networks for sustainability outcomes as a Systems Communications strategist based in New York, D.C, and London. The goal of systems communications is to generate projects, products, programs, and protocols that deliver value to people, planet, and profits viewed as one integrated, systemic whole. Paul Lussier Co. has—or is—currently working with a network of entities across the public and private sectors, including the World Bank; China Science and Environmental Ministries; Saudi Aramco; UK Climate Commission; Virgin; *Discovery Channel*; Patagonia; *National Geographic*; Cities of Washington, Dallas, and Newark; U.S. Department of Energy; United Nations Framework on Climate Change; Republic of Mozambique; Brazilian Environmental Group; as well as leading philanthropists and entrepreneurs worldwide. In addition to his Systems Communications work, Paul Lussier has two decades of experience working in science and environmental media writing, directing, and producing. He worked as a director of content and executive producer with the *Discovery Channel*, *BBC*, *Time Warner*, *CNN*, and others.

Many of these systems projects feed into Paul's teaching, as a Senior Lecturer at both Yale College and the Yale School of Forestry & Environmental Science, as well as a visiting Fellow and Researcher at the University of Exeter's Global Systems Institute. Paul is also the Director and Creator of the Yale Science Communications with Impact Network. Paul's teaching deals in transposing systems and network theory to communications frameworks between diverse stakeholders for sustainability outcomes. The projects he creates and manages for many of the organizations listed above serve as case studies for his students to work on. Of these projects, several of note include the Science to Adaptation (S2A) network with the United Nations Framework on Climate Change; a Regenerative Agriculture Communications Network with Virgin; and Sustainability Networks for the Cities of Dallas, Washington, and Newark.

He is the author of the forthcoming book, *Dominion: Building a Regenerative World*, to be published worldwide by Knopf/Doubleday, Penguin and Heinemann.

Michelle Moore is CEO of Groundswell, a nonprofit whose mission is building community power. A social entrepreneur and former White House official with roots in LaGrange, Georgia, Michelle is a relentless agent for change with a passion for connecting clean energy with economic growth. Her accomplishments range from building the global green building movement to leading the sustainability team for the Obama Administration. Since joining Groundswell in 2015, Michelle has led the organization to deploy a market-based model for community solar that shares power and savings with low income families.

Prior to joining Groundswell, Michelle served from 2009–2011 as Federal Chief Sustainability Officer at the White House. Her accomplishments included launching the GreenGov initiative, which engaged Federal agencies and the military services to improve energy use, saving up to \$11 billion in operating expenses. Michelle also worked with the President’s Jobs Council to launch the Better Buildings Challenge, which implemented \$4 billion in public and private investment in building energy efficiency—cutting energy use and creating jobs at no cost to taxpayers.

From 2011–2013, Michelle launched and led infrastructure project delivery as Senior Advisor to the White House Office of Management and Budget. Designed to cut red tape and accelerate decision-making on more than \$300 billion of job-creating infrastructure projects, this government-wide initiative encompassed regulatory reforms of Federal permitting responsibilities, implementation of collaborative project management systems, and online dashboards designed to improve sustainability, transparency, and speed.

Michelle is an honorary Senior Fellow at the Council on Competitiveness, where she organized leading business and labor organizations including the Chamber of Commerce, AFL-CIO, the National Association of Manufacturers, Brookings, and Building America’s Future as co-founder of Infrastructure Week.

Lobsang Tenzin Negi, PhD is the co-founder and Executive Director of the Center for Contemplative Science and Compassion-Based Ethics at Emory University, formerly the Emory-Tibet Partnership, a unique multi-dimensional initiative founded at Emory University in 1998. In addition, Prof. Negi is a Professor of Practice in Emory University’s Department of Religion and the founder and spiritual director of Drepung Loseling Monastery, Inc., in Atlanta, GA.

In 2007, Prof. Negi developed CBCT® (Cognitively-Based Compassion Training), a secularized contemplative program based on Tibetan Buddhist mind training practices that deliberately and systematically works to cultivate compassion. He also oversees several other programs including SEE Learning™ (Social, Emotional and Ethical Learning), a program that develops and implements curricula for kindergarten through university level education for the education of heart and mind, and the Emory-Tibet Science Initiative, a program created at the invitation of His Holiness the Dalai Lama to develop and implement a comprehensive modern science curriculum specifically for Tibetan monastics.

Prof. Negi was born in Kinnaur, a remote Himalayan region adjoining Tibet. A former monk, he began his monastic training at The Institute of Buddhist Dialectics in Dharamasala, India and continued his education at Drepung Loseling Monastery in south India, where in 1994 he received the Geshe Lharampa degree. Prof. Negi completed his Ph.D. at Emory University in 1999; his interdisciplinary dissertation centered on traditional Buddhist and contemporary Western approaches to emotions and their impact on wellness. His current research focuses on the complementarity of modern science and contemplative practice.

Melissa K. Nelson, PhD is an ecologist, writer, editor, media-maker, and native scholar-activist. She is Anishinaabe/Métis/Norwegian and an enrolled member of the Turtle Mountain Band of Chippewa Indians. Her work is dedicated to indigenous rights and revitalization, Native science and biocultural diversity, ecological ethics and sustainability, and the renewal and celebration of community health and cultural arts.

Dr. Nelson is an associate professor of American Indian Studies at San Francisco State University and president of the Cultural Conservancy, an indigenous rights organization, which she has directed since 1993. Dr. Nelson received her B.A. degree from the University of California, Santa Cruz and her PhD from the University of California, Davis, both in the field of Ecology with an emphasis in Ecophilosophy and Native American Environmental Studies, respectively.



Her first edited anthology, *Original Instructions – Indigenous Teachings For A Sustainable Future* (2008), features three of her essays and focuses on the persistence of Traditional Ecological Knowledge by contemporary native communities. She publishes regularly in academic and popular journals and books. In 2005 Dr. Nelson was the co-producer of the award-winning documentary film, *The Salt Song Trail: Bringing Creation Back Together*, and has co-produced several other documentary short films. In 2006–2007 Melissa was a Visiting Scholar at the American Indian Studies Center at the University of California, Los Angeles. In 2010–2011 she served as the Anne Ray Resident Scholar at the School for Advanced Research in Santa Fe, New Mexico. Dr. Nelson currently serves on the Steering Committee of the Facilitating Indigenous Research, Science, and Technology (FIRST) Network, the Guiding Committee of the Indigenous Ways of Knowing and Learning Fund, and the board of directors of the Occidental Arts and Ecology Center.

Dr. Nelson is a Switzer Fellow (1996) and Environmental Leadership Award recipient, and has received awards for teaching, experiential education, documentary filmmaking, and environmental stewardship.



Alan Organschi is a design principal and a partner at Gray Organschi Architecture in New Haven, Connecticut—a firm recognized internationally for its innovative conception and careful crafting of architectural projects that range from the adaptive re-use of damaged buildings and neighborhoods to the development and implementation of low-impact component assembly systems for ecologically delicate sites. In buildings for both private clients and community institutions, Gray Organschi Architecture has explored the intersection of environmental constraint, social need and available resources to produce architecture that is ecologically sensitive and culturally and physically durable.

In 2009 with his partner, Elizabeth Gray, Mr. Organschi was recognized as an Emerging Voice by the Architectural League of New York and received an American Architecture Award from the Chicago Athenaeum for the design of a net-zero energy material storage building in Washington, Connecticut. In 2012, Mr. Organschi and Ms. Gray were honored by the American Academy of Arts and Letters with an Arts and Letters Award in Architecture. Their design for a little league baseball grandstand in Staten Island received a 2014 New York City Public Design Commission Award. Mr. Organschi has served as the Louis I. Kahn Visiting

Assistant Professor of Architecture at Yale where his students, in both a research seminar and an advanced graduate design studio, explored the carbon emissions of building and the possible role of forests in dense timber construction in climate change mitigation. He served as a member of the US Tall Wood Building Prize Competition design and evaluation team and continues to serve as a jury member for Timber in the City, a series of ongoing national competitions for the design of mass timber structures in New York sponsored by the Association of Collegiate Schools of Architecture. Today, in addition to his practice and research, Mr. Organschi continues to lecture internationally on the global impacts of material extraction and resource depletion in the face of global urbanization and population growth.

Leslie Parker is founder and director of Renewable Energy International Institute (REIL), an intentionally below the horizon, international, interdisciplinary group of policymakers, finance and business leaders, engineers, academics, and activists addressing key issues in sustainability, established 2002. Prior to founding REIL, Leslie held posts in New York City government, including division director in the Finance office of the Department of Social Services, where she developed and enhanced City revenue, working closely with the Mayor's Office, and overseeing 1.2 billion dollars of the NYC budget as an Assistant Director of the Budget at the Administration for Children's Services. Leslie has a Masters in Art History from New York University Institute of Fine Arts, with a specialization in iconography, and worked for seven years at the Metropolitan Museum of Art's Department of European Sculpture and Decorative Arts. Leslie graduated from Bryn Mawr College.

Martin Ping is the Executive Director of Hawthorne Valley Association, a not-for-profit supporting cultural renewal through the integration of education, agriculture, and the arts on a 900-acre Biodynamic farm. Martin has been at Hawthorne Valley for 30 years. During much of that time, he taught practical arts in the High School and was Director of Facilities. Martin has served as Executive Director since 2003, and currently teaches economics in Grade 12. He is a founding member of Slow Money and is co-founder and storyteller for The Magical Puppet Tree. Martin is a member of U.S. Senator Gillibrand's Agricultural Advisory Group, has served on the boards of several not-for-profit organizations, and is most grateful in his role as Poppy to his two grandchildren.



Andrew Revkin is one of America's most honored and experienced journalists and authors focused on environmental and human sustainability and an innovator in using new communication tools to foster progress on a finite, fast-forward planet. In 2018, he joined the staff of the National Geographic Society as strategic advisor for environmental and science journalism. There he is helping expand the Society's funding and support system for journalism and storytelling that can advance the human journey and conserve biological diversity in a century of momentous global change and challenges.

He has written on global environmental change and risk for more than 30 years, reporting from the North Pole to the White House, the Amazon rain forest to the Vatican. From 2016 through early 2018, he was the senior reporter for climate change at the nonprofit investigative newsroom *ProPublica*. From 2010 through

2016 he wrote his award-winning Dot Earth blog for *The New York Times*' Opinion section and was the Senior Fellow for Environmental Understanding at Pace University. There, he developed and taught a graduate course called *Blogging a Better Planet* and co-created an award-winning field course on environmental filmmaking.

Revkin began reporting on climate change in the 1980s in magazines and never stopped. He has won the top awards in science journalism multiple times, along with a Guggenheim Fellowship and Investigative Reporters & Editors Award. He has written acclaimed and award-winning books on the history of humanity's relationship with weather, the changing Arctic, global warming and the assault on the Amazon rain forest, as well as three book chapters on science communication.

He is also a performing songwriter and leads a Hudson Valley roots band, Breakneck Ridge Revue. He was a longtime accompanist of Pete Seeger and released his first album of original songs in 2013. Two films have been based on his work: *Rock Star* (Warner Brothers, 2001) and *The Burning Season* (HBO, 1994).

Fred Rich is an author whose writing, both fiction and non-fiction, probes contemporary political and moral issues from a fresh perspective. That perspective is independent, non-partisan, and pragmatic.

Rich's most recent book, *Getting to Green, Saving Nature: A Bipartisan Solution* (W.W. Norton, 2016), tells the story of how the American environmental movement lost its way and explains how it can get back on track. The book contains a rousing call for conservatives to reconnect with their long tradition of support for conservation and for the Green movement to adopt the reforms necessary to restore bipartisan support for the environmental agenda. In a starred review, *Booklist* called it "clear, thorough [with] much strong analysis... This informative, fair, probing, and heartfelt book should enliven all environmental debates."

His first book, *Christian Nation* (W.W. Norton, 2013), is a work of speculative fiction that considers the political ambitions of Christian fundamentalism in America. The novel was called "brilliant" by Richard Dawkins, "well-written and persuasive" by the *Pittsburgh Post-Gazette*, "required reading" by the *New York Post*, and "riveting, provocative reading" by *Booklist*.

Rich is a passionate environmentalist who serves as head of the New York State Environmental Leaders Group, Chair of the Foundation for Landscape Studies and the Scenic Hudson Land Trust, Vice Chair of the national Land Trust Alliance and The Battery Conservancy, and director of the Hudson Highlands Land Trust. He also serves on the Advisory Board of The Hastings Center (bioethics), and the Dean's Advisory Committee of The City University of New York School of Public Health. He is the winner of the Battery Urban Farmer Award (from The Battery Conservancy, for promotion of urban agriculture, 2012), the Environmental Advocates of New York Advocates Award (for environmental advocacy in New York State, 2011), and the Frances Reese Medal (from Scenic Hudson, for service to the Hudson Valley, 2010).

Carl Safina has won a MacArthur "genius" prize; Pew and Guggenheim Fellowships; book awards from Lannan, Orion, and the National Academies; and the John Burroughs, James Beard, and George Rabb medals for his writing about the living world. He earned a PhD in ecology from Rutgers studying seabirds, then spent a decade working to ban high-seas drift nets and overhaul U.S. fishing policy. Safina is now the first Endowed Professor for Nature and Humanity at Stony Brook University and is founding president of the not-for-profit

Safina Center. He hosted the PBS series *Saving the Ocean*. His writing appears in *The New York Times*, *TIME*, *Audubon*, *Yale e360*, and on the web at *National Geographic*, *Huffington Post*, *CNN.com*, and elsewhere. He is author of the classic book, *Song for the Blue Ocean*. Carl's seventh book is *Beyond Words: What Animals Think and Feel*. He lives on Long Island, New York with his wife Patricia and their dogs and feathered friends.

Dr. Monica Sharma was trained as a physician and epidemiologist and worked for the United Nations from 1988 to 2010. As director of Leadership and Capacity Development at the United Nations and in other large-scale programs UNDP and UNICEF, she designed programs for whole systems transformation and leadership development world-wide. Currently, she is the Tata Chair Professor at the Tata Institute of Social Sciences in Mumbai, India; and as an international practitioner and expert on leadership development for equitable and sustainable change, she works with United Nations, universities, management institutions, governments, non-governmental organizations, business, media, and other organizations.

Dr. Sharma created a unique response based on extensive application—a conscious full-spectrum model—which simultaneously in time solves problems, shifts systems and norms, and creates new patterns sourced from individual inner capacity. This approach has generated equitable and sustainable results worldwide.

She is the author of the book *Radical Transformational Leadership*. Examples from different parts of the world show how we can source our inner capacities and wisdom to manifest change that embodies universal values of dignity, compassion, and fairness, and simultaneously transforms unworkable systems and norms to solve problems.

Jack Spengler is the Akira Yamaguchi Professor of Environmental Health and Human Habitation and director of the Center for Health and the Global Environment at the Harvard T.H. Chan School of Public Health. He has conducted research in the areas of personal monitoring, air pollution health effects, indoor air pollution, and a variety of environmental sustainability issues. Several of his investigations have focused on housing design and its effects on ventilation rates, building materials' selection, energy consumption, and total environmental quality in homes.

Spengler chaired the committee on Harvard Sustainability Principles; served on Harvard's Greenhouse Gases Taskforce to develop the university's carbon reduction goals and strategies; and was a member of Harvard's Greenhouse Gases Executive Committee. He has served on several National Academies' committees, including the National Research Council Committee on Green Schools: Attributes for Health and Learning (chair) and the Institute of Medicine Committee on Effect of Climate Change on Indoor Air Quality and Public Health (chair), and has been an advisor to the World Health Organization on indoor air pollution, personal exposure, and air pollution epidemiology. In 2003 Spengler received a Heinz Award for the Environment; in 2007, the Lyman A. Ripperton Environmental Educator Award from the Air & Waste Management Association; in 2008, the Max von Pettenkofer Award for distinguished contributions in indoor air science from the International Society of Indoor Air Quality & Climate's Academy of Fellows; and in 2015, the ASHRAE Environmental Health Award.

Mary Evelyn Tucker is a Senior Lecturer and Research Scholar at Yale University where she has appointments in the School of Forestry and Environmental Studies as well as the Divinity School and the Department of Religious Studies. She teaches in the joint MA program in religion and ecology, and directs the Forum on Religion and Ecology at Yale with her husband, John Grim.

Her special area of study is Asian religions. She received her PhD from Columbia University in Japanese Confucianism. Since 1997 she has been a Research Associate at the Reischauer Institute of Japanese Studies at Harvard. Her Confucian publications include: *Moral and Spiritual Cultivation in Japanese Neo-Confucianism* (SUNY, 1989) and *The Philosophy of Qi* (Columbia University Press, 2007). With Tu Weiming, she edited two volumes on *Confucian Spirituality* (Crossroad, 2003, 2004).

Her concern for the growing environmental crisis, especially in Asia, led her to organize, with John Grim, a series of ten conferences on World Religions and Ecology at the Center for the Study of World Religions at Harvard (1995-1998). Together they are series editors for the ten volumes from the conferences distributed by Harvard University Press. In this series she co-edited *Buddhism and Ecology* (Harvard, 1997), *Confucianism and Ecology* (Harvard, 1998), and *Hinduism and Ecology* (Harvard, 2000).

After the conference series, she and Grim founded the Forum on Religion and Ecology at a culminating conference at the United Nations in 1998. They now direct the Forum at Yale where they also teach religion and ecology. To help shape this new interdisciplinary field, they edited *Worldviews and Ecology* (Orbis, 1994) and a *Daedalus* volume titled *Religion and Ecology: Can the Climate Change?* (2001). Tucker also wrote *Worldly Wonder: Religions Enter Their Ecological Phase* (Open Court Press, 2003). Together they completed a new overview of the field titled *Ecology and Religion* (Island Press, 2014). Tucker, Grim, and Willis Jenkins co-edited the Routledge Handbook on *Religion and Ecology* (Routledge, 2017).

Tucker and Grim studied world religions with Thomas Berry in graduate school and worked closely with him for 30 years. They are the managing trustees of the Thomas Berry Foundation. Tucker edited several of Berry's books: *The Great Work* (Random House, 1999), *Evening Thoughts* (Sierra Club Books and University of California Press, 2006), *The Sacred Universe* (Columbia University Press, 2009), and with Grim, *The Christian Future and the Fate of Earth* (Orbis, 2009), and *Thomas Berry: Selected Writings on the Earth Community* (Orbis, 2014).

To bring Berry's work forward she has also worked closely with evolutionary philosopher, Brian Swimme, for some 25 years. Together they have created a multi-media project called *Journey of the Universe*, which includes an Emmy award-winning film, which was broadcast on *PBS* and is now available to watch on Amazon Prime. The companion book which Swimme and Tucker authored is published by Yale University Press (2011). Tucker and Grim co-edited *Living Cosmology: Christian Responses to Journey of the Universe* (Orbis Books, 2016).

Tucker and Grim have spoken and written extensively about the Papal Encyclical on the environment titled *Laudato Si'*. See especially their article *Integrating Ecology and Justice: The Papal Encyclical* in *The Quarterly Review of Biology* in September 2016.

Dr. William F. Vendley is the Secretary General of Religions for Peace International. He is a member of its World Council, which consists of 60 senior religious leaders from all continents. He coordinates the activities and projects of Religions for Peace in 90 national and five regional councils.

Religions for Peace is the world's largest and most representative multi-religious coalition advancing common action for peace by working to advance multi-religious consensus on positive aspects of peace as well as concrete actions to stop war, help eliminate extreme poverty, and protect the earth.



William assumed leadership of Religions for Peace International in 1994. He is a pioneer in advancing multi-religious cooperation to help resolve conflict and advance development, and has facilitated the establishment of multi-religious councils around the world. In the immediate aftermath of the civil war in Bosnia, he assisted the Inter-Religious Council of Bosnia-Herzegovina, which served Bosnia religious leaders in their efforts to heal their society and re-build a single, multi-ethnic Bosnia. He also facilitated the establishment of the Inter-Religious Council of Sierra Leone in the midst of a ten-year civil war, supported the successful multi-religious mediations between the rebels and the government and was requested to assist in the formal peace talks in Lome, Togo.

He has advanced multi-religious efforts to prevent conflicts, mediate among warring parties, and heal societies in the aftermath of violence in Ethiopia, Eritrea, Liberia, Indonesia, Sri Lanka, Iraq, and many other countries. He facilitated formation of the Religions for Peace Middle East North Africa Council, a regional, civil-society, multi-religious structure designed to foster concrete multi-religious solidarity and action across the region. He is convinced that multi-religious efforts for peacemaking provide unique strengths that complement those marshaled by governments and bodies like the United Nations.

William co-founded the Hope for African Children Initiative to address the needs of African children orphaned by HIV/AIDS. The Initiative resulted in an initial \$50 million being raised to help equip African communities, particularly grassroots religious congregations, to provide needed services to vulnerable children. This work formed the base for major additional grants of \$150 million to underwrite the development work by the twenty-six African inter-religious councils affiliated with Religions for Peace.

William serves on the Leadership Council of the United Nations Sustainable Development Solutions Network. He advised President Obama through his service on the Multi-Religious Cooperation and International Affairs Task Force of the White House Faith Based Council. He was appointed by US Secretary of State, Hillary Clinton, and re-appointed by Secretary Kerry, as one of ten members of the US State Department's Advisory Committee on Strategic Partnership with Civil Society and he is a Co-chair of the State Department's Religion and Foreign Policy Working Group.

Zack Walsh is a PhD Candidate at Claremont School of Theology, and a research specialist at Toward Ecological Civilization, the Institute for the Postmodern Development of China, and the Institute for Advanced Sustainability Studies in Potsdam, Germany.

Credits

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