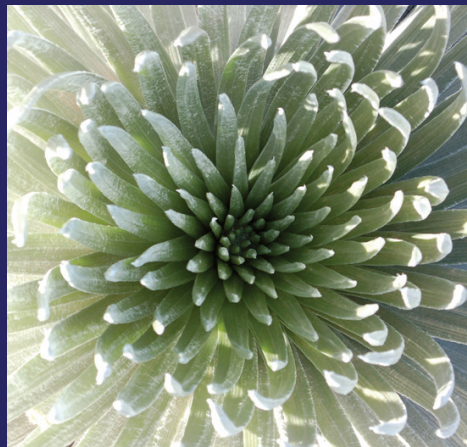# BLUEPRINT EARTH

BUILD YOUR PLANET

Earth has the greatest environmental diversity known to exist in the universe. An incredible array of systems function in harmony to create what we know as life itself. The interdependence of every organism with its environment and other organisms is the delicate thread holding the tapestry of our very existence together. We know this as scientists and observers of the planet.

As much as we know about the intrinsic connections in our world, however, there are immeasurably vast amounts of knowledge that are as yet unknown. Our knowledge is far too often sequestered and compartmentalized, and our gaze too frequently limited by the constraints of our chosen fields of investigation.

Blueprint Earth is the next step in the evolution of our collective knowledge. It is not enough to observe. It is not enough to understand. We must be explorers, adventurers, and most critically, builders.

Ecosystem Components

Geologic

Hydrologic
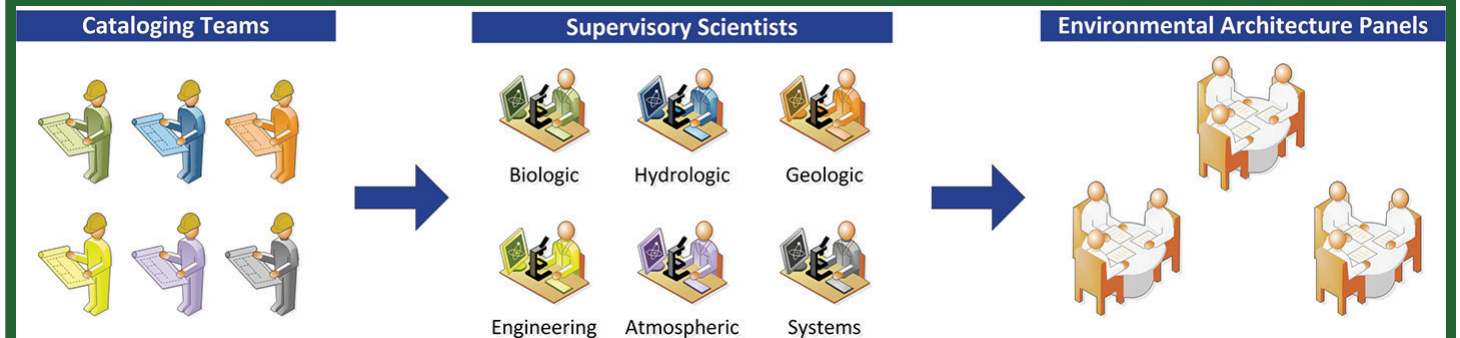
Biologic

Atmospheric

BLUEPRINT EARTH

CATALOGING MICROCOSMS OF THE EARTH'S ENVIRONMENTS TO GENERATE MACROSCOPIC KNOWLEDGE FOR FUTURE USE IN TERRA-ENGINEERING PROJECTS THROUGHOUT THE UNIVERSE

Our goal is ambitious. The first stage of the project is the deconstruction of a discrete target environment in California's Mojave Desert through observation and cataloging of every environmental component. No part of that environment is too small for our purposes. Nothing is inconsequential. Every piece matters.

The second stage of the project is equally ambitious, as it demands the synthesis of these individual components into a cohesive set of systems that ultimately fit together to create the actual working environment. The parts must combine to produce something greater than their sum.

Finally, the third stage of the project is the true test of our blueprint. Can we reproduce our target environment in a controlled setting? Can we effectively reproduce the results of billions of years of evolution? Can we truly create a blueprint for planet earth?

Organizational Structure

Cataloging Teams	Supervisory Scientists	Environmental Architecture Panels
	Biologic Hydrologic Geologic	
	Engineering Atmospheric Systems	

Cataloging Teams

The eyes and ears of the project. The cataloging teams are composed of university students in relevant scientific disciplines. Members of the public and talented high school students may also be eligible. Cataloging teams will range from 6-12 members.

Supervisory Scientists

The organ systems of the project. The supervisory scientists are desirous of a hands-on approach in the field. They will be responsible for quality control of the cataloging teams' data and will serve as team leaders. They are responsible for directing the flow of project data and ensuring data quality.

Environmental Architecture Panels

The brain of the project. The panels include senior scientists, engineers, and systems experts. They are tasked with working together across their respective disciplines to arrange the project data into a series of interconnected systems. These systems will form the heart of Blueprint Earth.

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Jess Peláez serves as President of the Board of Directors. Jess is a scientist, historian, and adventurer. Her focus is active volcanoes and natural hazards, and she has experience on projects spanning six continents. Jess has worked with the U. S. Geological Survey, Woods Hole Oceanographic Institution, California State University, Dassault Systèmes, and other Fortune 500 companies. She is a member of the American Geophysical Union, the Geological Society of America, and the Geophysical Extreme Events Reconnaissance Association. Jess holds degrees from Smith College and California State University, and believes that interdisciplinary communication is key in all fields.

Daniel Konopka serves as Vice President on the Board of Directors. Daniel is a researcher/ entrepreneur with nearly ten years specializing in the development of materials for fuel cells, batteries, and solar energy devices for projects with NASA, the U.S. Dept. of Energy, and others. Collaboration between academia and industry are at the core of his experience and professional values. Daniel holds a PhD in Chemical Engineering from the University of New Mexico and has worked as a Postdoctoral Researcher at NASA's Jet Propulsion Laboratory and the California Institute of Technology. He currently owns and directs a private research and development company located in Denver, Colorado.

Michelle Chaplin serves as Treasurer on the Board of Directors. Michelle has been heavily involved in marketing, communications and fundraising of all kinds for the past eight years. She currently manages the online fundraising initiatives for PBS. Before that, Michelle spent four years at the nonprofit BRAC USA, where she built their fundraising program and platform from the ground up. She has also served on the board of the Young Professionals for International Cooperation for Southern New York, which is part of the United Nations Association. Michelle has an MBA from the NYU Stern School of Business.

Carlos Peláez serves as Secretary of the Board of Directors. Carlos is a global business executive whose work focuses on strategy and organizational transformation. He has spent fifteen years working with over 50 of the world's largest corporations on four continents. Carlos has expertise in starting and managing organizations as both a founder and Chief Executive Officer. He speaks five languages and holds Certified Information Security Auditor (CISA) and managing Projects in a Controlled Environment (PRINCE2) certifications. He is an alumni of Deloitte & Touche LLP and KPMG. He studied Economics, Accounting, and International Relations at Claremont McKenna College.

Laura Konopka serves on the Board of Directors. Laura is an educator with seven years of experience in science education. She earned her B.A. in Biology and her teaching license from the University of Colorado. Laura taught Biology in Albuquerque Public Schools for four years. She earned her M.S. in Science Teaching from New Mexico Institute of Mining and Technology with a thesis on the use of Fluorescence Microscopy techniques in the classroom. Laura began an independent tutoring business where she has helped individual students achieve their potential in mathematics and science.

Lauren Harrell serves on the Board of Directors. Lauren is a research fellow and PhD student at the University of California - Los Angeles. Her work employs advanced biostatistical approaches aimed at developing statistical methodology that will facilitate health research. Her translational research takes knowledge generated from scientific inquiry and creates human-centered practices and solutions. She is a member of Public Health Honors Society Delta Omega, and has been awarded three fellowships in her time at UCLA. Lauren holds a B.A. in Biology with a focus in Scientific Modeling from Claremont McKenna College and an M.S. degree in Biostatistics from UCLA.

Larry Lemoine serves on the Board of Directors. Larry has over thirty years of experience in international business in the entertainment, consumer electronics, and sports industries. He has strong experience in both domestic and international corporate finance, with additional expertise in strategic planning, marketing, and management. He has served as the Controller for the Los Angeles Olympic Committee, the VP of Finance for DIRECTV, the Chief Executive Officer of Wave Entertainment, and the Chief Financial Officer of ATLX. Larry holds a degree in Finance from San Diego State University.

Cynthia 'Cindy' Harley serves on the Board of Directors. Cindy is a scientist whose research focuses on how sensory systems guide context dependent motor decisions. She examines this question at both the neural and behavioral level and believes that understanding an animal's behavior requires understanding the environment surrounding it. Cindy spends much of her time involved in scientific outreach. She is currently an elected member of the Council for the International Society of Neuroethology. She holds a PhD in Biology from Case Western Reserve University, and has worked as a Postdoctoral Associate at the California Institute of Technology as well as the University of Minnesota.

Regan 'Blythe' Towal serves on the Board of Directors. Blythe is an engineer whose research interests lie at the intersection of biology and technology. Her focus is on defining principles for how the brain processes information, which can be applied to improve computing systems. Blythe was named in Forbes magazine's 2012 "30 under 30" list for science and healthcare. Blythe holds degrees in Electrical and Biomedical Engineering from the Georgia Institute of Technology (BS) and Northwestern University (MS and PhD) She has worked at the California Institute of Technology and is currently a neuromorphic systems engineer at Qualcomm.

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