

THE NATURAL HISTORY INSTITUTE'S PROFESSOR THOMAS FLEISCHNER,
EXPLAINS WHY THE STUDY OF NATURAL HISTORY IS A NECESSARY
HUMAN PURSUIT

Natural history – here and now

Natural history – ‘a practice of intentional focused attentiveness and receptivity to the more-than-human world, guided by honesty and accuracy’ – is as old as humanity: there have never been people without natural history. Natural history field observations adorn cave walls in France and canyon walls in Arizona, and have served as the foundation for sophisticated scientific theories in museums and universities in many great cities around the world. Natural history represents the integration of the sciences, arts and humanities in a unified approach to understanding the world around us, and plays a central role in a genuine liberal arts education. In recent years, however, natural history has been marginalised; many academic institutions have removed or dramatically reduced natural history curricula and facilities, while the remaining natural history programmes have often been stripped of the arts and humanities.

Why natural history?

The world needs natural history now more than ever, because natural history makes us better, more complete human beings. It encourages our conscious, respectful relationship with the rest of the world and affirms our sense of beauty and wonder. When we engage in this practice of attentiveness, we reaffirm our commitment to nurturing hope. The process of attentiveness to the larger than human world allows us to build better human societies, ones that are less destructive and dysfunctional. Natural history helps us see the world, and thus ourselves, more accurately. It encourages and inspires better stewardship of the Earth.

We are all wired to do natural history. Human consciousness developed in natural history's forge – our patterns of attention were sharpened as we watched for danger and sought food. Practicing natural history is our natural inclination – a fundamental human capacity and birthright. Watch any child: turning over stones, crouching to look at insects crawling past, listening intently to new sounds. Indeed, as we grow older, we have to learn to *not* pay attention to our world. The advertising industry and mass consumer culture collude to encourage this shrinking and shifting of the scope of our attention. It is easy to forget what an anomalous time we now live in. But natural history attentiveness is inherent in us, and can be reawakened readily.

Natural history is the oldest continuous human tradition. Throughout human history and ‘prehistory’, attentiveness to Nature was so completely entwined with daily life and survival that it was never considered as a practice separate from life itself. Simply put, there has never been a moment in the story of human existence when natural history was practiced so little.

What are the consequences of living in this bizarrely inattentive historical moment? Why is the need for the expansive attentiveness of natural history especially dire today? The current gush of social dysfunctions – violence, depression, anxiety, alienation, lack of health in so many ways – coincides with



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the mass sacrifice of human interaction with Nature, the greatest dearth of natural history in human history. We have come to see the world as a funhouse built of human mirrors, where we see only ourselves and narcissistic distortions of ourselves.

By contrast, natural history engenders humility and open-mindedness. It humanises and grounds us by offering a larger perspective on the world. Natural history allows us – forces us – to see ourselves in proportion to the much larger fabric of the world, rather than as the beginning and end of the world's story. A resurgence of natural history – the practice of falling in love with the world – could contribute to solving not only environmental problems, but social ones as well. Natural history is an inherently positive, uplifting practice that nurtures positive relationships between people, and between people and the rest of creation.

Why the Natural History Institute?

The Natural History Institute (NHI) was founded in 2012 to create a vibrant centre of spirited engagement, a forum for considering and developing healthy relationships between people and Nature through the sciences, arts and humanities. Initially a programme of Prescott College, Arizona, US, the institute recently became an independent, non-profit organisation, and has merged with an earlier North American NGO, the Natural History Network.

The Natural History Institute cultivates and models an all-too rare integrative approach to natural history – a place where art, science, poetry and philosophy seamlessly meld in a practice of open-minded and open-hearted attentiveness to the world we live in. The institute offers the world a template for a more holistic approach to learning, and a pathway toward a more hopeful approach to meeting environmental challenges.

Institute programmes will include Confluences – intentional gatherings of people focused on solving particular problems, or achieving specific goals. For example, a recent NHI project gathered field educators from across the United States to address the importance of field studies in biology education. Many more Confluences – on a broad array of topics ranging from ecopsychology and education to providing funding for scientific studies in natural history – are in the planning stages. The institute will also continue to offer public programming, publish the peer-reviewed *Journal of Natural History Education and Experience*, and much more.

The scientific work of the institute commenced in 2014, with the significant development of collections of plants, insects and rocks of the incredibly diverse Mogollon Highlands, US, and adjacent ecoregions. NHI-affiliated scientists continue the work of delineating and describing this region.

Why the Mogollon Highlands?

Place matters. All species, like all human cultures, represent a suite of responses to the ecological particulars of specific ecological settings – specific challenges and opportunities. Natural history, by its very nature, is place-based. The Natural History Institute is grounded in a specific place – the Mogollon Highlands region – but its work can serve as a model for integrative natural history in all places.

This home territory of NHI, the Mogollon Highlands, is an ecologically fascinating and important North American transition zone of continental significance. This dramatic landscape of escarpments, canyons, mesas, deserts and high conifer forests – where the Sonoran Desert of the Basin and Range Province meets the red rock country of the Colorado Plateau and the Southern Rocky Mountains, where the northern limits of some species co-exist with the southern limits of others – is a land of high biological, ecological and cultural diversity. This area of dramatic elevational gradients, at a continental-scale



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biogeographic crossroads, is especially well suited for studies that can provide understanding of global climate change, and the capacity for species and ecological communities to adapt.

From an ecological perspective, this region is where Mexico meets Canada. Some species (for example, Ponderosa Pine) reach their southern extent here, while Mexican species (such as Alligator Juniper) reach their northern boundaries. The southern extent of the Rocky Mountains intersects the eastern portion of the Mogollon Highlands. Some Great Plains grasses reach their western extent here, while chaparral communities, most prominent along the Pacific Coast, reach their eastern extent in this region. All four of North America's deserts connect directly with the region: The Great Basin Desert to the north, the Mojave to the west, and the Sonoran and Chihuahuan to the south. The regional diversity is amplified even more due to punctuation by linear ribbons of riparian forest – one of the most biologically productive habitats in North America. These lush green corridors concentrate wildlife, and include some of the highest biodiversity sites in North America.

The tremendous ecological diversity of the Mogollon Highlands region is due to two primary factors: enormous physiographic variation, which in turn stems from great geologic diversity; and its location at a continental-scale biogeographic crossroads. Here, the mega-diversity of Mexico and Meso-America has direct access into North America.

However, compared to many parts of North America, this high biodiversity region has been studied relatively little, yet it is ideally suited for studies of adaptation to a rapidly changing Earth. Regions with significant elevational gradients, and with broad interpenetration of numerous ecological communities, represent living laboratories for how to deal with ecological and climatic change.



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