



## Remembering Biogadiator Peter Warshall, 1943–2013

Peter Warshall, a distinguished bioanthropologist, environmentalist, botanist, self-described “infrastructure freak” and “maniacal naturalist,” essayist, community servant, father, and husband died in April 2013. Admirers wrote, “If you crossed a zealous field biologist with a humanist anthropologist and an angel flew through the brew, you might get Peter Warshall” (Ausubel & Harpignies 2004). Warshall was preaching sustainability before the word was defined. He was an expert regarding topics as varied as the ecology of septic systems (he helped install the country’s first recycling sewage system in Bolinas, California), community development, the Mount Graham red squirrel and other endangered species, Sky Island ecosystems, and indigenous and local food systems. Warshall was editor of *Whole Earth Catalogue*, a teacher at the Jack Kerouac School of Disembodied Poetics at Naropa University, and a consultant for USAID, the United Nations High Commission for Refugees in Ethiopia, and the Tohono O’odham and Apache Tribes. He was a pragmatist who worked for the Global Business Network as an ecosustainability expert to international businesses, including Volvo and Clorox. Warshall was trained and experienced in natural history and resource management (especially wastewater, watersheds, and wildlife), conservation biology, biodiversity assessments, environmental impact analysis, and conflict resolution and consensus building among divergent economic and cultural groups (Hunt 2013; Kress 2013).

Warshall grew up in the Flatbush neighborhoods of Brooklyn, New York. He spoke fondly about working on Saturdays (“my great day”) at his small plot at the Brooklyn Botanical Gardens’ Children’s Garden and then collecting popsicle sticks to get tickets to watch the Brooklyn Dodgers at Ebbets Field. He studied at Harvard where he earned his bachelor’s degree in biology and a PhD in anthropology and biology. The literary and cultural critic, Fredric Jameson, was Warshall’s mentor at Harvard during the early 1960s. Jameson remarked, “Peter was probably the best student I ever had” in more

than 50 years of teaching (F. Jameson, personal communication). Jameson helped Warshall secure a Fulbright Fellowship to study cultural anthropology—specifically, American Indian history and mythology—with the pre-eminent Claude Levi-Strauss (Snider-Bryan 2013). Simultaneously, he worked with fellow polymath Francois Bourlière, an expert in gerontology and mammalogy. Warshall’s PhD dissertation was on kinship and group cohesion among rhesus macaques.

Warshall always wanted to live in the U.S. Southwest, after falling in love with the area while visiting the Chiricahua and Santa Rita Mountains in Arizona when he was in his twenties. After more than a decade living in California, working with nonprofit organizations, writing articles on septic systems, and serving as the mayor of Bolinas, he moved to Tucson, Arizona. There, he made his living designing septic tanks and greywater systems. As a research scientist for Arid Land Studies at the University of Arizona, he traveled to Africa frequently during the 1980s. Warshall published lengthy governmental and NGO reports that focused on water and wildlife and natural resource management. He worked in Kenya, Chad, Niger, Mali, and Senegal, where he was able to use his fluent French. He studied the Niger and Senegal Rivers and Lake Chad. He became an expert on and found a number of uses for water hyacinths. In 1991, Warshall assisted his wife, Diana Hadley, to complete an ethnoecological study of Aravaipa Canyon, Arizona, for the U.S. Bureau of Land Management.

He was an outstanding teacher and writer, capable of explaining complicated concepts simply and beautifully. His personal essay, “Finding Your Animal Ally: How a Squirrel Led Me to Congress and the Vatican,” is inspiring (Warshall 2001). Warshall was the editor of the celebrated *Whole Earth Catalogue* from 1996 to 2005, but wrote for the publication for 30 years. He educated readers on topics as varied as environmentally friendly laundry detergents, global water supply and policies, place making and the “placed-based commons,” renewable energy,

“bambi repellants,” restorative fire, bees, extinction, the history of soy, Beatrix Potter, Lynn Margulis, and Stephen Jay Gould. He wrote countless reviews of books, posters, and toilets. His essays were some of the best nature writing, indeed, some of the best writing in general. He wrote beautiful essays on whales and dolphins, Edward Abbey, symbiosis, orchids, humans, and sex (Warshall 1974, 2004a, 2004b). Warshall was passionate about Sky Island archipelagos globally, as well as the uniqueness of the Sky Islands of the Southwest (Warshall 1986, 1994a, 1995). Because of his writings and knowledge, he served on boards of organizations such as the Sky Island Alliance.

Warshall was a supreme communicator and story teller, whose life was filled with jaw-dropping experiences. He was in Kenya when actor John Wayne killed an elephant—the opposite of “symbiosis,” Warshall said (Warshall 2004b). His roommate at Harvard was noted Buddhist journalist Rick Fields. He was friends with Beat poets and artists, notably Allen Ginsberg, Joanne Kyger, and Gary Snyder; a student and colleague of prominent scholars in literature, anthropology, and biology, including Luna Leopold, Levi-Strauss, Margulis, and Anne Waldman; and he communicated regularly with countless scholars, experts, and activists. After completing his coursework at Harvard, he had a contract job that he loved, sorting feral horses from genuine Nez Perce horses. Warshall helped to initiate bird rescue after the 1971 San Francisco Bay oil spill, a catalyst for global efforts to rescue birds following disasters. In the late 1980s, he was in a vehicle accident in Botswana that nearly killed him (Warshall 1996a). Warshall designed the savannah and selected animals for Biosphere II. He confronted then Republican Congressmen Rick Renzi of Arizona during a 2004 community hearing aimed at garnering support for gutting the U.S. Endangered Species Act. Renzi thought he had gained the upper hand by announcing the hearing, but by the end of the night the community was on Warshall's side.

Warshall appeared in films such as *Blue Gold: World Water Wars* and Leonardo DiCaprio's *The 11th Hour*. He encouraged viewers to become active: “To learn nature now is not to be weak at heart. You have to . . . become a biogadiator. And as a biogadiator, be able to go through successes and failures and absorb the pain of the earth without letting the pain of the earth kill you.” He remarked that any conservation biologist should be “part lawyer, part teacher, part biogadiator.” Warshall took scientists to task: “I really feel the academics need to be tweaked a little bit. Fear of job loss or stagnation is what keeps the majority of biologists from becoming biogladiators.” As he put it, “Taking an active role in the politics of biology is not part of a lot of scientists' personalities. But biologists who don't speak out on biological issues become the passive acceptors of

the loss of biodiversity . . . . Even if you have an Endangered Species Act, it doesn't help if you have [agency biologists] unwilling to implement it” (Jones 1995; Davis 2013).

He practiced what he preached. According to Warshall, “the Office of Arid Land Studies simply stopped funding me” after he joined the opposition to University of Arizona astrophysical development on Mount Graham, a sacred and ecologically unique Sky Island ecosystem that is home to 18 endemic species of plants and animals (P. Warshall, personal communication). Warshall located a number of species on the mountain and wrote ecological impact statements in the 1980s. He formed Scientists for the Preservation of Mount Graham to protect the imperiled biodiversity. Organization members included influential conservation scholars such as Michael Soule, Paul Ehlich, and Stephen Jay Gould. Warshall's organization obtained an opposition resolution in 1991 from the Society for Conservation Biology, which represented nearly 4000 members worldwide. European astrophysicists passed resolutions and signed letters against the telescopes. Warshall's group was instrumental in encouraging Gould to write one of his well-cited essays: “The Golden Rule: a Proper Scale for Our Environmental Crisis,” which appeared in *Natural History*. The Harvard-Smithsonian astrophysical program dropped the project and took its research dollars elsewhere. Warshall was at the forefront of biocultural initiatives to protect Mount Graham. His still appreciated essay, “The Biopolitics of the Mt. Graham Red Squirrel,” appeared in this publication (Warshall 1994b, 1996b).

While he battled cancer, he managed to establish the nonprofit Dreaming New Mexico to assess and change the state's food, agricultural, and energy policies. Through his involvement with the Northern Jaguar Project, he fought tirelessly for the northernmost population of jaguars and their habitat, despite undergoing 30 months of chemotherapies. Just 2 weeks prior to his death, he was honored as a “Local Genius” by the Museum of Contemporary Art (MOCA) in Tucson. According to MOCA, “the awards are inspired by the ancient Roman concept of genius loci, or ‘spirit of place,’ honoring visionary and innovative Tucsonans whose activities have a global impact, and whose talents have been internationally recognized” (Stratford 2013). His wife wrote that before he died “he was working on a book on the evolution of color on the planet” and another regarding global environmental history (Hadley 2013). One of Warshall's most fascinating lectures is titled “Enchanted by the Sun: The CoEvolution of Light, Life, and Color on Earth.” He was always concerned with big ideas.

Warshall felt strongly about sense of place and individual spirit: “[T]wo things . . . can perhaps save the world. One would be the mastery of ones kindness to oneself . . . And the other would be understanding your

passion for place—for where you live—and really loving the place that you live in.” He advised individuals to find an animal totem. Warshall’s allies were the turtle and the Mount Graham red squirrel.

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### Literature Cited

- Ausubel, K., and J. P. Harpignies, editors. 2004. *Nature’s operating instructions*. Sierra Club Books, San Francisco.
- Davis, T. 2013. Remembering the late Peter Warshall. *Arizona Daily Star*, Tucson, Arizona. Available from [http://azstarmet.com/news/blogs/desertblog/remembering-the-late-peter-warshall-scientist-and-activist/article\\_2fbdd6da-d22d-11e2-994a-0019bb2963f4.html](http://azstarmet.com/news/blogs/desertblog/remembering-the-late-peter-warshall-scientist-and-activist/article_2fbdd6da-d22d-11e2-994a-0019bb2963f4.html) (accessed January 2014).
- Hadley, D. 2013. In memoriam: Peter Warshall. Northern Jaguar Project, Tucson, Arizona. Available from <http://www.northernjaguarproject.org/peter-warshall-in-memoriam/> (accessed August 2013).
- Hunt, S. 2013. In memoriam—Peter Warshall. Central Coast Bioneers, San Luis Obispo, California. Available from <http://www.ecoelogs.org/blog/?p=258> (accessed December 2013).
- Jones, L. 1995. The biogadiator. *High Country News*, Paonia, Colorado. Available from <https://www.hcn.org/issues/39/1154> (accessed January 2014).
- Kress, R. 2013. Peter Warshall—tribute. *YoginiRose Therapeutics*, Tucson, Arizona. Available from <http://yoginirose.com/peter-warshall-tribute/> (accessed January 2014).
- Snider-Bryan, C. 2013. Peter Warshall. *Color of Sand*, Sandoval County, New Mexico. Available from <http://colorofsand.wordpress.com/2013/04/28/peter-warshall/> (accessed December 2013).
- Stratford, H. 2013. Desert Museum inaugural concert features John Jorgenson Quartet. *Inside Tucson Business*, Tucson, Arizona. Available from [http://www.insidetucsonbusiness.com/community\\_lifestyle/arts\\_entertainment/desert-museum-inaugural-concert-features-john-jorgenson-quintet/article\\_b867ad34-a2d1-11e2-aa96-001a4bcf887a.html](http://www.insidetucsonbusiness.com/community_lifestyle/arts_entertainment/desert-museum-inaugural-concert-features-john-jorgenson-quintet/article_b867ad34-a2d1-11e2-aa96-001a4bcf887a.html) (accessed April 2013).
- Warshall, P. 1974. The way of the whales. Pages 110–131 in J. McIntyre, editor. *Mind in the waters*. Charles Scribner’s Sons, New York.
- Warshall, P. 1986. *Biogeography of the high peaks of the Pinalenos*. Reprint. Maricopa Audubon Society, Phoenix, Arizona.
- Warshall, P. 1994a. The Madrean sky island archipelago. Pages 6–18 in L. F. DeBano et al., editors. *Biodiversity and management of the Madrean archipelago*. U.S. Department of Agriculture, Forest Service, Fort Collins, Colorado.
- Warshall, P. 1994b. The biopolitics of the Mt. Graham red squirrel (*Tamiasciurus hudsonicus grahamensis*). *Conservation Biology* 8:977–988.
- Warshall, P. 1995. Southwestern sky island ecosystems. Pages 318–322 in E. T. LaRoe, G. S. Farris, C. E. Puckett, P. D. Doran, and M. J. Mac, editors. *Our living resources*. U.S. Biological Service, Washington, D.C.
- Warshall, P. 1996a. Saying adios. Pages 227–231 in J. R. Hepworth and G. McNamee, editors. *Resist much, obey little*. Sierra Club Books, San Francisco.
- Warshall, P. 1996b. Astronomy and animals on Mt. Graham. *Conservation Biology* 10:1479–1480.
- Warshall, P. 2001. Finding your animal ally. Bioneers, Santa Fe, New Mexico. Available from [www.bioneers.org/voices/01nature\\_culture/peter\\_warshall.html](http://www.bioneers.org/voices/01nature_culture/peter_warshall.html) (accessed Summer 2002).
- Warshall, P. 2004a. The eye of the world. Pages 208–210 in K. Ausubel and J. P. Harpignies, editors. *Nature’s operating instructions*. Sierra Club Books, San Francisco.
- Warshall, P. 2004b. Symbiosis. Pages 137–159 in A. Waldman and L. Briman, editors. *Civil disobediences*. Coffee House Press, Minneapolis, Minnesota.

