

**Kate Tirion**  
**Founder and Program Director**  
**Deep Dirt Institute**

Kate Tirion grew up on an 11<sup>th</sup> Century Amish-style (pre-industrial) farm and flour mill in West Wales. Her father taught agriculture practicum, her mother was a naturalist with a passion for fungi. Every day was an opportunity to learn. "I grew up with livestock, arable crops, beekeeping, orchards, wine making, beer brewing and a million other things. Everything we ate was made from scratch, much of it produced on ours and neighbor's farms", says Kate. "I studied agricultural biology in high school, and was a Young Farmer (UK's 4-H) for four years."

Kate attended the Center for AgroEcology and Sustainable Food Systems at the University of California at Santa Cruz where she was certified in Eco-Horticulture, the gold standard for organic food production in the United States. The UCSC farm was home to the introduction of Bio Dynamics & French Intensive growing systems in the United States. "In the early 1990s when I interned at Santa Cruz, organic production was a fledgling idea unknown to most Americans. The farm program covered all aspects of ecological horticulture, including extensive greenhouse work, propagation and orchard management. In addition, I ran our farmer's market, including harvesting, wholesale operations, and managing the market. One of my favorite parts of the market operation was harvesting flowers and creating floral bouquets." During her years at Santa Cruz, Kate taught composting as part of a public outreach program aiming to reduce landfill waste for the city and stayed on as a teacher and management assistant in the AgroEcology and Sustainable Food Systems program.

"Permaculture is a way of living on the planet that is regenerative – how do we live and meet our needs and the needs of others, human and nonhuman, while increasing the abundance of the earth's systems rather than depleting them. Permaculture is a way of seeing and designing human habitat that integrates all living systems – underlying geology, soils, water, plants, and wildlife and that recognizes waste as a resource. It is a design science based on how natural systems function so that they support the needs of humans and the natural world. Its three core tenets – care of the earth, care of people, and share the abundance are adaptable to any environment (urban, rural) or climate zone. We can also apply this approach to our internal processes – our emotional, psychological, and spiritual lives. Externally, we can use permaculture principles to design our home environments, our communities, and our economic systems."

Since 1990, Kate has been applying these principles in a diverse array of climate zones and scales, including wet and dry tropics (Peru and Mexico), arid lands (Mexico and Southwest U.S.), Mediterranean (California), and temperate landscapes (Southwest U.S.). Ranging from small urban gardens to an 8,000 acre housing development, she has transformed damaged landscapes into beautiful, productive, and resilient eco-systems.

In 2005, Kate purchased 34 acres of heavily grazed and eroded grasslands near Patagonia, Arizona. Since that time, she has overseen the design and implementation of an ambitious, and ever-evolving, permaculture for the property and transformed the site into a teaching center. Deep Dirt Farm Institute

has inspired students and volunteers from throughout the country and the world through workshops, training sessions, internships, and work days. Construction of a 20 x 72 foot cool greenhouse led to the year-round production of vegetables, involvement of local women in a food-growing collaborative, and donations of food to community senior center. The repurposing of waste materials has supported creation of a duck house, solar water pump, fencing, erosion structures, tiny house building, underground storage unit and other on-site wonders. As part of this repurposing effort, the Institute reduced landfill waste, saved the local school district thousands of dollars, and inspired others to think differently about waste.

Along with Kate's partners at Borderlands Restoration, the Institute has also performed seed production and native plant propagation in support of regional habitat development needs. Working in collaboration with the United States Geological Survey, the Institute is also part of a four-site demonstration project to determine the effectiveness of various erosion control, water detention, and infiltration techniques.

As a life-long mixed media artist, Kate's preferred medium is the living material of the plant world and the earth that supports it. "For me, life is art. By developing a relationship with place and the living planet, we deepen our quality of life. By restoring the earth, we restore ourselves."