



**RIO18**  
21st World Congress  
of Soil Science

**21 WORLD CONGRESS OF SOIL SCIENCE**  
Sunday 12 – Friday 17 August 2018  
Rio de Janeiro, Brazil

Rio de Janeiro August | 12 - 17

---

### Soil Ethics – Soil Care, Beliefs and Values

Sabine Grunwald<sup>1</sup>

<sup>1</sup>Soil and Water Sciences Department, University of Florida, 2181 McCarty Hall, Gainesville FL 32605, USA. Email: sabgru@ufl.edu)

This talk will critically discuss soil-environmental ethics considering historic, contemporary, and emerging perspectives. Historic human-nature relationships, resembled to this day in indigenous cultures, have focused on respect and fear of nature, magical and mystical thinking, rituals to maintain control and power over natural forces, and/or a deep connection with the Earth as a living body. In Modernity and Postmodernity, scientific knowledge of soils' conditions, functions, processes, services, genesis, and changes due to management and disturbances, such as global climate change, have increased profoundly. Soils have been mapped, quantified, objectified, commodified, and managed as a valuable resource to serve a variety of mainly human-centered needs (e.g., food and fiber production). Despite technological and scientific progress in land use management there is substantial soil degradation, soil quality and carbon loss as well as increased threats to sustain soil-ecosystems at global scale. Contemporary soil/land ethics is grounded in regulation, governance, policy, and stewardship to protect the finite resource soil juxtaposed with profits and social equity. Currently more than 50% of the world population lives in urban areas increasingly detached from soil and nature. For many people soils have become abstract seen on a map, a number in the news, or an image floating through the Internet. This development is somewhat associated with shifts in perception, mindlessness toward self and the environment, disembodiment, loss in relatedness and connection with soil and nature. Expansive soil-environmental ethics is grounded in integral ecology, deep care and compassion for soil, the land, life, and planet Earth entailing (1) cognitive empathy referring to factual understanding of soils, environment, and soil health and security, (2) emotional empathy to viscerally sense and feel embodied nature/soils - being the other, being the Earth, and (3) empathic concern referring to other-oriented emotions evoking actions directed toward the welfare of life and the environment. Only the full integration of all three empathies enacts deep care and valuation of soil and the land to bring forth socio-cultural shifts that translate into policy and governance to secure soils unconditionally. An ethics that transcends self-centeredness and dissolves separation between I and other/nature gives way to an integrated, balanced, and harmonious way of being in community with soil, nature, and the Earth.



**Brazilian Soil Science  
Society**



**2015**  
International  
Year of Soils