

Which metaphors fascinate soil scientists and their public?

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Extended Abstract

From the beginnings of modern soil science up to present, new research priorities and research models have not only been pushed with rational argumentation. Many famous soil scientists were fascinated by something outside natural science. Statements of key figures of pedology can be found in their publications, which seem to express mythological and religious ideas. These *inner images* were important driving forces for their work and provided background guidance for the interpretation of their results and for their self-understanding as soil scientists.

Therefore, soil science has never been a solely rational process. It is also drawn out of our human source of creativity, the unconscious psyche. Its images, which can be called the "inner soil of pedology", played an important role for orientation and communication purposes. Thus, what were the 'dreams' of leading soil scientists? Which inner images and archetypal ideas – more or less metaphorically understood – fascinated them and also their audience?

Examples for *guiding images and ideas* – "mother earth" and many more – from outside "rational science" are given from: Justus von *Liebig* (agricultural chemistry), Friedrich Albert *Fallou* (foundings of pedology), Vasilii Vasil'evich *Dokuchaev* (foundings of pedology), Hans *Jenny* (analysis of soil forming factors), as well as pioneers of *organic agriculture* and contemporary proponents of *precision farming*.

After showing the relevance of inner images in soil science and its propagation, some interesting questions are: How might we *now take care of and utilize* the potentials of motivating and effective inner images in soil science in an adequate and helpful manner? What are major *dangers* of being misguided by or abuse of fascinating metaphors? What are *positive potentials* of symbolic images for science orientation and communication? And what about the effects of being unconsciously driven by background ideas versus living with them more consciously?

This presentation is based on a dissertation work by Nikola Patzel at the Swiss Federal Institute of Technology (ETH Zürich), Department of Environmental Sciences.

Further reading: Nikola Patzel (2003): *Bodenwissenschaften und das Unbewusste. Ein Beitrag zu Tiefenpsychologie der Naturwissenschaften. Hochschulschriften zur Nachhaltigkeit*, Bd. 6, Ökom Verlag, München, 227 S. With English summary. Accessible through www.oekom.de or www.patzel.info.