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N. Patzel: *Bodenwissenschaften und das Unbewusste. – Ein Beitrag zur Tiefenpsychologie der Naturwissenschaften* (Soil Science and the Unconscious – a Contribution to the Depth Psychology of Natural Sciences). Hochschulschriftenreihe zur Nachhaltigkeit 6; ökom Verlag, München, 2003, 228 p., with engl. summary, paperback, about 20 €; ISBN 3-936581-25-8.

As disciple of the psychologist C.G. Jung and student of the soil chemist H. Sticher (both in Zürich), Patzel proved the question, *whether inner images could give substantial inputs for our understanding of soil and soil science.*

At first, Patzel describes the development of the thinking about soils by their protagonists as part of science. This appears to be feasible, because thinking about nature since the ancient world followed the idea that nature is formed from the four elements *water, air, fire* (warmth), and *earth* (soil). He describes the history of *soil material science (Boden-Stoffkunde)* with the *mineral theory* (Palissy, Saussure, Sprengel, Liebig, Stöckhardt), the *soil transport and element fluxes* (Darcs, Darwin, P. E. Müller, Odum, Ulrich b.o.), the *pedology with soil description and genesis* (Sprengel, Fallou, Dokuchaev b.o.), and modelling (Jenny), the *soil fertility* (Bacon, Wallerius, Senft, Steiner, Scheffer b.o.), as well as the *soil qualities* (Columella, L. Holberg, M. Alexander, Warkentin and Fletcher b.o.), and *soil functions* (Schlichting, Haase, Sauerbeck). Folk beliefs according to documented interviews by the folklorist W. Mannhardt (in the 1860s) are described together with the so-called *Benandanti dreams* about *night fights for crops* of the 16th century in Italy. The materials were analyzed from the viewpoint of depth psychology focusing upon archetypal images therein.

Patzel gives known examples of the influence of dreams upon progress in science (the discovery of the benzene ring by Kekulé b.o.). He describes Jung's Method of *dream-interpretation*. He also presented his own dreams that occurred attending his diploma thesis on *Soil Fertility*, and his dissertation work on *Soil Science and the Unconscious* at the ETH Zürich. His main finding was that inner images are to be found in the background of soil science and that they can contribute to contemporary understanding of soil and soil sciences.

This book should be of main interest for those with interest in the history of soil sciences, as well as of those with interest in the ways of achieving knowledge in science. [B781]

H.-P. BLUME, Kiel