

THE HERITAGE OF V.V. DOKOUACHEV AND HIS CONCEPT OF PEDOLOGY

J. BOULAINÉ ⁽¹⁾

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Among all the early scientists who studied the soil, some were concerned with particular aspects (fertilizers, organic matter, water relationships, etc.), but the global historical and geographic approach was taken by V.V. DOKOUACHEV (1846-1903) and his students.

In 1883, with the publication of his book *The Russian Chernozem*, he established the holistic concept and thus a new science : pedology.

The life and work of DOKOUACHEV are examined by the author who, in addition, outlines major stages of the development of soil science between 1883 and 1940.

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BENEFITS OF A CENTURY

J. BOULAINÉ ⁽¹⁾

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Several articles on the life and work of V.V. DOKOUACHEV appeared in 1983, and some of the ideas generally accepted before need revision. DOKOUACHEV will be long-remembered in soil science because of his strong personality, his conceptual approach to solving fundamental problems, and the devotion of many students and collaborators.

(1) Institut National Agronomique Paris-Grignon. Laboratoire de Géologie-Pédologie. 16, rue Claude-Bernard, 75231 Paris Cédex 05.

EARLY STAGES IN SOIL SCIENCE

J. BOULAINÉ ⁽¹⁾

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Before its explosive developments in 1840 (Soil chemistry) and 1883 (Soil genesis), soil science or pedology proceeded from two roots : nutritional physiology of plants and soil analysis, which began in the second part of the XVIIth century and really spread out after that. The theory of humus, at the beginning of the XIXth century, was a temporary dead end.

All of the approaches originated in a Greco-Roman cultural background, where the physical concept of soil was emphasized over the chemical concept. Empirical notations concerning fertilizers and manure already existed at the beginning of the Middle Ages, and they were strengthened by Arabic agronomists. But, within western culture, these ideas were suppressed, both in concept and language, by the physical approach.

On the long road toward a more correct understanding of the soil, two brilliant pioneers, Bernard Palissy in the XVIth century and Lavoisier at the end of the XVIIth century are remarkable exceptions. Their discoveries were ignored by their contemporaries and immediate followers.

Who adhere to new concepts (soil chemistry in 1840 and soil genesis in 1883) had, therefore, the aspect for revolution and rebellion against cultural surroundings that were inherited from a long past. Although unconscious, that revolt took two paths that were sometimes mutually opposed : one analytical and rationalist, the other naturalistic, evolutionary, and dialectical.

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