

symbol was initiated by Pearson in 1894.⁶ It was not used by Galton or Edgeworth. Ordinarily no confusion arises from the double meaning, but sometimes, as when the standard deviations of reaction-times are under consideration, there may be very real difficulty. Cattell seems to have antedated Pearson by nine years, but of course Wundt's and Galton's schools did fuse until comparatively recently.

There is no proposal for reform that I wish to make, unless it be that the word *millisecond* might be used more and the symbol σ less. I can not help wondering what others think about this matter.

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PEDOGRAPHY

It is obvious that the students of soil science are not agreed on the term they will use for their division of natural science. There has been a trend toward the word *pedology*, but in some circles there is a protest because the term is now being used by a limited section of the medical profession.¹ It has been pointed out that *paedology* or *paidology* is the word which should be used by the medical profession.² The pronunciation of the two will be essentially the same, but this need not cause confusion. Furthermore, Brown³ has pointed out that *pedology* was first used by the Russian soil scientists in 1865.

The term *pedology* has been presented to a larger audience than the students of soil science by the publication of Wolfanger's little book called, "The Major Soil Divisions of the United States."⁴ He uses not only *pedology*, but several other words having the same root. These terms are: *pedologist*, *pedologic*, *pedological*, *pedalfer*, *pedalferic*, *pedocal* and *pedocalic*. The subtitle of his book is "A Pedologic-Geographic Survey." Since he has placed considerable emphasis upon the distribution of the soils, it is suggested that *pedography* be added to the list, and that the term shall have as its connotation the geographic aspects of soil science. How simple the title of Wolfanger's book would have been as "The Pedography of the United States"!

Geographers are frequently on the receiving end of jibes from the followers of the so-called pure or natural sciences, who imply that they are not contributors but borrowers. Whether or not this criticism is

justifiable I will not debate, but assuming that there is a borrowing, it becomes imperative that the students of soils come to some agreement as to what they will call their division of science, for the geographers will borrow, and the success of the borrowing depends in a large measure upon the progress of *pedology*. In defense of the borrowers it is necessary to insist that the material selected should have some habitat significance. The student of modern geography is not qualified to undertake a regional analysis unless he has a rather systematic knowledge of the physical environment, and certainly soil is an important element in most parts of the world. Huntington and Carlson's "Environmental Basis of Social Geography"⁵ is one of the first text-books of geography to treat soils according to the attributive system.

Geographers are generally agreed that climate is the most important element of the physical environment. The science of climatology is an important part of the training of a geographer if he is to understand the environment. The geographical distribution of climates or climatic types is of major importance, and here and there in the literature of geography and climatology appears the term *climatography* which connotes regional or geographical climatology.

If climatology is appropriate for that division of climatology which treats of regional climate, so *pedography* may be used for that division of *pedology* which treats the geographical distribution of soils.

The purists may insist that *pedography* should connote simply a description of soils, but geography is not a descriptive science simply. Just as geography, as an exact or social science, has become interpretative, so *pedography* may be considered as that division of soil science that treats of the regional distribution of soils. *Pedology*, then, may be concerned chiefly with the vertical attributes of soil types, and *pedography* with their distribution and delineation.

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OVERHEAD

RECENTLY I wrote a paper on the carpenter bees of the Philippine Islands and sent it to the Philippine Bureau of Science for publication. It was typewritten in Manila, and on November 21 Mr. R. C. McGregor sent me the typed copy for verification before printing. The package reached me on January 10 through the War Department, postmarked Washington, D. C. The letter accompanying it was endorsed as follows:

⁵ Published by Prentice-Hall, Inc., New York, 1929.

⁶ K. Pearson, *Philos. Trans.*, 185A, 1894, 80. Dr. T. L. Kelley writes me that Dr. H. M. Walker also finds this place to be the first use of σ for the standard deviation.

¹ See W. A. Hamor's note in *SCIENCE*, 71: 70, January 17, 1930.

² See P. E. Brown's note in *SCIENCE*, 71: 243, February 28, 1930.

³ *Ibid.*

⁴ Published by John Wiley and Sons, Inc., New York, 1930.