

THE QUESTION OF THE GEOGRAPHICAL CONCEPT, THINKING, AND USAGE OF THE TERM "CYCLE"

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It is the purpose of this paper to raise questions concerning the geographical concept, thinking, and usage of the term "cycle," and to present facts as found in the literature. No attempt has been made to arrive at a conclusion.

The problem to be discussed is not new to our field. The question of the validity of the term "cycle," to be used in geographical terminology, was raised many years ago. In 1899 before the Seventh International Geographical Congress at Berlin, the embryonic scheme of the cycle was introduced. Many geographers at that time, notably the German writers, felt an objection to the term "cycle." Objection was made because the scheme is not concerned with anything circular, and because the first member of the sequence of events in the cycle is unlike the last. This problem has continued to be a source of irritation and misunderstanding to the present day. The point of emphasis, however, has shifted so as to include not only the concept of the geographical cycle, but problems of cyclic thinking and usage.

In the Reports of the Conferences on Cycles¹, two facts seemed outstanding: the prominence of the personnel, and the disagreement as to what a "cycle" embodied. In the Report of the First Conference on Cycles, 1922, two conflicting points of view will be discovered. In the Report of the Second Conference on Cycles, 1928, reference is made to the disagreement regarding the principles involved. At the First Conference, F. E. Clements said, "In general scientific use the word (cycle) denotes a recurrence of different phases, of plus and minus departures, which are often susceptible of exact measurement. It has no necessary relation to a definite time interval,...." "....the significance of the term resides in the fact of recurrence rather than in that of the time interval,...." "In consequence, it seems desirable to use cycle

as the inclusive term for all recurrences that lend themselves to measurement, and period or periodicity for those with a definite time interval, recognizing, however, that there is no fixed line between the two."²

Again, at the First Conference, C. F. Marvin said, "Mere recurrences of natural phenomena without reference to the time interval between recurrences do not necessarily constitute cycles. To be cyclic there must be 'systematic recurrence.'"³ Both cycle and period are now confused. Thus, we see the two conflicting points of view regarding the cycle. At the Second Conference, in relation to this disagreement, Dr. Merriam said, "If there could be agreement in a general way regarding the principles involved in a discussion of cycles, we would have a starting point for what seems one of the most significant studies of interrelation of scientific factors in the whole field of science."⁴

In any case, it is not the name but the scheme that is important. What the idea is called matters but little if that idea is understood. Attention was next applied to the thinking and usage of the term cycle in geographical literature. Cases were found showing a lack of understanding and agreement. These cases are typical examples of what exists in geographical literature.

Whatever the intention of the author may be, it seems to me (in this first example) that the emphasis is placed on the time element. "The time required for reducing a drainage basin to a base-level plain is a cycle of erosion."⁵

Now we notice another point of view stressing the process. A cycle, then, is more properly a process than a duration of time."⁶

Again, to give a different opinion, showing stage of development occupying the dominant position, C. C. Huntington and F. A. Carlson express the idea that the

terms applied to the cycle (such as youth, maturity, and old age) refer "to the stage of development."⁷

P. E. James also feels the problem deals with the succession of forms developed. "The succession of forms developed during the wearing down of an upraised surface toward baselevel is called a cycle of erosion."⁸

Another point of view is held by Chamberlain. Here the baselevel is the important factor to observe. "If all of the lands in a drainage basin were to be reduced to baselevel, the area would have completed a cycle of erosion."⁹ It is interesting to note that even this term "baselevel" is a matter of dispute and confusion. "It is desired to point out that too many meanings have been attached to the first term, 'baselevel,' and that some of them should be transferred to the other two, 'grade' and 'peneplain.'"¹⁰

An example of casting about for a suitable term is evident when Huntington says, "Rhythms, pulsations, or cycles seem to be the law of organic life."¹¹ "Climatic fluctuations..." are also mentioned, while other authors call the same phenomenon climatic cycles or climatic periods. The term evidently covers quite a multitude of concepts and usages.

I do not know to what extent geographers have avoided the use of the term "cycle," but I do know of one publication in which the author has purposely avoided the use of this term. In *Elements of Geography*, the entire scheme of the cycle of erosion is explained,¹² but the term "cycle" is not connected with this scheme.

Nowhere, in the entire discussion, does the term "cycle" appear!

Up to this point the disagreements regarding the term "cycle" have been emphasized. Here is an example of an author's statement as to the validity of the "cycle" itself. "They are either indefinite, or if they are expressed precisely they usually break down when tested over long periods."¹³

Looking at the problem now from another point of view, we find authors adhering to such terms as "Normal Cycles," "Special Cycles," and "Cycle accidents," (applied to a set of conditions not found in the Normal Cycle, and consequently thrown into another category). In addition, we have "Interrupted Cycles," "Incomplete Cycles," "Stages," "Adjustments," and "Revived Cycles."

From the above discussion, does it not seem feasible that our educative program may be concerned with the question? What is the student of geography to do with such a maze of divergent terms? Will this loose coinage of geographical terminology make for an efficient dissemination of thought? Does it not seem advisable to foster discussion on the subject, so that a clear concept of the scheme, as well as unified and simplified usage may result? Is it advisable to use this term "cycle" as it now stands; would it be advisable to substitute a more suitable term; or would it be advisable to keep the term "cycle" with an agreement to insure its universal understanding? I ask the opinions of the younger, as well as the older, more experienced geographers on this question.

¹ Reports of the Conferences on Cycles, Carnegie Institution of Washington, Gibson Brothers, Washington, D. C., 1929.

² Clements, F. E., *Nature of the Problem of the Cycle*, p. 3.

³ Marvin, C. F., *Characteristics of Cycles*, p. 11.

⁴ *Ibid.*, p. 25.

⁵ Salisbury, Barrows, and Tower, *Modern Geography for High Schools*, Henry Holt and Company, 1914, p. 227.

⁶ Peattie, R., *College Geography*, Ginn and Company, 1926, p. 260.

⁷ Huntington, C. C. and Carlson, F. A., *The Geographic Basis of Society*, Prentice-Hall, New York, 1933, p. 178.

⁸ James, P. E., *An Outline of Geography*, Ginn and Company, 1935, p. 387.

⁹ Chamberlain, J. F., *Geography, Physical, Economic, Regional*, Lippincott Company, 1921, p. 125.

¹⁰ Davis, W. M., *Geographical Essays*, Ginn and Company, 1909, p. 381.

¹¹ Huntington, E., *The Pulse of Progress*, Charles Scribner's Sons, New York, 1926, pp. 6 and 7.

¹² Finch, V. C. and Trewartha, G. T., *Elements of Geography*, McGraw-Hill Book Company, New York, 1936.

¹³ Gregory, Richard Sir, *Weather Recurrences and Weather Cycles*, *Monthly Weather Review*, December, 1930, vol. 58, No. 12, p. 490.