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Re-reading William D. Pattison's Four Traditions of Geography: A Critical Assessment

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A few years ago, in this same section, Teachings from the Past, we presented and commented on the address that John Kirtland Wright delivered on December 30, 1946, as the Presidential Address at the 43rd Annual Meeting of the American Geographical Society held in Columbus, Ohio. This time, we will comment on an essay that begins with a 1905 quotation from the first President of the Association, William Morris Davis. We continue, therefore, to reflect on the legacy of the American debate concerning the epistemological status of geography and its influence on the teaching of the discipline.

The essay in question, *The Four Traditions of Geography*, is one of the most important published works by William D. Pattison, a professor of geography active in American academia for more than thirty years, first at UCLA and later at the University of Chicago, where he retired in 1991. Pattison was born in Chicago in 1921, obtained his BA and Master's degree at the University of Chicago, spent two years studying at University College London, and then returned to the University of Chicago,

where he completed his PhD in Geography with a dissertation titled *The Beginnings of the American Rectangular Land Survey System, 1784-1800* (published as Department of Geography Research Paper No. 50, Chicago, 1957). His short article, *The Four Traditions of Geography*, was published in 1964 in the *Journal of Geography* (vol. 63, no. 5, pp. 211-216).

Four When Pattison presented The **Traditions** of Geography, professional geography in the United States was at a crossroads. The discipline had spent decades struggling with its identity, vacillating among definitions that alternately emphasized mapping, regional description, environmental influence, or physical science. The aforementioned reference to the words of then-President of the AAG William Morris Davis points directly to his attempt to "respond [...] to a familiar suspicion that geography is simply an undisciplined 'omnium-gatherum'" (Pattison, 211). Pattison noted, "every one of the well-known definitions of geography advanced since the founding of the AAG has had its measure of success", yet each ultimately failed because it "adopted in one way or another a monistic view" that inevitably alienated segments of the profession (Pattison, 211). Geography's intellectual pluralism – its refusal to fit neatly within the methodological or epistemological boundaries of a single dominant paradigm – was simultaneously its weakness and its strength¹.

¹ Robinson J.L., "A New Look at the Four Traditions of Geography", *Journal of Geography*, 75, 9, 1976, pp. 520-530. In this paper, for editorial reasons, the

Pattison's intervention sought to remedy this persistent disciplinary instability. By identifying four enduring "traditions" - the spatial, area studies, man-land, and earth science traditions he aimed to provide unity without uniformity: a framework conceptual broad enough encompass the range of geographic inquiry yet clear enough to be intelligible to educators and the general public. These traditions, he argued, were not recent inventions but part of a "general legacy of Western thought" shared across generations and national contexts (Pattison, 211).

Each tradition drew historical upon precedents illustrating geography's long intellectual lineage. The spatial tradition, associated with mapping and spatial analysis, reached back to Ptolemy and even earlier Greek navigational records. The area studies tradition found its archetype in Strabo, whose vast place-based descriptive works epitomized synthesis. The man-land tradition traced its lineage Hippocrates' biological to environmentalism, while the earth science tradition harkened back to Aristotle and later Varenius as comprehensive interpreters of natural processes. By embedding American geography within this deep historical trajectory, Pattison positioned the discipline not as an academic latecomer but as the inheritor of a longstanding intellectual enterprise.

Yet Pattison wrote at a moment of disciplinary anxiety. The mid-20th century saw the emergence of an increasingly quantitative spatial science alongside older descriptive and environmental approaches. Moreover, geography's role in American schools remained fragile, oscillating between social studies and natural science mandates. In this context, Pattison's four traditions functioned as a rhetorical strategy: a means to "secure the inner unity and outer intelligibility" necessary for geography to thrive in education and public discourse (Pattison, 216).

More than sixty years later, the conditions of the discipline have changed dramatically, shaped

footnotes to the author's introduction (1-3) and the original endnotes of Pattison's text (4-13) have been numbered consecutively as footnotes.

by transformations in technology, globalization, environmental crises, and the digital turn. This raises a central question: to what extent do Pattison's four traditions remain valid today?

One of Pattison's most compelling achievements is his diagnosis of geography's chronic struggle with monistic definitions. By rejecting singular notions of what geography "is" he anticipates later critiques of disciplinary essentialism. The four traditions serve as a pluralistic alternative – what Pattison calls a "broad consistency" underlying geographic practice (Pattison, 211). In contemporary terms, we might view Pattison's approach as an early recognition of geography's epistemological hybridity.

However, although the identification of four traditions successfully captures much of the field's diversity, the categories themselves differ in scope and ontological status. The spatial tradition, for instance, encompasses fundamental analytical tools - "distance, form, direction, and position" (Pattison, 212) - that today remain central not only in geography but also across numerous spatial disciplines, from urban planning to data science. By contrast, the earth science tradition is defined not by analytical method but by "concrete objects" of study (Pattison, 215). This discrepancy blurs the conceptual boundaries among the traditions, raising questions about whether the four categories operate at the same theoretical level.

Moreover, Pattison's desire to ensure pedagogical unity may have led him to downplay tensions among these traditions. The quantitative revolution in geography, underway as he wrote, was not merely an extension of the spatial tradition but a profound methodological rupture. For many at the time, the rise of spatial science represented a decisive break with the idiographic, descriptive, and regionally oriented work associated with the area studies tradition. Yet Pattison emphasizes complementarity rather than conflict, suggesting that all four traditions can be "joined in action" (Pattison, 216). Admirable in intent, this harmonizing tendency nonetheless obscures real intellectual disagreements that shaped the discipline's development.

A striking feature of Pattison's essay is its near-total absence of social, political, or economic power as analytical categories. This mirrors the pre-critical orientation of much mid-20th-century American geography, which tended to focus on spatial arrangement, environmental relations, and regional description rather than structural inequality, colonialism, or geopolitical power.

The area studies tradition, for instance, is praised for its "omnivorous appetite for information" and "companionship with history" (Pattison, 213), but Pattison does not acknowledge the role that area studies played in Cold War geopolitics or in the reproduction of colonial knowledge frameworks. Similarly, the man–land tradition is framed primarily as a set of intellectual questions concerning environmental influence and human agency, without recognition of how environmental knowledge has been entangled with resource extraction, territorial expansion, or racialized narratives of environmental determinism.

These omissions reflect Pattison's historical moment, but they limit the framework's adequacy for the discipline that geography has since become. The emergence of critical geography, feminist geography, political ecology, postcolonial theory, and Indigenous studies has introduced concerns - power, justice, race, gender, and coloniality - that cannot easily be situated within Pattison's traditions without significantly stretching their definitions. His framework prioritizes epistemological modes over ethical or political commitments, leaving no explicit space for normative critique. This is a notable shortcoming in contemporary geography, in which social and environmental justice play a central role.

Another limitation is the relative inflexibility of Pattison's categories in light of technological and methodological transformations. GIS, remote sensing, spatial statistics, and digital geographies – fields unimagined in 1963 – fit loosely within the spatial tradition, yet their epistemological assumptions differ markedly from those of earlier spatial analysis. Digital mapping practices blur distinctions among data production, visualization, and interpretation, challenging the neatness of Pattison's separation of traditions.

Similarly, the contemporary understanding of the Earth as a coupled socio-ecological system complicates the boundary between the earth science and man—land traditions. Climate change, urbanization, global supply chains, and Anthropocene debates require frameworks that integrate physical and human processes in ways far more systemic than Pattison envisioned.

Despite these limitations, the four traditions remain influential, especially in geographic education, where they serve as approachable entry points for students and teachers. Pattison's attention to the value of teaching is evident in his description of "the task of maintaining an alliance between professional geography and pedagogical geography" (Pattison, 211).

Pattison's description of the spatial tradition as concerned with "geometry and movement" (Pattison, 212) resonates strongly with contemporary geography. Today, spatial analysis is foundational not only within the discipline but across fields such as epidemiology, logistics, environmental science, computational social science, and urban planning. GIS, spatial modeling, and geovisualization represent extensions of the tradition's core concerns, fulfilling Pattison's prediction that the public readily associates geography with maps and spatial understanding.

Indeed, the spatial tradition has become more relevant than ever. The digital spatial revolution – from GPS navigation to remote sensing and machine learning – has solidified the tradition as a central pillar of the field. Pattison's insight that mapping constitutes a shared intellectual bond from elementary school instruction to advanced research remains remarkably prescient (Pattison, 212).

Despite periods of decline, the area studies tradition continues to matter in an era of global interconnection, regional integration, and geopolitical complexity. Pattison's assertion that the goal of characterizing a place is «readily grasped» by the public (Pattison, 214) remains true. Place-based knowledge is essential for understanding global inequalities, cultural identities, transnational flows, and localized environmental impacts.

Although area studies must now reckon with critiques of orientalism and Cold War geopolitics, it retains a vital role as a method for integrating diverse forms of knowledge. Human geographers continue to conduct ethnographies, regional analyses, and place-based studies that align closely with the tradition Pattison describes, even as they infuse it with more critical, reflexive, and collaborative approaches.

Of all Pattison's traditions, the man-land tradition may be the most urgently relevant today. His recognition that geographers have long studied the "interaction between man and environment" (Pattison, 215) foreshadows contemporary interests in sustainability, climate adaptation, political ecology, and environmental justice. Anthropocene debates, global climate change, and socio-ecological systems thinking all align with the tradition's core questions about reciprocal relationships between human activity and environmental processes.

What has changed is the ethical framing: where Pattison emphasized analytical balance, contemporary geography emphasizes responsibility, power, and justice. Nonetheless, the tradition's foundational premise – that understanding human–environment relationships is essential to addressing global challenges – remains a central motivation for the discipline².

Although Pattison believed participation in the earth science tradition had declined, the contemporary era of climate science, natural hazards research, and Earth-system modeling has revitalized physical geography's centrality. observation that educators "readily His appreciate earth science" as essential knowledge (Pattison, 215) is even more true today. Public concern over environmental change has increased demand for physical geographers skilled in hydrology, climatology, geomorphology, and biogeography.

Moreover, the idea – described by Pattison as "morally the most significant concept" in geography – of the Earth as "the single common habitat of man" (Pattison, 216) has gained

enormous urgency. The global environmental crisis underscores the necessity of planetary thinking, making the earth science tradition indispensable.

Pattison's Four Traditions of Geography remains one of the discipline's most influential conceptual frameworks. Although not without limitations – historical selectivity, insufficient attention to power and inequality, and uneven conceptual categories – it continues to offer a useful pedagogical and introductory structure for understanding geography's diverse intellectual terrain.

In the 21st century, new methodologies, theories. interdisciplinary critical and collaborations have expanded the discipline far beyond what Pattison envisioned. Yet the core impulses he identified – spatial reasoning, placebased understanding, human-environment relationships, and Earth-system knowledge remain central to how geographers understand and interpret the world. Pattison sought to "inner articulate the unity and intelligibility" of geography (Pattison, 216). His framework, though imperfect, continues to achieve that purpose, helping scholars. educators, and students navigate a discipline whose diversity is both its greatest challenge and its greatest strength.

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² Murphy A.B., "Geography's Crosscutting Themes: Golden Anniversary Reflections on 'The Four Traditions of Geography'", *Journal of Geography*, 113, 5, 2014, pp. 181-188.

The Four Traditions of Geography³

William D. Pattison

In 1905, one year after professional geography in this country achieved full social identity through the founding of the Association of American Geographers, William Morris Davis responded to a familiar suspicion that geography is simply an undisciplined "omniumgatherum" by describing an approach that as he saw it imparts a "geographical quality" to some knowledge and accounts for the absence of the quality elsewhere⁴. Davis spoke as president of the AAG. He set an example that was followed by more than one president of that organization. An enduring official concern led the AAG to publish, in 1939 and in 1959, monographs exclusively devoted to a critical review of definitions and their implications⁵.

Every one of the well-known definitions of geography advanced since the founding of the AAG has had its measure of success. Tending to displace one another by turns, each definition has said something true of geography⁶. But from the vantage point of 1964, one can see that each one has also failed. All of them adopted in one way or another a monistic view, a singleness of preference, certain to omit if not to alienate numerous professionals who were in good conscience continuing to participate creatively in the broad geographic enterprise.

The thesis of the present paper is that the work of American geographers, although not conforming to the restrictions implied by any one of these definitions, has exhibited a broad consistency, and that this essential unity has been attributable to a small number of distinct but affiliated traditions, operant as binders in the minds of members of the profession. These traditions are all of great age and have passed into American geography as parts of a general legacy of Western thought. They are shared today by geographers of other nations.

There are four traditions whose identification provides an alternative to the competing monistic definitions that have been the geographer's lot. The resulting pluralistic basis for judgment promises, by full accommodation of what geographers do and by plain-spoken representation thereof, to greatly expedite the task of maintaining an alliance between professional geography and pedagogical geography and at the same time to promote communication with laymen. The following discussion treats the traditions in this order: (1) a spatial tradition, (2) an area studies tradition, (3) a man- land tradition and (4) an earth science tradition.

Spatial Tradition

Entrenched in Western thought is a belief in the importance of spatial analysis, of the act of separating from the happenings of experience such aspects as distance, form, direction and position. It was not until the 17th century that philosophers concentrated attention on these aspects by asking whether or not they were properties of things-in-themselves. Later, when the 18th century writings of Immanuel Kant had become generally circulated, the notion of space as a category including all of these aspects came into widespread use. However, it is evident that particular spatial questions were the subject of highly organized answering attempts long before the time of any of these cogitations. To confirm this point, one need only be reminded of the compilation of elaborate records concerning the location of things in ancient Greece. These were records of sailing distances, of coastlines and of landmarks that grew until they formed the raw material for the great Geographia of Claudius Ptolemy in the 2nd century A.D.

A review of American professional geography from the time of its formal

³ Pattison W.D., "The Four Traditions of Geography", *Journal of Geography*, 63, 5, 1964, pp. 211-216.

⁴ William Morris Davis, "An Inductive Study of the Content of Geography," *Bulletin of the American Geographical Society*, Vol. 38, No. 1 (1906), 71.

⁵ Richard Hartshorne, *The Nature of Geography*, Association of American Geographers (1939), and *idem*, *Perspective on the Nature of Geography*, Association of American Geographers (1959).

⁶ The essentials of several of these definitions appear in Barry N. Floyd, "Putting Geography in Its Place," *The Journal of Geography*, Vol. 62, No. 3 (March, 1963). 117-120.

organization shows that the spatial tradition of thought had made a deep penetration from the very beginning. For Davis, for Henry Gannett and for most if not all of the 44 other men of the original AAG, the determination and display of spatial aspects of reality through mapping were of undoubted importance, whether contemporary definitions geography happened of acknowledge this fact or not. One can go further and, by probing beneath the art of mapping, recognize in the behavior of geographers of that time an active interest in the true essentials of the spatial tradition - geometry and movement. One can trace a basic favoring of movement as a subject of study from the turn-of-the-century work of Emory R. Johnson, writing as professor of transportation at the University Pennsylvania, through the highly influential theoretical and substantive work of Edward L. Ullman during the past 20 years and thence to an article by a younger geographer on railroad freight traffic on the U.S. and Canada in the Annals of the AAG for September 1963⁷.

One can trace a deep attachment to geometry, or positioning-and-layout, from articles on boundaries and population densities in early 20th century volumes of the Bulletin of the American Geographical Society, through a controversial pronouncement of Joseph Schaefer in 1953 that granted geographical legitimacy only to studies on spatial patterns⁸ and so onward to a recent Annals report on electronic scanning of cropland patterns in Pennsylvania⁹.

One might inquire, is discussion of the spatial tradition, after the manner of the remarks just made, likely to bring people within geography closer to an understanding of one another and people outside geography closer to an understanding of geographers? There seem to be

at least two reasons for being hopeful. First, an appreciation of this tradition allows one to see a bond of fellowship uniting the elementary school teacher. who attempts the rudimentary instruction in directions and mapping, with the contemporary research geographer, who dedicates himself to an exploration of central-place theory. One cannot only open the eyes of many teachers to the potentialities of their own instruction, through proper exposition of the spatial tradition, but one can also "hang a bell" on research quantifiers in geography, who are often thought to have wandered so far in their intellectual adventures as to have become lost from the rest. Looking outside geography, one may anticipate benefits from the readiness of countless persons to associate the name "geography" with maps. Latent within this readiness is a willingness to recognize as geography, too, what maps are about - and that is the geometry of and the movement of what is mapped.

Area Studies Tradition

The area studies tradition, like the spatial tradition, is quite strikingly represented in classical antiquity by a practitioner to whose surviving work we can point. He is Strabo, celebrated for his Geography which is a massive production addressed to the statesmen of Augustan Rome and intended to sum up and regularize knowledge not of the location of places and associated cartographic facts, as in the somewhat later case of Ptolemy, but of the nature of places, their character and their differentiation. Strabo exhibits interesting attributes of the area-studies tradition that can hardly be overemphasized. They pronounced tendency toward subscription primarily to literary standards, an almost omnivorous appetite for information and a selfconscious companionship with history.

It is an extreme good fortune to have in the ranks of modern American geography the scholar Richard Hartshorne, who has pondered the meaning of the area-studies tradition with a legal acuteness that few persons would challenge. In his *Nature of Geography*, his 1939

⁷ William H. Wallace, "Freight Traffic Functions of Anglo-American Railroads," *Annals of the Association of American Geographers*, Vol. 53, No. 3 (September, 1963), 312-331.

⁸ Fred K. Schaefer, "Exceptionalism in Geography: A Methodological Examination," *Annals of the Association of American Geographers*, Vol. 43, No. 3 (September, 1953), 226-249.

⁹ James P. Latham, "Methodology for an Instrumented Geographic Analysis," *Annals of the Association of American Geographers*, Vol. 53, No. 2 (June, 1963), 194-209.

monograph already cited, ¹⁰ he scrutinizes exhaustively the implications of the "interesting attributes" identified in connection with Strabo, even though his concern is with quite other and much later authors, largely German. The major literary problem of unities or wholes he considers from every angle. The Gargantuan appetite for miscellaneous information he accepts and rationalizes. The companionship between area studies and history he clarifies by appraising the so-called idiographic content of both and by affirming the tie of both of what he and Sauer have called "naively given reality."

The area-studies tradition (otherwise known as the chorographic tradition) tended to be excluded from early American professional geography. Today it is beset by certain champions of the spatial tradition who would have one believe that somehow the area-studies way of organizing knowledge is only a subdepartment of spatialism. Still, area-studies as a method of presentation lives and prospers in its own right. One can turn today for reassurance on this score to practically any issue of the *Geographical Review*, just as earlier readers could turn at the opening of the century to that magazine's forerunner.

What is gained by singling out this tradition? It helps toward restoring the faith of many teachers who, being accustomed administering learning in the area-studies style, have begun to wonder if by doing so they really were keeping in touch with professional geography. (Their doubts are owed all too much to the obscuring effect of technical words attributable to the very professionals who have been intent, ironically, upon protecting that tradition.) Among persons outside the classroom the geographer stands to gain greatly in intelligibility. The title "area-studies" itself carries an understood message in the United States today wherever there is contact with the usages of the academic community. The purpose of characterizing a place, be it neighborhood or nation-state, is readily grasped. Furthermore,

recognition of the right of a geographer to be unspecialized may be expected to be forthcoming from people generally, if application for such recognition is made on the merits of this tradition, explicitly.

Man-Land Tradition

That geographers are much given to exploring man-land questions is especially evident to anyone who examines geographic output, not only in this country but also abroad. O. H. K. Spate, taking an international view, has felt justified by his observations in nominating as the most significant ancient precursor of today's geography neither Ptolemy nor Strabo nor writers typified in their outlook by the geographies of either of these two men, but rather Hippocrates, Greek physician of the 5th century B.C. who left to posterity an extended essay, On Airs, Waters and Places¹¹. In this work, made up of reflections on human health and conditions of external nature, the questions asked are such as to confine thought almost altogether to presumed influence passing from the latter to the former, questions largely about the effects of winds, drinking water and seasonal changes upon man. Understandable though this uni-directional concern may have been for Hippocrates as medical commentator, and defensible as may be the attraction that this same approach held for students of the condition of man for many, many centuries thereafter, one can only regret that this narrowed version of the man-land tradition, combining all too easily with social Darwinism of the late 19th century. practically overpowered American professional geography in the first generation of its history¹². The premises of this version governed scores of studies by American geographers in interpreting the rise and fall of nations, the strategy of battles and the construction of public improvements. Eventually this special bias, known

¹⁰ Hartshorne's 1959 monograph, *Perspective on the Nature of Geography*, was also cited earlier. In this later work, he responds to dissents from geographers whose preferred primary commitment lies outside the area studies tradition.

¹¹ O.H.K. Spate, "Quantity and Quality in Geography," *Annals of the Association of American Geographers*, Vol. 50, No. 4 (December, 1960), 379.
12 Evidence of this dominance may be found in Davis's 1905 declaration: "Any statement is of geographical quality if it contains . . . some relation between an element of inorganic control and one of organic response" (Davis, loc. cit.).

environmentalism, came to be confused with the whole of the man-land tradition in the minds of many people. One can see now, looking back to the vears after the ascendancy environmentalism, that although the spatial tradition was asserting itself with varying degrees of forwardness, and that although the area-studies tradition was also making itself felt, perhaps the most interesting chapters in the story of American professional geography were being written by academicians who were reacting against environmentalism while deliberately remaining within the broad man-land tradition. The rise of culture historians during the last 30 years has meant the dropping of a curtain of culture between land and man, though which it is asserted all influence must pass. Furthermore work of both culture historians and other geographers has exhibited a reversal of the direction of the effects in Hippocrates, man appearing as an independent agent, and the land as a sufferer from action. This trend as presented in published research has reached a high point in the collection of papers titled Man's Role in Changing the Face of the Earth. Finally, books and articles can be called to mind that have addressed themselves to the most difficult task of all, a balanced tracing out of interaction between man and environment. Some chapters in the book mentioned above undertake just this. In fact the separateness of this approach is discerned only with difficulty in many places; however, its significance as a general research design that rises above environmentalism, while refusing to abandon the man-land tradition, cannot be mistaken.

The National Council for Geographic Education (NCGE) seems to have associated itself with the man-land tradition, from the time of founding to the present day, more than with any other tradition, although all four of the traditions are amply represented in its official magazine, The Journal of Geography and in the proceedings of its annual meetings. This apparent preference on the part of the NCGE members for defining geography in terms of the man-land tradition is strong evidence of the appeal that man-land ideas, separately stated, have for persons whose main job is teaching. It should be noted, too, that this inclination reflects a proven acceptance by the general public of

learning that centers on resource use and conservation.

Earth Science Tradition

The earth science tradition, embracing study of the earth, the waters of the earth, the atmosphere surrounding the earth and the association between earth and sun, confronts one with a paradox. On the one hand one is assured professional geographers that participation in this tradition has declined precipitously in the course of the past few decades, while on the other one knows that college departments of geography across the nation rely substantially, for justification of their role in general education, upon curricular content springing directly from this tradition. From all the reasons that combine to account for this state of affairs, one may, by selecting only two, go far toward achieving an understanding of this tradition. First, there is the fact that American college geography, growing out of departments of geology in many crucial instances, was at one time greatly overweighted in favor of earth science, thus rendering the field unusually liable to a sense of loss as better balance came into being (this one-time disproportion found reciprocated support for many years in the narrowed, environmentalistic interpretation of the man-land tradition.) Second, here alone in earth science does one encounter subject matter in the normal sense of the term as one reviews geographic traditions. The spatial tradition abstracts certain aspects of reality; area studies is distinguished by a point of view; the man-land tradition dwells upon relationships; but earth science is identifiable through concrete objects. Historians, sociologists and other academicians tend not only to accept but also to ask for help from this part of geography. They readily appreciate earth science as something physically associated with their subjects of study, yet generally beyond their competence to treat. From this appreciation comes strength for geography-as-earth-science in the curriculum.

Only by granting full stature to the earth science tradition can one make sense out of the oft-repeated adage, "Geography is the mother of sciences." This is the tradition that emerged in ancient Greece, most clearly in the work of

Aristotle, as a wide-ranging study of natural processes in and near the surface of the earth. This is the tradition that was rejuvenated by Varenius in the 17th century as "Geographia Generalis." This is the tradition that has been subjected to subdivision as the development of science has approached the present day, yielding mineralogy, paleontology, glaciology, meteorology and other specialized fields of learning.

Readers who are acquainted with American junior high schools may want to make a challenge at this point, being aware that a current revival of earth sciences is being sponsored in those schools by the field of geology. Belatedly, geography has joined in support of this revival¹³. It may be said that in this connection and in others, American professional geography may have faltered in its adherence to the earth science tradition but not given it up.

In describing geography, there would appear to be some advantages attached to isolating this Separation improves tradition. geographer's chances of successfully explaining to educators why geography has extreme difficulty in accommodating itself to social studies programs. Again, separate attention allows one to make understanding contact with members of the American public for whom surrounding nature is known as the geographic environment. And finally, specific reference to the geographer's earth science tradition brings into the open the basis of what is, almost without a doubt, morally the most significant concept in the entire geographic heritage, that of the earth as a unity, the single common habitat of man.

An Overview

The four traditions though distinct in logic are joined in action. One can say of geography that it pursues concurrently all four of them. Taking the traditions in varying combinations, the geographer can explain the conventional divisions of the field. Human or cultural

geography turns out to consist of the first three traditions applied to human societies; physical geography, it becomes evident, is the fourth tradition prosecuted under constraints from the first and second traditions. Going further, one can uncover the meanings of "systematic geography," "regional geography," "urban geography," "industrial geography," etc.

It is to be hoped that through a widened willingness to conceive of and discuss the field in terms of these traditions, geography will be better able to secure the inner unity and outer intelligibility to which reference was made at the opening of this paper, and that thereby the effectiveness of geography's contribution to American education and to the general American welfare will be appreciably increased.*

* Paper presented at the opening session of the annual convention of the National Council for Geographic Education, Columbus, Ohio, November 29, 1963.

¹³ Geography is represented on both the Steering Committee and Advisory Board of the Earth Science Curriculum.