Journal of Research and Didactics in Geography (J-READING), 1, 3, June, 2014, pp. 89-100

J - READING
JOURNAL OF RESEARCH AND DIDACTICS IN
GEOGRAPHY
homepage: www.j-reading.org

Re-reading *Terrae incognitae. The place of imagination in geography* by J.K. Wright

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It may seem strange perhaps at a first glance, to see the famous pioneering essay by John Kirtland Wright, *Terrae incognitae*. *The place of imagination in geography*, re-presented in this section devoted to classic writings in the field of geographical teaching and education. I firmly believe, though, that the research perspectives indicated by the American geographer are not only still valid and challenging today, but that they also offer stimulating perspectives in a didactic perspective as well. In my brief introduction, after providing some information about the essay, I will try to explain why I think that geographical teaching can still profit from Wright's words.

Terrae incognitae was first presented as the Presidential address at the 43rd Annual Meeting of the American Geographical Society held in Columbus, Ohio, on December 30, 1946. It was later published in the *Annals of the Association of American Geographers* the following year (vol. XXXVII, 1947, pp. 1-15)[1]. John Kirtland Wright (1891-1969), after a training in history (he received his PhD at Harvard University), worked as a librarian at the American Geographical Society. He spent his whole professional career with the Society, eventually becoming its director[2].

Besides the essay we are re-proposing here, the relationship between geography and history is another issue that Wright investigated and that is still at the center of a current debate on the epistemological status of the discipline. In his book *Geographical Basis of European History* (New York, Henry Holt, 1928), he thoroughly investigated the close links between the two disciplines, which in his view could reciprocally profit from each other's discourses.

In his essay *Terrae incognitae* Wright links the pleasure of investigating with the pleasure of communicating what we have learned to other people. Teaching with enthusiasm comes directly from learning with enthusiasm: "Satisfaction in what we know and in imparting it to others, as distinguished from curiosity regarding what we do not know, is often a powerful factor" (p. 4). But the real key in the delicate balance between what we know, what we teach, and what we want to learn is the consciousness that we are always missing something: "The more brightly the light of our personal knowledge shines upon a region or a problem, the more attracted we are by the obscurities within it or concerning its entire extent" (p. 4). Presenting geography as a discipline that still has and will always have to discover many *terrae incognitae*, no matter how advanced technologies and sciences are, is in my opinion a very useful suggestion that immediately stands out in the elegantly written pages by Wright, a sincere

[1] For a critical reading of the essay see Keighren I.M., "Geosophy, imagination, and *terrae incognitae*: exploring the intellectual history of John Kirtland Wright", *Journal of Historical Geography*, 31, 2005, pp. 546-562.

[2] For a historical reading of J.K. Wright's contribution to geography, see Koelsch W.A., "William H. Tillinghast, John K. Wright, and some antecedents of Americam humanistic geography", *Journal of Historical Geography*, 29, 4, 2003, pp. 618-630.

praise to a useful practice of wonder and curiosity: "[…] the less imaginative we are the less fresh and original will be our writing and teaching, and the less effective in stimulating the imagination of others" (p. 5). The very process of transmitting knowledge, in Wright's vision, is strictly linked to the practice of imagination: "[…] the dominant interest promoted is a desire to enjoy the process of imagining itself, and to give satisfaction to others by communicating the results in written or graphic form" (p. 6). One of the key actions that geographers could adopt, in these difficult times when the teaching of the discipline is in many countries threatened by budget cuts, severe time constraints, and diffused attacks on its meaning and role, is the adoption of a sincere dose of poetic attitude in communicating the lure of the subject: "Repression of the poetic in our imaginative faculties may deprive us of much of the satisfaction that geographical studies could otherwise yield and render our teaching and writing less powerful than they might well be" (p. 10).

Another notion that we can learn from Wright's essay is the idea that a new interest in geography is linked not only to techniques of teaching or to the re-elaboration of programmes, but to an overall renovated conception of the discipline, that could be linked to its original dimension of "thirst of knowledge", as a "drive to explore the unknown". The dimension of "*incognitus*" lies in the eye of the observer. In a world where we have ubiquitous and powerful means of registration of the visual landscapes, the experience of "being there", of experimenting the physical immersion in a place, appears to be a fascinating frontier.

In his essay *Terrae incognitae* Wright balances the dimension of geography as a scientific discipline, with its rules and its consolidated history, with the intimate dimension of the personal geographies, the individual geographical knowledge that permeates the imagery and the conscience of each personality. One of the most interesting suggestions that Wright's argument-tation gives to a renovated teaching of the discipline is the centrality of the personal involvement of each student in acknowledging the borders of his/her personal geographies, while stimulating the inevitable lure of the *terrae incognitae*. For the very reason that nowadays our lives are constantly inundated by images, news, texts and videos from all the parts of the world thus exposing us to an incredible amount of potential geographical information, it is crucial to find once again and to transmit new stimuli to students in order to recover the enthusiasm for exploring the allure of the "unknown". In this perspective, Wright's thoughts still invite us to be curious about the spaces that surround us: a basic attitude that seems a suitable perspective for a reconsideration of geography as a discipline that can help us in understanding our environment and push us towards a peaceful "conquest" of what we have not yet experienced directly with our own senses: "In the course of field work or on a summer holiday we have all climbed a mountain and gazed over inhabited and unfamiliar country. Behind us has lain the valley out of which we have come, the farm or ranch where we have sojourned. Before us has spread, if not a land unknown to the United States Geological Survey, at least a personal *terra incognita* of our own" (p. 2). In this perspective, Wright's invitation is also to re-assert the centrality of the fieldwork in the teaching of geography: it is important to bring the students to a sensorial immersion in the environment, so that they can directly experience the recognition of the *terrae cognitae* (or supposed ones) and the fascination of the constantly moveable *terrae incognitae*.

The implicit suggestion in Wright's essay is that a renovated interest in geography can be sparked by the possibility to feel again a "pleasurable sense of the mysterious" (p.2). His wish for all the teachers and the students of geography could be interpreted as the possibility to "hear the Sirens' voices" (p. 2). Keeping in mind that "the Sirens, of course, sing of different things to different folk" (p. 2). In the end, if we believe, together with John Kirtland Wright, that the realm of personal and collective geographies is the new frontier of *terrae incognitae*, we still have in front of us the challenging consciousness that what we have explored so far is a "pool of light in the midst of a shadow" (1947, p. 1).

Terrae incognitae. The place of imagination in geography[3]

John Kirtland Wright

1. The sirens of *terrae incognitae*

In earlier times literal *terra incognita* was seldom far from the hearthfires of men. To our stone-age ancestor a blue mountain range on the horizon might have marked its border. Beyond lay a country - of evil spirits, perhaps - into which he must often have wished to penetrate but dared not. If, finally, curiosity mastered his dread and with a few hardy companions he crossed the forbidden range, as like as not he found a region not so greatly different from his own. Thus the encircling border was pushed back a little way and a short step taken in a process that has not even yet quite reached its end. But although our stone-age ancestors and their descendants down until the dawn of modern times moved back the rim of *terra incognita* bit by bit, their "known world" was only a pool of light in the midst of a shadow, limitless, for all that was definitely understood and proven. Voyages into this shadow became a favorite theme of poets and story tellers; the theme of the Argonautic myth and the *Odyssey*, of the legends of Sinbad and Saint Brandan. Out of its darkness wild hordes poured forth from time to time to carry fire and sword across Europe: Scyths, Huns, Tartars; it was a mysterious shadow, whence came rumors of strange men and monsters, of the priestly empire of Prester John, of the Apocalyptic tribes of Gog and Magog shut behind Alexander's wall until, on the day of judgment, they shall burst out to ravage the world. *Terra incognita* was not without contact with the known world, and throughout most of history awareness of its menacing presence must have aroused an abiding wonder in all but the least imaginative.

Possibly this wonder became rooted in the inheritable subconscious of sensitive folk and was thus transmitted from generation to generation down to our day; but, whether or not so inherited, the innermost impulse that makes us take satisfaction in geographical studies seems akin to the urge that impelled our stone-age forefathers toward the lands beyond the range. In the course of field work or on a summer holiday we have all climbed a mountain and gazed over uninhabited and unfamiliar country. Behind us has lain the valley out of which we have come, the farm or ranch where we have sojourned. Before us has spread, if not a land unknown to the United States Geological Survey, at least a personal *terra incognita* of our own. In the contemplative mood that mountain tops induce, we have brooded over the view, speculated on the lay of the land, experienced a pleasurable sense of the mysterious, perhaps felt even a touch of the sinister. We have heard the Sirens' voices.

The Sirens, of course, sing of different things to different folk. Some they tempt with material rewards: gold, furs, ivory, petroleum, land to settle and exploit. Some they allure with the prospect of scientific discovery. Others they call to adventure or escape. Geographers they invite more especially to map the configuration of their domain and the distribution of the various phenomena that it contains, and set the perplexing riddle of putting together the parts to form a coherent conception of the whole. But upon all alike who hear their call they lay a poetic spell.

Nowadays geographers seldom or never have the opportunity to enter literal *terrae incognitae* - totally unexplored territories - and at first glance it may seem farfetched to compare the allurement of such unknowns with the attraction that draws us toward the regions and problems with which we must actually be concerned. However, the Siren voices heard by a Columbus, a Magellan, or a Livingstone differed only in intensity but not in tone and quality from those that call us to explore our seemingly more prosaic and humdrum *terrae incognitae*. Let us, therefore, examine a little further into the nature of *terrae incognitae* of various magnitudes and types.

2. Some varieties of *terrae incognitae*

Obviously, whether or not a particular area may be called "unknown" depends both on whose knowledge and on what kind of knowledge is taken into account. As used literally on the early European maps, the words *terra incognita* signified a land unknown to the map maker after he had presumably consulted all available sources of information; but if such "unknown territories"

[3] The present text was taken from the version converted by Sara Davis, Jesse Langdon, Fred Lopez, Tim O'Neill for the *Geographers in the Web Project* (www.colorado.edu/geography/giw/wright-jk/1947_ti/body.html).

were beyond the ken of the geographers and cartographers of Western civilization, they were known to their inhabitants, if any, and frequently to peoples of other civilizations as well. China lay deep in the heart of *terra incognita* to the Romans, but the Roman Empire was equally lost in "unknown land" to the Chinese. We are familiar with maps depicting the extent of the "known world" at different dates, most of which illustrate, somewhat crudely, stages in the development of the geographical knowledge of a single cultural tradition, that of the West. To round out the record, similar maps would be required for other traditions, showing the progress of the regional knowledge of Chinese, Japanese, Arabs, Hindus, Mayas, and other less advanced peoples. It would also be revealing if the dynamics of this process could be illustrated cartographically, as, for example, in the sixteenth century when the establishment of contact between Europe and the Far East produced a partial coalescence of the known worlds of Occidental and of Chinese geography.

When we say "the world as known to the Greeks of the time of Eratosthenes" or "to the Americans in 1945 A.D." we mean the areas about which certain Greeks and certain Americans were in a position to ascertain something without having to conduct exploring expeditions for the purpose. The world as actually known to the great majority of Greeks or Americans was smaller. That which is *terra incognita* for all practical purposes to an isolated community of hill-billies, is more extensive than that which is *terra incognita* to the members of this Association. Hence, depending on our point of view, there are personal, community, and national *terrae incognitae:* there are the *terrae incognitae* to different cultural traditions and civilizations; and there are also the *terrae incognitae* to contemporary geographical science.

The meaning of *terra incognita* depends no less on the kind of knowledge that we are considering. There are two grades of geographical knowledge: knowledge of observed facts and knowledge derived by reasonable inference from observed facts, with which we fill in the gaps between the latter. On the basis of reasonable inference, for example, I *know* that the climate in those parts of Antarctica that have never been seen by human eyes is too cold to support tropical rain forests, and that it is too warm and dry in the unexplored heart of Southern Arabia for tundras and ice fields. Thus, if *terra incognita* be conceived in an absolute sense as an area concerning which total human ignorance prevails, no *terrae incognitae* exist today on the earth's surface. At no place on this planet is the shadow so utterly dark as it was in former times. Science has reached a point where we may interpolate sound, if incomplete, geographical knowledge into every gap.

I have a summer place on the Maine coast. You geographers know nothing of it except what you could reasonably infer from your general familiarity with the region in which it lies. You might infer something about its climate, and you could also draw some conclusions as to what it is *not*, as we do regarding the interior of Antarctica; but as to its relief, drainage, soils, vegetation, houses, roads, and other aspects of its internal geography no published information is available to you. You might fairly surmise that the vegetation includes firs, spruces, and tamaracks, but, for all that is really known to geographical science, my land might not have a single tree upon it. If, therefore, *terra incognita* be conceived as an area within which no observed facts are on record in scientific literature or on maps, the interior of my place in Maine, no less than the interior of Antarctica, is a *terra incognita*, even though a tiny one. Indeed, if we look closely enough - if, in other words, the cartographical scale of our examination be sufficiently large - the entire earth appears as an immense patchwork of miniature *terrae incognitae*. Even if an area were to be minutely mapped and studied by an army of micro-geographers, much about its geography would always remain unknown, and, hence, if there is no *terra incognita* today in an absolute sense, so also no *terra* is absolutely *cognita*.

3. The imagination in geography

Naturally, other motives than our magnetic attraction toward the geographically unknown play their part in making and keeping us geographers. Satisfaction in what we know and in imparting it to others, as distinguished from curiosity regarding what we do *not* know, is often a powerful factor. We may relish the assimilative processes of collecting data in the field or library, or the intellectual process of thinking through complex problems, or the altruistic process of contributing something that we hope will be of use, or at least of interest, to our fellow men. But these motives are not distinctive of us as geographers, since they impel others besides ourselves. What distinguishes

the true geographer from the true chemist or the true dentist would seem to be the possession of an imagination peculiarly responsive to the stimulus of *terrae incognitae* both in the literal sense and more especially in the figurative sense of all that lies hidden beyond the frontiers of geographical knowledge. Indeed, the more brightly the light of our personal knowledge shines upon a region or a problem, the more attracted we are by the obscurities within it or concerning its entire extent.

Geographical research seeks to convert the *terrae incognitae* of science into *terrae cognitae* of science; geographical education to convert personal *terrae incognitae* into personal *terrae cognitae.* In both cases the unknown stimulates the imagination to conjure up mental images of what to look for within it, and the more there is found, the more the imagination suggests for further search. Thus curiosity is a product of the imagination. Now, as to curiosity, it seems a little unfortunate that this word, used to designate a nosy, impertinent characteristic of monkeys, small children, and gossips, is also applied to the loftier and more impersonal impulse that drives the astronomer to search the depths of the universe and the geographer to penetrate the mysteries of *terrae incognitae*. "Wonder" would be a preferable term for the latter could we not experience wonder in contemplating things without seeking to understand them. At all events, the less imaginative we are, the less open to either wonder or curiosity, and geographers of weak imagination – for a few do exist, it must be admitted – are impelled by different motives. They follow in the footsteps of others, imitating stereotyped patterns, and, if their industry and imitative ability be considerable, they may succeed in teaching and even in research, serving well to maintain geography as it is and to advance it along beaten trails, if not to mark out new ones.

The imagination not only projects itself into *terrae incognitae* and suggests routes for us to follow, but also plays upon those things that we discover and out of them makes imaginative conceptions which we seek to share with others. In the words of the late Sir Douglas Newbold: "Knowledge must pass into vision, that state of mind and heart which does not merely swallow evidence, but changes that evidence into a judgment, an appreciation, a living picture of a country"[4]. Unlike the mental images that we can merely invoke from the memory - such as the remembrance of views once seen - an imaginative conception is essentially a new vision, a new creation, and consequently the less imaginative we are the less fresh and original will be our writing and teaching, and the less effective in stimulating the imaginations of others.

But a powerful imagination is a dangerous tool in geography unless it be used with care. Indeed, the imagination might better be compared to a temperamental horse than to an instrument that operates precisely and with objectivity. A highly sensitive function of the mind, it is easily swayed by subjective influences, and for this reason has come in for a share of the disrepute in which subjectivity is often held in scientific circles.

As I shall have a good deal to say about subjectivity in what follows, it may be well to stop here and analyze it. The disrepute in which it is held, I feel, is not altogether deserved and may be due to a mistaken belief that subjectivity is the antithesis of objectivity. Objectivity, we might all agree, is a mental disposition to conceive of things realistically, a disposition inherent partly in the will and partly in an ability to observe, remember, and reason correctly. The opposite of objectivity would, then, be a mental disposition to conceive of things unrealistically; but, clearly, this is not an adequate definition of subjectivity. As generally understood, subjectivity implies, rather, a mental disposition to conceive of things with reference to oneself, that is to say, either as they appear to one personally, or as they affect or may be affected by one's personal interests and desires. While such a disposition often does, in fact, lead to error, illusion, or deliberate deception, it is entirely possible to conceive of things not only with reference to oneself but also realistically. Were this not the case, the human race would long ago have become extinct. Thus we may distinguish between (1) strictly impersonal objectivity, (2) illusory subjectivity, and (3) realistic, or one might even say, objective, subjectivity. To illustrate: my conception of the skunk as a small furry animal with certain distinctive abilities – not, in this case, an imaginative conception – is impersonally objective; an unobservant person's wishful conception of a particular skunk as a cat, would be a product of illusory subjectivity; and a careful observer's accurate conception of a personal

[4] In a passage from his inaugural lecture delivered at the Sudan Cultural Centre, quoted by Hodgkin R.A., *Sudan Geography*, published by the Education Department of the Sudan Government, 1946, p. 147.

encounter with a particular skunk would be a product of realistic subjectivity.

There are three imaginative processes of importance in relation to geography, in each of which subjectivity of one form or another plays a large part. These might be called promotional, intuitive, and aesthetic imagining.

The first, promotional imagining, is controlled by a desire to promote or defend any personal interest or cause other than that of seeking the objective truth for its own sake. It is subjective imagining dominated by such emotions as bias, prejudice, partiality, greed, fear, or even love, all of which may lead the imagination to produce illusory or deceptive conceptions conforming to what one would like rather than necessarily to the truth. Realistic subjectivity, however, may also influence promotional imagining. Passionate devotion to a personal or social cause may result in a no less passionate quest for realistic conceptions useful in advancing or defending that cause. Human greed for wealth and power and human partiality for particular forms of religious doctrine have yielded, as by-products, rich fruit in objective geographical knowledge.

The purpose of intuitive imagining, the second type, is objective, in that the intent here is to secure realistic conceptions. It is, nevertheless a subjective process because it makes use of one's personal impressions of selected facts instead of impersonally considering and weighing all pertinent evidence. Much of the world's accumu-lated wisdom has thus been acquired, not from the rigorous application of scientific research, but through the skillful intuitive imagining – or insight – of philosophers, prophets, statesmen, artists, and scientists.

4. Aesthetic imagining

The third type of imagining – the type of which I should like to speak more especially – I have called "aesthetic," though I use this adjective reluctantly because of its frequent, though mistaken, mental association with the disagreeable noun "aesthete." Aesthetic imagining is merely a sub-species of promotional imagining, in which the dominant personal interest promoted is a desire to enjoy the process of imagining itself, and to give satisfaction to others by communicating the results in written or graphic form. The end purpose, therefore, is either the creation of an independent work of art or the introduction of artistry into a work of utility or of science. Much aesthetic imagining is the product of illusory subjectivity, of a disposition to create conceptions that are fictitious or fanciful, as when a painter paints a cow as she looks to no one else on God's earth. Much of it, however, is the result of realistic subjectivity, as when he paints the cow as she would look to you or me. This he can do either with or without the aid of aesthetic imagination. Not all cows are equally worthy of being painted and not all aspects of a given cow are equally worthy of emphasis. The imagination can guide the selection of a noteworthy cow to paint, or of an ordinary cow in a noteworthy setting, or of noteworthy aspects of either a noteworthy or an ordinary cow. And by the same token, a geographer may portray a place or region, either with conscientious but unimaginative attention to all details, or with aesthetic imagination in selecting and emphasizing aspects of the region that are distinctive or characteristic.

What is the attitude of geographers toward intuitive and aesthetic imagining? There are some who believe that we should explore only such *terrae incognitae* as lend themselves to exploration in accordance with rigorous scientific principles, that the purpose of such exploration should be to determine exactly what these *terrae incognitae* contain, and that in presenting the results to others we should aspire to strict, impersonal objectivity. It may be left, these say, to the artists, poets, philosophers, novelists, and politicians to develop the aesthetic and intuitive faculties of their minds; geographers should keep to a straighter and narrower path.

Others concede that many types of geographical research cannot be pursued along strictly scientific lines and that there will long remain scope in geography for skillful intuitive, if not for aesthetic, imagining. Geography deals in large measure with human beings, and the study of human affairs and motives has not yet reached a stage in which more than a small part of it can be developed as a precise science. Until it arrives at that stage, much geographical study will have to be considerably tinged with intuitive subjectivity. But also among those who hold this view, the prevalent attitude toward aesthetic imagining in geography is one of distrust.

Unfortunately, this deep-seated distrust of our artistic and poetic impulses too often causes us to repress them and cover them over with incrustations of prosaic matter, and thus to become

crusty in our attitude toward anything in the realm of geography that savors of the aesthetic. Like the companions of Ulysses we would row along with ears stopped to the Sirens' song. If a little of its melody penetrate through the stopping, we would try not to let others know. Ulysses himself, however, listened to the Sirens and as a consequence, if one may interpret the matter in a fanciful vein, his whole voyage assumed to him the aura that we sense on reading the Odyssey. Had his companions survived, their accounts of the expedition would have been strictly objective, factual, realistic, but uninspired, and, like some of the geography of today, soon forgotten. In Homer's words (as rendered by T. E. Lawrence), Ulysses returned "spirit gladdened and riper in knowledge," and hence his account has lived forever. He was well advised to hearken to the Sirens, to allow the charm of their voices to kindle his imagination, but nevertheless to have himself bound to the mast and so pass them by. If he had paid them a visit and yielded to their allurements, and then had the fortune to escape, he would have brought back a tale so unrealistic and sensational as to repel discriminating hearers, and his tale would have been forgotten even sooner, perhaps, than would the honest if prosaic stories of the members of his crew.

5. The legitimate and the desirable in aesthetic subjectivity

Our undue fear of hearkening to the Sirens would seem to spring from three fairly widespread notions: first, that aesthetic subjectivity is always unscientific, leading to illusion and error; second, that it is out of place in geography, serving no necessary functional purpose; and third, that geographers, by and large, are not skilled in giving expression to aesthetic sensitivity and hence should avoid trying to do so.

In considering the validity of these three notions, I shall designate as "legitimate" such practices as do not actually interfere with the advancement of scientific geography, which is and should rightly be the primary concern of the majority of geographers, though not necessarily the exclusive concern of the totality of geographers. I shall designate as "desirable" such legitimate practices as also appear to promote the advancement either of scientific geography or of geography in a broader sense.

With regard to the first notion, it is, of course, true that aesthetic subjectivity may lead to illusion and error. There is, however, a distinction between illusion and delusion. We are by no means deluded by all of our illusions. Writers frequently create illusion for the express purpose of making more effective their exposition of truths, whether they do so merely by using an occasional metaphor like "the grapes of wrath," or "the hounds of spring," or by writing whole novels or epic poems. Illusion becomes delusion only when it is either designed to deceive or is unskillfully employed. Consequently, the test of the legitimacy of aesthetic subjectivity in geography is not whether or not it is illusory, but whether or not, if illusory, it leads to delusion, and it would seem entirely legitimate to enrich and add color and vividness to the style of an otherwise strictly objective geographical exposition by the use of subjective figures of speech and other aesthetic devices if they are so chosen and phrased as not to delude the reader.

Subjective elements may slip into a predominantly objective exposition in the form of words or phrases that carry emotional connotations. This also would seem legitimate provided the images that such words invoke in the reader's imagination correspond to the impressions that the majority of readers would receive in the presence of the phenomena described or exposed. We are often tempted to use such expressions as "a gloomy wood," "bitter cold," "a majestic mountain," "a menacing thunderhead," "the mysterious unknown." Budding geographers have been cautioned by their professors against employing such adjectives on the ground that they reflect the personal emotions of the writer and are not universal common denominators in the symbolism of science. A dark wood may not seem gloomy to a lumberjack, or fifty-below bitter cold to an Eskimo, or the Matterhorn majestic to all the peasants of Zermatt, or the geographically unknown mysterious to some of you. Such terms, however, are not likely to be delusive, and to cavil against their use, if it be discriminating and restrained, seems a little pedantic. Geographical works are intended to be read by persons who share a more or less common cultural heritage and whose subjective responses to like stimuli are similar. A phrase in D. G. Hogarth's "The Nearer East" has stuck in my memory for forty years: "the awful aridity of Sinai." Few readers of that book would remain unmoved with awe upon seeing the utterly barren mountains of the Sinaitic peninsula. Surely it is legitimate in a geographical work to convey this sense of awe to the reader, even

though the Bedouins of Sinai may take its dryness as a matter of course.

Naturally, imaginative fancies that stem from some special idiosyncrasy or peculiar and passing emotional state of a writer, or that are merely whimsical, have no legitimate place in geographical expositions if they create false impressions. I should be exceeding the legitimate limits of the subjective were I to describe my Maine woodlot as an abode of hobgoblins, elves, and werewolves, even though my imagination might relish so picturing it on a moonlit night.

Thus, although aesthetic subjectivity may and often does lead to delusion and error, there are ways of expressing it that do not, and hence may be regarded as at least legitimate, whether or not desirable.

The second notion, that aesthetic subjectivity is out of place in geography – that, like so much window-dressing, it serves no functional purpose – brings up the question of desirability. The notion is mistaken. The functional purpose of aesthetic subjectivity is to heighten the effect by increasing the clarity and vividness of the conceptions that we seek to transmit to reader or hearer. It enables us to share with him the impressions that place or circumstance have made upon us, to bring him down to earth from the lofty observation point of the objective and make him see and feel through our eyes and feelings. Of course, there are limits beyond which this ceases to be desirable. A geographical exposition differs from a traveler's tale in which the reader can be held at the personal level throughout. In geography the subjective should be used only to point up the objective; never permitted to crowd it out.

It is sometimes argued that the style of a scientific exposition should be as clear, simple, and concise as possible, and that more is superfluous; but it should not be forgotten that the power to arouse the imagination is also a desirable adjunct. Most of what geographers write is intended to be read by others besides a few colleagues whose initial interest in a subject is so intense that their imaginations would be fired by almost any exposition, however inartistic. Even if a geographer is not writing for the general reader, whoever that may be, he should bear in mind the possibility that his work might be used in stimulating the interest of undergraduate and graduate students in his pet subject, surely a desirable end. Hence, if he wish his writing and also his teaching to exert their optimum influence, a certain amount of artistry – at least a touch of the aesthetically subjective – must be injected into them.

The third notion is that most geographers lack skill in giving expression to aesthetic sensitivity and hence should refrain from trying to do so. This, of course, is a *non-sequitur*. There is no question but that the majority of geographers possess aesthetic sensitivity in good measure, and skill in expressing it can be developed by them once the need is admitted. A great deal has been written and more said about the nature of geography; far less about the nature of geographers. Could we subject a few representative colleagues to a geographical psychoanalysis, I feel sure that it would often disclose the geographical *libido* as consisting fully as much in aesthetic sensitivity to the impressions of mountain, desert, or city as in an intellectual desire to solve objectively the problems that such environments present. The Sirens, to whom I have alluded, appeal to the artistic and the poetic that lie deep beneath the surface in most of us, for Sirens themselves are artists and poets. Obviously those few who are basically deficient in aesthetic sensitivity – and thereby functionally deaf to the Sirens – will produce lamentable results when they try to express what little they may possess, and it is always preferable to avoid aesthetic subjectivity altogether rather than to give vent to it in misleading, trite, or far-fetched forms. Nor is the technique of expressing it without doing violence either to scientific integrity or to good taste one that can be quickly mastered with the aid of rules and prescriptions, for taste itself is so largely subjective. But that sound geography can be written and taught with artistry has been demonstrated too often in the past to warrant the belief that it should not be attempted.

Thus, with all due respect toward those who may think differently, I do not regard the scientific and the aesthetic either as mutually exclusive or as antagonistic in geography. Repression of the poetic in our imaginative faculties may deprive us of much of the satisfaction that geographical studies could otherwise yield and render our teaching and writing less powerful than they might well be. American geography would grow rather than shrink in stature and esteem were we to give greater scope to the aesthetic operation of our own imaginations, and, when we see sparks of artistry kindling the imaginations of our graduate students and geographical colleagues, were we to resist the temptation to stamp them out.

6. Borrowed imaginative impressions

We are under no compulsion to rely exclusively on our own imagining or to make use solely of its original products. The imaginative perception of others, the feeling for place that many a sensitive traveler has recorded, may be keener and more accurate than ours and may often be borrowed to advantage. In interpreting the landscape of Iceland or of Arabia one might do better to quote here and there from Lord Dufferin or from Doughty than to try to give one's personal impressions. It is a standard practice in the teaching of history to cultivate the student's sense of time and contemporaneity by requiring him to read selected passages from documents written in the periods that he studies. No less valuable in the teaching of regional geography would appear to be the cultivation of the student's sense of place by requiring him to read passages from works in which the feeling for place has been most effectively expressed. Furthermore, even though we may prefer not to borrow directly from others, our own responsiveness to the Sirens' song is rendered more acute by reading the words of those who have also heard it, and the whole tone of our writing and teaching is enriched thereby.

The realm of geography – geography in the sense of all that has been written and depicted and conceived on the subject – consists of a relatively small core area (to borrow Whittlesey's phrase) and a much broader peripheral zone. The core comprises formal studies in geography as such; the periphery includes all of the informal geography contained in non-scientific works: in books of travel, in magazines and newspapers, in many a page of fiction and poetry, and on many a canvas. Although much of this informal geography offers little of value to us, some of it shows an insight deep into the heart of the matters with which we are most closely concerned. I venture to think that, of two geographers equally competent in all other respects, the one the better read in the imaginative passages in English literature dealing with the land of Britain could write the better regional geography of that land.

The peripheral zone also includes another even more informal type of geography; that of the subjective geographical conceptions of the world about them which exist in the minds of countless ordinary folk. In order to estimate what these are, we seldom need to go as far as the sociologists do in making ostensibly "scientific" inquiries into human attitudes. By talking sympathetically with a few intelligent folk on the ground, by consulting the files of local newspapers and other publications, and by a little adept use of intuition we may, under most circumstances, gain all that is required for our purposes. For example, the farmers of the Great Plains must look with certain sentiments on the massing of thunderheads after a long drought. Why not give life to our regional or climatological studies of the Plains by letting the reader sense this feeling? That it combines a hopeful expectancy of rain with a dread of tornadoes is a reasonable surmise, even though suggested subjectively by the imagination and only partially confirmed by conversations, rather than established rigorously on the basis of comprehensive interviews or questionnaires concerning exactly what the farmers' attitude toward the breaking of a drought may be.

7. Geography and human knowledge

I have tried to suggest some legitimate and desirable uses of the imagination in geography. I should now like to call attention to a broad domain that lies open for much more intensive geographical investigation than it has hitherto received.

Human knowledge is generally regarded as a phenomenon of considerable importance on the face of this earth. It may be made the subject of two types of geographical research: we may either study the geography of any or all forms of knowledge or else we may study geographical knowledge from any or all points of view.

The *geography of knowledge* is that aspect of systematic geography which deals potentially with knowledge and belief of all kinds, whether religious, scientific, philosophical, aesthetic, practical, or whatever else. The various forms and manifestations of knowledge are investigated in the light of their distribution and areal relationships, precisely as landforms, cities, languages, or other categories of terrestrial phenomena are investigated in other branches of systematic geography. Human knowledge, of course, is taken into account incidentally in many of these other branches and also in regional geography. Attention, however, is there concentrated on the results that knowledge produces on the face of the earth, rather than on the geographical nature of knowledge itself.

Though closely allied to cultural geography, the geography of knowledge differs from the latter to the extent that knowledge itself differs from culture. Knowledge is more fluid than culture, often spreading rapidly from one culture area to another without fundamentally altering established patterns. The sociologists have developed the sociology of knowledge more consciously and perhaps more systematically than we have developed the geography of knowledge, and would probably regard the latter as merely a part of the former. This need not trouble us, for there are many phases of geography in which we may profit from explorations conducted by others than ourselves.

Though the possibilities of research into the geography of knowledge are attractive, I wish to dwell here and now more particularly upon the second type of investigation, the *study of geographical knowledge*. As there is no accepted term for this field comparable to "musicology" or "historiography" for the study of musical or historical knowledge respectively, I shall yield to the geographer's perennial temptation and coin one. My term is *geosophy*, compounded from *ge* meaning "earth" and *sophia* meaning "knowledge." Although this suggests theosophy, there is no connection; nor should *geosophy* be confused with *geosophistry* and *geopedantry*, both of which have been known to flourish. Also, lest you misunderstand, I am not trying to introduce, any of these terms into the literature of geography[5].

Geosophy, to repeat, is the study of geographical knowledge from any or all points of view[6]. To geography what historiography is to history, it deals with the nature and expression of geographical knowledge both past and present, with what Whittlesey has called "man's sense of [terrestrial] space"[7]. Thus it extends far beyond the core area of scientific geographical knowledge or of geographical knowledge as otherwise systematized by geographers. Taking into account the whole peripheral realm, it covers the geographical ideas, both true and false, of all manner of people – not only geographers, but farmers and fishermen, business executives and poets, novelists and painters, Bedouins and Hottentots – and for this reason it necessarily has to do in large degree with subjective conceptions. Indeed, even those parts of it that deal with scientific geography must reckon with human desires, motives, and prejudices, for unless I am mistaken, nowhere are geographers more likely to be influenced by the subjective than in their discussions of what scientific geography is and ought to be.

While it is true that subjective ideas may be studied objectively up to a certain point, geosophy certainly is not a field in which one may apply the stricter methods of analysis possible in the physical sciences and physical geography. I doubt, however, that on this account any geographer in his senses would hold geosophy to be either illegitimate or undesirable. Its value both to ourselves and to the others whom we seek to serve requires little defense. Geosophy can provide a background and a perspective indispensable to our work. It can show us where the ways in which we observe and think fit into a larger scheme. By helping us better to understand the relationships of scientific geography to the historical and cultural conditions of which it is a product, it can enable us to become better-rounded scientific geographers, when that is our purpose. Recognition of its function in these respects is implied by the methodological discussions in which many American geographers take delight, and specifically by the emphasis that Sauer, Brown, Whittlesey, and others have placed of late on values to be derived from the history of geography.

There are many possible approaches to the study of geosophy. Let us consider two of these: the cartographic, and the historical approaches.

[5] I therefore relegate to a footnote the suggestion that the geography of knowledge might be called *sopho-geography* on the analogy of biogeography, zoögeography, etc.

[6] Studies of geographical knowledge from the *geographical* point of view – i.e., in terms of its geographical distribution, areal relationships, etc., as suggested under the heading "Cartographic Geosophy," below – are contributions not only to geosophy but also to the geography of knowledge. This present address is a study in geosophy but not in the geography of knowledge. Works aiming, for example, to interpret the distribution in the United States of illiterates, or of holders of Ph.D.'s, or of persons able to read Russian, would be studies in the geography of knowledge but not in geosophy.

[7] See Whittlesey D., "The Horizon of Geography", *Annals of the Association of American Geographers*, 35, 1945, pp. 1-38.

8. Cartographic geosophy

The cartographic approach to geosophy involves the making of maps that present information about the distribution of geographical knowledge. Obviously, every map tells us something in this regard; a geosophic map is one designed specifically for the purpose.

Such maps might be grouped in two main categories. The first would comprise maps that present facts relating to what is or has been known *about* different areas. By far the most common of these are maps showing areas that have been surveyed and mapped in various ways, for various purposes, and with varying degrees of intensity and accuracy, *cartosophic* maps, in other words, because they depict cartographic knowledge. In this same category, however, would also belong maps of the world as known to the Greeks or Romans, or of the United States as supposedly conceived by Ralph Brown's friend Mr. Keystone in 1810[8] or, perhaps, by the average contemporary Bostonian.

The second group would comprise maps that reveal facts concerning geographical knowledge, present or past, *in* different areas or at different places. This is an almost completely virgin field for ingenious experimentation. A dot map, for example, showing the distribution of members of the Association of American Geographers and the American Society for Professional Geographers would disclose information of considerable interest regarding the distribution of geographical knowledge in North America, especially if each dot were colored according to the quality and made proportional in size to the quantity of geographical knowledge in the mind of each individual represented.

Whether or not this particular geosophic map would be either feasible or desirable, geosophic maps in general bring out sharply the contrast between the shadows of ignorance and the light of knowledge. *Terrae incognitae* of various forms and degrees stand forth clearly upon them to arouse our curiosity.

[8] See Brown R.H., "Mirror for Americans: Likeness of the Eastern Seaboard, 1810", *American Geographical Society Special Publication*, 27, 1943.

9. Historical geography, or the history of geography

The historical approach to geosophy implies the study of the history of geographical knowledge, or what we customarily call "the history of geography." This subject is usually understood to deal with the record of geographical knowledge as acquired through exploration and field work, and as formalized and made into a discipline, and most of the work that has actually been done in the field has been restricted to the core area of geographical knowledge to the exclusion of its peripheral zone. There is, however, merit in conceiving it more comprehensively. I have already suggested that geographical knowledge of one kind or another is universal among men, and in no sense a monopoly of geographers. All persons know some geography, and I venture to think that many of the animals do, also.

However it may be with the animals, such knowledge is acquired in the first instance through observations of many kinds, from the stone-age man's view of distant ranges to the precise geodetic measurements of today aided by the use of electronic devices. Its acquisition, in turn, is conditioned by the complex interplay of cultural and psychological factors. The data with which it deals fall within the scope of each and every one of the natural sciences, the social studies, and the humanities. Its conceptions range from the purely personal, subjective impressions of a farmer or a hunter, to those gained by rigorous mathematical calculations and highly refined statistical correlations, and find expression not only in scientific forms but throughout literature and art. Indeed, nearly every important activity in which man engages, from hoeing a field, or writing a book, or conducting a business, to spreading a gospel or waging a war, is to some extent affected by the geographical knowledge at his disposal. If, therefore, the history of geography be conceived as potentially embracing all of the geographical knowledge of the past in its various relationships of cause and effect, it is an immense subject indeed. It is, however, no more immense than certain subjects of which the teaching is being promoted today notably the history of science or of the humanities in general, or "contemporary civilization" and has, besides, one advantage over these, in that it ties together with a unifying thread – that of geography – a record of wide and representative segments of human enterprise,

thought, emotion, and techniques. For this reason, I submit that it is a subject of which the investigation and the teaching offer superb educational and cultural values.

10. An aspiration

I shall conclude by expressing an aspiration, quite impractical, no doubt, and not to be taken too literally. My aspiration is that there might one day be established in some of our universities or colleges chairs of geosophy and the geography of knowledge. The purpose would be to increase the effectiveness of geographical research and education by broadening their scope. One school of thought has held that the effectiveness of geography can be increased only by limiting its scope, but this school would seem to confuse the effectiveness of geography as a discipline or profession with that of the individual geographer or existing university department. The more general tendency today is to stress the need of better linkage between geography and other subjects, notably ecology, soil science, agricultural and industrial economics, and cultural anthropology, and not a few regret the loosening of ties with geology and the various branches of geophysics. To the desirability of establishing and reëstablishing such contacts, I would add, as no less desirable, the reëstablishment of closer connections with history and the humanities.

In the periphery that lies outside the core area of scientific geography there are alluring *terrae incognitae*. If we ourselves do not personally feel equipped or competent to conduct excursions into them, should we exclude them from the scope of our sympathies? Although most of us are committed to the advancement of scientific geography along straight and narrow paths and would do well not to deviate too far from the directions in which they lead, we may at least extend our interest and encouragement to those who daringly strike out upon other routes. There is something to be said for considering scholarship, as distinguished from science alone, as our métier. All science should be scholarly, but not all scholarship can be rigorously scientific. Scholarship, moreover, embraces not only the natural sciences and social studies but also the humanities – the arts and letters – inquiring no less into the world of subjective experience and imaginative expression than into that of external reality. The *terrae incognitae* of the periphery contain fertile ground awaiting cultivation with the tools and in the spirit of the humanities.

The professors whom I have in mind would develop their subjects along different lines according to their tastes. Some might specialize in the geosophy of scientific geography, in its history, its methods, and perhaps in comparative biographical studies of the careers of individual geographers as bearing on the larger progress of geography. Others might concern themselves with geographical conceptions, both scientific and otherwise, as influencing and influenced by particular human activities and motives, or with particular categories of geographical knowledge in relation to the changing tides of doctrine and opinion.

At least one or two should surely devote themselves to what might be called aesthetic geosophy, the study of the expression of geographical conceptions in literature and in art. Literary historians, but few geographers, have followed the Sirens' call into these *terrae incognitae*. Need we leave their exploration wholly to the literary scholars? One function of my hypothetical professors of aesthetic geosophy – though God forbid they be called by such an atrocious title – would be to prevent the oncoming generations of geographers from becoming too thickly encrusted in the prosaic and to render the study of geography more powerful than it would now seem to be in firing the artistic and poetic imaginations of students and public. These professors should be scholars in the humanistic sense, men widely read in the classics of geography and also in general literature and in literary criticism and history. Masters of a style not only clear but restrainedly artistic, their writings might help raise the standards of geographical writing as a whole. Their research and teaching would be directed toward the discovery and the interpretation of geographical truth, belief, and error as they find and have found literary and artistic expression. As long as they did not come to regard themselves as the only true exponents of what geography ought to be, there would be little danger of their exerting an adverse effect upon the advancement and the prestige of scientific geography. They could do much to keep our ears open to the Sirens' song and make our voyaging into geographical unknowns a perennially satisfying venture, for, perhaps, the most fascinating *terrae incognitae* of all are those that lie within the minds and hearts of men.