THE POTENTIAL ROLE OF GEOGRAPHY IN THE PRE-COLLEGIATE CURRICULUM

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Geography can and should play an important role in the education of children throughout their pre-collegiate years. It can help them to better appreciate the world in which they live: the endless, fascinating changes in its weather, and the climatic contrasts from one area to another; the native vegetation and the plants introduced from elsewhere; the mountains and the coastlines, their histories and the processes which formed them; cities, their parts, their functions, their *raisons d'etre*; foods, their places of origin, cultural implications and their ingredients; and the totalities, migrations, and adaptations of cultures. Similarly, it can help to make them better future citizens: they will have a better basis for understanding local issues, such as public transit, air pollution, water supply, ethnic and racial problems; national issues, as wide-ranging as the energy crisis, pollution, endangered species, environmental sensitivity, and the need for comprehensive regional planning; and foreign affairs--to appreciate, for example, that Russia's interest in southern Africa is far more concerned with the seizure of control of such critical items as the Cape oil route from the Middle East to western Europe and the sources of chrome, copper, gold and diamonds than the altruistic "liberation" of "oppressed" blacks, or to understand the fundamentals underlying the economic development of mainland China or the position of Israel in the Middle East.

Two characteristics should be stressed in the handling of geography throughout the pre-collegiate curriculum. The

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study should be solid, basic and organized. It should be grounded in scientific principles; it should include such fundamentals, drawn from all disciplines, as are necessary to present the full picture; and it should be logically and firmly organized. At the same time, it should be presented in an intriguing, imaginative manner, designed to interest the student and to kindle in him the desire to know more, to apply what he has learned to the daily situations in the Real World.

Such an approach can, of course, be upon a systematic basis: the group can study geomorphology alone and in its own right, followed by a unit on climate, etc., etc., much as is done in the ordinary introductory textbook for collegiage geography. But it is probably easier to capture the interest of students through a regional approach, for that is where things happen and where it all comes together. While it is necesaary to compartmentalize knowledge and teaching to some extent, it is in the region that all the compartments inter-relate and integrate, producing the complex of interactions that characterize the area. Each region is composed of landforms, climate, soils, vegetation, animals, farms, cities, transportation means and routes, industries, and above all, people. The people interact with each other and with all the elements of the environment--and it is these interactions which make news, which is of interest to students, and therefore what gives purpose and meaning to any study.

There is a great temptation to begin geographic study with a faraway, exotic and totally "different" region: to select Japan or Nigeria or India for the first unit of study the child will encounter. The student is intrigued and excited by the romantic, novel and sometimes bizarre situations, and thus becomes deeply involved.

But to start the fledgling student off on a study of geography in such unfamiliar surroundings is almost as illogical as it would be to begin the study of mathematics by plunging the uninitiate into long division before learning addition, subtraction and multiplication.

It is much more logical, and it can be just as interesting, to start with the known, the local, the nearby, and then to move on outwards into stranger lands. Starting with the local means starting with places and situations to which kids can relate, to which they can go, which they can see, hear, smell, touch, experience. And this is a fine place to begin observation and thought training: to teach the students to look, to see, to observe, to retain, to record, to relate, to interrelate. Here the beginning student can be introduced to cause-effect relationships, to orderly regimentation of thought.

At the local level, the systematic approach can be realistically combined with the regional: things are on a scale large enough for the student to grasp them concretely, and to understand them fully; and examples can be real and alive, not merely theoretical, imagined, or ethereal.

Geography can start in the first grade with a study of the school neighborhood. The determination of the directions of the streets leads naturally to earth-sun relations in their simpler forms, and to the compass and magnetism. Urban schools can usually obtain large-scale vertical air photos from the City Engineer or the Planning Department, and can have them reproduced cheaply in quantity by blue-print methods. In rural areas, the Soil Conservation Service, the local Farm Advisor, Irrigation District or County Planning Department are likely sources. On such photos (or on overlays over them), children can plan walks, and record observations such as the outlines of commercial districts, single family and multiple unit residential areas, industrial units, or crops and orchards and pastures. In so doing, they learn simultaneously to orient themselves, to transfer from ground to map, to work at various scales; and to divide human activity into some of its basic components--in short, to logically classify in an orderly fashion.

The physical base can be described and discussed. The local geology is a good starting point, even if only alluvium underlies the entire area, for alluvium can lead to a discussion

of fluvial processes, floods, and vagaries of climate. Clouds and rain lead to air masses, to orographic, frontal and convectional precipitation; sunny days can result in discussions of isolation, transfers of energy, relative rates of heating and cooling of different types of surfaces; the sea breeze can lead to temperature inversion and smog discussions. When explained simply and directly, many of these concepts can be grasped by even the first-grader, and when the student is properly intrigued even mouth-filling polysyllabic terms can be mastered. Many things can be tied together to illustatte interesting points: Where did the local Indians locate their villages? Why? (relation to water, food--oak trees along the streams, shellfish on the beach, etc.). What did they eat? Wear? How has the local vegetation been altered since human beings first came into the area (selective gathering, fire, construction, competition from imported weeds, irrigation, destruction of wild animals, overgrazing, introduction of ornamentals and crop plants). This can lead to studies of man's influence upon the envirnnment, cultural transfers, cultural infusion.

In the months and years that follow, the area involved can be gradually expanded: the neighborhood will give way to the community, and that to the region. Such a program can well involve the social studies allotment of time for the first two years of school.

Early in the third year, emphasis might well be shifted from the geographical to the historical perspective, in the form of a study of the sequence of cultures that have occupied, adapted to, utilized and transformed the region: in southern California, this would include the Indians, the Spanish Missions, the Mexican Ranchos, the early Anglo developments, and the present day.

In the first case, the Indians should be considered from the viewpoint of their adaptation to the environment: their economy (subsistence hunting, fishing, gathering), their trade and commerce (virtually none), their shelters and the materials

used in their construction, the population density and distribution, their seasonal round, their social and political organization. The Spanish Mission should be considered in regard to its contrast with and alteration of the Indian, their sedentary agrarian way of life, their introduced crops and animals, their structures, the relations with Spain and Mexico, and the lack of trade, and their long term effect upon the environment. Similar approaches can be developed for the later periods, culminating in the study of the present scene: agriculture, water supply, industry, ethnic and racial groups, density and distribution, and major problems.

Then, abruptly, the scene should be shifted--to a physically similar but culturally dissimilar land. Were the school in Kansas, we might select the Ukraine; were it in western Texas, perhaps the South African high veld or the Australian outback would be appropriate. For southern California, Greece makes an excellent companion study.

The two countries have an almost identical physical base: the climate--moist winters and arid summers, mild in the lowlands, snow on the mountains; the landforms--rugged mountains and valleys floored with alluvium; the vegetation--xerophytic shrubs; and the natural agricultural potential--modest yields of plants adjusted to the winter rainfall regime (grapes, olives, walnuts, almonds, grains).

Yet, culturally, the two lands are worlds apart. Greece has had five millenia of high cultural attainments; California was totally uncivilized until two centuries ago, when a totally alien culture (Spanish) was suddenly and forcibly superimposed upon a primitive prople. The reason for the difference lies in the contrasting vicinal situations and in the configurations of the coastlines and the resultant early transport development or lack thereof.

Greece lies at the meeting point of three continents: Europe, Asia and Africa, each with a melange of fairly progressive culture groups dating back to the dawn of history. It also

lies on the shores of the Aegean and Mediterranean Seas, seas dotted with islands and with extremely irregular shorelines. There people took to boats very early, and were able to sail from place to place with relative safety, even in the frail craft of ancient times. Thus there came to be an exchange of goods, of personnel, and of ideas abeween the different groups, and the resultant cross-fertilization produced a rapid rise in the level of culture of all the groups involved.

In California, on the other hand, isolation and non-mobility were the rule from the advent of the first peoples until the arrival of the Spanish. The coast is straight and harborless (almost all of our present harbors are artificial and less than a century old), and inland the sparsely settled and inhospitable desert precluded cultural exchanges. So there were few interchanges of ideas, no cross-fertilization, and virtually no advance.

But in recent times, with changes in technology, in the relative importance of resources, and in the role of the national state, the positions of the two areas have reversed themselves. Modern national economies and national power are based upon the possession or control of highly developed industry and the resources (coal, oil, ores, atomic fuels, etc.) for it, and of large populations occupying large and fertile land areas. All of these are lacking in Greece, but they are present in southern California and in the United States of which southern California is a part. If all Europe were a single political and economic entity, then Greece might prosper, but in its present situation, it is relegated to the position of a third-rate power.

Gradually expanding the theater of operation--shifting progressively to the other parts of California, to the rest of the United States, to North America--will allow the presentation of new basic principles, developing gradually the full systematic approach to geography. This will lead, eventually, to the study of world patterns, and of the faraway parts of the earth.

But this should not be rushed. These broader concepts can well be left for the more advanced years, for the upper grades.

Rather than to rush forward too quickly, it is better to view the local area (southern California) and the parallel region (Greece) closely, leisurely, in detail, to capture the full flavor of each, to understand the environment, the culture, the color and the personality of each, and to use them as the basis for all the rest of the studies.

Above all, geography in the schools should be made stimulating and interesting. Geography itself is interesting, and the Real World is fascinating. As Robert Louis Stevenson wrote in his "Child's Garden of Verse": "The world is so full of a number of things, I think we should all be as happy as kings". It should be our mission to impart such feelings to our students, at whatever level they may be.