GEOGRAPHY AS A DISCIPLINE

By: Robert E. Huke, Professor, Department of Geography, Dartmouth College

Vincent Malmström, Professor, Department of Geography, Dartmouth College

Association of American Geographers
1710 Sixteenth Street, NW
Washington, DC 20009-3198
(202) 234-1450

-The Need for Geography-

Scarcely a day goes by when we are not reminded by the media of the ongoing struggle for survival that is being waged in all the far-flung corners of Planet Earth. Headlines tell of a flood in Bangladesh, a famine in Ethiopia, an earthquake in Guatemala. We read of ethnic unrest in Yugoslavia, terrorism in the Middle East, and religious strife in Northern Ireland. Our TV screens shock us with on-the-spot photos of racial violence in South Africa and military clashes in Central America. But, some of the most important news items never appear under datelines, because they are so pervasive, so insidious, so continuous. For example, the constant and escalating growth of the world's population and the inexorable deterioration of the earth's environment. The air we breathe and the water we drink is becoming increasingly fouled; acid rain takes a rising toll of life in our forests and lakes; the depletion of the ozone layer threatens our planet with climbing temperatures and rising sea levels; the devastation of tropical rainforests and the depletion of groundwater reserves continues apace; problems of waste disposal loom steadily larger; the AIDS epidemic spreads its scourge ever farther and wider.

In a world so shrunken in distance and time that you can almost instantly communicate with any other city on any other continent, and in which you can fly to virtually its remotest corner in a matter of hours, a knowledge of differing peoples and places can no longer be considered the luxury of a few but is, instead, a necessity of the masses. Our interdependence is now so complete that business decisions taken in Tokyo or Singapore have repercussions in Copenhagen and Peoria. Just to stay abreast of world events, much less to function effectively as informed global citizens, requires that we learn not only where these happenings are occurring but also why they are taking place there and how they will impact on our lives. Such considerations are the very essence of geography -- a discipline whose study has unfortunately been sorely neglected at all levels of the American educational system for some time.

-What Geography Is-

Geography is the study of place, or space, in the same sense that history is the study of time. The geographer’s method of inquiry concentrates on asking two essential questions: "WHERE are things located?" and "WHY are they located where they are?" While the
answer to the former is largely descriptive, the answer to the latter is entirely analytical. The geographer is concerned primarily with interpreting and explaining the occurrence, distribution, and interrelationships of the physical and cultural elements that can be discerned in the landscape. Geography analyzes phenomena according to the attributes of location, extent, and density. As the analysis continues over time it assumes a fourth dimension -- succession. The constantly changing physical and human landscapes on the earth's surface challenge the geographer to provide continuing interpretations of all parts of the world from the spatial point of view.

Geography is both a natural science and a social science as it examines people and their environment and serves as a bridge between the physical and cultural worlds. To be sure, individual geographers tend to emphasize differing aspects of the spatial continuum -- some specializing in physical geography by devoting their study to distributions of climate, vegetation, soils, and landforms. Among the many topics they explore are weather forecasting, watershed management, coastal planning, the utilization of forest resources, and soil erosion, to mention but a few. Other geographers concentrate on the spatial associations resulting from human activities and characteristics. Among the latter, economic, social, and political geographers investigate the abandonment of agricultural land, the intensification of settlement, territorial disputes, the trade areas of cities, cultural diffusion, the incidence of pollution, and the perception of environment. Though most geographic studies address contemporary phenomena, an important branch of the discipline -- historical geography -- looks backward into time to reconstruct the geographies of the past. Likewise, a growing number of geographers use techniques of spatial analysis to assist in planning cities and regions that will constitute the geography and geographic problems of the future.

Traditionally, geographers relied on field observation as the principal means of gathering data. Such observations have, in turn, been combined and generalized to form the scaled-down graphics we know as "maps." Yet, were our observations of the world around us limited to what we perceive through our own eyes-- from an elevation of about five feet -- our understanding of spatial relationships would be poor indeed. So we have sought to expand our perceptions by using data gathered from balloons, aircraft, and orbiting satellites. At the same time, we have added to the narrow observational capabilities of films, and more recently have exploited the more remote wave lengths of thermal images, radar, and even ultraviolet radiation. Thus, geography is currently experiencing an explosion in data collection, and in its wake has come a growing reliance on such data-processing techniques as statistical analysis, computer mapping, and geographic information systems.

- Geography in America -

Ultimately, geography's origins may be traced back to man's innate curiosity regarding the world wound him - a curiosity shared by all people at all times and in all places. Although early civilizations such as those of China and India made their own important contributions to the discipline, the mainstream of geography's development as a subject of scholarly inquiry may be traced back to classical Greece. However, it remained for the
Germans of the last century - at the very heart of the most physically and culturally diverse subcontinent in the world - to appreciate geography as a scientific discipline, relating people to their environment and explaining their interactions. Alexander von Humboldt, the great German naturalist, is considered "the father of modern geography," and one of his disciples, Arnold Guyot, became the first academic geographer of the new school the United States with his appointment as Professor of Geography at Princeton University in 1854. In American universities, the discipline often developed within other departments, especially geology and, in some instances, history, economics, or anthropology, usually to be followed by the establishment of separate geography departments. Today over 1,300 colleges and universities in the United States offer programs in geography and over 150 of the major institutions award graduate degrees in geography.

In the middle 1930s, the crisis of the Depression increased the involvement of geographers in national planning and research, especially in resource development. Among the pioneer ventures in which they engaged were the Michigan Land Economic Survey and planning for the Tennessee Valley Authority. In the later 1930s and during and after World War II, a further surge of public interest in geography was related, in part, to the nation's increased international commitments. Entering graduate students during this period had a stronger social science background than the prewar group, with its emphasis on geologic process and historical interpretation. Closer relations with the social sciences developed in some universities when area-study programs were initiated, and when interest heightened in urban resource development study. The growth of mathematical and theoretical work in the 1950s added impetus to these trends, and linkages with economics and sociology began to grow rapidly. Involvement of geographers in policy-oriented research into highway development, urban renewal, resource management, and questions of environmental control provided additional stimulation. Quantitative studies and locational analysis, initially stressed at only a few U.S. universities, have expanded dramatically with major contributions coming from Scandinavia and the United Kingdom. American geographers today use the most sophisticated remote sensing, simulation, and statistical analysis techniques in their research. These methodological trends emphasize geography as a research discipline. A practical concern with problem-solving and more conscious attempts to develop theoretical structures have characterized this research, which has developed concurrently with geography's long-standing value as a part of liberal education.

-What Geographers Do -

Geography is an especially attractive major for Liberal Arts students. Its body of theory and its methodologies provide analytic technique applicable to a wide range of questions ranging over a broad spectrum of possible occupations. For students planning to terminate their formal education with the bachelor's degree it also provides both the regional and world perspective required of responsible citizens. For the same reasons geography especially valuable for those who plan to enter graduate work in business administration, planning, law, or medicine.
Geography also offers a number of rewarding opportunities in teaching at all levels of the educational system. The revitalization of elementary and high school curricula to include or strengthen geography has increased the demand for qualified teachers in our primary and secondary schools, while the growth of urban and environmental studies programs in colleges and universities has also spurred the demand for well-trained geographers in many undergraduate and graduate institutions.

The potential of applying the geographic approach in government and private enterprise is increasing considerably, although many positions will not carry a geography title. Many employment opportunities exist for individuals trained in geographic information systems, cartography, remote sensing, and computer mapping. Roughly a quarter of all professional geographers today find employment in government, either at the state or local levels, or in a variety of federal agencies, the armed forces, and in international organizations. Geographers hold such job titles as cartographer, geographic analyst, map curator, land officer, international economist, intelligence officer, and soil conservationist.

The application of geographical methodologies in private business is appropriate especially in industrial location analysis, in market research, and in transportation planning and design. Another rapidly developing field is metropolitan and regional planning. Other geographers in private business work as writers, editors, and cartographers for publishers of maps, atlases, textbooks, encyclopedias, and news and travel magazines.

- How One Becomes a Geographer -

Every one of us is born with an inherent curiosity about the world around us; it remains, however, for the geographer to channel this innate intellectual curiosity into a systematic and disciplined method of study. Fortunately the old-fashioned place-name geography which so long colored the average American's impression of the discipline is being rapidly replaced by innovative and challenging curricula which will stimulate and nurture that curiosity rather then discourage or stultify it, as was so often true in the past.

However, beyond his or her study of geography in the elementary and secondary schools and at the undergraduate college or university level, the professional geographer will usually have graduate training. For persons preparing for teaching careers in two year and community colleges or in middle-level research or government posts, the masters degree should be obtained. For those seeking university teaching positions and for upper-level posts in research, business, and government, a Ph.D. degree is required. Specific requirements for most graduate degrees include writing proficiency, reading ability in at least one foreign language, and training in field techniques, cartography, and statistical methods, including computer applications.
Success as a geographer requires an interest in both the natural and social sciences, accompanied by an enthusiasm for research and an ability to organize and interpret data.

-Careers In Geography-

A completely revised edition of the AAG booklet, Careers in Geography by Salvatore J. Natoli, is now available from the AAG Central Office. This 43-page third edition includes chapters on careers for geographers in business and industry, government, planning and teaching; a section describing the academic preparation for various levels of professional employment including information on applying to graduate school; and a new chapter on looking for a job. The appendices list institutions in the U.S. and Canada that offer a major in geography, references for career counseling, and related professional associations.

Careers in Geography is available at $1.00 per copy. Discounts for bulk orders are 10 percent for 10-49 copies, 15 percent for 50-99 copies, and 20 percent for 100 or more copies. Prepayment is required for orders under $50. Please send orders to: Association of American Geographers, 1710 Sixteenth Street NW, Washington. DC 20009-3198.

The original version of Geography as a Discipline was developed, printed, and distributed by the Commission on College Geography of the Association of American Geographers with National Science Foundation support. The brochure was commissioned by the Consulting Services Panel of the CCG.

The ideas presented do not imply endorsement by the AAG. Single copies are mailed free upon request. Bulk orders are priced at $.25 each for 2-50 copies, $.20 each for 51 or more copies.

Copyright 1973 Association of American Geographers
Revised 1988

(Back to Table of Contents)