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THE VALUES OF GEOGRAPHY AS A HIGH SCHOOL SUBJECT

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THE VALUES OF GEOGRAPHY AS A HIGH SCHOOL SUBJECT

CHAPTER I

INTRODUCTION

Statement of Problem

What does geography have to offer high school students? This is the primary question which this investigation attempts to answer. For some time a great concern has been apparent among geographers about the amount, type, and quality of geography taught in the high schools of the United States. It was believed, therefore, that an investigation into the values of high school geography could help in getting more and better geography taught in the nation's high schools. This study attempts to bring together the ideas of many people in regard to just what role geography should play in educating the high school age citizen. Also this study attempts to answer the following questions. (1) Is there a need for more and better geography at the high school level? (2) What is the present status of high school geography in the United States? (3) How can the values of high school geography be attained?

The problem of getting more geography taught, and

taught better, in the high schools of the United States has been one of the great concerns of American geographers for many years. The nation-wide acceptance of geography in the elementary schools and to a lesser degree in colleges and universities has left a big gap at the secondary level in the geographical education of many American citizens. Many educators and laymen, as well as numerous professional geographers, have spent considerable time and effort considering this problem. A great amount of material has been written on all phases of high school geography. The subject has been thoroughly discussed at several professional meetings. Yet, a tremendous amount of research is still to be done in this area of learning.

The problem of improving geographical education is not entirely a new one, but one that reappears again and again. Suggestions for the improvement of the teaching of geography are found in the professional writings of many geographers and educators since the earliest days of modern education.

It is interesting to examine a few of these early suggestions for the teaching of geography.[1]

Johann Comenius, a Moravian bishop and leader in the field of education during the middle of the seventeenth

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[1]Lorrin G. Kennamer, Jr., "Beginnings in Geographic Education," Journal of Geography, LII (Feb., 1953), 72.

century, made many suggestions for geography teachers.[2] He urged that the child should secure very early a good knowledge of natural things. He believed that the child should be taken into the fields and along the rivers to observe the plants, animals, and land. The child should be taught direction, location, and distance in various parts of the community. In addition to outdoor observation in the teaching of geography, the use of pictures was advocated to furnish reality to the learning situation. In these ideas, Comenius was advocating a procedure in geography teaching that has become known as "home geography."

In the late 1600's John Locke also wrote concerning the teaching of geography. He believed the student should study the earth as a whole and analyze its various parts. A later procedure in geography teaching known as the deductive method incorporated this suggestion.

Jean Jacques Rousseau, writing about 1750, described the geography of his time as practically worthless, since it consisted only of the formal study of globes and maps. He suggested that a correct knowledge of the neighborhood was the place to start geographical education and to expand the child's information into broader geographical areas. This could be done more easily if the individual had a first hand

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[2] Ibid., pp. 72-77. Information on Comenius, Locke, and Rousseau is from the same source.

grasp of the local area. He believed that the ability to go to a map and point out the location of a place actually had no real value within itself. The real value of location can only be attained when it is understood what that particular location means to that particular city, country, or state.

Do American Students Need to be Geographically Informed?

Is it essential for American students to be geographically informed? The answer to this question must be yes! A few of the reasons why have been given by Elizabeth Hoffman. She insists that geography is needed for survival and states two reasons for its importance.

> The world today poses two main problems: 1. the need of enough knowledge about the environment of the earth to enable man to make successful adjustment to the forces and resources of nature; and 2. the necessity of learning enough about other peoples to enable one people to get along with others. This second problem requires sufficient learning to make the attitudes and actions of other peoples seem reasonable and understandable.[3]

The need for geographical information is apparent if one is to follow intelligently the daily newspaper and news on the radio and television. In the past five years Korea, Guatemala, Ceylon, Iran, Israel, Indo-China, and Formosa have frequently been in the headlines and on the news

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[3]Elizabeth Hoffman, "Is it Essential for the American Student to be Geographically Informed?" Journal of Geography, LIII (April, 1954), 150. This paper first appeared as a first prize winner in a state wide contest conducted by the New Jersey Council of Geography Teachers in 1953.

programs. Knowledge of these countries, including information on their climate, crops, peoples and occupations would certainly give a clearer understanding of the news items.

Geography helps one to understand the ties that bind people together, the relationships, both competitive and cooperative, that force each country to take account of the others. Geography provides for building an understanding and appreciation of the problems and the achievements of other peoples.

> One of the major tasks of American schools is to help people to see that we are actually a part of a world community, and that merely thinking that we will or will not have a part in it cannot change the situation.[4]

Many people, during World War II, commented on the values of geography to the armed forces of the country. They also compared our geographical knowledge with other countries, especially Germany, which had for many years stressed geography.

> The lack of geographical knowledge has been the cause of much war-time embarrassment. General George Marshall said concerning this subject: ". . . the nation whose leaders know the most and best geography are going to win this war." When the army made arrangements with colleges and universities to give special courses to hundreds of thousands of young men in military service many colleges and universities discovered that they had no geography professors on the faculty. If, however, there had been courses in geography in American high schools, colleges and universities in the

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[4] Joe Russell Whitaker, Geography in School and College (Nashville, Tennessee: Bureau of Publications, George Peabody College for Teachers, 1948), p. 19.

> first place, there would have been no lack of geography professors nor would there have been any necessity of added military geographical courses to make up for the deficiency in knowledge.[5]

The service men themselves found that fighting on foreign soil necessitated their contact with peoples of many races and cultures. They found it difficult to understand their ways of life. The average American citizen is also in need of geographical information to keep up with happenings in the world. For example, in order to keep pace with the air-age, information is needed on polar land areas. Also, the drilling of oil wells in the tidelands makes the study of oceans more important. A thorough study of geography will help in keeping abreast of these and other great changes that are developing today.

> The time to acquire this knowledge is during school years and those to whom this training should be given are the American students. America may build a system of education which tells the child to be tolerant and understanding of others but when the man faces other men whose definition of familiar terms is not even the same as his own, he is not going to be understanding. When a man finds them competing for things he wants himself he is not going to be tolerant, even if he has been told to. But even tolerance and understanding are not enough. Man must like his fellowmen well enough not to fight with them.[6]

If geographical knowledge is not obtained in the schools it is quite probable that a great many people will not become geographically informed. Maps, charts, statistics,

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[5]Hoffman, op. cit., p. 151.

[6]Ibid., p. 150.

and descriptive reading material are not easy to master if there has been no training in their use. Since these skills are a fundamental part of high school geography, logic would demand that geography be included as a subject at the high school level.

> To place the whole of geographical instruction in elementary schools, regardless of how good the textbooks may be, only offers a knowledge which will be lost before it can be put to use. Geography is a subject needed by adults in their relationships of everyday life. And yet, as our system of education is today after the completion of the elementary grades, geography can be found only buried in the amalgam called social studies in high schools and only in special courses in colleges and universities.[7]

If geographical information is essential, then this question arises. Are Amreican students geographically informed? Most of the evidence at hand would indicate that American students are universally lacking, even in fundamental geographic concepts.

A number of surveys have been made on this subject in the past few years. Probably the most widely published survey was conducted by the New Ycrk Times, reported in June, 1951. This survey was conducted among college students, but since it reflects on high school instruction its results are important to this study. The results were tragically revealing.

> American college students know shockingly little about the geography of this country. They know even

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[7] Ibid., p. 153.

> less about the world. American or world geography is a forgotten subject in our institutions of higher learning.
>
> . . . . . .
>
> The lack of knowledge of even fundamental aspects of American life is appalling, the present survey shows. An analysis of the thirty-two questions asked in the test indicates that both world and American geography have been passed by the vast majority of our students. The amount of misinformation is unbelievably large. It would seem almost impossible for anyone who has gone through high school and in many instances are about to receive their college diplomas to have such vast misconceptions of what the United States looks like.
>
> For example, less than half the college students know even the approximate population of the United States. . . only forty-three per cent of the college freshmen knew the approximate population.
>
> . . . . . .
>
> In almost every phase of geography the misinformation came to the front. The students just do not know what the United States looks like on a map, or otherwise. Only seventeen per cent could name the states through which one would pass in traveling by the most direct route between Minneapolis and Seattle. Some students listed Georgia, Mississippi and other far removed states.[8]

Another survey was made in 1952 by a graduate student at the University of Oregon. He made a study of incoming college students as to their knowledge of the location of our states. Each student was given an outline map of the United States on which he was to write in the names of the states in the right place. He found that 62 per cent could not locate New Hampshire and 58 per cent could not locate Vermont. The only states which almost all of the students could locate were Texas, Florida and California. Less than

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[8] New York Times, June 11, 1951, p. 26.

one per cent missed them.[9]

There was another New York Times survey made in 1950. In this survey college officials were questioned about the geographical knowledge of their students. Some of these college officials comments are revealing.

> College officials are almost unanimous in complaining that students are "woefully ignorant" about questions dealing with geography. Many agree with Prof. Genevieve Lamson of Vassar College that almost without exception foreign students have had more and better geographic training than American students. "I have found that one cannot take even the most elementary geographic knowledge for granted," she declared.
>
> In similar vein, Prof. Jan O. M. Broek of the University of Minnesota remarked that the United States was the only country with comparable education where the study of geography terminated so early in the curriculum. Even in the grades where it is given, he noted, it is usually part of the social studies and is taught by teachers who, having had little or no training in geography, neglect it in favor of other aspects of the social studies.[10]

The Need for Geography at the High School Level

Why should geography be taught in the high school? The answer to this question can be visualized by comparing a statement made recently on the purpose of general geography with a statement made in 1934 on the purpose of high school geography.

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[9]Kenneth K. Williams, "A Survey of the Knowledge of Incoming Students in College Geography," Journal of Geography, LI (April, 1952), 157-162.

[10]New York Times, Dec. 18, 1950, p. 1.

Recently, Paul F. Griffin made this statement:

> The purpose of geography is to discover what adjustment man has made to his environment with its infinite varieties of resources and conditions across the face of the earth. The course of this study must be shaped by the nature of man's current problems, without ignoring, of course, the perspective of his past.[11]

In 1934, Helen A. Burrill made a comment which still holds true today.

> The purpose of a high school geography program is not a content repetition of geography taught in the elementary grades but one which will make additional contributions toward preparing students for a more understanding and intelligent citizenry. High school geography should also lay a strong basic foundation on which advanced geography courses in colleges and universities may be founded.[12]

To coordinate the purposes of geography and the purposes of high school geography is the real problem that confronts those who wish to make geography practical at the high school level.

> The problems of high school geography are a matter of concern for the public as well as for the geographer.
>
> . . . . . .
>
> It is time to start building a program putting geography on the high school level. It is past time when such a program should be a reality. Until it is a reality, high school students should be guided in geographic thinking at whatever level it may be. They should acquire skills in the use of geographic tools. They should become fact users, able to analyse and reach their own conclusions. They should be given a start in geographic thinking as an essential basis for

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[11]Paul F. Griffin, "Secondary School Geography and the Needs of Our Times," Journal of Geography, LII (Feb., 1953), 67.

[12]Helen A. Burrill, "A Geography Program for the High School," Journal of Geography, XXXIII (Sept., 1934), 231.

active, world leadership.[13]

The foregoing statements present the need of geography at the high school level for those who go to college. There are, however, still a great number of high school graduates who do not go to college, and still more who drop out of high school before graduation. What about geographic education for those whose formal education ends in high school? The only place they can get it is in the high school.

Limitation of Study

This study is primarily concerned with the teaching of geography as a subject in the high school. Geographic education in the elementary grades and in colleges and universities is referred to only when it has some bearing on the subject at the high school level. This effort has been concentrated on the values of high school geography and how these values may be obtained. The emphasis has been centered on the organization of the geography program, content of the geography curriculum, methods of teaching, setting up of adequate facilities, tools used in teaching, and the training and certification of teachers who teach geography in the high schools.

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[13]Villa B. Smith, "High School Geography and Geographic Thinking," Geography in the High School (Bloomington, Illinois: McKnight and McKnight, 1949), pp. 32-33.

Definition of Terms

There are about as many definitions of geography as there are individuals who write on the subject. Most of these definitions, however, are very much alike in many respects. Very often only a word or two is different, or in some cases a few descriptive adjectives are added. Since many people, however, have misconceptions about geography it might be helpful if a few of these false ideas were refuted before giving a definition of geography.

Geography is not the mere accumulation of facts about an area of the world. Geography is not a series of memorized locations on a map. Geography is not a set of definitions of such words as peninsula, island, or sea. Geography is not an accumulation of population and area statistics. Geography is not a division of the world by political boundaries. Geography touches all of these things, but it is much more than any one of these and much more than all combined.

"Geography is the study of the earth and its relationship to man and his activities."[14] This is a short and simple definition but one that fits the current ideas of geographers and substantially agrees with many other definitions of geography now in use. The "human" theme is now

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[14] O. W. Freeman and H. F. Raup, Essentials of Geography (New York: McGraw Hill, 1949), p. 1.

predominant throughout geographic writings. By this definition it is clear that when geography is taught the role of man on the earth must be stressed.

Throughout the past, view points have conflicted as to the true function of geography. Some have insisted that it is a physical science and others have contended that it is a social science. In truth, it is both.

As a physical science, geography touches on astronomy, mathematical geography, rock types and structures, the occurrence of economic minerals and fuels, the relief of the land and nature of surface deposits, and kind of drainage. Geography as a physical science also includes the description of the weather systems of the world and the distribution of the various types of climate. It draws on botany and zoology to define the great life zones and notes how they are related to climate, relief, rock type, and position. Geography is also interested in how climate and vegetation, together with rock material, influence the nature and distribution of the soil zones of the world.[15]

The body of knowledge in human geography includes sections on the distribution of races, the distribution of resources as well as industries and occupations. The distribution of settlements and the population pattern are also

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[15] J. Wreford Watson, "Geography in Relation to the Physical and Social Sciences," Journal of Geography, LII (Nov., 1953), 321-322.

a part of human geography. Human geography also includes historical geography, a study of the changing cultural landscape as new people, ideas, economies, and political systems change the geography of the land.[16]

Organization of the Study

In the earlier part of Chapter I, an attempt has been made to establish a need for the study of the values of geography as a high school subject. This has been done by showing that American students need to be geographically informed, and that, as of now, they are not. It has also been shown that geographic education is needed and that the high school is an ideal place for this instruction.

In Chapter II, background material is presented for the purpose of helping to understand the present problem. This survey goes back twenty-five years and is divided into three periods: the period between 1930 and 1940, the 1940 to 1950 period, and the period between 1950 and the present. A short survey is also given to some historical changes that have occurred in educational geography before 1930. The chapter concludes with a summary of weaknesses found in present day high school geography.

The values of geography in the high school are discussed in detail in Chapter III and Chapter IV. Chapter III describes the contribution of geography to society in general.

[16] Ibid.

Chapter IV is a discussion of the values of geography to the individual.

In Chapter III, the general social values of geography are discussed under the following headings: (1) fostering international understanding; (2) making for better citizenship; (3) understanding the meaning of differences from place to place; (4) solving human problems; (5) seeing people in their physical environment; (6) learning the meaning of relative location; (7) understanding how man obtains the necessities and luxuries of life; (8) understanding the true meaning of conservation; and (9) understanding the interrelation of the physical and cultural environment.

In Chapter IV the values of geography to the individual are studied under the following aids: (1) acquiring a college education; (2) providing for vocational guidance; and (3) obtaining a fuller and more satisfying life.

Chapter V describes the ways in which the values discussed in Chapters III and IV can be achieved. The improvement of the teaching of geography is described under the following topics: (1) clarifying the aims and objectives of the geography program in the high school; (2) improving the content included in the high school geography courses; (3) improving the organization of the high school geography program; (4) improving methods in the teaching of high school geography; (5) selecting the basic tools of geographic instruction in the high school; (6) setting up better

facilities for the teaching of high school geography; and (7) improving the training and certification of high school geography teachers.

In Chapter VI, some suggestions on devising a geography program for high schools are given. Not one, but several plans are given in order to include schools of various sizes and types. Suggestions are given those schools which can offer only one course and also to those schools which can offer two, three or four years of high school geography. Suggestions are also made for those schools whose social studies program is built around the core curriculum, and wish to include geography into that program.

Chapter VII is a summary of the findings, the drawing of conclusions and the listing of recommendations drawn from this study and also suggestions for future research in the field of high school geography.

Methods of Research

The principal method of research consisted of the reading of educational, geographical, and social science books and publications. Monthly magazines proved to be the greatest source of information. Many of these publications were not only helpful in supplying information and ideas for further research but also in supplying names of individuals who were contacted by mail and were directly responsible for much of the information obtained in correspondence. A

detailed survey was made of current, 1950 to 1955, publications and a less intense search was made of the publications between 1930 and 1950. A number of United States government publications as well as publications from several state governments were also of some value to the study. The number of books on this particular subject was found to be very great.

An analysis was made of geography textbooks used in the high schools during the 1930-35 period. Present day texts were also examined as well as many which were published between 1935 and 1955. This information proved to be especially valuable for parts of Chapter II.

A search of the files of the Oklahoma State Department of Education was made to get the statistical information dealing with the number of high schools offering geography in the state. Most of the other information on Oklahoma came from publications of the Oklahoma State Department of Education and visits to that office in Oklahoma City.

Letters were sent to the department of education in some 25 other states to get information on the certification of teachers, names of courses in geography, number of high schools teaching geography, and the number of semesters the course was being offered.[17] Some of the states had rather complete information while others could supply only part of

[17]States were selected at random; however, geographical distribution was a factor in their selection.

the data needed. All state departments contacted appeared to be interested in the project and co-operated to the fullest.

Letters were written to recognized authorities in education, in geography, and in other fields of learning in colleges and universities throughout the United States. Letters were also written to leaders in business, in industry, and in government to get their views on geography as a high school subject. The bulk of the content of Chapters IV, V, and VI came from information from these letters as well as from the letters of the departments of education.

Value of the Study

The study brings together in one volume the ideas of many geographers, educators, business leaders, and leaders of industry on the values of geography at the high school level. This study also consolidates many different suggestions on how these values may be achieved.

Such a work should prove of value as a reference to those who are interested in the teaching of high school geography. High school administrators, teachers, and students who plan to teach geography should find it of particular value.

Lastly, it is hoped that this study of the values of high school geography will in some way and in some degree help get more and better geography taught in the high schools of this country.

CHAPTER II

SURVEY OF THE HISTORICAL DEVELOPMENT OF HIGH SCHOOL GEOGRAPHY

Evolution of Geography as a Subject Prior to 1930

Geography has reached its present place and form as an instrument in the education of youth after a long period of evolution. Its origin is lost in antiquity, but in its newer aspects it is a recent addition to the high school curriculum. The evolution of geography as a subject can be divided into five stages, with the first period ending about 1500, the second about 1850, the third somewhere between 1900 and 1910, and the fourth in the 1930's. The fifth stage is still developing.

During the long period prior to the age of discovery and exploration, geography slowly took shape. Geography was made up of facts about the then known world, mingled with conjecture regarding unexplored regions, astronomical knowledge, and speculation concerning the nature of the universe. During this period it produced much philosophical thinking, some Greek philosophers even discussing the relation between the history of peoples and the nature of the land occupied.

There grew up a body of descriptive literature dealing with physiographic conditions which were used in instruction. During the Renaissance the enthusiasm for classical learning created the desire for knowledge of the ancient world, and thus geography won a place as an aid in reading classical literature and history.[1]

The second stage of the evolution of geography took place during the period of exploration and discovery. This period continued until the 1850's. The extension of the power of nations over vast portions of the earth's surface, the establishment of colonial empires, and the desire for riches gave rise to geography as a descriptive study. The emphasis was placed on mathematical geography, the location of sailors' landmarks, and the description of over-seas lands. Geography of this type was introduced into the vocational private schools of Europe. During this period geography did not lose its value as an aid to the classics. Thus geography found its way into the American secondary schools of the seventeenth and eighteenth centuries.[2] In both the ancient geography and that of the second period the knowledge of place locations formed the major objective. With the growth of atlases, encyclopedias, and railway guides, this

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[1]Alice Foster, "The Evolution of Geography as a High School Subject," Education, LV (Jan., 1935), 286.

[2]R. H. Whitbeck, "Traditional Geography and the Present Trend," Journal of Geography, XXIII (Feb., 1924), 59.

need for place geography became less demanding. The old tradition did not die, however, and the schools continued to insist that the students memorize long lists of locations. Textbook material was unorganized and unscientific. The texts presented those facts of geography which the adult author thought school children ought to learn, irrespective of what interest the children could be expected to have. Although phrased in fairly simple language, they too often involved general concepts of the earth such as adults acquire only by years of experience.[3]

> Out of this practice, and a delay in recognizing the new educational needs of a changing world grew the widespread belief that geography as a school subject had nothing of value to offer.[4]

Even as late as 1873, geography that was purely descriptive continued in vogue to some extent. Descriptions of the more unusual and spectacular phenomena of the earth, such as volcanoes, earthquakes, geysers, caverns, and remarkable animals appealed to the sense of wonder and awe. There was little or no attempt at scientific explanation.[5]

The third stage in the evolution of geography began during the latter half of the nineteenth century. The change in school geography was from a description of commercial and

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[3] Ibid.

[4] Foster, op. cit., p. 288.

[5] C. R. Dryer, "A Century of Geographic Education in the United States," Annals of the Association of American Geographers, XIV (Sept., 1924), 130.

political facts to an emphasis on physical geography. The physical geography was soon called physiography by some, as the relations were better understood and recorded. This new viewpoint of school geography, based on reasoning in place of memorizing, lent itself to an inductive method of teaching rather than a method based on reciting.[6]

The change in the content of school geography near the end of the nineteenth century revolutionized the methods of teaching it. The change in method was to that of the physical sciences, the laboratory. Outdoor observation, relief maps, models, sand tables, specimens, map-making, and map interpretation were just a few of the additions necessary for classroom equipment and activity. The laboratory method, field work, and the topical recitation were advocated. This was a great change from the enumeration and memorization of locations and political divisions. To a great degree, however, the necessity for a radical change in methods of teaching the new school geography came to be the outstanding weakness in the program. The teachers were not trained in the new physiography nor in the methods for teaching it.[7] In spite of poor teaching, however, physiography, because of its sharp difference with any subject taught in the elementary school, was received with enthusiasm and gained

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[6]Lorrin G. Kennamer, Jr., "The Unique Change in School Geography," Journal of Geography, LII (Jan., 1955), 26.

[7]Ibid., p. 28.

immediate access to the public high school.

The fourth stage in the evolution of school geography began about 1895, and certainly by 1910 it had arrived. This period is marked by the rise of commercial geography. More attention was being given to problems growing out of human relationships. From 1910 through the next few years, textbooks appeared which were a combination of physical and commercial geography.[8] With the decrease in emphasis on physical geography the methods of teaching school geography changed once more. No longer could the laboratory method, as the physical sciences employ it, be used to the utter exclusion of all other methods. The methods had to adjust to the new content and changed purpose. The use of the imaginary journey, large topic type studies, and the topical recitation partially replaced the emphasis on laboratory work.[9]

School geography with a commercial emphasis predominated until the 1930's. From the very beginning, however, there was a great amount of criticism of it. As early as 1915 R. E. Dodge reported:

> The courses of study indicate that geography is increasing in significance only in business or commercial courses. Excursions and field work are offered in but few schools: laboratory work is noted but

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[8] Ibid., p. 30.

[9] Ibid.

rarely.[10]

A change in the type of geography taught in the high schools of the country was being advocated by various individuals in the 1930's. The actual change, however, was not made for many years. Those geographers advocating change believed that geography should not be a synonym for either physical or commercial geography, but should be as much a human or social science as an earth science.[11]

Dodge, as early as 1916, suggested:

1. A revolution was needed in school geography as epochal as the one of the 1890's.

2. Texts were needed in human and physical geography that would be scientifically organized and better unified. . . school atlas was needed that included the human facts as well as the physical facts.

3. Classroom guides other than texts and atlas were necessary.

4. There was a need for teachers of proper training who wanted to teach geography to youths.[12]

These and other suggestions for the improvement of geography appeared in the writing of many geographers of the 1920's. Yet, as late as 1935, Foster criticized the handling of geography in the secondary schools of this country.

Here is her complaint:

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[10]R. E. Dodge, "Some Problems in Geographic Education with Special Reference to Secondary Schools," Annals of Association of American Geographers, VI (1916), 13.

[11]Kennamer, op. cit., p. 31.

[12]Dodge, op. cit., p. 18.

> As it exists in the secondary schools of today, commercial geography is descended from two ancestral lines, the geography already established in schools, and the body of commercial information which had belonged to the specialized training of boys preparing for business.[13]

Geography as a High School Subject in 1930

Content

The most common geography program for high schools in 1930 consisted of two one-semester courses. These were usually offered in the tenth grade. The first semester was devoted to physical geography while the second semester was given to commercial geography. Occasionally other geography courses would be offered, sometimes as an addition to the regular two-semester courses but more often as a substitute for one or both. There was little uniformity in the additional or substitute course, many types of which were suggested. One such course, recommended by the Committee on High School Geography of the National Council of Geography Teachers, appeared in 1930.[14] This group suggested that a third semester course, to be taken after the course in physical and commercial geography, be added. The course was to be a political geography of the major nations of the

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[13] Foster, op. cit., p. 290.

[14] "Elective Course in Senior High School Geography," editorial in Journal of Geography, XXIX (March, 1930), 101-112.

world, and was to deal with the geography of the major political problems, both national and international in scope. The emphasis was to be on the geographical and historical setting of these problems and the geographical adjustment that man has made in attempting to solve them. This type of geography, however, did not become popular in many schools until the 1940's.

The physical geography course was designed primarily to give the students knowledge about the earth's physical features. This course usually tried to show cause and effect in the relationship between our natural environment on the peoples in different environmental conditions. It also provided background material for the course in commercial geography which was to follow. The physical geography course very often presented its content under four headings, Earth Relations, The Atmosphere, The Land, and The Oceans.

Under the heading Earth Relations pure mathematical geography was presented. The earth's relation to the solar system, the size and shape of the earth, rotation of the earth on its axis and the revolution of the earth around the sun were studied. Latitude and longitude and the time belts were presented. Also, maps and map projections were studied with the particular aim of learning to read maps.

Climatology was the principal type of geography studied under the heading The Atmosphere. The composition and functions of the atmosphere were presented. Air pressure

and air density were discussed. The measurement, causes, and effects of temperature were detailed. The classification of winds and wind belts was included in the content of this unit. Absolute and relative humidity, forms of precipitation, and regional differences in weather and climate were thoroughly investigated.

The bulk of the material presented in the physical geography course in 1930 came under the heading The Land. The extent and distribution of the land over the earth's surface was presented first. This was followed by a study of the distribution of land forms. Usually a simple classification of rocks and rock material was given, after which came a study of common minerals as they appear in the earth. The formation, deposition, and erosion of soil was thoroughly detailed. The formation of river valleys, plains, plateaus, and mountains, and the causes of volcanoes and earthquakes were also studied. Inland water areas, such as lakes, rivers, and small streams, the lifecycle of a river, the formation of lakes and the study of geysers, springs, and artesian wells came under this heading.

The oceans were usually studied separately. In this unit the area, distribution and character of oceans were presented. The composition of sea water and the causes of the varying amounts of salt in the water were studied. Also the depth of the oceans as well as the effect of waves and tides were generally a part of the unit. A thorough

discussion of ocean currents and drifts was also included. Sometimes the unit included a study of the ocean floor and life in the ocean. In some schools, a few days near the close of the semester would be given to a study of the physical geography of the home state.

The commercial geography course was often referred to as industrial or economic geography. By whatever name the content was almost identical. The course, usually offered in the second semester of the tenth grade, was designed to acquaint the students with the chief producing regions of the world, and with the industrial progress of nations and continents. It was thought that such a course would lead to a realization that the nations of the world were interdependent.

The content of the commercial geography course was often divided into eight units. The first unit was usually general in nature. The succeeding units were formed around countries or continents about as follows: the United States, Canada, Latin America, Europe, Asia, Africa, and Australia and the Pacific Islands.

Unit one usually discussed such subjects as the factors influencing commerce, causes for increased production, the necessity of adequate transportation, and the interdependence of peoples. The unit also served as an introduction to, and the foundation for, all the work to follow.

Unit two, which usually tcok up about one-third of the semester, was an industrial and commercial study of the United States. The content of this unit included a study of the chief agricultural regions of the United States, classified according to crops, the forests of the country, divided according to the types of trees, the fisheries, the chief mining areas and the development of water power. The unit also contained a study of types of transportation as well as transportation routes. The section about manufacturing regions of the United States, divided according to finished products, concluded the unit.

Units three to eight were discussed in about the same way, and covered the same type of material as the unit dealing with the United States. They were, however, studied in less detail. Europe was given somewhat more attention than any other area outside the United States.

Method

The methods of teaching geography in 1930 were many and diverse, usually varying according to the teacher's own ideas. This period in education in the United States was marked by a great many experiments in method. Apparently geography teachers tried them all. The project method, the problem method, the outline method, the topical method, the type study, and the regional method are examples of methods tried out by teachers of geography at this time. Some good

results were attained by all of these methods, but there were also many failures primarily because the teacher did not completely understand the method he was trying to use himself.[15] The laboratory method, which was used widely a few years previous to this time, was almost totally forgotten.

Probably the most used method during the 1930's consisted of assigning a certain number of pages to be read outside of class, and then questioning the student over the material read. The questions might be either oral or written. The written assignment was frequently used. This consisted of questions from the text, or questions given by the teacher, to be answered outside the class period. The making of maps was quite popular. The use of workbooks was very common. The workbook, however, was not a success in many places where it was used. Some teachers made good use of workbooks by effective use of the outline maps included therein, but other teachers simply used the workbook to consume class time on days when they were not prepared for the lesson.

Two very great weaknesses are apparent in the methods of teaching geography about 1930. One of these was the insistence on the memorization of statistical facts which had very little meaning in themselves, and which in a

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[15]Edith V. Brill, "What Method Shall We Use in Teaching Geography," Geography How to Teach It (Bloomington, Illinois: McKnight and McKnight, 1934), p. 30.

few years were out of date. The second weakness was the utter dependence of the teacher on the textbook. The text was relied on as presenting the absolute truth on everything regardless of the publication date of the book. Very little effort was made to use any material outside of the text.

Testing consisted principally of long objective type tests for factual information only. Very often these tests were of the completion-recall type, being composed from the reading material in the text. Every so often in the statement a word would be left out, and the pupil was expected to fill in the right word. The most popular type of question consisted in leaving the last word blank. Typical examples were: 1. The leading wheat producing state in the United States is _____. 2. The artificial application of water to land is called _____.

All tests of this type measured only the ability to remember factual information gathered from reading the text. Testing very seldom measured the ability to read a map or graph, or to interpret statistical information. Inquiry into the pupils' knowledge of geographical relationships, causes and effects was also neglected.[16]

Certification

In the 1930's the certification of geography teachers

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[16] M. E. Branom, William H. Gregory, and E. C. Walther, "Testing in the Field of Geography," The Teaching of Geography (Bloomington, Illinois: Public School Publishing Co., 1933), pp. 333-344.

varied considerably from state to state. Some states required college courses in geography of the geography teacher, while some did not. Oklahoma's laws in 1930 did not require any special preparation in subject matter fields except for teachers of home economics, manual training, music and commercial subjects.[17] By 1936, however, Oklahoma had made some changes. Two different certificates were available for geography teachers in the state. One certificate was required to teach physical geography and another to teach commercial geography. The physical geography life certificate required eight college hours of physical geography and 16 hours from any two or more of the following areas: chemistry, biology, physics, geology, astronomy, and agriculture. A one year temporary certificate could be obtained with only four hours of geography and 12 hours from any two or more of the other physical science fields. To get a life certificate in industrial or commercial geography a teacher needed eight hours of economic geography and 16 hours from any two or more of the social sciences: economics, sociology, history, and government. Some hours in agriculture could also be counted on this certificate. A one year temporary certificate was issued on four hours of economic geography and 12 hours from any two or more of the social science

[17]Oklahoma State Board of Education, Rules and Regulations Governing the Issuance of State Teachers Certificates, Sept. 1, 1928.

subjects.[18] Oklahoma also issued a life certificate in history and one in social studies. No geography was required to teach history, civics, economics, sociology, government, democracy, or citizenship.

An examination of the certification requirements for the teaching of geography in other states during the 1930's shows little or no uniformity. Pennsylvania required 12 hours in the social studies, with six of the 12 in history. In 1931 the total was increased to 18 hours, with nine of the 18 in history.[19] Arizona required high school teachers to have a degree in one of the social science fields with a major or minor but there were no special requirements for geography.[20] North Dakota did not issue a geography or social studies certificate. The teacher needed only a general secondary certificate.[21] In Nebraska a secondary certificate was issued which required 12 hours of social studies, with some preparation in the specific subject to be taught. However, this preparation in the specific subject

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[18]Oklahoma State Board of Education, Regulations and Requirements for Teachers Certificates, Sept. 1, 1936.

[19]Pennsylvania Department of Public Instruction, Certification of Teachers, Bulletin No. 2 (Dec., 1928), p. 15.

[20]Letter from W. W. Armstrong, State of Arizona, Department of Public Instruction, July 26, 1955. (Sample copies of correspondence may be found in appendix).

[21]Letter from Richard K. Klein, State of North Dakota, Department of Public Instruction, July 26, 1955.

was not generally enforced.[22] South Dakota is the only one of the states from which information for the 1931 period is available that required a specific amount of college geography in order to teach geography in the high school. In South Dakota, a teacher of geography was required to have 15 hours in the social studies with five of the 15 in geography.[23]

During the early 1930's a considerable effort was made by professional geographers to get a uniform certification of geography teachers in the various states. One of these efforts was headed by George J. Miller of the State Teachers College of Mankato, Minnesota. In 1933, Miller's committee recommended that the minimal requirements in geography be as follows:[24]

Course	Clock hours[25]
Elements of Geography (Natural Environment) ...	48-96
Economic Geography (World Survey)	48
Regional Geography of North America	48
Methods of Teaching Practice	48

[22]Letter from Floyd A. Miller, State of Nebraska, Department of Education, July 28, 1955.

[23]Letter from F. R. Wanek, State of South Dakota, Department of Public Instruction, July 28, 1955.

[24]George J. Miller, "The Training of Geography Teachers," The Teaching of Geography (Bloomington, Illinois: Public School Publishing Co., 1933), p. 383.

[25]Fifteen clock-hours is equal to approximately one semester hour.

The big problem encountered by this and other groups recommending improvement in the quality of geography teaching was the small number of colleges and universities offering the minimum courses in their teacher training programs. The sub-committee headed by Miller stated:

> Unfortunately, only a very small percentage of the liberal-arts colleges and universities of this country offer even the minimal essentials of such a teacher-training program. In general the school administrator must go to the teachers colleges and to such universities as have effectively staffed departments of geography to secure adequately trained geography teachers for high school positions.[26]

Since 1930 there has been a continuing effort on the part of geographers to remedy this situation in the colleges and universities. However, in spite of all their efforts they have been only partly successful.

Textbooks

The high school geography textbooks of the 1930's were excellent for the fulfillment of the objectives for which they were written. A large number of them were available for both the physical and the commercial courses in geography. Many of the most widely used books were revised time and time again. Some were used for more than 20 years.

A much used textbook in physical geography, in 1930, was High School Geography by Ray Hughes Whitbeck.[27] This

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[26]Miller, op. cit.

[27]R. H. Whitbeck, High School Geography (New York: The MacMillan Co., 1929).

book was first published in 1922 and continued in use until the 1940's. The edition used in 1930 consisted of 34 chapters with 550 pages. No less than 383 pictures and illustrations were used to demonstrate the points being explained in the text. The book included large double-page colored maps of the United States and each of the continents. Also, there was a list of reference books suitable for addition to the high school library. At the end of each part and at the end of each chapter there were numerous exercises for the student to perform. Usually these consisted of questions to answer, maps to draw, terms to define, and places to locate on maps and globes.

Table 1 compares Whitbeck's High School Geography with the books written about the same time by Arey, Bryant, Clendenin and Morrey,[28] Davis,[29] Salisbury, Barrows, and Tower,[30] and Chamberlain.[31] The table shows the number of chapters which each of these five widely used texts devoted to specific topics. Thirty-one different subjects were

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[28]Albert L. Arey, Frank L. Bryant, William W. Clendenin and William T. Morrey, New Physiography (New York: D. C. Heath and Co., 1930).

[29]William Morris Davis, Elementary Physical Geography (New York: Ginn and Co., 1930).

[30]Rollin D. Salisbury, Harlan H. Barrows and Walter S. Tower, The Elements of Geography (New York: Henry Holt and Co., 1930).

[31]James F. Chamberlain, Geography, Physical Economic Regional (Philadelphia: J. B. Lippincott Co., 1929).

TABLE 1

COMPARISON OF FIVE 1930-1935 HIGH SCHOOL PHYSICAL GEOGRAPHY TEXTBOOKS TO SHOW THE NUMBER OF CHAPTERS DEVOTED TO VARIOUS SUBJECTS

Subject Content of Chapters	Textbooks*				
	A	B	C	D	E
Nature of Geography				1	
Man and His Physical Environment					1
Map Projection		1			
Earth and the Solar System	1	3	1	1	1
Materials of the Earth Crust	1	3		1	4
Soil and Soil Erosion	1			1	1
Underground Water	1	1			
Rivers and Lakes	3	1	1	1	2
Glaciers	1	1	1		1
Volcanoes and Earth Quakes	1	1	1	1	
Surface Features of the Land	1	2	2	3	2
The Atmosphere	1	4	1	1	3
Winds and Storms	1	2		1	1
Climate and Weather	1	2		6	3
Latitude, Longitude, and Time		1			
Shore Lines, Coasts, and Harbors	1	1	1	1	
Oceans	1	2	1	1	1
Forests	1				2
Animals					3
Agriculture	1				7
Transportation and Communication	1				5
Distribution of Plants, Animals, and Man			1		
Distribution of Population				1	
United States Minerals and Industries	1			1	
United States Manufacturing Centers	1				
Regional Study of the United States					10
Possessions of the United States					2
Latin America	1				
British Empire	1				
Continental Europe	1				
Japan and China	1				

*A. Whitbeck, High School Geography, 1929.
B. Arey, Bryant, Clendennin, and Morrey, New Physiography, 1930.
C. Davis, Elementary Physical Geography, 1930.
D. Salisbury, Barrows, and Tower, The Elements of Geography, 1930.
E. Chamberlain, Geography, Physical Economic Regional, 1929.

given as much as a full chapter in at least one of the five texts. Five of the subjects were given a full chapter in all five. Six other subjects were given a full chapter in four of the five books. On the other hand ten subjects were given a full chapter by only one of the five. Books by Arey, Bryant, Clendenin and Morrey; Davis; and Salisbury, Barrows and Tower were somewhat alike in the types of subjects covered and in the amount of space given to their coverage, while the texts by Whitbeck and Chamberlain covered a wider range of subjects. The earth and the solar system, materials of the earth's crust, surface features of the land, and atmosphere, winds and storms, and climate and weather were given more space than other subjects in the combined total of chapters.

A typical textbook used in the commercial geography course during the 1930's and early 1940's was Whitbeck's Industrial Geography.[32] This book was first published in 1924, revised in 1929, again in 1930, and again in 1933. The 1933 edition consisted of 33 chapters with 600 pages. There were 371 excellent illustrations and pictures evenly distributed throughout the text. The book included numerous maps of many different kinds as well as charts, graphs, and tables from which statistical information could easily be

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[32] R. H. Whitbeck, Industrial Geography (New York: American Book Co., 1933).

obtained. Many of these maps were dot maps which showed, among other things, the wheat production of the various states of the United States in 1930, and the number of automobiles manufactured in the United States, state by state, in 1931. The appendix included a list of selected reference books and a series of statistical tables. At the end of each chapter the main points were summarized and a list of exercises was provided for the student. These exercises were usually in the form of questions to be written outside of the class period. The why of geographic facts was often presented in these exercises.

Table 2 compares Whitbeck's Industrial Geography with four commercial geography textbooks of the 1930 to 1935 period. These four books are: Packard, Sinnott, and Overton's The Nations at Work,[33] Staples and York's Economic Geography,[34] Huntington and Cushing's Modern Business Geography,[35] and Colby and Foster's Economic Geography for Secondary Schools.[36] The table enumerates the number of full

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[33]Leonard O. Packard, Charles P. Sinnott, and Bruce Overton, The Nations at Work (New York: The MacMillan Co., 1933).

[34]Z. Carleton Staples and G. Morell York, Economic Geography (New York: World Book Co., 1930).

[35]Ellsworth Huntington and Sumner M. Cushing, Modern Business Geography (New York: World Book Co., 1930).

[36]Charles C. Colby and Alice Foster, Economic Geography for Secondary Schools (New York: Ginn and Co., 1931).

TABLE 2

COMPARISON OF FIVE 1930-1935 HIGH SCHOOL COMMERCIAL GEOGRAPHY TEXTBOOKS TO SHOW THE NUMBER OF CHAPTERS DEVOTED TO VARIOUS SUBJECTS

Subject Content of Chapters	Textbooks*				
	A	B	C	D	E
World Commerce and Trade	1		2	3	3
World Transportation and Communication			2	4	
World Manufacturing	1		1	3	
World Power Resources			1		
World Forest and Timber Resources	1		1	1	
World Fisheries				1	
World Agriculture	4		8	6	
World Minerals			2	2	
World Cities			1		
United States, General					1
United States, Resources	1	1			
United States, Agriculture		1		1	1
United States, Fisheries		1			
United States, Manufacturing	1	1		1	5
United States, Trade		1			
United States, Water Power Resources			1		
United States Transportation	1			1	2
Regional Study of the United States	1		1		
Possessions of the United States	1	1			
Western Hemisphere				1	
North America	1				
Canada	1	1			
South America	2		1		
Latin America	1	1			5
Canada and Latin America			1		
Regional Study of Europe	9	3	1		7
Regional Study of Asia	4	3	1		7
Australia and New Zealand	1	1	1		
Africa	1	1	1		

*A. Whitbeck, Industrial Geography, 1933.
B. Packard, Sinnott, and Overton, The Nations at Work, 1933.
C. Staples and York, Economic Geography, 1930.
D. Huntington and Cushing, Modern Business Geography, 1930.
E. Colby and Foster, Economic Geography for Secondary Schools, 1931.

chapters devoted to each subject. Accordingly, there were 29 different subjects given as much as one full chapter in these five commercial geography textbooks. No chapter was common to all five books. Only 11 subjects were given as much space as one full chapter in at least three of the five texts. The books by Packard, Sinnott, and Overton; Huntington and Cushing; and Colby and Foster were more nearly agreed on topics than the other two; neither did these cover as wide a range of subjects.

In comparing Table 1 and Table 2 it is evident that the subject matter in the physical geography texts was more similar than the material covered in the commercial geography textbooks both in content and in the amount of space given to the same subjects. Dividing the world into political units was much more common in the commercial geography textbooks than in the physical. The physical geography textbooks of the 1930's made more use of commercial facts than the commercial texts did of the facts of the physical environment.

Amount

How many high schools in the United States taught geography in 1930? This question was the subject of quite a controversy at that time. In 1930, Miss Clare Symonds reported on a survey she conducted for the period 1927-1930.[37]

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[37]Clare Symonds, "The Status of Geography in the Senior High School," The Teaching of Geography (Bloomington, Illinois: Public School Publishing Co., 1933), p. 545.

Questionnaires were sent to 500 high schools in cities throughout the United States. Replies were received from 371 schools. Of those reporting, 279, or 70 per cent, were teaching geography.

The big controversy occurred when some persons interpreted Miss Symonds' results to mean that 70 per cent of the high schools of the United States taught geography. Many arguments were used to refute these figures. First, there was the point of contention about the type of schools represented. It was argued that if other than city school systems had been contacted the percentage would have been lower. It was pointed out that the smaller school systems could not offer as many different subjects as the larger city systems. Second, there was the argument about the 129 schools that did not reply. It was believed by many that most of the 129 schools did not have enough interest in geography even to reply and therefore most certainly did not offer it. Also, a great many interested persons at that time were inclined to refute these figures on the basis of their own personal experiences and observations. Almost all of the writers on high school geography were deploring the fact that so little geography was being offered on the secondary level. Other bits of statistical information were available which cast doubt on the 70 per cent figure.

An earlier study made in June, 1928, showed that

only 153,351 pupils[38] were enrolled in geography classes in the high schools of the United States during the previous school year. When this number was compared with the four million pupils enrolled in the high school at that time[39] the percentage taking geography appear to be very small, only 3.9 per cent. During the same year there were 204,694 pupils enrolled in chemistry and 198,402 in physics.[40] Geography, however, was offered in only 4,063 high schools while chemistry was given in 7,346 and physics in 4,783.[41]

In 1932, Sam D. Becker made a survey of trends in science in the high schools of Oklahoma, which included a study of geography. This study was conducted during the 1930-31 school term. During this year there were only 344 out of 740 high schools, or 46.5 per cent, that offered physical geography. There were only 309 out of the 740, or 40.9 per cent, that offered commercial geography. Thus of the 740 schools surveyed less than half offered geography to

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[38]Warren B. Cochran, "Geography as an Admission Subject to Liberal-Arts Colleges," The Teaching of Geography, (Bloomington, Illinois: Public School Publishing Co., 1933), p. 551.

[39]R. Freeman Butts and Lawrence A. Cremin, A History of Education on American Culture (New York: Henry Holt and Co., 1953), p. 568.

[40]Symonds, op. cit., p. 546.

[41]Ibid.

its students.[42] This indeed is quite a reduction from the 70 per cent figure of the Symonds survey.

Reports from other states for the 1930-31 school term also indicated that less than half of the schools offered geography courses. Pennsylvania showed an enrollment of only 3,513 pupils in geography classes in 1930. There were 2,399 enrolled in physical geography, 844 in industrial geography, 191 in social geography, and 79 in economic geography.[43] North Dakota reported only 27 high schools teaching physiography with no other type of geography taught in any high school in the state.[44] From the state of New York comes an almost unbelievable report about the geography program during the early 1930's. New York, in 1930, did not teach geography in any of its high schools as far as can be determined by present day records of the New York State Department of Education.[45] All of these reports indicate the amount of geography taught in the high schools in 1930 to have been considerably lower than the 70 per cent figure reported in the Symonds survey.

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[42]Sam D. Becker, "Recent Trends in Science in the High Schools of Oklahoma" (Unpublished Master's thesis, College of Education, University of Oklahoma, 1932), pp. 21-27.

[43]Letter from Vincent J. McCoola, Commonwealth of Pennsylvania, Department of Public Instruction, July 20, 1955.

[44]Letter from Richard K. Klein, op. cit.

[45]Letter from Wayne W. Soper, State of New York, State Education Department, July 29, 1955.

Status of High School Geography During the 1940's

Content

Since 1930, high school geography has undergone a great change. This change has been just as complete as the change from the descriptive geography of 1850 to the physical geography of 1900. The subject is now considered from the social instead of the physical point of view. Thus, it is at present considered a social science in most high schools.

The change first began to appear after World War I when attention was being focused on the peoples of other nations and their problems. However, no marked differences in the type of high school geography were apparent until the 1930's. During the early 1930's a great deal of discussion took place among geographers over the question of combining geography and history into the social studies.[46] McAulay, in his survey of geography from 1928 to 1948 indicated that the period of most rapid fusion of the two subjects occurred during the ten year period from 1928 to 1938.[47]

Many geographers objected to including geography in the social studies for fear that it would lose its identity and importance. Often their fears were justified. McAulay's report showed that the courses of study in 1938 and 1948

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[46]John David Ewen McAulay, "Trends in Elementary School Geography" (Unpublished Ed. D. dissertation, School of Education, Leland Stanford University, 1948), p. 208.

[47]Ibid.

both devoted greater emphasis to historical than to geographical factors. The 1928 courses of study prepared prior to the fusion period devoted much more space to geography than was later given to the subject in social studies programs.[48]

By the time of World War II, however, geography had become established as a social science. The major problem at that time was no longer one of defining the nature of school geography, but one of introducing and increasing geographic concepts in the public school curriculum.[49] By the close of World War II global or world geography began to dominate the scene in high school courses. An attempt was being made to stress the interrelationship between man and the natural environment. The organization of the subject matter also changed after 1930. An attempt was made to better fit the material discussed to the mental maturity of the pupil. The overall pattern of change after 1930 indicated a trend toward emphasizing attitudes and concepts rather than the facts of geography.

Method

The change in high school geography content made newer methods of teaching imperative. The methods of the social sciences, such as the problem and project method,

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[48] *Ibid.*

[49] Kennamer, *op. cit.*, p. 31.

became more pertinent than the methods of the physical sciences. Teaching aids, such as movie projectors, film strip machines and colored slides, made popular by the armed forces training programs, became available to almost all schools. Outside material, such as more up to date statistical information, bulletins, maps, and exhibits, often furnished free by government agencies, businesses, industries, and labor unions, came to the schools in vast quantities.

With all these new devices and aids in the teaching of geography, what have most teachers done in the way of changing their methods? Most of the older teachers have been slow to change. Many of these still teach this new human geography the same way they taught geography when it was purely a physical science. However, some changes in method have been made. Probably the most recognizable one occurred during World War II when current events were used extensively in creating interest in geography. With the war there also came better maps and more intelligent use of them. Map reading and map interpretation were the objectives rather than map drawing.

The latest changes in content and method did not necessarily lead to the securing of either better qualified teachers or more uniform textbooks. The findings of a survey made in Texas seems fairly typical:

> Possibly the greatest handicap that geography suffers

> in the high schools of Texas lies in the fact that courses are "wished off" on the teachers who happen to have a vacant period at the time when the course is offered or else on the teachers who have a light load. Training for teaching the course apparently is seldom if ever considered. . . the tabulated results show only three of the 200 teachers reporting, teaching geography only.
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> . . . . . .
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> A wide variety of textbooks are being used in each course. The lack of state adoption for high school texts makes it possible for the teacher to select his favorite book. In the hands of a teacher trained in geography, this is excellent, but for teachers who have never studied geography since they left high school and possibly since they finished grade school, the lack of a state adopted text is unfortunate. Of the many books used, the most unique text for commercial geography was a text in commercial law. Obviously that course was taught by one trained in law, who knew little and cared less about geography.[50]

Amount

During the 1940 to 1950 period the percentage of high schools offering geography again varied considerably from state to state. In southern Illinois, during the school term of 1939-40, 80 per cent of the schools in that part of the state offered high school geography. About half of the courses were taught for one semester only.[51] In Missouri, during the school term of 1940-41, 514 of 848 high schools, or 60.6 per cent, taught geography. Only 6.03 per cent of

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[50]Edwin J. Foscue, "The Place of Geography in the Senior High School With Special Reference to Texas," Journal of Geography, XXXV (March, 1936), 121.

[51]Erselia M. Barton and Thomas F. Barton, "High School Geography in Southern Illinois," Transactions of the Illinois Academy of Science, XXXIII (Dec., 1940), 131.

the high school students of Missouri, however, were actually enrolled in a course in geography.[52] In Arkansas, during the school term 1940-41, 237 of the 543 high schools, or 43.6 per cent, offered a geography course. Eight per cent of the high school pupils of Arkansas were enrolled in geography.[53]

Records of the State Department of Public Instruction of North Carolina reveal that during the 1943-44 school term, 392 of 931 high schools, or 42.1 per cent, were offering geography. Only 9,417 pupils, or approximately 10 per cent of all pupils in the high schools of that state, were enrolled in the subject during the year.[54]

In Idaho, during the school year 1942-43, only 14 out of 163 schools, or 8.6 per cent, had courses in geography. Each school year thereafter, however, there was a gradual increase until a peak was reached in the 1946-47 school term. That year 36, or 23 per cent, of the high schools offered geography to their pupils. After this the number declined. The last year reported was 1948-49, when 23 schools, or 14 per cent, had geography as part of their

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[52]Clarence Burt Odell and Leslie Wood White, "Geography in the High Schools of Missouri," Journal of Geography, XLI (Feb., 1942), 41.

[53]James E. Collier, "Geography in the High Schools of Arkansas," Journal of Geography, XLII (April, 1943), 138.

[54]Letter from A. B. Combs, State of North Carolina, Department of Public Instruction, Aug. 8, 1955.

curriculum. Approximately 70 per cent of the teachers of high school geography in Idaho had less than six hours of college credit in the subject.[55]

Nebraska, in the 1942-43 school term had only 81 out of 530 high schools, or 15.3 per cent, teaching the subject. In 1943-44, the number of schools that taught geography increased to 95, or 17.9 per cent, of the high schools. The next year, 1944-45, there were 133, or 25.1 per cent, offering geography in their curriculum. There was a big increase in the 1945-46 school term when 240 out of 370 high schools, or 65 per cent, reported teaching geography. The same 270 schools were still teaching geography during the next year of school. Ninety per cent of the schools teaching geography were teaching it as a full year course of world geography. A check made during the 1946-47 school term revealed only three geography majors in the group of 240 teachers who were teaching geography in the high schools of Nebraska. Ninety-eight of the 240 had no college credit in the subject, and 175 had less than six semester hours.[56]

A Michigan survey made during the 1949-50 school term, found that 145 of the 310 high schools of the state, or 43 per cent, taught geography. Approximately 6.6 per

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[55]Harry H. Caldwell, "Geography in the High Schools of Idaho," Journal of Geography, XLVII (Dec., 1949), 380.

[56]Rex G. Miller, "High School Geography in Nebraska," Journal of Geography, XLVII (Jan., 1948), 17.

cent of the pupils in the high schools were enrolled in a course in geography. About one-half of one per cent of the Michigan students were taking geography on a required basis. Almost half of the 145 schools offering geography offered it for one semester only.[57]

A national survey, made in 1947, showed that there were only 4.3 per cent of the pupils in grades nine to twelve enrolled in geography.[58] These figures agree very closely with those of the Biennial Survey of Education in the United States made by the Federal Security Agency. During the 1948-50 school years about one in 18 pupils enrolled in the nation's high schools was taking geography.[59]

These state and national surveys indicate a decline in geography offerings for the 1930 to 1940 period in the high schools of the United States. Then there began a gradual increase until a peak of popularity was reached during the second world war and immediately thereafter. Since the war, especially since 1947, there has been a decline.

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[57]Ruby M. Junge, "Geography in the High Schools of Michigan," Journal of Geography, L (Nov., 1951), 329-334.

[58]Howard R. Anderson, "Offerings and Registrations in the Social Studies," Social Education, XIV (Feb., 1950), 74.

[59]U. S. Federal Security Agency, Office of Education, Offerings and Enrollments in High School Subjects, Biennial Survey of Education in the United States (1948-1950), p. 9.

Status of High School Geography Since 1950

Content

The most common type of geography program in the high school today is a full year course in world, or global, geography. Frequently, however, such courses as the Conservation of Natural Resources, Economic Geography of the United States, Political Geography, or Meterology are offered in place of, or in addition to the more standard year course.

The world, or global, geography course is usually designed to give high school pupils an understanding of geographic forces and a meaning to geographical facts. The relevance of geographical facts to man and his activities is stressed. One of the principal objectives is to illuminate clearly the functional interdependence of people and places throughout the world. The course in world geography is usually divided into six units, or parts.

The first three units usually make up the work of the first semester of the school year. Unit I is general in nature. In addition to defining geography, it correlates the subject with the other social and natural sciences. The student is given a brief review of mathematical geography, the interpretation of maps, charts, graphs, and tables and a measure of simple place geography. "Air Age Geography" is also given much consideration in the early part of most

world geography courses. Unit II is frequently a study of climate and man. A general discussion of man's dependence on vegetation and vegetation's dependence on climate is followed by a study of the climatic belts of the world. Each climatic zone is handled separately, with emphasis on the ways in which each climatic belt limits the type and amount of vegetation and thereby limits man's activities. Unit II takes up about ten of the eighteen weeks of the first semester. Unit III is a study of the surface features of the land and how they affect vegetation and man. Mountains, hills, plains and plateaus are discussed as influence on man and his activities. The last three units, which stress the application of principles learned in Units I, II, and III, are taught during the second semester. Unit IV is a survey of natural resources and their influence on man. The resources are classified, their location and their use detailed. The careless waste of these resources and the methods of conservation are also studied. The presence of resources or the lack of resources is studied in relation to peoples or places. Unit V is often devoted to a study of trade, transportation, communication, and manufacturing, with attention to the geographic factors influencing them. Unit VI is an application of the material in the other units to a study of some of the important nations of the world. For example, the Soviet Union is studied to show how size, shape, location, natural resources, climate, and land surface features

have influenced its national strength. Great Britain, the United States, France, China, Japan, and a few other countries are studied in the same way. Some of the countries of Europe, South America, and Asia are studied to illustrate causes of weakness in national strength.

Method

Methods used by the high school geography teachers today often resemble the methods of 1930. Frequently, however, there are striking differences due to the availability of numerous teaching aids not to be had 25 years ago. No one teaching method predominates at the present time in the high school geography classroom. The formal method, whereby a teacher works out a complete written plan, is very seldom used in the schools of today.

Many geography classes are taught by the textbook page assignment method in which the material is to be read outside the class and then discussed orally at the next class session. Many semi-lecture type classes are found. The written assignment to be prepared outside of class is not as popular as it was in the 1930's. Map work is still one of the most popular methods, as well as one of the most successful means in the teaching of geography. There is one important difference, however, between the map work of 1930 and that of today. In 1930 the drawing of the complete map was stressed while now outline maps are provided and the

emphasis is more on the knowledge the maps reveal than on map making. Reading materials outside of the text are more widely used today than in 1930, since much more of this type of material is available in usable form. A large number of good popular magazines, such as Holiday, the National Geographic Magazine, and Travel are available, as well as numerous pamphlets and other publications of government agencies and business concerns. Many of the latter are free upon request for use in the schools.

Field trips, community resources, and community resource speakers are used to a wider extent now than in 1930. Well equipped laboratories are more accessible to geography teachers of today than previously. For example, the motion picture projector is now available to almost all teachers while in 1930 it was a very rare occasion when the school had the use of one. The textbook, however, is still depended on for most information in many geography classrooms of today.

One of the most important changes to have occurred since 1930 has been in the field of testing. Many teachers of geography have found the test to be an excellent teaching device and use it as such. The type of information asked for in tests has changed considerably. Tests which reveal geographic concepts and relationships are much more common now than 25 years ago. An example of this new technique of testing is found in a test prepared by Svec. In a unit on

the forest regions of the United States she wrote ten descriptive paragraphs. From these descriptions the student was expected to identify the correct forest regions. In another unit on industry, an activity or industry is described and the student is expected to decide what activity or industry is described and where the place described might be located.[60] Charts, maps, diagrams, sketches, and pictures are used to make tests which are attractive and thought provoking. The objective type of test is more skillfully constructed than ever before. All of these changes have been good but at best they have not been fast enough to keep up with the changing concepts of geography. There is a great deal more to be done in the application of method to present day concepts of geography.

Certification

Practices with regard to the certification of teachers of high school geography vary greatly among the different states. Improvement in the qualifications of teachers to teach geography in the social studies program has been slow in coming. Some states were slower than others, which means that there is greater difference now than at any time in the past 25 years.

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[60] M. Melvina Svec, "A Method of Testing," Geography in the High School (Bloomington, Illinois: McKnight and McKnight, 1949), pp. 134-136.

In Oklahoma one change came in 1949 and entered into effect in July, 1950. The new regulations provided for three types of certificates, the Standard Teaching Certificate which is good for five years, the Provisional Teaching Certificate which is good for three years, and the Temporary Teaching Certificate which is good for one year. No change from the 1936 rules and regulations was made in the number of hours of geography needed to teach industrial and/or physical geography. Physical geography credits, however, were counted in getting a general science certificate.[61] A more significant change in the Oklahoma law concerning certification came in October, 1953. The three types of certificates put into use in 1950 were retained, but the subject matter fields were re-evaluated under a completely new program. No new certificates are to be issued in physical geography, industrial geography, history, or other individual social studies. Instead a certificate in social studies, covering all the various social science areas, is issued. One of the main provisions of the new rule is that it prescribes the minimum number of hours needed in the area of specialization but permits the college or university granting the degree to determine how these hours are to be divided among the subject matter fields. The Standard

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[61] Oklahoma State Department of Education, Laws and Regulations Concerning the Certification of Teachers and Administrators, July 1, 1950, p. 15.

Teaching Certificate in the social studies now requires a minimum of 30 hours of college credit from the fields of history, geography, sociology, economics, anthropology, and government. The Provisional Teaching Certificate in the social studies requires a minimum of 16 hours in the same areas. The Temporary Teaching Certificate likewise requires 16 hours in the same areas.[62]

After thoroughly studying the new state certification situation, the University of Oklahoma adopted a plan for specifying the social studies requirements. The plan has been in effect since September, 1955. In order to get a standard certificate in the social studies the student is required to have 42 semester hours in the social science fields, which is 36 hours more than the social science requirements for all students at the University. The 42 required hours are divided as follows: 18 hours in history, six hours in geography, six hours in economics, six hours in government, three hours in anthropology, and three hours in sociology.[63]

In the certification plan of most states, as in the program developed at the University of Oklahoma, history

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[62]Oklahoma State Department of Education, Laws and Regulations for the Certification of Teachers and Administrators, October 1, p. 23.

[63]University of Oklahoma Bulletin, College of Education, Feb. 1, 1956, p. 49.

dominates the requirements for the social studies. Table 3 gives a brief summary of the requirements in 12 representative states. The total number of hours required for a social studies certificate ranges from 42 in Kentucky[64] to 15 in Arizona[65] and Ohio.[66] Texas[67] does not issue such a certificate but requires at least a minor in the field taught. In Ohio the social studies certificate does not include history since a separate certificate is issued for that subject.

Geography can be used to meet a part of the requirements for the social studies certificate in each of the 12 states that issue such a certificate. There is considerable variance in the amount of geography that can be used in obtaining such a certificate. However, the required hours of geography is quite uniform in a few states, such as Kentucky, West Virginia,[68] Florida,[69] Delaware,[70] and Ohio. In these

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[64]Letter from Mark Godman, Commonwealth of Kentucky, Department of Education, July 19, 1955.

[65]Letter from W. W. Armstrong, op. cit.

[66]Letter from R. M. Garrison, State of Ohio, Department of Education, July 18, 1955.

[67]Letter from Lee Wilborn, State of Texas, Texas Education Agency, July 20, 1955.

[68]West Virginia State Department of Education, High School Certificates, Bulletin No. 1, 1938, revised 1945, p. 13.

[69]Florida State Department of Education, Florida Requirements for Teacher Education and Certification, Certificate Bulletin A (June, 1949), p. 41.

[70]Delaware State Department of Public Instruction, Certification Rules and Regulations, Bulletin No. 5-49, p. 6.

TABLE 3

REQUIREMENTS FOR SOCIAL STUDIES CERTIFICATES IN SELECTED STATES

State	Total Hours of Social Studies	Requirements
Arizona	15	15 hrs. in social studies fields
Arkansas	20	12 hrs. Hist., 8 hrs. from 3 of Econ., Soc., Geog., Govt.
California	36	Hist. required, rest of the hrs. from 3 of Geog., Soc., Econ., Pol. Sci., Anthro.
Delaware	24	Any combination, but 6 hrs. in subject taught
Florida	36	12 hrs. Hist., 20 hrs. from Geog., Econ., Soc.
Iowa	24	Hist., Govt. required, one other social science
Kentucky	42	18 hrs. Hist., 6 hrs. of each Pol. Sci., Econ., Geog., Soc.
New Jersey	30	Hist. required, rest of the hrs. from 3 of Pol. Sci., Econ., Geog., Soc., International Relations
Ohio	15	3 hrs. in each Econ., Soc., Geog., Pol. Sci., and one other Social Science
Pennsylvania ..	18	9 hrs. Hist., 9 hrs. in other social studies fields
Texas	none issued	At least a minor (12 hrs.) in subject taught
West Virginia .	22	14 hrs. Hist., 2 hrs. of each Soc., Geog., Econ., Govt.

states from two to six hours of geography are required for the certificate, and more is recommended if the person holding the certificate is to teach the subject. Although geography may be used to satisfy social studies certificate requirements in Arizona, California,[71] Arkansas,[72] Iowa,[73] New Jersey,[74] and certain other states, it is not specifically required. Thus it is possible for teachers in these states to be scheduled to teach geography even with no direct training in it.

In Pennsylvania,[75] Ohio, and Florida, as well as in Oklahoma, geography can be used to meet requirements for two different types of certificates. Because of the dual nature of the subject, physical geography courses may be used in part to satisfy the requirement for certificates in the areas of the earth sciences or general science fields. The same geography courses, however, may not satisfy the requirements for the social studies certificates.

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[71]California State Department of Education, Credentials Office; General Secondary Credential, Article 6, August, 1954, p. 2.

[72]Arkansas State Department of Education, Regulations Governing the Certification of Teachers in Arkansas, Bulletin No. 111, Sept. 1, 1946, p. 17.

[73]Letter from Virgil Lagamarcino, State of Iowa, Department of Public Instruction, July 22, 1955.

[74]Letter from Clyde E. Weinhold, State of New Jersey, Department of Education, July 20, 1955.

[75]Letter from Vincent J. McCoola, op. cit.

are largely the result of world wide geographic conditions. He believes that our young people must be made acquainted with these problems so that they may assume the responsibilities of national and international leadership. York, Rowe and Cooper[80] try to bring the students to the point of making decisions as to the value of certain products, and thereby certain places, to the rest of the world.

Table 4 is a comparison of the content of these five books. Seventy-seven different subjects have at least one full chapter in one or more of the five books allotted to it. In only two cases did any subject receive as much as one chapter in all five books. Only nine of the many subjects covered received one chapter in four of the five textbooks. On the other hand 45 subjects are given a full chapter in only one of the books. Many of these 45 subjects, however, appear in all or most of the texts but receive less than one chapter in their treatment. In some cases major subjects in one text were hardly mentioned in others.

Amount

The amount of geography taught in the high schools of the United States differs quite markedly from state to state. This is indicated by the results obtained from all

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[80] G. Morell York, John L. Rowe and Edward L. Cooper, World Economic Geography (Chicago: South-Western Publishing Co., 1950), p. iv.

TABLE 4

COMPARISON OF FIVE PRESENT DAY HIGH SCHOOL GEOGRAPHY TEXTBOOKS TO SHOW THE NUMBER OF CHAPTERS DEVOTED TO VARIOUS SUBJECTS

Subject Content of Chapters	Textbooks*				
	A	B	C	D	E
Progress of Mankind		1			
World Population	1				
World Political Geography			3		
World Land Use	1				
Topography and Soils					1
One World Geography			3		
The Earth and the Solar System		1			
Surface Features of the Earth		1			
World Natural Resources		1			
Climate and Weather	1	1		2	1
World Minerals	1			2	1
World Power Resources					1
World Mineral Fuels and Water Power				1	
World Forest Resources				1	1
World Food Sources				6	1
World Fiber Sources				2	1
World Agriculture Products					1
World Economic, Commercial Activities					1
Geography of Labor, Industry, Cities					1
World Transportation and Trade	1			4	
World Communication	1			1	
United States; General	1	1	1		1
United States; Industry	1				
United States; Transportation, Trade		1		1	
United States; Textile Industry	1				
United States; Iron, Steel Industry	1				
United States; Foreign Commerce	1				
United States; Conservation		1			
United States; Dependencies		1		1	1
United States; Forests	1				
United States; Horticulture	1				
United States; Corn	1				
United States; Cotton	1				
United States; Wheat	1				
United States; Irrigation	1				
United States; Regional		5			9
Canada and Newfoundland	2	1	1	1	1
South America; General					1
Latin America		1	1		
Northern Latin America				1	
Mexico and the Carribean	1	1			1

TABLE 4--Continued

Subject Content of Chapters	Textbooks*				
	A	B	C	D	E
Central America and the West Indies					1
Middle Latitude South America	2				
Andean South America		1			
Pacific South America				1	
Atlantic South America				1	
Brazil		1			
Argentina and Uruguay		1			
The Humid Tropics	3				
Europe, General	1	1	1	1	
Historical Geography; Western Europe			2		
Historical Geography; Mediterranean			1		
Geography of Voyages and Discovery			3		
Europe, Regional	8	2	3	9	3
Scandinavia	1	1	1		1
British Isles		1	1		1
Germany		1			
France		1			1
The Low Countries		1			1
Switzerland		1			
Italy		1			
Spain and Portugal		1			
Soviet Union	1	5			1
Asia, General				1	1
Southeast Asia		2	1		
The Monsoon Lands		1			
The Moslem World		1			
Middle East		1			
Japan	2	1	1	1	
China	1	1	1	1	
India	1	1	1	1	
Korea			1		
Africa, General	1	1	1	1	
Australia, New Zealand and Pacific Is.	1	1	1	1	
Ocean's Part in World Affairs			4		
Antarctica			1		
Polar Regions		2	1		

*A. Case and Bergsmark, Modern World Geography, 1949.
B. Packard, Overton, and Wood, Geography of the World, 1948.
C. Jones and Murphy, Geography and World Affairs, 1950.
D. Van Cleef, Global Geography, 1950.
E. York, Rowe, and Cooper, World Economic Geography, 1950.

available information since 1946. A number of states were contacted by the writer but several of them had no statistical information that would have been of any help. Enough of the states, however, had information available to at least get comparative data showing the extreme positions that high school geography now has in the United States.

In 1955 a survey was made of the pertinent files of the Oklahoma State Department of Education at Oklahoma City.[81] The several reports from all the high schools in the state were examined to determine how many high schools offered geography, and how many offered it for one semester or for one year. The files of two consecutive years were used because it was known that many schools offer subjects only every other year. This is especially true of the smaller schools of the state. The school terms selected for investigation were 1952-53 and 1953-54. All accredited schools, white, colored and parochial, were included in the study.

The survey revealed that only 170 out of a total of 801 high schools taught geography in 1953-54. This amounts to 21.2 per cent of the high schools of Oklahoma. In 1952-53 only 271, or 33.8 per cent, of the schools were teaching geography. Evidently 331 schools in the state, or 41.3 per cent, taught geography in at least one of the two years

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[81] Information on Oklahoma for 1952-53 and 1953-54 was obtained by a personal search of the files of the Oklahoma State Department of Education, in June, 1955.

surveyed. Only 110 schools, or 13.7 per cent, taught geography both years. On the negative side of the picture, the investigation reveals that 78.8 per cent of the high schools of Oklahoma taught no geography at all in 1953-54, compared to 65.2 per cent which did not teach geography in 1952-53. As many as 58.7 per cent of the schools did not teach geography in either of the two years surveyed, and a total of 86.3 per cent did not teach geography the two years consecutively.

The survey indicates that the one-semester course in geography in Oklahoma is decreasing in importance. Almost all Oklahoma schools that teach geography at all teach it for the full year. One hundred and fifty-five schools, or 91.2 per cent, of the 170 that taught geography in 1953-54 taught it as a full year course, while 239 out of 271, or 88.2 per cent of the total, taught it for the full year in 1952-53. Apparently only 10 per cent of the schools still teach a one-semester course in high school geography.

During the 1951-52 school term in Pennsylvania 219 out of 1099 schools, or 19.9 per cent, were teaching high school geography. In other words, 880 schools, or 80.1 per cent, did not offer geography. Only 11,251 students were enrolled in geography in the high schools of Pennsylvania in 1951-52. This is about 2 per cent of Pennsylvania's 597,000 high school students for that year. One hundred and seventy-three of the schools that taught geography called their

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course economic geography while only five listed physical geography. The course in Pennsylvania is for two semesters.[82]

For the 1954-55 school term Mississippi reports 159 out of 732 high schools teaching geography, or 20.4 per cent of the high schools of that state.[83]

North Dakota reports that for the school term of 1954-55, only 157 out of 376 high schools in the state were teaching geography. This is only 41.7 per cent of the high schools of North Dakota; however, the state has a very rare requirement which makes it possible for every student in the state to take geography while in high school. North Dakota has made it a requirement that all schools periodically offer world geography, and all students must have an opportunity to take it before they graduate. This means the course must be offered at least once every four years. The world geography course is a full unit, or a two-semester course.[84]

The course in geography in New York state high schools is a part of the social science group and is required for graduation. This requirement has been in effect since 1946. About two-thirds of one year is spent on geography

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[82]Letter from Vincent J. McCoola, op. cit.

[83]Letter from Bilbo Young, State of Mississippi, Department of Education, Aug. 1, 1955.

[84]Letter from Richard K. Klein, op. cit.

and the other third is on economics.[85]

In New Jersey, during the school term 1952-53, only 134 out of 263 high schools, or 50.9 per cent, were offering geography. The schools which teach geography generally make it a two-semester course. However, there is considerable variety in the courses offered. Courses such as world geography, commercial geography, economic geography, and global geography are taught regularly in a number of New Jersey schools.[86]

The state of Arizona reports for the school term of 1954-55, that only seven out of 79 high schools, or 8.9 per cent, taught geography. Six of the seven schools teach it for only one semester. The course is called world geography. The other school is a technical high school and its geography is a two-semester industrial geography course.[87]

In Connecticut, enrollment figures for the school term 1953-54 show that of the 60,966 high school students enrolled only 2,891 were taking geography. This number is only 4.9 per cent of the total. About one-half of the courses in Connecticut are world geography, one-fourth are economic geography and the rest are general geography or

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[85]Letter from Wayne W. Soper, op. cit.

[86]Letter from Clyde E. Weinhold, op. cit.

[87]Letter from W. W. Armstrong, op. cit.

commercial geography.[88]

For the 1954-55 school term the state of Maine reports that 65 out of 192 high schools, or 33.8 per cent, were teaching geography. Economic Geography is the most usual type of geography taught, and it covers two full semesters.[89]

The 1953-54 school term in North Carolina showed 293 out of 931, or 31.5 per cent of the high schools, teaching geography. The number of students enrolled in geography courses was 8,349 or 8.8 per cent of the total number in the state. World geography and economic geography are taught most grequently in North Carolina.[90]

During the school year 1951-52, California had only nine out of 622 high schools offering geography as a separate course. This is an amazingly low 1.4 per cent. In California, however, geography is included in the social studies in the ninth grade as an integrated subject. An attempt is made to teach geography in American History, World History, California History, European History, Modern History, and American Problems courses. The schools that teach the separate courses of geography call them American

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[88]Letter from Paul M. Boynton, State of Connecticut, Department of Education, Aug. 3, 1955.

[89]Letter from Kermit S. Nickerson, State of Maine, Department of Education, Aug. 2, 1955.

[90]Letter from A. B. Combs, op. cit.

Geography and World Geography.[91]

Table 5 shows the amount of geography taught in states where figures were available at the time of the investigation. When the figures for more than one year were available in any one state those for the latest year were used. The table shows the highly varied ways in which the different states regard geography in their high school curriculum. One state has it as a required subject, while a few have almost eliminated geography from the curriculum. Only a small part of the nation's young people have an opportunity to study the subject of geography and even fewer actually study it.

Present Weaknesses in High School Geography

Chapter II has pointed out the present situation in geographic instruction in the high schools of the United States. The main idea has been to emphasize the small number of high schools now offering geography to their students, and the nonuniformity in certification practices, which produces a poor quality of geography teaching.

Paul F. Griffin, in February, 1953, summarized very aptly some of the present-day weaknesses of high school geography when it tries to meet the needs of our time. He first mentions the organization of the geography programs from

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[91]Letter from W. Earl Sams, State of California, Department of Education, Aug. 9, 1955.

TABLE 5

NUMBER OF HIGH SCHOOLS OFFERING COURSES IN GEOGRAPHY IN THIRTEEN SELECTED STATES

State	Year	Number of High Schools in the Survey	Number of High Schools Teaching Geography	Percentage
New York	1951-1952	950	950	100.0
Nebraska	1946-1947	370	240	65.0
New Jersey	1952-1953	263	134	50.8
Michigan	1949-1950	310	145	43.0
North Dakota	1954-1955	376	157	41.7
Maine	1954-1955	192	65	33.8
North Carolina	1953-1954	931	293	31.5
Oklahoma	1953-1954	801	170	21.2
Mississippi	1954-1955	732	159	20.4
Pennsylvania	1951-1952	1,099	219	19.9
Idaho	1948-1949	163	23	14.0
Arizona	1954-1955	79	7	8.9
California	1951-1952	622	9	1.4

school to school.

> In the first place, geography is not even taught in many high schools in the United States. And where it is taught, a fragmental approach is used; it is not related to the student's environment or to his other subjects. Geography is neither begun nor ended in the same grades with any uniformity from school or school. In different curriculums it is present for varying lengths of time. Likewise, there is no standard grade placements; economic geography may be taught in the ninth grade in one school, in the eleventh in another or omitted entirely in another school. Nor is there continuity from grade to grade in the subject. With such chaos as this, is it any wonder that some question the value of certain geography programs in the high school.[92]

Griffin also has some comments about the type of geography that is taught in the high school and lists some of the things that he thinks should be included in a high school geography program.

> In the senior high school, when students are emerging from the so-called naive period of life, they are interested in pragmatic knowledge, in the discovery of their "selves," in discovering the basic values underlying current events. Very few functional aspects of democracy, from a geographical point of view, are taught. These aspects should include, 1. city planning, 2. conservation, 3. development of national resources, 4. geographic interpretation of current affairs, and 5. geographical phases of the national defense and foreign policy.[93]

The qualification of teachers is another point that Griffin stresses as a fundamental weakness in high school geography.

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[92]Paul F. Griffin, "Secondary School Geography and the Needs of Our Times," Journal of Geography, LII (Feb., 1953), 63.

[93]Ibid.

> Another weakness is apparent in the qualification of teachers, who conduct courses in geography. They are products of their own training programs--a system which tends to operate in a vicious circle. Inadequate geography programs of the present tend to cultivate inadequate teachers for the future. For instance to teach economic geography, i.e. the world making a living, the teacher must instruct in four integrated aspects of the broader subject: 1. the region, 2. the industry, 3. a commodity, and 4. a pattern of land utilization via a field study. There are lamentably few teachers qualified to treat these aspects in a clear, coherent and comprehensive manner which is geared to the students level of thinking.[94]

In general there are two main weaknesses of high school geography which are fundamental and must be solved. One of these is the lack of a well organized geography program in the high school. Success in teaching geography depends upon the effectiveness of the effort of administration and geography teachers in placing geography in its proper perspective. Outmoded programs of geography hurt the over-all status of geography almost as much as the absence of it in the curriculum of the high school.

The other fundamental weakness which must be remedied is the total lack of adequate regulations to see that only qualified teachers are permitted to teach geography. This, in turn, would demand that the states, colleges, and universities introduce a more adequate teacher training program for the teachers of high school geography. Unless this is done there will be even more schools in the future than there are now unable to get qualified teachers to teach the

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[94] Ibid.

subject. Under present conditions, a great many high schools could not get qualified geography teachers even if they decided to add geography to their curriculum.

Unless the high school geography programs are better organized and unless better teachers, as well as more teachers, are obtained for the teaching of the subject at the high school level, it is unlikely that the number of schools offering geography will increase substantially. The quality of geographic instruction, in that case, will remain at its present low level or even get worse.

CHAPTER III

GENERAL SOCIAL VALUES OF GEOGRAPHY AS A HIGH SCHOOL SUBJECT

Of what value is the geography offered in the high school to society in general? This is the major question under discussion in this chapter.

The writer believes that geography, when offered in the high school is helpful to society in general, that is, that the local community, state and nation would benefit if all of its citizens had an opportunity to study geography in the high school. Among other things, this chapter will try to show that geography can help in making this world a more peaceful place in which to live by bringing about more and better world understanding. It is believed that local communities as well as larger political units can benefit from greater geographical understanding by its citizens. Geographical knowledge can help raise the standard of living in an area, by recognizing and utilizing all natural resources available to that area. These are but a few of the values that are included in the discussion of the general social values obtained by the study of geography in the high school.

Fostering World Understanding

How can our present day civilization survive another world war? This question is heard time and time again. It is heard from people who are known to be slow to alarm. It is impossible to consider the results of an atomic or hydrogen attack without great concern.

What is being done about it? Our country is spending millions of dollars trying to reduce the loss from such an attack. Radar warning systems, ground observer groups, intercepter planes, underground shelters and dispersal plans are but a few defensive measures being taken. Certainly these efforts are necessary and would prove useful if an attack should come. However, the losses in both human lives and property would still be counted in staggering figures. Therefore a great amount of effort is being put forth to lessen world tensions and thereby postpone or maybe avert entirely a world war.

It is at this point that geography can offer assistance. It is the contention here that a knowledge of world geography would be helpful in preventing misunderstandings which might lead to world conflict. It is believed that a clearer understanding of other countries' problems and potentialities would create a less suspicious attitude on the part of the public in general and thereby be reflected in public opinion.

> Geography has much to offer in this national and, I trust, international program of education. Our efforts to promote co-operation must be unremitting. The more we know of the background and composition of the people in other nations, of the climatic conditions that influence their occupations, of their lands and natural resources, their social, economic and political affairs, the better we can serve as citizens of our own nation. Ignorance of, or indifference to this kind of knowledge is unpardonable in a private citizen who must cast his vote on important issues; it should disqualify one for public service in positions involving international relations.
>
> The study of geography helps to provide the much needed perspective which is indispensable if we are to understand and appreciate other people's problems, aspirations, and motives, especially when they differ from our own.
>
> World understanding will come only to those who, knowing the conditions under which other people live, are generous and sympathetic, who can allow for differences among the citizens of various nations, and still recognize that the great mass of people throughout the world have essentially the same fundamental ideas for their lives and the obligations which they have toward others.[1]

There are certain specific world problems that world geography can help solve besides war. Peace-time problems are, sometimes, just as pressing and complex as those of war. One of these big problems is world trade. Charles C. Colby insists that geography can be of great help in getting an understanding of this problem.

> What has geography to offer in a junctional system of education which will breed intelligence and understanding of world problems? The answer is clear, it

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[1]Wallace W. Atwood, "Fostering International Understanding," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 45.

> can offer one of the major understandings, that is the understanding of the laws, principles and implications of pattern in the world order. Such understandings make clear that just as self-preservation is the first law of life for the individual, the organization of natural and human resources to meet the continuing wants of mankind, is the major problem of society at present and probably in the future.
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> . . . . . .
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> world trade is an essential part of the organization of resources and that an understanding of world trade, the organization of resources, and the continuity of wants are gained by studying geography, especially economic geography.[2]

Another area in which geography can be of service is in helping solve the problem of an inadequate food supply in certain areas of the world. The solving of this problem along with the solving of the great surplus in the American market would go a long way to make the world a better place in which to live. All citizens of the modern world who share responsibility of guiding the public affairs in any nation should have an intelligent understanding of the food problem as well as other problems of peoples in any nation of the world. Public opinion properly expressed can influence the actions of governments and thereby determine affairs of international significance. It is believed that only when the general public in the various countries informs itself on this problem of inadequate food will action be taken by the governments of those nations.

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[2]Charles C. Colby, "Crisis in World Trade," Geography and World Understanding, Professional Paper No. 9, Published by the National Council of Geography Teachers (April, 1949), p. 41.

Atwood believes that the foremost problem before the world is the inadequate supply of food available in certain sections. He points out the 390 million in India and other millions in the other parts of the monsoon lands of Southeast Asia that are underfed. He points out the droughts and floods which cause disaster in the overcrowded lands. He then asks and answers his own questions.

> Where and how shall more food be produced? How shall it be distributed? These are geographic and economic problems but they cannot be solved without international co-operation. They are world problems for they will affect the welfare of many more people than those who are immediately faced with starvation.[3]

Health is another problem that assumes international importance. Atwood also believes that geography can be of service in this area of world understanding. He has these comments:

> The health of people living on the various parts of this earth has become a problem of international importance. Never before have the carriers of disease had such a wonderful opportunity for quick transit from one land to another. A pair of mosquitoes infected with some dreaded disease may board an airplane, travel under favorable conditions of temperature, and in a few hours arrive in a distant land where they may propagate their species and spread the disease they are carrying. Co-operation among the public health officers of the various nations and of the law makers is imperative if disasters from epidemics are to be avoided. A study of the geography of disease is of the greatest significance and will involve a careful analysis of the geographic factors which influence the carriers of disease.[4]

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[3] Atwood, op. cit., pp. 38-39.

[4] Ibid., p. 39.

For citizens of a large and powerful nation such as the United States an appreciation of small and weak nations is extremely hard to achieve, but it is one of the values attained from the study of geography. A study of the geography of a country can do a great deal to clarify the many false ideas built upon half-truths. Atwood gives an example in these comments on Switzerland:

> The study of geography will contribute to an understanding of each of the nations of the world. Many of the smaller nations reflect the influence of their environment in very striking ways. A professor of geography at the University of Zurich recently told me that he could not state the characteristics of Switzerland. He said there are twenty-five different Switzerlands. Each canton is a distinct cultural group, for in each such community they have their own festival costumes, their local customs, industries, and public institutions. He said there were twenty-five different ways of making sausages in Switzerland. That country is divided by high mountain ranges and each community is more or less isolated. Those mountain people enjoy their privacy in many ways but no group of communities in the world is so firmly bound together in national ideals of liberty and freedom. They enjoy those privileges at home and they want the entire nation to stand firmly before the world for liberty and freedom for each individual citizen. They hold that a government is established to serve the people. The people, in their judgement, should not be organized to serve a government.[5]

Another important aspect of world understanding is involved in American foreign policy. Colby believes geography is of utmost value in this respect.

> Our foreign policies and our foreign relations will improve with experience. As in Washington's time, our leaders and our people are awake to the issues. But we also must learn through education. We need the right

[5] Ibid., p. 43.

> rather than the wrong system of education. We must have more truth and less propaganda in our curriculum. The Social Sciences are diffusing their energies in fruitless attempts to study and teach all knowledge at once. Some seem to want knowledge put up like candy bars in chocolate coated parcels. What we need in facing the grave national and international problems of our time is better disciplined minds. We must move on to a system of functional education under which minds will be trained to reason and to follow reason and thus gain understanding. Even understanding is not enough. We must learn how to implement understanding, that is to utilize understanding in the solution of problems and the development of policies.[6]

J. Warren Nystrom believes that in a democracy such as ours, no policy can be really effective unless it has public support. Especially is this true in foreign policy, when Americans find it strange to find themselves hit by something exploding thousands of miles away. It is true that American public opinion has progressed considerably in the past few years to an appreciation of world responsibility. However, in this critical area of world affairs, the United States needs the wisest possible foreign policy, supported by an intelligent, informed citizenry. In this way it is believed that a well informed citizenry will be less likely to be misled by propaganda and will have a clearer understanding of world issues. We then should be able to make a choice in support of policies or to oppose them in part or totally.[7]

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[6] Colby, op. cit., p. 40.

[7] J. Warren Nystrom, "Geography and World Affairs in Community Education," Geography and World Understanding, Professional Paper No. 9; Published by the National Council of Geography Teachers (April, 1949), pp. 49-50.

Making for Better Citizenship

A well informed citizenry is always to be preferred to a misinformed or uninformed one. An individual cannot be an effective instrument for strengthening his country if he does not have the necessary information to allow him to do his best. With a government such as ours it is even more important that the standard of education throughout the country be raised to and kept at a high level. In the United States decisions are made by individuals every day. The better able he is to make wise decisions the better is his lot as well as that of the entire country.

Geography is a subject area which can make valuable contributions to the general education of the well-informed citizen. Having learned more about the geography of the various parts of his community and the world, a citizen is more likely to take an active part in community, state, national, and world affairs.

An individual trained in geography may be able to contribute valuable help to community planning groups. The results of such group planning might be the bringing in of new industry, a problem which thousands of communities are presently trying to solve. In this way new areas of employment are created and communities are enabled to grow.

In the state or regional community the geographically well-informed individual should be able to make decisions at

the polls which could benefit the entire state in contrast to prejudiced sectional votes of the misinformed. This would certainly help improve state government.

Nationally, this geographic knowledge would enable the citizen to help create public opinion in various areas, such as in matters of tariff policy. This, undoubtedly, would have a great deal of influence on our government leaders who create this policy. Also, the citizen would be better able to follow and understand whatever tariff policy the United States might adopt.

World citizenship training is a very important part of geographic learning experiences. Although loyalty to the United States comes first, geography should insist that good citizenship also calls for support of world organizations such as the United Nations. Geography students should consider themselves world citizens in training and should be eager and willing to take advantage of any opportunity to become better informed about the countries of the world and their political affairs. This understanding would result in a desire to participate in both national and world politics. Geography should teach the student to realize that in order to become a good citizen he needs to listen, study, think, contribute information and express opinions based upon facts and understanding.

Many of our present day high school geography textbook authors are taking into consideration some of the above

points in preparing the organization and content of their books. Chamberlain and Stewart have commented along this line in the preface to the new edition of their Geography and Society.

> To train for good citizenship is the chief objective of education in America. This function is an expanding relationship involving many mutual obligations and benefits among individuals, groups, states, and nations, and between individuals and all larger units of society.
>
> Citizenship was formerly less complicated than it is today. Our population was largely rural, and each family was, to a large extent, a self-sustaining unit. The rapid settlement of the country developed new interests and common objectives. The exchange of labor, the establishing of schools, and the construction of roads and bridges are examples. The good citizen was the individual who did his duty in these matters. There has been a similar increase in mutual relations between urban and rural communities, between state and state, and between nation and nation.[8]

Chamberlain and Stewart also believe that there is a need for broad national citizenship today, and that a more comprehensive knowledge of geography will help to develop this. The reclamation of land from both desert and swamp conditions; the protection of soil from floods and winds; guarding forests; reforestation; and exploitation of water resources; the establishing of recreation centers; the preservation of wild life and all projects which require large expenditure and full understanding of our citizens.[9]

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[8] James F. Chamberlain and Harold E. Stewart, Air Age Geography and Society (3d ed., New York: J. B. Lippincott Co., 1952), pp. v-vii.

[9] Ibid.

Some nations are rich in natural resources while others are not. This difference in geographic environment is one reason why so few have developed into world powers. The effort of a nation to improve geographic conditions by increase of territory is an important cause of war. This should not be. Each country has something that it can contribute to others. It is no more necessary that each nation own the land from which all of its needed resources may be obtained than that an individual own all the land from which his needed resources are obtained. Through a division of labor the needs of the individual can be met; therefore, through world trade national needs can be met.

Education must lay greater stress upon honesty, morality, and the brotherhood of man. Many subjects can contribute to this higher objective. History shows us how men have lived. Geography shows how people are living and why they live as they do. This understanding will do much towards removing prejudice and bitterness. A comprehensive knowledge of geography should be possessed by those who frame laws, make treaties, and readjust boundaries.

At a multitude of points, geography influences the daily lives of individuals and nations. The farmer, the industrialist, the professional worker, the transportation operator, the merchant, the clerk who sells commodities, and the individual who buys them are all influenced by geographic environment.

For those who do not secure a college education, the senior high school affords their last opportunity to obtain such a grasp of geography as will enable them to understand its significance as applied to citizenship. There should be an effort made to enlarge the geographical knowledge of the men and women who go to work immediately on leaving high school. A special course for them would be highly desirable. Such a course would include a humanized physical geography, commercial geography and a study of at least a few key nations of the world. Without such a course there will continue to be a great number of our citizens lacking part of the mental equipment necessary to the exercise of efficient citizenship. With such a course, citizens will be possessed of a deeper understanding of society at home and abroad and of the operation of geographic factors in the life of society. This will result in more intelligent voting and law-making. This background will deepen respect for, and sympathy with others. It might even lessen class prejudice and racial hatred.[10]

Understanding the Meaning of Differences from Place to Place

Geography more than any other area of learning is concerned with environmental influences on man. Non-geographers who write in the social studies field are not as

[10] Ibid.

vitally concerned about this feature of the physical earth as those who write in the field of geography. In order for the citizen to understand the significance of the physical difference in certain areas of the earth, he must turn to geography. What does the physical difference mean? This question falls very definitely within the scope of geography.

Preston E. James writes that geography has a role to play in a world of peace as well as war. He regrets that geography has declined in the attention given it between the two world wars and suggests that this should not have been the case.

> Geography teaches about the world and the people in it, about the significance of the places where people live, and of the differences from place to place. The study of geography broadens one's horizons and develops an appreciation of the relation of one's own country or locality and the people in it to the other countries and the people of the world. In America this kind of understanding may spell the difference between the waging of another catastrophic war and a gradual relearning of the ways of peace.[11]

James believes there are at least four ways in which the subject matter of geography sharpens our concept of that rather vague thing called "world understanding," and that geography makes a contribution that the other social studies cannot make. He lists them as follows: (1) Geography presents an effective treatment of the physical factors in the

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[11]Preston E. James, "Understanding the Significance of Difference from Place to Place," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), pp. 27-28.

study of the man-land relations. (2) Geography places emphasis on the significance to man of the differences which occur from place to place on the earth's surface. (3) Geography teaches the reading and understanding of maps. (4) Geography develops the capacity of out-of-door observation.[12]

James gives two examples of geographic understanding which must be considered when differences are being studied. He insists that it is important to know much more about the physical earth than is normally taught in social studies courses. The first of these examples is the understanding of the earth's physical features.

> There are, of course, common English words to describe the major kinds of surface features--plains, hills, plateaus, mountains. These words are used widely in writings about man, but with little appreciation of the prevailing lack of precise understanding. "What is a mountain?" may seem at first to be an absurdly academic elaboration of something everyone knows about at an early age; but studies indicate that there are many adults, for whom the word itself has become commonplace, yet who associate with it many wholly erroneous ideas. To understand the historical significance of mountains, mountain passes, or mountain peoples, it is necessary to know much more about them than that they are high above sea level and stand out conspicuously on the landscape. For example, there are great differences to be observed in the significance of mountains, like the Rockies, in which the valleys and intermont basins are wide and the summits sharply peaked, and mountains, like the Central Andes, in which the valleys are narrow and deep, and in which there are side expanses of gently sloping surface at a high elevation. And in the case of plateaus, the human significance of dissected plateaus, like the Allegheny, is fundamentally different from that of plateaus which remain largely undissected, like the Colorado. Even plains differ in significant ways. And with all these major categories and their important sub-

[12] Ibid.

types, there are many associated concepts: concepts regarding the cover of vegetation, the soil, the kinds of drainage features, the ways in which different human societies have attached themselves to these features.[13]

James' second example is concerned with the climatic features of the earth.

> In the search for simplicity in a field not essentially their own, historians, sociologists, economists, and other social scientists have commonly described climatic location in terms of the three traditional zones. Recognizing that climate was of importance in human affairs, they adopted the simple Temperate, Torrid, and Frigid Zones and proceeded to draw conclusions concerning the effect of these climatic zones on human activities. The three zones were first developed by Aristotle, and later discarded by the Arab geographers whose knowledge of the world was greater than that of the founders of Greek science. Yet even today the climate of a place in the middle latitudes of the earth is often described by non-geographers as Temperate. It is not well known that both the world's highest and world's lowest temperatures have been observed in the "Temperate" Zone; that the "Temperate" Zone has the most varied, changeable, and intemperate of weather; that the only true temperate climates are in the Tropics; and that there are six or eight major climates within the "Temperate" Zone which range from very wet to very dry, and from very hot to very cold. These significant differences from place to place are well known; yet, it is usually only the geographers who insist on relating these differences to human experience. And why is it important to do so? Because only by treating the land factor with such sufficient precision can meaningful relations to human behavior be discovered; unless meaningful relations are shown then the land factor is commonly overlooked. None of the countries with which we must deal can be understood or its problems appreciated, simply by a study of its history and its institutions; equally fundamental is a knowledge of the characteristics of its land, presented not in broad meaningless generalities, but in sufficient detail to demonstrate the significance of the land factor.[14]

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[13] Ibid., p. 29.

[14] Ibid., p. 30.

Chamberlain and Stewart express the opinion that the differences in various parts of the world and in our own country are in a large measure the result of differing geographic conditions, such as climate, soil, and topography. Man, then, makes use of the resources given to him by nature through the use of skills, tools and his labor in order to satisfy his wants and needs. These natural resources differ greatly from place to place in kind, quantity, and quality. Many of the problems man has to meet arise out of the natural environment, such as floods or a hot, disease-ridden climate. Therefore, to understand any given society, the geographic conditions which both help and hinder it must be understood. All people occupy some portion of the earth's surface and no people can be understood apart from the land which they occupy. Geography also teaches how societies adjust to geographical conditions and adapt natural resources to their needs and wants. Societies do this in order to derive greater benefits from geographic factors. People make certain changes in their environment, such as the clearing of forests for farm land, tunneling under mountains for railways, diverting of rivers for irrigation, and straightening of river channels to lessen the danger of floods. The purpose of geography is to present geographic factors to society in their mutual relationships.[15]

[15]Chamberlain and Stewart, op. cit., pp. 1-3.

Since the beginning of civilization man has been busy at the job of freeing himself from the control of nature. He has obtained better clothing and better habitations. He has found better ways to preserve food. He has made numberless inventions. The development of transportation, trade, and communication is among the means by which these things have been accomplished. There are, however, fundamental conditions which man has not been able to change. He cannot substantially alter the weather or climate, although proper clothing and the heating and cooling of buildings have enabled him partially to overcome their influence. Changes in plant life and its distribution have been effected, but it is not possible to grow cotton, coffee, or tropical fruits in the northern portions of North America or Europe.

Man has tunneled under mountain ranges and flown over them but he cannot remove them. He can ship coal, iron, and petroleum from place to place and use them for profit, but he cannot produce them. He can fertilize the soil, but cannot originate it from the solid rock. He can to a certain extent control the action of rivers, but he cannot create them. Apparently man will always be influenced by geographic environment.

It is important to remember that the relationship between society and the geographic environment is a changing one. New resources are discovered, old ones depleted or

exhausted. Man, through science, acquires new needs and new tools. The natural environment itself changes. Usually the changes are slow and can be seen only over a long period of time, but sometimes they are swift and often terrible. For example a great river may change its course and leave disaster in its wake. Another example is the 1942 birth of the volcano in the cornfield of a Mexican peon. This left a large area, formerly occupied, as a useless region.

These changes, whether nature-made or man-made, require new adjustments. A new method of producing a chemical may cause a new city to spring up here, an old one to decay somewhere else. Changes in the raw materials used by an industry may force thousands of farmers to readjust the use they make of the land. The spread of a plant disease may cause the center of production of a plantation crop to shift. The silting up of river mouths may bring the decline of a once great port. A new railroad may open up an entirely new territory to settlement. A change in government may result in a completely new approach to the use of resources.

It is clear that these changes must be understood and properly evaluated in order that man may get the greatest use from them. They must be placed in their geographic setting to fully understand them. Courses in high school geography can help accomplish this task.

Solving Human Problems

Since all human life is lived on the surface of the earth, the solving of human problems must evolve from knowledge involving the earth. The solving of human problems becomes complicated when it is recognized that people differ in many ways and the combination of people, cultural features and physical features found in any one place are different from any other combination of people, cultural features and physical features. Progress cannot be made in any civilization until the people are able to cope with the particular problems that face them on the area of the earth that they occupy.

Geography can help in the attempt to progress and to solve human problems. This can be done by finding the meaning of these different combinations of people, cultural features and physical features. It can be facilitated through such geographic tools as direct observation and mapping in various localities. The scientific use of this kind of information, along with personal views of people living in the area can be of great help in understanding the problems of the area. When problems are thoroughly understood the eventual solving of them becomes easier and more rapid.

Edith Parker suggests that teachers and students need various kinds of information to be able to promote human progress. She believes that these should include the

understanding of different cultures, an insight into the nature and function of social, economic and political institutions and, most important of all, the meaning of these things to the people themselves. There are two other needs, according to Parker. One of these is the ability to reason accurately. This, of course, is absolutely necessary if the right conclusions are to be drawn from the information obtained.[16]

The other need is the development of a geographical point of view.

> Fortunately, bodies of experiences which help young people develop a clearcut geographical point of view are also those most helpful to them in assimilating geographical knowledge and in developing the ability to do accurate reasoning based on it. These young citizens need, in order to develop such a view point, experiences that resemble in a general way experiences by which men gain geographical knowledge "de novo." They need, in short, to learn how to read for themselves some of the story man has written into the surface of the earth. Insofar as geographical knowledge is concerned, teaching effort which is properly expended in helping them to do so contributes greatly toward solving the education problems noted.[17]

In order to develop a geographical point of view, Parker offers several suggestions that must be taken into consideration. The first of these she presents is called observation, thought and discovery.

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[16]Edith Putman Parker, "Gaining Insight into Human Problems," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), pp. 8-10.

[17]Ibid., p. 10.

> A very large proportion of the critical problems which human beings face are rooted in differences in localities (human life being inevitably localized) and in the fact that all human lives are intricately intertwined. It follows that, at every stage in the development of geographical viewpoint, one needs very concrete experiences: in observing real or pictured landscapes in specific and varied localities; in thinking about differences in the problems people in these different localities face; in discovering various specific ways in which the people in each depend upon, and are depended upon by, outsiders; and in gaining an increasingly clear concept of the nature of the whole world, in which the intertwining of all human lives is rooted.[18]

The second suggestion offered is that geographical meaning in landscape must be started when the child is young. The children are taught about their own community and other nearby communities. When from their own observation they learn much about the local area they become more ready and more easily led into broader learning experiences.

> Such beginning experiences tend to flower at once into: desire to observe in a similar way landscapes in other localities, to find out about the people and their problems; ability to find out more for one's self in observing landscapes in the next locality studied; the tendency to initiate discussion of meanings of features in them, and the like. In brief, one begins at once to look at things as geographers do. As such experiences multiply, he begins to overcome the tendency he inevitably has to look down on all whose ways of doing differ from his own. Human progress hinges in part on man's ability to overcome that tendency.[19]

Another idea presented is that the world must be studied as a whole and that people are interdependent on each other. Parker insists that people must discover that

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[18] Ibid., p. 10.

[19] Ibid., p. 11.

individuals all over the world do not live unto themselves. The meaning of some features in specific localities cannot be made clear without noting something of the needs and doings of outsiders and without some concept of the whole world in which these outsiders are scattered. At any level, any study of a locality paves the way for misunderstanding if it does not take into account the fact that the locality is not separated from all other areas but a small part of the whole. One can gain a real functioning idea of the interdependence of all peoples only through experience after experience in finding that peoples cannot do certain things if they were not part of a big whole in which there is a great variety of localities.[20]

Parker also lists some pitfalls that must be avoided when developing a geographical point of view.

> In discussing differences in problems people face in different localities, it is essential to avoid giving the impression that people must do what one finds them doing. If human beings were not possessed of reason and were not capable of choice, there would be no point in social education. To see the reasonableness of doing in a given kind of place what one sees men doing there is a very different matter from looking upon what they do as the only things which it would be reasonable to do there.
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> To clinch the idea that men in every locality make choices in their use of what they find there, one needs to have repeated experiences in observing localities having much the same natural characteristics, but markedly different in what people in them are doing. Also needed are experiences which make it evident that

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[20] Ibid., p. 12.

> in any given locality people change their ways of doing from time to time as they develop new desires, new technology, and new insight into potentialities.[21]

The place of the high school in helping solve human problems is in the development of young people's understanding from a world-wide point of view. It is here in the high school that the world-wide ideas must be learned. If the understanding is put off until college experiences enter the picture it will be too late to have any significant effect, for many of the students will not go to college. Of those who do only a few will take geography, which is about the only subject matter field where they could acquire this type of learning experience.

It is not contended here that the development of a geographical point of view would automatically solve all of our great world problems, which require a great deal of solving indeed. However, it is believed that if a great number of our young citizens were to develop an insight into the geographical bases of some of these problems, the ability of the world to overcome them would be enhanced. Geography taught in the high schools of the United States on a wide scale would go a long way in developing this insight into great world problems. Of course, there are quite a number of conditioning factors that would go into determining how effective this would be. The primary condition would be the

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[21] Ibid., p. 13.

type of teachers obtained to do the teaching and secondary factors would be such things as methods, content of courses, and textbooks. This, however, would be true in any course that might be offered.

Discovering How Man Obtains the Necessities and Luxuries of Life

A closely associated value to the understanding of human problems is the satisfying of the needs and wants of all its people. Therefore, if people can acquire an understanding of how man may obtain the necessities and luxuries of life, a beginning may be made in finding better methods of supplying the world's population.

Economic geography is especially well suited to handle this type of learning experience. The high school is an ideal place for this type of study. The colleges and universities do not reach enough of the people to be as effective as the number that would be reached by the high school.

Obtaining the needs and wants of life is much more complex than in the past. Food, clothing and shelter were at one time considered the only needs that man must have, but now these have been increased in number. Sidney E. Ekblaw offers an expanded list of modern day necessities.

> For human beings to maintain life on this earth they have need of a number of things. Absolute necessities are food and shelter. Every individual has a desire to live. To do so, he must provide his body with food to

replenish the energy utilized in living. Since most individuals spend about one-third of their lives in sleep and rest, they seek some sort of shelter for such bodily habitation and for protection from certain uncomfortable atmospheric conditions. A third necessity, sometimes classed as essential, is clothing. True, there are places where little or no clothing is necessary to protect the individual. There are many areas, however, where people need clothing to assist their bodies in maintaining normal temperatures. Fuel is needed to provide warmth in climatic regions even within the tropics. Fuel, then may be considered a fourth necessity. Tools are a fifth, for in practically everything that one does to make his living, he needs and uses some sort of tool or several tools. Each new tool usually is a response to a need for improvement of some older one.

Luxuries, though not needed to sustain life, mean so much to the enjoyment of living that they are often considered man's sixth need. Perhaps luxuries include means of transportation and communication. If not, these should be considered as two additional needs of man, for it is believed that in the present state of world culture each individual has a need for getting from place to place by means other than his own locomotion, and for communicating beyond reach of his voice by some means such as mail, telephone, telegraph, or radio.[22]

In addition to being more in number, there are other complications. These include the activities that man must engage in to obtain his needs and wants. For example, Ekblaw suggests that there are ten natural features of the environment that must be understood to enable one to understand how man makes a living. These are (1) their location, (2) the relief or character of the land they inhabit, (3)

[22]Sidney E. Ekblaw, "To Discover How Man Supplies His Needs and Wants," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 63.

the mineral resources available, (4) the soil, its characteristics and peculiarities, (5) the relationship between areas of land and water, (6) the fresh water resources, including underground supplies, (7) the conditions of the atmosphere, or weather and climate, (8) the native plants or vegetation, (9) the native animals, and finally (10) the neighboring people.[23]

What are the values of knowing how man supplies his needs and wants? "The present state of the world's culture demands that everyone be a world-minded citizen."[24] Ekblaw makes this statement and then suggests six ways that studying man's needs and wants will contribute to this end. He mentions that geography: (1) contributes to a better understanding of man's environment, (2) deepens the understanding of people, (3) enlarges the understanding of industries in various parts of the world as well as raw materials and surpluses, (4) reveals the relationship between products and people and between products and environment, (5) recognizes the fact that peoples are interdependent, and (6) reveals the importance of being better world neighbors.[25]

Modern society is faced with many economic problems such as feeding the world's population, supplying the world's

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[23] Ibid., pp. 64-65.

[24] Ibid., p. 65.

[25] Ibid.

factories, using the resources wisely and improving transportation and communication. These problems are greatly complicated within themselves, but when they must be understood in a world that is changing every day, they become even more complex. Certainly the high school should at least attempt a beginning in revealing some possible solution to economic problems.

Ekblaw believes that a study of the economic aspects of geography supplements general geographic studies by supplying the information pertaining to man's making a living, and enlightening the relationships between that procedure and the environment. Since each individual is a front-yard neighbor of the other, the livelihood of one influences the livelihood of every other one. Aware of this influence each person must recognize the problems of others, must try to understand their problems in relation to their environment, and must be willing to give sympathetic consideration and help to the peaceful and progressive solution of these problems. Geography contributes to the understanding of some of the problems facing modern society in a way that cannot be filled by any other type of study.[26]

Ekblaw concludes with this statement.

> . . . And with every step of scientific and social progress these relationships have to be studied anew. By such study and restudy the life of every individual

[26] Ibid., pp. 75-76.

> will then contribute most efficiently to the richer, fuller life of the whole, and to that goal toward which every sane person strives--world peace.[27]

Understanding the True Meaning of Conservation

Very closely aligned with supplying our needs and wants is the need for conservation of our resources. To organize a geography course in which conservation of natural resources is included calls for a clear and comprehensive definition of conservation which is understood and accepted by all concerned. Conservation is not the hoarding or saving of natural wealth. It implies development as much as it does protection. It calls for farsighted, wise use of resources with all possible elimination of waste. It calls for renewal or restoration of renewable resources. It involves continuous effort to make full use of improved methods and techniques in the development and utilization of resources for the good of all the people.

It is known that serious inroads are being made on our natural resources and that future demands in all probability will be even greater than at present. Therefore, a choice must be made between conservation and waste. A choice of the latter would result in a lower standard of living for future generations. Conservation, then, would be the wiser choice. If conservation is needed, then the entire population must be made conservation conscious. Where

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[27] Ibid.

else but in the schools can this be done with more effect? There would seem to be no other institution which could reach as great a number of the people and at the right age to be of the greatest benefit to future generations. The schools should be able to further an understanding of natural resources and help citizens recognize their responsibility for their wiser use.

Here again, the high school can play a very important part. At this point in the education of American youth the conservation of resources can be made to have a real and urgent meaning. Here, the interrelation of the physical resources and their impact on the cultural environment can best be handled. High school geography can contribute a great amount of assistance to social education in regard to many phases of resource-use and conservation. Helen Hatcher Visher estimates the value of the educational methods of conveying the importance and the need for conservation to the general public in this way:

> Progressively increasing recognition that the wise use of resources is a major factor in improving human welfare and in establishing conditions favorable for world peace suggest the importance of providing effective conservation education. Neither the need for the conservation of natural resources nor the recognition of the necessity for conservation education is of recent origin. Yet, despite early warnings, the chief approach to resource-use problems has been too long that of legislation to provide protection for a particular resource that happened to be in jeopardy at that time. Today, however, there is increasing awareness of the fact that conservation problems cannot be legislated out of existence. Both sound legislation and wise use

> depend upon enlightened, self-disciplined citizens who realize man's dependence upon resources, see the whole problem, are sensitive to resource misuse or abuse, and are willing and able to work in a democratic manner to develop continuous programs of conservation. Until a strong desire for conservation exists in the minds of men, conservation goals cannot be attained. But the public opinion, upon which effective conservation depends, can be created thru education.[28]

To become the all-important force in forming resource-use behavior patterns, conservation must be made an integral part of the whole education program. This includes conservation principles as well as ideas. Particularly in a democracy, where personal rights have been highly emphasized, is there a need for conservation conscious citizens, fully aware of the responsibilities they must assume if they wish to continue to enjoy their freedom and privileges. A well organized program of geography should include conservation of resources somewhere in its content.

Successful education along conservation lines cannot consist of merely presenting the student with a variety of facts and ideas having relationship to the use of resources. There are some fundamental concepts that must be understood. Wesley Calef summarizes these understandings that must come from conservation education. He lists four: (1) an understanding of the reality of resource destruction and its effects, (2) an understanding that resources impairment is a

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[28]Helene Hatcher Visher, "Conservation Education Thru the Social Studies," Geography and Conservation Education, Professional Paper No. 13: Published by the National Council of Geography Teachers (March, 1952), pp. 18-25.

matter of universal concern, (3) an understanding of the natural characteristics of resources, and (4) an understanding of the relationships that exist between the resource and the society exploiting it.[29]

Conservation education needs to use other parts of geography to put over many of the points of the program. Calef, in another article, has this to say about the opportunity of geography in regard to conservation education.

> The imperative need in resource management today is to see conservation problems as the complex wholes they are. This is true throughout the whole range of the conservation scene from the efforts of the highest-paid professional conservationist to the first studies of the wholly uninitiated student.
>
> Geography is the only discipline that by the logic of its methodology is committed to the study of the full range of heterogeneous and unassorted items both physical and cultural as they exist in area. Moreover, geographers are the only scientists whose training specifically prepares them to approach a problem in this way. If any scholarly discipline is prepared to carry on research and instruction emphasizing a comprehensive approach in resource problems, that discipline is Geography.[30]

The geography teacher also has many contributions to make in regard to the teaching of conservation of natural resources. Henry F. Becker lists some reasons why geographers

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[29]Wesley Calef, "To Understand the Nature of Conservation," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 81.

[30]Wesley Calef, "Special Geographic Contributions to Conservation Education," Geography and Conservation Education, Professional Paper No. 13: Published by the National Council of Geography Teachers (March, 1952), p. 7.

are valuable in resource-use education.

1. The geographer possesses significant knowledge about people and human resources.

2. The geographer is well informed about the natural resources from which people must secure their livings and on which they must base their societies.

3. The geographer is coming more and more to understand social resources as the means of getting jobs done; to recognize that the kind of social institutions in any spot are not necessarily the by-product of the environment, but may actually be the means of determining the ways and hence the results of using these resources.

4. The geographer is familiar with and accepts readjustment as a dynamic social process. As he studies this process at work in the world he develops understanding and tolerance for various peoples, their achievements and problems.

5. The geographer knows where and how to secure information of various kinds from library and field and to present it effectively with the aid of maps and graphs.

6. As a result of all of the above stated attributes the geographer tends to be broadminded, unafraid of ideas, and reasonably adaptable.

7. Another result of these attributes is that the geographer has a very real and valuable contribution to make to both general education at all levels for all citizens and prospective citizens and to special education for a much smaller number of people.[31]

Learning the Meaning of Relative Location

The location of places is becoming more and more a matter of great public interest. More and more it is entering into daily conversation and discussion. Newspapers

[31]Henry F. Becker, "Some Implications of Resource-Use Education for Geographers," Geography and Conservation Education, Professional Paper No. 13: Published by the National Council of Geography Teachers (March, 1952), p. 13.

constantly refer to foreign cities, rivers, and mountains. Maps are printed almost daily of some area in the world in the newspapers and magazines. Television programs present them for view to their audiences. The American people are finally becoming location conscious. This is a good sign and perhaps may lead to a greater interest in other geographic concepts. Geography has always been interested in the location of places. In fact geography is more interested in the location of world places than any other subject area of learning.

What is meant by location? Location means that a certain city, town, village, country, river, mountain, or any other physical or cultural part of the environment is in a certain place on a map. It means this and a great deal more. There is very little value in being able to go to a map and point out the various places of the world, or orally give the location of a place by listing the neighboring countries. The real value lies in the ability to understand what location means to a particular place. Is it in a plains area or in a hill region or near towering mountains? It is in the high, low, or middle latitudes? Is it on the bank of a great river, near the ocean, or surrounded by desert sands? Is it on the West or East coast or in the interior of a vast land mass? Is it in a forest or grassland region? What is its elevation? These are just a few of the many questions involved in finding the true meaning of

location. Certainly, this type of location means a great deal more than just occupying a spot on a map. No longer do such questions as: Where is Guam? Where is Minneapolis located? What is the location of Calcutta? Where are the Balkans? and, Where is the Rhine River? have any meaning. Such questions must be answered by wanting to know what kind of location is desired and location in relation to what. The old idea of geography, which spent considerable amount of time and effort memorizing the location of places, has declined in adherents. Many geographers have expressed themselves recently regarding locational facts. Edwin H. Reeder emphasizes his ideas in this way.

> Modern geography has abandoned the encyclopedic approach to its content. The attempt of former generations of teachers to cram the minds of children with vast numbers of relatively unrelated facts in the expectation that the learners would remember them and use them when the appropriate time arrived has been recognized as a misguided endeavor. It is psychologically unsound and in a large measure, impossible. Modern geography teaching concerns itself with a study of how human beings deal with their natural environment.
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> The method of modern geography teaching is based on the idea of problem solving as the most productive way for children to learn.[32]

Place locations must fit in with a natural pattern. The student's knowledge of location is meaningless unless he can fit any place he might want to locate into a pattern of

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[32]Edwin H. Reeder, "Appreciating the Significance of Relative Location," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 48.

a larger area. Reeder points out that some of these patterns are in a large measure set by the natural environment. He points out that no matter how carefully a person may try he cannot grow palm trees and rice in the Arctic; nor can he grow pine trees and wheat in the humid tropics. The pattern of iron manufacturing is set by the presence of the ore, of coal, and of transportation facilities. Man did not produce the great inland waterway of the Great Lakes, on which iron ore and coal can be easily transported. That is part of the natural environment. On the other hand, through the use of the natural environment, man has created patterns himself. These are the patterns of human use of the gifts of the natural environment. Also, as a result of centuries of history man has produced still other patterns; political patterns of countries and colonies and provinces and states. These patterns, both natural and man-made, are of vital significance to the geographer. The man-made patterns control language, mores, and cultural conditions.[33]

The real value of place locations lies in their use as checking points to geographic thinking. For example in problem solving, location must be dealt with in setting up the geographic pattern. Many times these locations will be of individual places and other times they will be of an indefinite nature, such as the Middle West or the East. In

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[33] Ibid., pp. 48-49.

this particular instance location means an undetermined area and absolute location is not possible.

> . . . good teaching of geography is a process of helping the learner to solve problems of significance and meaning to him. In solving these problems he will be constantly under the necessity of considering various kinds of locational facts; and these facts will be organized by his thinking processes in solving problems into patterns of various kinds. Sometimes certain features of these patterns, including the location of individual places in them, may be of such general significance that it may seem worthwhile to memorize them. But the important thing to remember is that locations always find their significance in the use of them which has been made or is likely to be made in the course of geographical thinking and problem solving.[34]

Where and how are the important implications of relative location to be learned? Undoubtedly the geography course in the high school can contribute greatly in this big task. There are no other areas of learning that are so vitally concerned with the physical and cultural elements that go into determining the effects of relative location.

Seeing People in their Physical Environment

Physical geography has many values to make to the advance of civilization. One of these values lies in the contribution that a study of the physical features of the earth can make to social education. Derwent Whittlesey and George B. Cressey are only two among many geographers that have expressed themselves in this regard.

Whittlesey has made this statement:

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[34] Ibid., p. 49.

> On man's understanding of the possibilities and the limitations of his habitat depends the rate, even the lack, of orderly progress toward civilization. The alternative is continued disorderly conflict between groups occupying areas that appear to be hopelessly at variance.[35]

Cressey explains his ideas in the following way:

> Physical geography embraces a study of land forms, the atmosphere, the earth's vegetation, soil, and mineral deposits. It also includes so-called mathematical or astronomical geography in its consideration of earth and sun movements, seasons, and tides. These latter are not primarily of regional importance, but they do affect habitability. While physical geography deals with these elements one by one, their fullest geographic significance lies in their integrated meaningfulness as shown in earth patterns and adjustments. Location and space relations also involve physical considerations.
>
> Each of these aspects of physical geography is of importance to a program of social education. Man cannot be understood apart from his habitat. This habitat embraces an examination of land forms, the climate, the natural vegetation and soils, and mineral resources.[36]

The study of landforms is important to future farmers, engineers, and other occupational groups. The farmer needs to know about soil erosion, soil fertility, and the meaning of relief. The engineer who plans a road needs to know about the slope or grade of the hill or mountain that must be cut through, contour maps, and soil type and texture. These and many more land formation facts must be learned by

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[35]Derwent Whittlesey, "Picturing Human Societies in Their Habitats," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 26.

[36]George B. Cressey, "To Understand and Deal with the Physical Aspects of Geography," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 54.

many different peoples engaging in many different occupations. High school geography brings into the study of topography the human element while other natural sciences leave it out. It is believed that a study of landforms which brings in the idea that it is the place wherein people live, work, play, and worship is of greater value than a study of purely physical science subject matter.

The study of natural vegetation and soil as well as mineral resources and other economic values of the land, are topics that physical geography explores in detail. Certainly these topics may be taken up in other subjects, but not in the same way. For example, the study of mineral resources is part of geology. In geology minerals are studied from the standpoint of formation at some geologic date in the past. Physical geography studies mineral resources from many angles; location, formation, mining methods, methods of transportation, their many uses, and their value to the people of the producing area as well as to the entire world. A subject with such a wide range of interest should be of value in the study of the physical features of the earth. The high school has an important part to play in the study of physical geography. Care must be taken, however, to make sure that the study of physical geography in the high school fits in with the overall educational program.

Cressey points out that secondary levels are the place for systematic geography. He suggests that traditional

courses in physical geography and physiography have been overly genetic and semi-geological and that more time should be given to interrelations. Since geography is inescapably dualistic, the meaning and pattern of earth features must always be kept in mind. In short, the place of physical geography in the social studies is as much a matter of objective and concept as it is a question of content. Where properly presented, it provides a valid foundation for human activities, and awareness of world-wide distributions.

Cressey has some suggestions for those who would like to know how best to find out some of these things that are listed under the title of physical geography at the present time.

> Geography studies people as well as things. We cannot understand them until we see the kind of physical setting in which they live and work. This means field work. Are the poorest parts of the city in the lowlands or on the hilltops? Consider Pittsburgh. Do railways follow river valleys or ridge tops, and why? What major corridors such as the Mohawk Valley or the Delaware Water Gap lead traffic to your community? Where are the nearest forest or mines? Why not take a look?[37]

> A study of the natural environmental conditions is no mere inventory or description of the material face of the earth. We do need to know why rain falls, how valleys are carved, and the length of the frost free period in Montana, but these are chiefly the means to an end. Two billion people live on this planet and millions are added each month. Where can they find a livelihood, and of what kind?[38]

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[37] Ibid., p. 61.

[38] Ibid., p. 62.

High school geography can evolve into a learning situation which can aid people earn a livelihood from the physical environment. Geography has a way all its own in doing this. Geography divides and sub-divides the earth into manageable units. These units may be large or small depending on the complexity of the area or the intensity with which it is to be studied. The elasticity of this type of program should prove of great value in any course. The adaptability of geography to fit the needs of any particular situation cannot be better illustrated than in the field of physical geography.

Understanding the Interrelation of Both the Physical and the Cultural Environment

There is another important value that high school geography can contribute in general social understanding. Probably in no other field of learning are both the physical and cultural aspects of the environment more interrelated than in the method of approach used in geography. The field of geography overlaps into all the physical and social sciences. The geographic approach in any of these areas of learning is practically the same. Geography tries to coordinate the pure scientific approach with the practical application to our everyday lives. Geography does not contend that it can be substituted for any of the other sciences but it does believe that the other sciences will be more meaningful if geography is included in the curriculum and

made available for all students. The geographic pattern actually blends the cultural and physical patterns into a single pattern, which should produce a more practical program of studies for high school students.

Whittlesey summarizes the two views used mainly in the field of geography.

> Schooling in geography proceeds by looking at this pattern, alternately, in two different ways. One of these kinds of analysis keeps the entire earth in view while considering a simgle element in the pattern, such as the earth's political sovereignties or its landforms. This study, when centered on the natural environment, points to the ultimate dependence of humanity on its habitat, shows the extent to which people can utilize, replenish their heritage of natural resources, and brings out nature-born similarities between widely separated parts of the earth. When centered on some aspect of society, this kind of analysis depicts the impress resulting from human living upon the earth, calls attention to the varying depth and variety of this imprint, and brings out man-made similarities between remote parts of the earth.
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> The other kind of geographic analysis is concentrated on a particular, recognizable unit-area of the earth, with the object of understanding all the natural and societal items that in combination give it its distinctive character. This sort of study awakens a sensitivity to differences from place to place on the earth, and an awareness of the delicate balance among all the contributing elements that gives to each area its individuality. Successive studies of different unit-areas are brought into focus by considering the interrelations among them via routes of transportation and channels of communication.[39]

Geography has a definite role to play in making the connection between it and other subjects, when trying to put through a social education program. Geography as a social

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[39] Whittlesey, op. cit., pp. 14-15.

subject emphasizes the importance of the physical features and clarifies and elaborates upon their influence on humanity. Geography tries to analyze the significance of the physical environment in human affairs through its own special techniques; these include the reading and understanding of maps, out-of-door observations, and working out world patterns that include both the physical and cultural environments.

Other Values

There are other general social values to be gained from a study of geography in the high school. One of these values lies in the possibility that some students exposed to geography at the high school age may become interested enough to become professional geographers. Such people may fill jobs which are of tremendous value and service to humanity. Geography opens up many vistas for young people interested in such things as regional planning, business and government work. For example, the government found that geographers were of great help during the second world war in such operations as preparing reports on certain geographical areas and interpreting maps of enemy terrain. Other countries have long recognized the military aspects of geography and now there is a field of military geography being developed in the United States. The United States Department of State has also realized the importance of geography

in the peacetime operation of its foreign service and to the overall formation of foreign policy. Many important decisions are made from information supplied by trained geographers. State and local governments could well profit from the benefits derived from such valuable service.

Another considered value lies in the method of instruction which is used in geography. The out-of-door observation technique may be instrumental in providing better teaching for the non-academically minded students. The workshop method, which converts the classroom into a place where things are done, can give the student something which he cannot find in the regular routine of reading, listening, and writing. Here is something that is of greater interest than the dry-as-dust memorization of matter which is not understood anyway.

Certainly any subject that could be of assistance in any of the foregoing services would be worth while to offer the future citizens of this country. Since geography offers help in all these areas it should follow that it be made available to our young people in the high school age group. Just to make geography available, however, would not automatically insure that the potential values in it would be attained. Careful certification of teachers, wise selection of texts, proper use of the best methods, and choice of the best tools for better teaching, are just some of the things

that would have to go along with the addition of geography to the high school curriculum.

CHAPTER IV

VALUES OF HIGH SCHOOL GEOGRAPHY TO THE INDIVIDUAL

Of what value is high school geography to the individual? In what ways will it aid those students going to college? Will such a course help those who enter the vocations or trades? What does a course in high school geography offer the individual that will help him to obtain a fuller and more satisfying life? Such questions as these are often asked by curriculum makers and administrators. Such questions are quite justifiable. Every subject the high school offers should aid the student to be a better individual in the complicated world society of today. How valuable geography is to the student, however, depends largely upon how effectively the course is organized and taught.

Aid in a College Education

During the past several years there has been a steady increase in the number of young people continuing their education at the college and university level. Although more high school graduates are attending college, there has not been a corresponding effort on the part of the high schools

to prepare their students for college. Instead, for a great number of years, there has been a trend away from a strictly college preparatory course of study. As a result there is an increasing amount of criticism of the high schools for their failure to prepare students for college work, particularly in the basic or fundamental subjects.

Geography, since it serves as a fundamental background for many college social studies and natural science courses, must be considered as one of the neglected basic subjects. This neglect has become so obvious that, as brought out in earlier chapters of this study, it has been widely advertised by national magazines and daily papers. That business executives consider geography as a basic subject is also apparent.

David B. Juenke of the North American Aviation Corporation had this statement:

> Geography is one of the subjects that anyone is expected to know, just as they know how to read, write, spell and add a column of figures. I personally believe that is justification enough for including geography in the curriculum.[1]

Along the same line, R. S. Stevenson, Allis-Chalmers Manufacturing Company, commented as follows:

> I know it is quite popular right now to question academic subjects in the light of their specific

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[1]Letter from David B. Juenke, Public Relations, North American Aviation Inc., Los Angeles, California, Sept. 9, 1955. (Sample copies of correspondence may be found in the appendix.)

> application toward making a living and to challenge them as to whether or not they are proper subjects for education if they don't so contribute. It is my belief that geography is one of the several subjects that should constitute basic education and that specific career studies should be applied on top of a basic education and not in lieu thereof.[2]

Certainly no one disputes the value of reading, writing, spelling, and mathematics as fundamental in making a success in college. Then, why should not geography be considered as basic? Is not the knowledge of geographic locations and concepts fundamental to many learning situations? The why and where are just as essential in most learning fields as the how, when, and what, and in some areas of learning they are more important. The field of geography is greatly concerned with the why and the where in almost all situations. In order to attain a geographical point of view a person must be grounded fundamentally in the why and where of many questions.

Closely allied to geography as a basic subject is the value that geography serves as background material for many college courses. Clarence W. Sorensen, Illinois State Normal University, in reply to a question about the value of geography offered in the high school, made the following statement:

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[2]Letter from R. S. Stevenson, President, Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin, Aug. 8, 1955.

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> It seems to me that such a [high school geography] course would help a student in his college work in that it would provide him an essential frame of reference for many of his other studies. For example, his work in sociology, history, or political science will be more intelligible, I believe, if the student can see the total world pattern when he is considering any one selected portion or phase of world society. It should help a student also in the science area since it would provide insight into the basic associations between man and the physical world in which he lives. Also one must not neglect the contribution that it makes to the college student, as to an adult, in his role as a citizen. As a citizen he will be expected to have valid judgements about our nation and the world situation. Certainly a course in world geography should help him develop the desirable abilities associated with this function.[3]

Norman Carls, Department of Geography, University of Pittsburgh, stresses the background values of high school geography.

> I'd suggest that the understanding of world geography that could be developed in such a high school course would contribute to the student's preparation of background for studying the many college courses in political science or international relations, in history, economics, or sociology that have as part of their goal the development of world understanding--understanding of other nations or of our relations with other nations. Such courses are a very significant part of nearly every college curriculum--and most college students today enter these courses with no understanding of world regions except what they retain from their grade school days and what they've gained from high school history. Of course, the high school geography course would also lay a foundation for learning more geography at college level, for those so interested--and it might lead more students toward such an interest.[4]

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[3]Letter from Clarence W. Sorensen, Department of Geography and Geology, Illinois Normal University, Normal, Illinois, Sept. 21, 1955.

[4]Letter from Norman Carls, Head, Department of Geography, University of Pittsburgh, Pittsburgh, Pennsylvania, Sept. 21, 1955.

Merle C. Prunty, Jr., Department of Geography and Geology, University of Georgia, also cites the background value of high school geography.

> Contribution to college work would be in better background for work in any social science than is customary plus appreciation for the role of natural science in human affairs that we rarely see now.[5]

L. D. Phillips, Employee Relations Department, Phillips Petroleum Company, is also of the opinion that one of the great values of high school geography lies in its contribution to other subjects.

> We feel that high school students should have a broad exposure to geography as it becomes the basis or at least an important element in other fields of study such as sociology, anthropology, geology, business, economics, politics and many aspects of engineering.[6]

Donald Hudson, University of Washington, writes that courses in high school geography "serve to enrich student's background and in this way contribute to his preparation for college work and for his responsibilities as a citizen."[7] That such a course can be of tremendous importance in certain subjects, both in the physical and social science

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[5]Letter from Merle C. Prunty, Jr., Head, Department of Geography and Geology, University of Georgia, Athens, Georgia, Sept. 29, 1955.

[6]Letter from L. D. Phillips, Employee Relations Department, Phillips Petroleum Company, Bartlesville, Oklahoma, Sept. 1, 1955.

[7]Letter from Donald Hudson, Chairman, Department of Geography, University of Washington, Seattle, Washington, Sept. 23, 1955.

fields, is generally recognized. Geography can supply, in addition, specific informational detail in certain areas as well as supplying basic and background material.

College history classes are one of the places where geographic knowledge is an absolute essential. Several history professors at various universities and colleges have commented on the almost complete lack of geographic information possessed by their freshman students. In many instances it has been necessary to postpone instruction in history to teach locational geography, map reading and geographic principles that could and should have been learned in high school. Thus, many historians consider geography as a necessary essential to an understanding of history. One high school American History textbook states that, "Geography is the maker of history."[8] Most historians readily concede that anyone can better understand a historical event if he knows something about the place where it happened. Very few deny that certain historical incidents could more easily be understood if the soil, climate, and resources of the area were known. Settlement of various parts of the United States could be more clearly visualized if the topography of the region were better understood. The outcomes of wars, as well as causes, could be given in more accurate terms if

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[8]Leon H. Canfield and Howard B. Wilder, The Making of Modern America (Cambridge, Massachusetts: Houghton Mifflin Co., 1950), p. 119.

geographic relationships were more easily understood.

Max L. Morehead, Associate Professor of History, University of Oklahoma, makes a strong case for world geography as an aid for students taking history in college.

> Three or more generations ago, when the United States was a lesser world power, with little more than foreign trade and religious missions to bind us to the other parts of the world, intellectual isolation was perhaps defensible because of our historic political isolation. The understanding of the resources of foreign lands and their development was perhaps a luxury. Since the Spanish-American War, World War I, and particularly World War II, our nation has emerged as not merely a world power, but the world power. We now find ourselves in the position occupied so long by Great Britain. And to fulfill our responsibilities of leadership among the nations we must educate ourselves to the rest of the world at least as well as the British educated themselves. We have a long way to go. We must start this process in the elementary schools and continue it through the high schools and colleges.
>
> World Geography, even more than World History, should be the key to this education. (This is quite a concession coming from an historian, but I know it to be true.) Such a course should, I think, take up not only the broad principles of the globe's physical geography but spend considerable time on places and their significances. No longer can we depend upon a great war to teach our people the location and importance of Brenner Pass, the Dardenelles, the Pripet Marshes, Kamchatka Peninsula, or Singapore. We can't again wait for the radio news analysts to explain these things. When they make the news, it will be too late next time.
>
> . . . . . .
>
> I think, however, that the time is ripe to come to grips with the problem, not only because the international situation demands it but also because the public mind is now receptive to it. Almost every family has or has recently had one of its members serving overseas; our local newspapers are now covering world news better than ever before; our economy has come to depend upon foreign products more than previously; and the revolutionary improvements in communication and transportation have shortened global distances in point of time. We now feel much closer to the rest of the world, and we are.

> Whether you are an advocate of "functional" education in the high schools or mental training, the addition of World Geography would go far toward strengthening the preparation of our people for the problems lying ahead. It could also be a very stimulating course, and the learning of locations would be no dull chore when the significance of these key places is emphasized. It is not enough for our common schools to teach our people to love their country; they must be taught how to promote its well-being, how to defend it. And we have long since learned that the fighting line for America's defense is far removed from the national boundaries.[9]

M. L. Wardell, Department of History, University of Oklahoma, also has strong opinions about the value of geography to the study of history.

> It has long been my observation that sooner or later every student who is a major in the Department of History will have to learn geography in case he does not already have basic training. History cannot be taught without the students having a thorough knowledge of the area in which events occur.
>
> I hope the time will come when World Geography will become a required course for all high school students who plan to enter college. It is a fundamental prerequisite to good scholarship.[10]

Economics is another social science in which many basic geographic concepts are vital to the full understanding of the subject. Both college people and men of industry agree that at the college or university level the study of economics would become easier and more meaningful if high school geography had been included in the subjects studied.

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[9]Letter from Max L. Morehead, Department of History, University of Oklahoma, Norman, Oklahoma, Sept. 26, 1955.

[10]Letter from M. L. Wardell, Department of History, University of Oklahoma, Norman, Oklahoma, Oct. 19, 1955.

W. N. Peach, Department of Economics, University of Oklahoma, offers the following comments on a proposed world geography course:

> In my opinion, it seems that such a course would have considerable value for the college student in general. Such a course will be of increasing value in future years because of the dominant position of the United States in world affairs. Certainly I think most people will agree that an understanding of some of the more important geographical aspects of the world would help them understand some of the current problems.
>
> Such a [high school] course would be even more valuable to a prospective major in Economics, because a great deal of Economics is based on the resources available to various sections of the world.[11]

J. W. Hamilton of the Ontario Geography Teachers Association indicates that geography can be of practical value in any economic study. He points out that geography can (1) provide the student with an opportunity to study the location and present use of the world's natural resources and the resultant economic and commercial activities; (2) provide the student with a general understanding of how people in various parts of the world obtain their basic needs; (3) develop citizens who will be aware that in the world of today and tomorrow no individual, society, or nation, can live independently of others.[12] This awareness

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[11] Letter from W. N. Peach, Chairman, Department of Economics, University of Oklahoma, Norman, Oklahoma, Oct. 7, 1955.

[12] Letter from J. W. Hamilton, Ontario Geography Teachers Association, Ontario, Canada, Sept. 25, 1955.

of the student is to be built not upon theories, but upon actual geographical studies which reveal the enormous interdependence of all mankind in the use of the world's resources. Geography can develop the student's ability to analyze relationships in daily life. These are the factors which affect the location of industry, shopping centers, schools, and many other businesses and public buildings.

Hamilton sums up his beliefs in the following manner:

> It has become axiomatic that world understanding and hence world place will be attained only when we understand how other people live and what their problems are in terms of resources. There is a growing realization among businessmen, school trustees, and educators, here, that the subject which contributes most to such understanding, is geography. Hence its increasing status in high schools and universities here.[13]

Some of the economic values of geography taught at the high school level are:

> 1. Develops the understanding that ways of life and standards of living in any region result from the total resources available and used by the people, with resources correctly understood to include both natural and cultural resources, including capital goods and heritage of skills and attitudes.
>
> 2. Contributes toward understanding of the basic similarities among all peoples through understanding that universal elements exist in all cultures, while interpreting the outstanding differences that exist between ways of living in different regions.
>
> 3. Promotes understanding of the interdependence of peoples and the need for practical co-operative effort.[14]

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[13] Ibid.

[14] Letter from Norman Carls, op. cit.

Nicholas Helburn[15] believes that when properly taught geography will develop an understanding of the resources of the nation and thereby influence the economic and political strength of the nation. Clyde F. Kohn[16] believes that a high school world geography course should prepare a student for a better understanding of the economic problems which confront major nations. Such a course, he believes, would lead to a student being better able to think logically and become a better citizen.

Leaders in business and industry also note values of geography in the area of economics.

> We feel certain that any instruction which gives the students better knowledge concerning natural resources of the various countries and information on native products and those which, historically, have been imported and exported would help them to realize more fully a "One World" concept.[17]

> In my personal judgement, a course in economic geography serves to give high school students a more mature point of view toward their economic system than they would obtain if the curriculum of high school economics included only a review of corporate practices.[18]

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[15]Letter from Nicholas Helburn, Head, Department of Geography and Geology, Montana State College, Bozeman, Montana, Sept. 21, 1955.

[16]Letter from Clyde F. Kohn, College of Liberal Arts, Northwestern University, Evanston, Illinois, Sept. 27, 1955.

[17]Letter from Robert D. Royer, Assistant General Personnel Director, Reynolds Metals Company, Richmond, Virginia, Aug. 9, 1955.

[18]Letter from R. E. Barmeier, Personnel Department, Sears Roebuck and Company, Chicago, Illinois, Aug. 9, 1955.

For the college freshman enrolled in courses in government and international relations, high school geography will be of great value. Local, state and national government can be better understood if the physical characteristics of the areas involved are known. Anyone studying government in college will find the subject to be easier to understand if the physical and cultural aspects are co-ordinated with the political. Government majors could actually take more government courses if they did not have to spend so much time studying the geography of the political divisions of the world.

Rufus G. Hall, Jr., Department of Government, University of Oklahoma, was asked this question, "How can a high school course in world geography help a prospective major in government?" He answered as follows:

> Students interested in majoring in government and particularly in the field of international relations, would benefit by a high school course in geography. Such students are urged to take additional geography courses as part of their college work. It is self-evident that students who have a knowledge of world geography would do much better work in college courses dealing with foreign policies, comparative government, and international law. If they do not have an adequate background in geography, it is necessary for them to adquire it while taking the above courses.[19]

Sociology is another of the social studies areas which relies, to some extent, upon geographical background.

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[19]Letter from Rufus G. Hall, Department of Government, University of Oklahoma, Norman, Oklahoma, Oct. 17, 1955.

There are many ways in which this is exemplified. The distribution of the rural or urban population can be better understood if the geographical factors are known. The growth or decline of the population of a city can be more easily explained if the geographical data of the metropolitan area is known. An explicit plan for the redevelopment of a slum district can be made more efficiently if the geographic situation is thoroughly understood. Any student of sociology should have training in the use of maps, graphs, tables, and statistics, which are some of the basic tools for his work. Some training in the use of these tools would result from a course in high school geography. A general knowledge of world geography, which includes a study of world resources, trade, transportation, communication, and climate would be of value in understanding sociological problems throughout the world. A geographic conception of swamplands, rainforests, and deserts would be of value in learning various causes for and effects of isolation and possible solutions of some of the related problems. A geographic analysis of sociological problems would, in many instances, provide a key to their final solution. A study of geography in high school would save valuable time for the sociology student in college. He could spend time in more advanced fields that he ordinarily has to devote to learning something that he should already know. Nothing holds a student back in any field more than the failure to attain a

background in the basic subjects.

A knowledge of general world geography will also aid those studying anthropology. William E. Bittle, Department of Anthropology, University of Oklahoma, mentions some of these in answer to a letter of inquiry on the subject.

> It strikes me, in connection with my teaching of introductory courses in anthropology, that the average (and, indeed, often the superior student) has a notion of world geography which is at best embryonic. It is difficult to conceive how a student may have reached the University level without at least some awareness even of the relationships of major land masses; the distribution of important topographic features, and the like. Invariably, however, I find that at least one student requests information on the location of any area of the world which I mention in class. Often, this information is requested when I discuss even the distribution of aboriginal populations over North America or the United States. In terms, then of their introductory work in all of the social sciences, students should certainly be equipped minimally with the materials which would be presented in a year course in geography.
>
> Insofar as prospective majors in anthropology are concerned, I would feel that a quite comprehensive knowledge of world geography would be mandatory. We frequently urge students to enroll in the non-areal courses in geography, and where we are not successful in so placing a student (when, for example, they come to us as juniors, and are pressed for time to complete a major), we are at pains to spend considerable time in anthropology courses giving outlines of the geography of the area under discussion. It is, I think, traditional that this is done in area courses in this discipline, though I would submit that it would not be necessary (save for review purposes) if the students came to us with uniformly good backgrounds in geography. In short, the student who commences his study of anthropology without some background in geography has, in addition to his usual course requirements, a rather impressive reading obligation in geography.[20]

[20]Letter from William E. Bittle, Department of Anthropology, University of Oklahoma, Norman, Oklahoma, Oct. 18, 1955.

Most educators, since they generally consider geography as a social study, will usually admit that a knowledge of geography and an understanding of geographic concepts are essential to an understanding of the various social science courses in college. What most educators do not understand, however, is that many basic geographic concepts are also essential as fundamental material for several natural science courses. This interrelationship between the social studies and the natural sciences through geography has been recognized for a long time by geographers. Fenneman, in the Geographical Review, 1919, used the diagram shown in Figure 1 to illustrate this idea.[21]

Teachers of college geology readily admit that a course in high school geography would be an aid to those students studying in the field of science. Carl C. Branson, University of Oklahoma, writes as follows, about such a course.

> There is no question in my mind but what a high school course in General World Geography would be of great benefit to college students, and in particular majors in geology. The average college students are ignorant in elementary place geography and we find that a student can place less than fifty per cent of the states on an outline map.[22]

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[21]Nevin M. Fenneman, "The Circumference of Geography," The Geographical Review, VII (March, 1919), p. 168.

[22]Letter from Carl C. Branson, Director, School of Geology, University of Oklahoma, Norman, Oklahoma, Oct. 7, 1955.

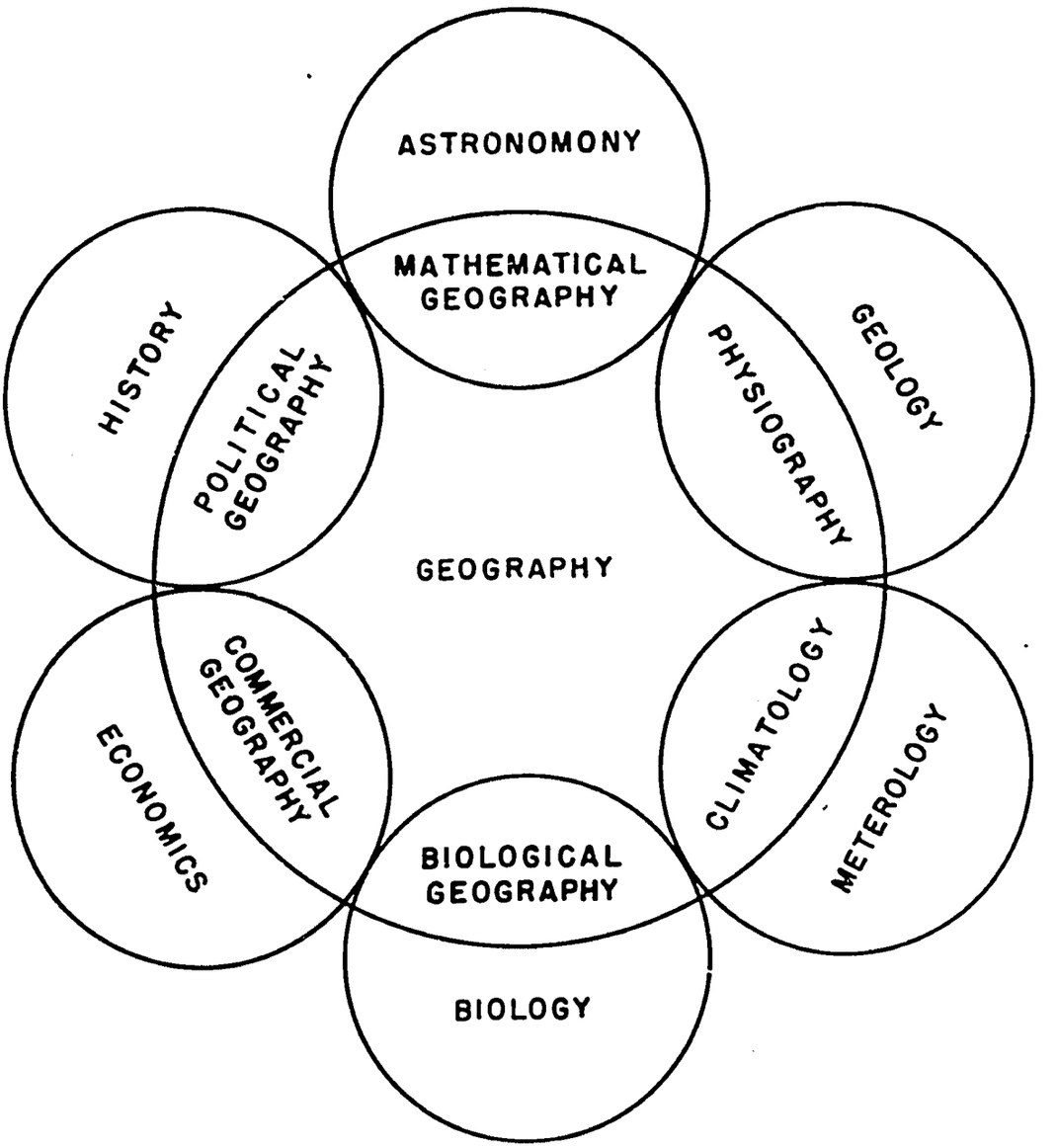

FIG. I.--GEOGRAPHICAL INTERRELATIONSHIPS WITH OTHER SUBJECTS

When asked if there were any values in high school geography for prospective students of geology, Keith M. Hussey stated:

> I think the answer is almost too obvious. The question is more one of not whether they need, badly need, such a course, but rather: which approach would have the greatest appeal and produce the best results. A course in World Geography at the high school level for pre-college students is a crying need. Personally I favor a course which will emphasize the tremendous impact of geographic setting on man. A course that would acquaint the student with the places (climatic and geographic) and peoples of the world through a study of how the peoples of the different places are what they are because of their geographical environment.[23]

Geography has much to offer geology, not only in locating places on maps, but also in specific geographic backgrounds. The study of soil composition is better understood if the climatic and vegetative factors are realized. Natural resources, as they exist in the earth will have more meaning if their economic value is known. The laboratory skills learned in high school geography courses will benefit the geology student in studying soil profiles, sedimentation, topography and similar materials. Historical geology would have more meaning if the present geographic locations are visualized.

Zoologists are also of the opinion that geography will give students valuable assistance in their studies. J. Teague Self, University of Oklahoma, expresses his opinion

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[23]Letter from Keith M. Hussey, Department of Geology, Iowa State College, Ames, Iowa, Oct. 10, 1955.

thus:

> It is my opinion that a high school course in general world geography could be a very useful one to any student who attends high school. In the first place it should serve as a general cultural course to the student who does not go beyond high school. In the second place, for the student who intends to enter college it would provide an additional sound basic course for that student. And in the third place, it would be of value to any prospective major in zoology because no well-rounded zoologist can function properly without some knowledge of general world geography.[24]

Certainly the study of the environment in which animals live is of importance in studying their habits and activities. This study should include topography, vegetation, and climate. Man's use of, and dependence on, the various animals would also need to be considered. The disappearance of many types of animals could be better understood if and when man and his activities are investigated. Such items as the removal of the forest, plowing the grasslands and the pollution of the water resources are examples of problems that geography can aid the high school student to understand.

In plant sciences there are also a number of values to be attained from geography. W. T. Penfound, University of Oklahoma, gives the following reasons for his preference for a world geography course in the high school.

> A student needs a knowledge of world geography to comprehend the meaning of plant and animal distribution.

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[24]Letter from J. Teague Self, Chairman, Department of Zoology, University of Oklahoma, Norman, Oklahoma, Oct. 5, 1955.

> It is especially important that he be given some concept as to the causes of day and night and for the seasons. Obviously such a course would be of prime importance for the field botanist, taxonomist, ecologist, and plant geographer. There has never been a time in the history of the world when a knowledge of world geography is so important. To me the only more important high school subject is English.[25]

One of the major contributions high school geography can make is in the advancement of college geography. The student who has had courses in geography in high school certainly can be expected to show more interest in geography at the college or university level. It is believed that one of the best methods of getting more trained geographers through the colleges is to expose more students to the subject in the high school. It would be easier to get more students to major in geography, not only to teach geography, but to train for the many jobs now performed by geographers, if they could obtain a geographic background in the high school. As it is, few college freshmen and sophomores choose geography courses as electives and fewer still major in geography because they are almost totally lacking in information as to what geography really is and what the opportunities are in the profession. The principal reason for this lack of interest is the small percentage of those who enter college who have had any geography training since

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[25]Letter from W. T. Penfound, Department of Plant Sciences, University of Oklahoma, Norman, Oklahoma, Oct. 11, 1955.

grade school.

High school geography can contribute in other ways to college geography. It can serve as a background for more advanced courses such as climatology, soils, urban geography, cartography, and detailed regional geography courses. The skills learned in the high school geography courses, such as the use of maps, making of weather maps, reading of graphs, and analyzing statistics can be carried over to the higher level of learning. The technique of first hand observation will also be of considerable value to the student taking college geography courses. If the student can be taught how to think geographically he will be in an advantageous position in learning college geography as well as the other social and physical science subjects.

Outside the social and physical sciences, geography can contribute much to various other fields of learning. One of these is agriculture. Geography offers background information which will make agriculture courses more meaningful. Some of these geographical facts are included in most high school geography courses. A study of climatic regions is one of the ways in which the limitations of agriculture is shown in world geography courses. The influence of topography, the overall picture of conservation of natural resources, and geographic influences on transportation and communication are other geographic concepts which are fundamental to the student of agriculture. An

understanding of the world-wide distribution of production and consumption of the principal crops will also aid the agriculture student in his study of agricultural economics. Here again the skills learned in the high school geography courses, such as the use of tables, graphs, maps, and statistics will be invaluable.

Journalism is another field where geography is of prime importance. With increasing interest in world affairs the writers of news items must be geography conscious at all times. H. H. Herbert, University of Oklahoma, has some rather definite ideas on the subject for students studying to be journalists.

> The world-wide network of news-gathering and news-dissemination, which is so much a part of the day-to-day operation of journalism, cannot be understood if a knowledge of world conditions is lacking. We in journalism would like to have our students well grounded in world geography, so that it would be possible for them to take more advanced work in geography in college. As it is, nearly all journalism students must take an elementary course in geography in college before being able to proceed with more intensive study.[26]

Geography can also contribute to the field of religious education. Dr. Stephen J. England, Dean of the College of the Bible, Phillips University, puts it this way:

> My special interest is helping young people educationally prepare themselves for the service of the church. A course in high school world geography would be of great value to young people who expect to be in church vocations. The outreach of the church in our present day is to the ends of the earth. A knowledge

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[26]Letter from H. H. Herbert, School of Journalism, University of Oklahoma, Norman, Oklahoma, Oct. 29, 1955.

> of the peoples, the lands, and the conditions where the church is to work would give an initial orientation to college studies which would be of great value to such young people. It would give them an understanding of the magnitude of the task, it would tend to prevent them from provincializing their outlook and it would tend to help them understand the problem which arises when the Christian faith is to be carried to those of other cultures.[27]

There are many other college subjects that could be better understood if those individuals taking them had a background of high school geography. Hall mentions a few of these in this way:

> The business student may enter a corporation which has investments or production facilities scattered all over the world. An engineering student might well be called upon to build bridges, drill oil wells, or design buildings in foreign nations. Even a law student may well handle cases involving foreign nationals. Since these students may well not take the geography courses at the college level, a course taken in high school would be most valuable.[28]

Many geographical connections with such studies as architecture, art, aviation, English, foreign languages, home economics, industrial education, and music could also be cited. However, enough of the interrelationship between geography and the more general subjects offered by college and universities has been presented to show the importance of geography as a high school course in preparing for a college education. James H. Stauss, Grinnell College, Iowa,

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[27]Letter from Stephen J. England, Dean, College of the Bible, Phillips University, Enid, Oklahoma, Oct. 8, 1955.

[28]Letter from Rufus G. Hall, op. cit.

sums it up very capably.

> Geography should be part of the intellectual equipment of liberally educated people. A secondary school course in world geography should benefit a person entering college, simply because it should add to his understanding of the world in which he lives.[29]

Wardell also has some general comments about the value of geography to the college student in any course he might choose to take.

> I should like to make the observation that the student who has an appreciation of geography is by far better prepared to do comprehensive work in almost any field of his choosing. When a freshman arrives on the campus of the University of Oklahoma he finds himself a member of a large group of freshmen, as well as a member of a larger student body. If he has something definite by the way of a program of study and is stable enough to stay with it he generally will do much better than the one who has no fixed program. This may seem to be an extraneous statement with reference to consideration of a geography course but if a student is well grounded in his physical surroundings, both immediate and remote, he has a sense of balance above that of the student who lacks an appreciation of his environment. To me a fundamental knowledge of geography is as essential as fundamental knowledge in other social science courses as well as humanities.[30]

Providing Vocational Assistance

A background in geography at the high school level will not only help those who enter college but also those who go directly into the competitive fields of business and industry. The business man, whether employee or employer,

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[29]Letter from James H. Stauss, Department of Economics, Grinnell College, Grinnell, Iowa, Sept. 30, 1955.

[30]Letter from M. L. Wardell, op. cit.

frequently uses geographic information in his work. An employee, for example, might be able to use his geographical knowledge to demonstrate that he is a well informed person and thereby gain an advancement in position, or he may prove of service to his employer by actually offering sound advice based on his ability to think geographically. For the owner of a business there is a direct application of geography to the problems of marketing, procurement of goods, or arrangement of itineraries. A knowledge of geography might keep him from making a mistake in trying to market goods in unfavorable localities due to lack of information on climate or activities of peoples. A study of geography might enable the businessman to secure goods on more favorable terms because of knowledge of producing areas or transportation routes. A knowledge of geography could also be of value when planning a trip or blocking out routes or territories for salesmen. His methods and techniques of advertising could be more effective if certain geographical aspects of the general area to be supplied were known. Actually his chances of success could be better determined in advance if his general education contained many of the principles found in geography which could be taught at the high school level.

There is considerable support from business leaders, as well as from educators, for the argument that geography is an aid to individuals in business or working for a business concern.

> It is not difficult to make a case for the contribution of world geography to a student's own advancement in the business world. Everyone seems to understand that ours is a world of interdependence, where something which happens in any one part may have a considerable bearing on what happens in another area. Hence an understanding of world geography will help any person understand the associations of his own business with other economic activities. Moreover, any course in world geography should include some specific details about the economic activities in America and elsewhere. This in general should provide the kind of background and insight that is desirable in the business field.[31]

The specific values of geography to the business man depend, to some extent, upon the particular business involved. Business leaders agree, however, that any type of business is affected to some extent by world conditions, political, economic and social. Therefore an understanding of those geographic conditions upon which the political, economic, and social conditions are based would certainly be an advantage.

Many leaders of individual business concerns have pointed out the essentiality of geography. R. E. Barmeier, Sears Roebuck and Company, comments as follows:

> It is our opinion that a general knowledge of geography at the high school level is a very helpful asset in the broadening of a student. In our kind of business which is closely tied into all aspects of the National scene it is extremely helpful for men to have a picture of all segments of the National economy.[32]

R. C. Daly, George A. Fuller Company, believes

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[31] Letter from Clarence W. Sorensen, op. cit.

[32] Letter from R. E. Barmeier, op. cit.

geography to be a business essential.

> I feel that the subject of geography in recent years has been forced to the background due to specialization but I do not believe that is the correct trend. Most certainly a general knowledge of geography in later life in business is exceptionally valuable so that a person is acquainted with the problems of other parts of our country as well as foreign countries in order to allow him to make the proper decisions regarding business matters. From the standpoint of personal satisfaction it is also my opinion that a knowledge of geography is essential.[33]

William Applebaum, Stop and Shop, Inc., has some very definite ideas about the use of trained geographers in business.

> The geographer could not only make his contribution to business in selecting and evaluating locations for retail outlets, warehouses and airports, but he could also employ his skills to advantage in analyzing market areas, in delineating sales territories, in appraising the potentials of old and new markets, and in studying trends and geographic shifts of population, industries, and wholesale and retail distribution. The geographer could also bring a point of view to the development or refinement of market research techniques which should prove valuable to business. Furthermore, the geographer could devise expert methods of presenting market data in cartographic form.[34]

Marketing geography is today becoming a more and more important study in business colleges and universities. And, as early as 1933 its values to the business man were already being recognized. "If markets are people, then those who supply those markets must know the desires and why

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[33]Letter from R. C. Daly, Vice President, George A. Fuller Company, New York, New York, Aug. 5, 1955.

[34]Letter from William Applebaum, Director of Marketing Research and Co-ordination, Stop and Shop, Inc., Boston, Massachusetts, Sept. 8, 1955.

they have such desires."[35]

There are a great many ways in which geography can help those in the field of manufacturing. This would include both the administrative and non-administrative personnel. One of the administrative problems is the location of the industry itself. There are a great many geographical factors to be considered at such a time. Among the geographical factors to be considered at such a time are the sources of raw materials, power, transportation, marketing, population density, and the characteristics of the population in relation to labor supply. These and additional factors must also be considered when branch plants are planned or expansion of the industry is to be considered. Then there are some industries where climate, topography, and waterways might be the deciding element for location or expansion. After the plant is in operation many geographic facts of importance appear almost daily. Foreign purchase of raw materials, foreign markets, and a more efficient power fuel are just a few that might be occasions for use of geographical information.

In most industries the man who works for wages can benefit from a knowledge of geography. In a few industries

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[35]Frank E. Williams, "Uses of Geography as Exemplified in Commerce and Industry," The Teaching of Geography, Thirty-Second Yearbook of the National Society for the Study of Education (Bloomington, Illinois: Public School Publishing Co., 1933), p. 60.

it is essential. R. S. Stevenson, Allis Chalmers Manufacturing Company, writes as follows:

> The knowledge of geography is necessary to any educated person and helps make him generally competent. It appears to me that an educated person should be well rounded and be able to fit himself into life and the business world. I cannot conceive of a thoroughly educated person who does not know something about geography. It would seem that high school geography should be of the type that informs students as to the earth and its people--even exciting curiosity to want to know more.[36]

A few men of industry have written about what geography means to their particular employees. Robert D. Royer, Reynolds Metals Company, explains it this way:

> In our own aluminum industry, we are interested, from a raw material standpoint, in all areas where it is feasible to mine bauxite, which, as you know, is found almost everywhere in the world, but only in a few places is it economical to extract the mineral. From a trade standpoint, we are interested in the entire world, both for present markets and future markets. We realize that we cannot expect any course to be set up to cater to our industry, but we feel that any curriculum which enables a youngster to more fully visualize world-wide problems would be most helpful.[37]

L. D. Phillips, Phillips Petroleum Company, comments on a high school world geography course.

> In our company, landmen, claims adjusters, property buyers, tax agents, and in many instances, salesmen can utilize this kind of geography as they often must assume the role of a community resident even though they might live elsewhere. These men must have first-hand knowledge of the community, its transportation facilities, income, manufacturing concerns, farming and ranching

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[36] Letter from R. S. Stevenson, op. cit.

[37] Letter from Robert D. Royer, op. cit.

problems. Also, these men must become personally acquainted with prominent citizens of the community, and such knowledge could become the mutual interest or conversation subject necessary to make and to maintain this relationship. Of course, it goes without saying that an excellent knowledge of the U. S. geography and city locations is invaluable to traffic men. A knowledge of general terrain and natural resources by locations serves our engineers in selecting sites for proposed plants and other physical properties.

Although we have stressed United States geography, we do not wish to minimize world geography. Of course we can more tangibly utilize knowledge of the former, but we know that our civilization is rapidly becoming more international minded. Courses in world geography bordering upon geopolitics would materially assist employees in understanding certain world tensions as well as the impact and complexities of world trade. It would assist them in evaluating the effect of importing products which are the same as or are competitive with those produced in the United States.[38]

Larry Bryant, Allied Chemical and Dye Corporation, suggests a type of geography which would be most useful in the chemical industry.

A study of commercial geography would be helpful to one entering the chemical field, particularly the administrative end of the business, involving an understanding of factors leading to expansion of existing plants, selection of new plant locations to the best advantage, general market research, and the over-all outlook of the industry.[39]

Individuals employed by a transportation or communication company can use geographic knowledge directly in their work. There is so much happening in these fields, and

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[38]Letter from L. D. Phillips, op. cit.

[39]Letter from Larry Bryant, Public Relations Department, Allied Chemical and Dye Corporation, New York, New York, Aug. 11, 1955.

so many advances being made, that it is difficult to keep up with them all. A person with a geographic background should be better able to understand the new situations involved than an individual whose last experience with geography was in the elementary school. Undoubtedly, the future of these types of competitive enterprises will be tremendous. With such things as jet, rocket, and solar power a certainty, the future could not be brighter for those companies and individuals who are able to keep up with the advances being made. Geography has an important role to play in man's effort to understand the effects of these new advances and how to use them to his best advantages.

All types of transportation companies have geographic problems and need employees who have a knowledge of geography. Trans-oceanic transportation companies have port problems which include shallow water near shore, exposure to the open sea, and topography of the port area. Route problems as well as climatic problems need technical study by someone having geographic knowledge. Inland waterways have geographic problems such as falls and rapids, low water level, sedimentation, and climatic conditions. The transportation companies using the highways have climatic problems and route problems that even an elementary understanding would help solve. The location of places is basic to any one employed by such a company. Map reading is an absolute necessity for many of the employees. The railroads also

have many geographic problems involving topography, population densities, power potentials, sources of goods for transportation, the making of schedules, and providing service to people in all parts of the country. The airlines probably have more complicated geographic problems to solve than the other types of transportation agencies. Climatology is absolutely a must in aviation transportation. The ability to read topographic maps, which show the heights of mountains is of special importance. Locational geography, latitude and longitude, and a knowledge of time zones are of utmost importance as basic information for employees of airline companies. A course in high school geography will supply the individual with at least basic information upon which he can build.

All types of communication, the press, telephone, telegraph, radio, and television, have special need for individuals with geographic backgrounds. All employees need a knowledge of place locations, not only in the United States, but in the world. They must understand peoples, how they live, their occupations, and habits to adequately portray such to their listeners or readers. Also needed is an elementary knowledge of climate, topography, map reading, and economic geographic factors if the public is to be informed accurately. Without this type of information there is a possibility and indeed quite a probability that the public will be misinformed. Advancement of an individual

within the company will be enhanced if his knowledge of geography is practical and useful. Much of what he needs can be found in high school geography or at least an interest can be developed there. Then it is hoped that he will train himself in geographic concepts.

Many leaders of transportation and communication companies readily point out the geographic connections with their industry. David B. Juenke, North American Aviation, is one of those.

> I might point out that geography indirectly is being somewhat pointed up by the speeds of today's airplanes. Our own F-100 Super Sabre, for instance, travels roughly 10 miles a minute. Recently, one of North America's earlier planes, the F-86 Sabre Jet, traveled from Burbank, California, to New York City and returned home during daylight hours of one day. Certainly, such speeds are bringing the areas of the world closer to each other.[40]

Government employment is another field where individuals with geographic knowledge are sought. The field is becoming more and more important as new contacts with foreign nations are made. All levels of government--local, state, and national--have many jobs available for geographers. Some local communities have hired geographers on a full time basis to advise on the many geographic problems which they face. On the local government level geographers are needed to help plan for industrial expansion, housing development, slum clearance, shopping districts, new roadways, and overall

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[40]Letter from David B. Juenke, op. cit.

planning of resource development. State governments sometimes employ geographers in their park services, wildlife services, recreational development programs, and also in their highway departments, industrial commissions, agricultural boards and mining bureaus.

The federal government has hundreds of jobs which could be filled with men of geographic background. In fact, in many of the jobs some knowledge of geography is essential. A few of the federal government agencies that use geographers are the Weather Bureau, the Soil Conservation Service, the Geological Survey, the Bureau of Plant Industry, the Hydrographic office of the Navy, the Corps of Engineers of the United States Army, the United States Air Force, the Coast and Geodetic Survey, the Forest Service, the Bureau of Mines, the Bureau of Fisheries, the Bureau of Public Roads, the Reclamation Service, and the National Park Service. All of these are interested in such physical aspects of our country and the world as climate, atmosphere, water supply, drainage, surface features, soils, mineral resources, forests, oceans, rivers, harbors, and lakes. Other government agencies have special need of human geographers. The Bureau of the Census has special need for individuals who are expert cartographers. The State Department also has many needs for which geographers are qualified. These include boundary line adjustment commissions, immigration service, and economic advisers for many foreign posts. The Bureau of Agricultural

Economics, the Bureau of Foreign and Domestic Commerce and many other agencies also have special need for human geographers. Certainly anyone with a geographic background would find it easier to secure employment in government service than if he did not. Advancement in government service also might be made more rapidly.

Agriculture is another of the occupational groups in which the individual benefits extensively by a knowledge of geography. Almost everything a farmer does has a basic geographical background. This is true regardless of the type of farming. No farmer can know too much about climate, weather, fertility of the soil, soil conservation practices, water resources, and wild life resources. He can use topographic knowledge, flood control information, and forest conservation techniques. He may be able to use land reclamation information and mineral resources facts. Transportation methods, trade routes, location of domestic consumer market areas, and fast communication techniques are also important to the farmer. Facts about foreign production and foreign markets for certain crops are useful to him. In no other occupation is an elementary knowledge of geography so essential.

Certainly there are many other jobs in this country and throughout the world which need to be filled by people who have geographical information. Such areas as teaching, law and social work are just a few of these. — Sigismond deR.

Diettrich adequately sums up the vocational guidance values of geography to the individual in this way:

> Geographic understandings and their application can render valuable service in the selection of one's occupation. The study of geography suggests the possibility of new worlds to explore and new ways of life to live. Rural children learn of the ways of the city; the pale off-springs of modern cave-dwellers in our teeming metropolises become acquainted with the nature-made wonders of the world. Knowledge thus gained and used helps to break the compelling forces of the everyday, accustomed environment of the growing youth and may lead him into unconventional fields of enterprise.[41]

Obtaining A Fuller and More Satisfying Life

One of the greatest assets of a course in high school geography lies in its cultural value to the individual. Of all the practical values which geography offers, there is none more important than those that give an individual a happier existence. Situations occur almost every day in which geographic knowledge would be of service in giving one more satisfaction out of just living in this world.

Many geographers and educators stress the importance of the cultural values incorporated in the study of geography at the high school level. Several of the quotations in this chapter and in Chapter III have brought this out. Many of the busines and industry leaders have pointed out the importance of the cultural values of high school geography. Many

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[41]Sigismond deR. Diettrich, "To Provide Vocational Guidance," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 84.

rate the cultural values superior to the other values of geography for high school students.

N. V. Scarfe, University of Manitoba, rates the cultural values highly.

> For cultural activities it has great value. Whether the person may be traveling or reading or discussing, it is well that they have some background knowledge which would help them know the political, social and economic problems of the world in their geographic setting.[42]

Leslie Hewes, University of Nebraska, offers the following:

> In respect to cultural activities, it would seem to me that such an individual might be the better prepared to take an active part in some church groups, forums, Chamber of Commerce, women's clubs: to carry on a better conversation, and to make a more satisfactory companion for travel.[43]

Carls has these comments:

> Cultural life, for all of us, could be enriched by better knowledge and understanding of the regions of the world. Much art and literature (music too?) is interpretation of life in places or in regions, and I presume it can be best understood and appreciated by those who not only are trained in appreciation of art and literature but also are trained to understand life in places or in regions. Also, everyday conversation--re. news, etc.--in educated circles in our communities today is enriched by understanding of world regions.[44]

John W. Reith, University of Southern California, explains his viewpoints in a little different way.

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[42]Letter from N. V. Scarfe, Dean, Faculty of Education, University of Manitoba, Winnipeg, Canada, Sept. 26, 1955.

[43]Letter from Leslie Hewes, Chairman, Department of Geography, University of Nebraska, Lincoln, Nebraska, Nov. 7, 1955.

[44]Letter from Norman Carls, op. cit.

> Geography for the casual student is in the breadth he gets from exposure to it. In its details it can be absorbed by using an atlas like a dictionary and reading a good newspaper daily and a good news magazine each week.[45]

Lillian Worley Stimson lists four results in setting forth the cultural values of geography at the high school level.

> 1. Enable him to understand with keener appreciation the newspaper, current periodicals, radio and television.
>
> 2. Enable him to be a more interested and intelligent listener as well as conversationalist.
>
> 3. Enable him to better appreciate the difficulties inherent in the making of a foreign policy designed to chart the course of our activities with nations around the world.
>
> 4. Enable him to understand and appreciate the environment around him.[46]

Sorensen states the case for geography in achieving cultural values in this way:

> It is not difficult to make a case for the contribution of world geography to a student's understanding of the peoples of the world, which in turn should make it easier for him to understand the peoples here at hand. Certainly this appreciation may be reflected in rather specific ways, such as an appreciation of their art forms, their music, contemporary literature and a host of other things.[47]

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[45]Letter from John W. Reith, Department of Geography, University of Southern California, Los Angeles, California, Oct. 26, 1955.

[46]Letter from Lillian Worley Stimson, Department of Geology and Geography, University of Tennessee, Knoxville, Tennessee, Nov. 22, 1955.

[47]Letter from Clarence W. Sorensen, op. cit.

Florence Cullin insists on the following values, as geography's contribution to pleasure in everyday life.

> Reading for pleasure would certainly be greater for an accurate knowledge of the place in which action occurs. Newspapers, magazines, all current events, would have increased significance.[48]

Prunty emphasizes the values of geography from a different angle. He comments in this way:

> For cultural activities: more or less self-apparent. Main point probably is the value in establishing better basis for world citizenship; i.e.: understanding of the character of foreign areas and why they behave as they do. Average high school program is overloaded with Americana and contains very little on the rest of the world.[49]

Most authorities agree that geography has a great many specific contributions to make in creating a more pleasant existence in today's world. Among the cultural values received are the following:

1. The securing of pleasure from travel. There is little in life that is more enjoyable than to know something about the places visited. When visiting a place that has been studied one feels as if he had been there before.

2. The getting of more pleasure out of leisure time. An individual with a geographic background can enjoy a wider range of activities and entertainments than one without this type of knowledge. There are recreational areas, for example,

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[48] Letter from Florence Cullin, Geography Department, North Texas State College, Denton, Texas, Sept. 25, 1955.

[49] Letter from Merle C. Prunty, op. cit.

that would escape the attention of many persons having no geographical interests. Also there would be a greater number of recreational opportunities for those who could enjoy geographical points of interest. The others, simply, would not consider them recreational.

3. The making of adjustments to new surroundings. Geographical information about a new place in which one must live or work might furnish a topic of conversation and that in turn lead to new friendships, which might mean a great deal in making a person economically as well as socially successful. Certainly the more one knows about the place to which he moves the greater his chances are of becoming adjusted to the pecularities which that community might offer him.

4. The solving of everyday problems. The purchase of consumer goods, the planning of a business or vacation trip, the reading of the daily weather map in the local newspaper, and the choice of the proper clothing to wear are just a few of the everyday decisions that people make. A knowledge of geography can be of aid in solving these problems. The solving of these problems, most certainly, would lead to a happier life.

5. A broadening of one's point of view. Prejudices are more easily overcome when an individual has a broad geographic background. He can understand the problems of other people as he compares or contrasts these problems with

his own. Also he has a greater chance of understanding other people's problems because he knows something about their environment, their activities, and those conditions which brought on their problems. A person with a broad point of view can obtain a wider variety of interests and thereby enjoy many different types of activities.

6. The understanding of current news. More and more the daily papers are carrying the names of foreign cities, political divisions, rivers, mountains, and topographical features. Also, in greater detail, other aspects of world geography are being reviewed over the radio and television and in news magazines and newspapers. An individual with a background in high school geography can comprehend these items more easily because he knows something about the places. At least he could make his own decisions as to what the news items mean instead of having to take the newswriter's opinion in all instances.

7. The securing of a world-wide perspective on international issues. Unbiased opinions can only be formed by those who are trained to look at a problem from a world standpoint instead of a nationalistic point of view. Many international issues are tied to geography and can only be solved through the consideration of the geography involved in the issue. For example, the issue of trade between China and Japan, if looked upon from an American point of view,

would be entirely different from the point of view of China or Japan, or for that matter from the standpoint of any other nation.

8. The leading to a realization that the highest success, prosperity, and happiness are dependent upon the existence of similar conditions among individuals within a country or between countries. A citizen of the United States or any other country can attain the highest individual success only if others in the United States and in other countries are given the opportunity to do so. "When one prospers all prosper," should be understood by all.

9. The securing of a clearer understanding of governmental operations, both local and national. Many people oppose, reject, criticize, or fail to support worthwhile local and national projects because of a lack of understanding of the conditions back of the projects. The leaders of the groups opposed to these projects know that a majority of the people have little factual information and thereby are often successful in defeating them through emotional issues thrown in their way. Geographical background information, in some cases, can supply the necessary facts for the making of a wise decision.

High school geography can be of practical help to the individual. First, it can be of help in getting a college education through its use as background for certain fields of study such as the social and natural sciences,

then as a basic subject along with reading, writing, spelling, and mathematics in achieving a general education. There are also vocational values in the study of geography in the high school. This is true especially in certain occupations such as production, marketing, transportation, and communication. Finally, high school geography can be of service in enriching and enlarging an individual's cultural activities by broadening his interests and creating a world-wide viewpoint.

CHAPTER V

WAYS IN WHICH THE VALUES OF HIGH SCHOOL GEOGRAPHY CAN BE ACHIEVED

If the values of high school geography are to be realized, a great deal of attention must be given to the improvement of the teaching in the subject. None of the values discussed in Chapters III and IV will ever be attained unless the high school geography program is organized to do the job. When any subject undergoes changes, methods, tools, training of teachers, and types of textbooks must also undergo change in order to do the job well. Since high school geography has undergone considerable change in the past twenty-five years it would seem desirable to examine some of the ideas that are currently under discussion to improve the teaching of the subject.

Geographers and educators during the past have been greatly concerned with the type of geography being taught and have offered their advice on how to correct the situation. Some of the most important are well worth noting here.

In the late 1700's Johann Basedow advocated many of the types of activities still in use today. He began the

geographic instruction in the immediate area and used field trips, models, products, illustrations, museums, travel accounts, imaginary journeys, and current events. Johann Pestalozzi, about 1800, suggested combining geography and nature study. He believed that all knowledge is based on observation. The local environment was emphasized and the student was to reproduce his knowledge of the home area by drawing maps. Karl Ritter, considered by many as the co-father, with Alexander von Humboldt, of modern geography, lectured at the University of Berlin from 1819-1859. Some American educators and geographers studied under him there. Ritter published two works on instruction in geography, and he encouraged the drawing and regular use of maps. By 1860 W. C. Woodbridge, Horace Mann, and Arnold Guyot came to this country after study in Europe and made many suggestions on the teaching of geography. Woodbridge, in 1833, wrote a book entitled System of Modern Geography. Mann, in 1843, brought back from Europe many suggestions on the latest methods of teaching geography. Guyot, in 1848, reflecting the ideas of Pestalozzi and Ritter, said that the starting point in geographical education should be nature and not books, and that teachers should take their pupils to the hills and show them valleys and streams and mountains.[1] In

[1]Lorrin G. Kennamer, Jr., "Beginnings in Geographic Education," Journal of Geography, LII (Feb., 1953), 72-77.

1889, F. W. Parker published his How to Teach Geography containing ideas very similar to those of Ritter and Guyot. Since that time many more books concerned with the teaching of geography have been published.[2]

The National Society for the Study of Education has published two yearbooks of special interest on geography. In 1902, The Progress of Geography in the Schools, and in 1933, The Teaching of Geography.[3]

By 1937, the nature of human geography was becoming a foremost topic of discussion among geographers. The interrelationship between man and his physical environment was being stressed. Many geographers of this period were deeply interested in getting geography taught better in the schools and were eager to get the schools to move towards the human theme in geographic instruction. In 1937 the following quotation appeared:

> The earth is the stable stage on which the accelerated drama of humanity is being played. The study of

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[2]Some of these books include, George J. Miller, ed. Geography How to Teach It (Bloomington, Illinois: McKnight and McKnight, 1934), National Council of Geography Teachers, Geography in the High School (Bloomington, Illinois: Mcknight and McKnight, 1949), Preston E. James and Clarence F. Jones, eds., American Geography Inventory and Prospect (Syracuse, New York: Syracuse University Press, 1954), Jenry J. Warman, Geography Backgrounds, Techniques and Prospects (Ann Arbor, Michigan: Edwards Brothers Inc., 1954).

[3]National Society for the Study of Education, The Teaching of Geography, The Thirty-Second Yearbook, Edited by Guy Montrose Whipple (Bloomington, Illinois: Public School Publishing Co., 1933).

> geography beyond the elementary school, to the very end of school and college days, holds out one of the brightest hopes of a saner staging of this drama that so vitally concerns us all.[4]

Since 1937 a considerable amount of effort has been devoted to improving geographic instruction. The problem has been attacked from many angles. Of special importance have been the efforts of those who have sought for a change in the philosophy underlying the geography in the high school and those who have fought for improvements in methods in geographic education. Other points of interest have included the reorganization of the geography program in the high school, the evaluation of the content of the high school geography curriculum, and the improvement of high school geography textbooks. The furnishing of the geography classroom as well as the selection and use of tools of instruction in the geography program have been dealt with in many recent writings. Another theme has been the training, selection, and certification of geography teachers for the high school. Certainly, if the full values of high school geography are to be attained, all of the foregoing problems must be considered.

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[4] International Understanding Through the Public School Curriculum (Bloomington, Illinois: Public School Publishing Co., 1937), p. 125, quoted in "Geography in the Elementary and Secondary Curricula," Journal of Geography, LIV (April, 1955), 203-204.

Clarifying the Aims and Objectives of the Geography Program in the High School

Before any subject can be fully utilized the aims and objectives must be clearly understood. This is one area where geography in the high school can be greatly improved. As has been seen, geography has changed considerably in the past few years, but the objectives and the philosophy underlying the aims have been overlooked by many who teach the subject. Before geography in the high school can attain its full value to society and the individual, teachers, students, and laymen must understand what geography is trying to do.

In most instances geography is handled in the social studies departments in high schools, which is in keeping with the modern ideas of geography. It would seem desirable, then, to look into the aims and objectives of the social studies, so as to see how geography fits into the picture.

Bining and Bining offer two broad aims of the social studies: (1) the enrichment and development of the lives of pupils to the greatest extent of their abilities and powers within their environment, and (2) the training of pupils to take their places in a democratic society in such a way as to make their country a better place in which to live.[5]

It is also believed that in order to achieve these

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[5]Arthur C. Bining and David H. Bining, Teaching the Social Studies in Secondary Schools (New York: McGraw Hill Book Co., 1952), pp. 33-34.

aims certain specific objectives must be set up and an attempt made to reach them. Bining and Bining offer the following:

> The teaching of factual knowledge is not enough. The pupils must be taught to realize the influences that control his life, as well as those lives with which he comes in contact. The inculcation of the spirit of co-operation, the development of tolerance and an understanding and a sympathy for mankind; as well as practice in constructive thinking, reasoning, and critical judgement, should be the main purposes of the social studies in achieving the general objectives of education. The specific aims, therefore, should include the teaching of certain definite knowledge, advancement in intellectual life, and concomitant learnings such as habits, skills, ideals, attitudes, and appreciations. These may be divided into five groups: (1) acquiring of knowledge, (2) development of reasoning power and critical judgement, (3) training in independent study, (4) formation of habits and skills and (5) training in desirable patterns of conduct.[6]

The acquiring of knowledge is essential to good citizenship. Exact knowledge and understanding contribute greatly to social progress because they are necessary for clear thinking and reservation of judgement. The good citizen must acquire a certain amount of factual information, for without facts, thinking is impossible and this must be done if problems of modern civilization are to be solved. Knowledge must also serve as a basis for sympathy and understanding, necessary to social intercourse and essential to social solidarity. After the facts are learned they can be used to reason and judge critically. Not only are facts necessary but an individual must also have the ability to

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[6] Ibid., p. 34.

arrive at a reasonable decision from accumulated facts. Constructive judgements must be made by individuals in their everyday life, which would be impossible without sufficient data.

Learning to study independently is one of the most important objectives of the social studies. Independent study will be helpful long after the facts are forgotten. A technique of study must be set up if the correct study habits are to be formed. If this objective is attained a great deal has been accomplished regardless of how little factual information has been learned. The ability to study is of great value long after the school days are over.

In the social studies, habits and skills constitute an important part of the work. Habits of accuracy, speed, and neatness can be set up as aims in many subjects and the social studies can contribute greatly to such outcomes. Certain motor skills are peculiar to the social studies. Such skills as the making of outlines, maps, charts, and graphs should constitute part of the instruction in the social studies. Among other skills that the teacher should aim to include are skills in the use of all types of books, including dictionaries, encyclopedias, guides, and atlasses, as well as efficiency and independence in the use of libraries.

Desirable patterns of conduct is the most difficult of the objectives of the social studies to achieve. It is

hard to measure and also difficult to ascertain whether certain behavior patterns were learned in school or out. However, the social studies are in a good position to put forth a great effort along this line of training. Good citizenship certainly cannot be taught if patterns of conduct are not included.

The aims and objectives of high school geography must be co-ordinated with the aims and objectives of the social studies. The geography program must fit in with and accomplish as many of these objectives as it can. But, more important, geography in the high school must be concerned with aims and objectives of its own and attempt to achieve them to the highest degree possible. As of now there is a wide range of agreement among geographers and educators as to what the aims and objectives of high school geography should be.

Bining and Bining give the following aims and objectives of high school geography.

> The aims for geography should lead to an understanding and appreciation of how people live and work; how the environment affects their lives, ideas, and customs; and how those in one region affect those in another. The study should promote a better understanding among individuals, groups, and the nations of the world. The development of skills necessary to sound geographic thinking and needed for an understanding of social data should also play a part in the specific aims of geography.[7]

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[7] Ibid., pp. 42-43.

John W. Reith, University of Southern California, offers three aims of a world geography course for the high school. (1) The student should get some mental image of the political pattern of the world. (2) The student should develop an appreciation of the relationship that exists between man and the land in which he lives. (3) The student should realize that there is more to the study than was presented in the course and that in any individual situation an investigation into other factors should be made.[8]

Leslie Hewes, University of Nebraska, offers the following aims and objectives of a world geography course.

> A course in world geography in high school should provide a considerable amount of useful fact and certainly interpretation. Its general aims ought to be a better understanding of the world. Benefits expected should include useful background for work in history and other courses; an understanding of important natural and human and economic conditions in various parts of the world. He should gain some idea of the relative importance of the various regions of the world and the countries thereof. Benefits to be expected would include more intelligent and comprehending understanding of the news and improved judgment on public questions.[9]

Florence Cullin, North Texas State College, suggests the following aims and objectives of world geography; (1) a real concept of the roundness of the world, (2) an understanding of actual and relative location as well as their importance, (3) an understanding and appreciation of the

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[8]Letter from John W. Reith, op. cit. (Sample copies of correspondence may be found in appendix.)

[9]Letter from Leslie Hewes, op. cit.

relationships between man and his physical environment, (4) an understanding and appreciation of the interdependence of peoples.[10]

Sorensen mentions the following:

> It seems to be that the general aims and objectives of a course in world geography are closely related to the citizen's need to understand his world. It is obvious that in this day and age the high school student must come to grips with the realities of the present world situation. He should understand some of the world's problems, not only from the American point of view, but from the point of view of other peoples. I believe that a course in geography will provide insight into these problems that no other course will provide. The course emphasis should, in my opinion, be upon the outstanding characteristics of the various peoples of the world; the characteristics of the lands in which they live, and how they have organized their economy and society in these distinctive places.[11]

Carls suggests that among the aims and objectives of a world geography course the following should be found.

> 1. To develop a broad understanding of our world through a study of the distinctive characteristics of the most meaningful of large world regions, the world cultural and political regions whose names we read in the daily news.
>
> 2. To develop understanding of the lives and problems of our world neighbors through comparative studies that relate their lives and problems to ours.
>
> 3. To contribute toward development of an enlightened loyalty to the democratic way of life, including free enterprise, through comparative world regional studies which illustrate democracy's contribution to progress.
>
> 4. To contribute toward development of the ability and habit of thinking--in this case, geographic thinking

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[10]Letter from Florence Cullin, op. cit.

[11]Letter from Clarence W. Sorensen, op. cit.

which is the interpretation of the life and real problems of people living in regions and analysis of interrelationships between natural and cultural elements of man's environment.

5. To develop ability to read maps and to use them and encourage the habit of using them.[12]

These aims and objectives appear to be idealistic and beyond reach. But, in reality they are practical and can be achieved. However, all phases of geography teaching will have to be co-ordinated and improved before these aims and objectives are realized. One of these improvements can be utilized if and when the teachers of geography develop a sound philosophy for their subject in the high school.

A teacher of geography must develop a sound philosophy of his own, even though it is idealistic, in order to accomplish his aims and objectives, whatever they might be. It is obvious that this philosophy must be built on something more than the teaching of geographical facts. He must organize his methods around topics and ideas that will promote the growth of certain concepts and attitudes instead of facts for their own sake. He must co-ordinate his subject with the general idea that education is a biological process of growth and in nc sense a mechanical process of building. He must keep in mind that this process of growth not only applies to the mind and body, but also to the growth and development of knowledge and understanding of his subject.

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[12]Letter from Norman Carls, op. cit.

Finally, he must understand that geography is not to be defined as only a body of facts, but also as a point of view, a line of interest, a sequence of ideas, and a developing theme. When the aims and objectives are clearly set forth then the work of organizing the content and methods as well as selection of the physical facilities and tools will be made easier.

Improving the Content Included in High School Geography Courses

What shall be included in a high school geography course? Undoubtedly this is a very pressing question at the present time. Especially encouraging is the fact that most authorities agree that world geography should be the type, but here again the question of what should be included in the world geography course comes up. This brings up other questions--if more than one course is offered, what should these courses include? If specialized courses are offered, how far should they take the high school student in advanced work? Geography cannot realize its full value to the individual and society unless the content of the geography courses themselves is thoroughly understood and evaluated in the light of the aims and objectives of the course or courses.

There would seem to be two basic criteria to keep in mind when the content of high school geography is under

consideration. One of these is that it should be human geography, and the second is that it should present the student with the opportunity to think geographically.

Whitaker makes the first point very definite in this way:

> This course in world geography should be human (or cultural) geography from beginning to end. Man, man in places on earth, should be kept in the foreground thruout the study. To say that the course should be one in human geography does not mean, however, that there should be no consideration of such items as land forms and climate. It does mean that any study of natural environmental conditions should be made in terms of the needs and aptitudes of people; that there should be a functional evaluation of every physical condition considered. Such an approach does imply, however, that major attention will not be given to the intricate causes of climate or land form conditions. Such matters may very properly be taken up in a general science course or in courses in physical geography or physiography.[13]

Smith presents the second point in no uncertain terms.

> The high schools have an opportunity to present courses that train in geographic thinking. It is their responsibility to do so. What the high school course is, depends largely upon the training and viewpoint of teachers and administrators. Perhaps there is no other high school subject about which there are greater differences of opinion. To some, geography is a study of location and the listing of products; to others, the accumulation of statistical data and the memorizing of unrelated facts. To all too few is it a study of relationships, or an opportunity to explain and interpret present human activities. To all too few, geography is the interrelationships of one world region with another, or the interplay of political forces adjusted by man's activities to various environments.[14]

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[13]Joe Russell Whitaker, "Design for High School Geography," Geography in the High School (Bloomington, Illinois: McKnight and McKnight, 1949), p. 13.

[14]Villa B. Smith, "High School Geography and Geographic Thinking," Geography in the High School (Bloomington, Illinois: McKnight and McKnight, 1949), pp. 26-27.

Another problem comes in at this point. This is in the selection of what to include and what to leave out. World Geography covers tremendous volumes of material and it is impossible to cover it all. Therefore, a careful selection is an absolute necessity. The items selected to be included in the course should include those that provide an adequate program of instruction in high school geography which would fully realize the values for which the course was intended.

Improving the Organization of the High School Geography Program

When the organization of the geography program in the high school is under consideration there are a number of questions that must be answered. How shall the course be organized? Shall the world be divided into political or other regional areas, or should the course be arranged topically? At what grade level should the course be placed? Should the course be required or elective? What relationship should there be between the high school geography course and other high school subjects?

There are advantages and disadvantages in all of the organizational patterns used in geography. Either the topical method of organization or the regional method or a combination of both can be used successfully.

Whitaker believes the most satisfactory organization

should be a combination of the topical and regional methods. He believes that the most satisfactory arrangement would be to divide the course into three parts: (1) a study of the elements and world patterns of the natural environment; (2) a consideration of the elements and world patterns created by man; and (3) a study of these natural and man-made elements as combined in important regions of the world. In this way the student could begin early to get a clear meaning of many geographic concepts and learn a geographic vocabulary. Special attention should be given in the first part to the arrangement of the physical elements over the earth. Any of the physical elements should be studied with special consideration of world patterns. Next should come a study of the world patterns created by man. These should include population patterns, occupational patterns, and political arrangements. Routes of transportation and lines of communication also should be given careful consideration. Here would be the ideal place to show the ties which bind the world together whether in competition or co-operation. This would include a geographical analysis of the commercial world. Lastly, specific attention should be given to a few specific regions or countries, where various cultural and natural environmental elements are seen in combination.[15]

There is one big disadvantage to this type of

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[15] Whitaker, op. cit., pp. 13-15.

organization and that is, it would crowd the school year to cover the material in enough detail to really do a thorough job. For this reason the topical plan or the regional plan can be used.

The regional approach is begun by organizing the work about countries and continents right from the start. The advantage here is that it ties in with the newspaper accounts of events and makes pupils aware that they are dealing with specific areas. Its disadvantage lies in the fact that it may fail to give the pupils the world view-point. However, if the teacher will constantly compare the various countries and point out various relationships that exist over the world the world view-point can be presented.

The topical approach can be used if the course is almost equally divided between a study of the natural elements and those elements for which man is responsible. Its advantage lies in its being centered on world patterns. Its weakness lies in the fact that it may fail to give a clear notion of how these various conditions combine to determine the individuality of specific regions. However, a few regional areas could be studied at the end of the course to make up for this weakness.

Whitaker also has a recommendation as to the grade placement for world geography in the high school and as to whether it is to be required or elective.

> The year course in world geography is best placed in the ninth or tenth grades where it can precede elective courses in geography and related aspects of the other social sciences. This course in world geography should be considered a part of general education and should be required of every student. If, perchance, it seems that full credit cannot be required of everyone, then it may be possible to require half a year's work, with the other half devoted to a closely related subject.[16]

Certainly a full year is not too much time to devote to a study which can meet the needs that are now recognized in the field of geography. Whitaker believes that it would be ideal to require the world geography course in the ninth grade and follow it with an elective which could be selected from the following: (1) Geography of North America, (2) Political Geography of Leading Countries, (3) Conservation of Natural Resources, (4) Economic Geography, and (5) Physical Geography.[17]

The question of the relationship of geography to the other subjects in the curriculum is of importance. Professional geographers especially are concerned with this problem. Since their field has physical aspects and social aspects both it is sometimes confusing as to where it belongs. It is, however, most commonly placed in the social studies. It must not, however, lose its identity in this group.

Very often it is suggested that history and geography

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[16] *Ibid.*, pp. 16-17.

[17] *Ibid.*

be taught as one subject. On this point geographers are quite emphatically in opposition. Geography should be taught as a separate subject and not as part of the history course. The most obvious reason is that the teacher, usually trained almost entirely in history, would neglect the geographic understandings without realizing he was doing so. Very often the teacher of history has had so little geography himself that he may try to avoid getting into an area in which he feels insecure in teaching. Also, there is the danger that inaccurate information may be presented by those who have not kept up with the changes in geography and geographic instruction. Geography needs to be taught not only as a separate course but should be taught by teachers whose major interest is geography.

Raus M. Hanson suggests four different reasons why the teaching of history and geography should be organized in separate courses if geographic concepts are to be taught in such a way that students will get the greatest benefit out of them. (1) Geography is more ready and in a better position to use scientific data than history. (2) A separate geography course would be better to adequately explain our present commercial age and its influences. (3) Geography can better present an understanding of the present and the future than history, whose main interest is the past. (4) Geography can not only supply the facts for our information seeking public but also furnish a basis for understanding

the conditions under which they occur.[18]

Improving Methods in the Teaching of High School Geography

How shall high school geography be taught? This is one of the most important questions that needs to be answered if the values of geography are to be realized to any satisfactory degree. Method and the teacher's use of method are important in the handling of any subject and in geography it is fundamental to successful teaching. Hundreds of methods have been tried by geography teachers. Most of them have been successful. Some failures have occurred, however, as a result of teachers not being fully informed as to the method being used. Any method must be thoroughly understood by the teacher before it can be put to its most effective uses.

Geography is fortunate in that it can use the methods of the physical sciences as well as those of the social sciences. In many cases, however, the methods used by the physical and social sciences have not been adapted by the teachers of geography to fit the specific needs of the field of geography. At this point the ingenuity of the teacher is tested to the fullest. Not only must he adapt his method or

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[18]Raus M. Hanson, "Adequate Teaching of Geography and History Requires Separate Courses," Journal of Geography, LII (Jan., 1954), 26-29.

methods to the aims and objectives, content material, and tools that are available for use, but also to his students' abilities, interests, and ambitions. The primary responsibility of method rests on the teacher.

There are a few formal methods which geography teachers have used time and time again and are proven to be especially useful. Some of these are especially well suited for this modern type of geography, which centers about man and his relationship with the natural environment. It would help to examine a few of these methods briefly.

The project and problem methods are two well used and useful plans of procedure of geography teachers. They have, however, been misused apparently from overlapping by those who have not understood them. This has brought on unjust criticism. Edith Brill has tried to distinguish between these two methods as used in geography.

> The project is generally considered to be a whole-hearted purposeful activity, carried to completion--a unit rather than a fragmentary exercise. It involves pupil planning, a considerable amount of sensory contact with objects or things, muscular activity; solution of a number of problems, size of undertaking, co-operation of a group, life situations, and worthwhile motives. The problem is "felt need" which may be worked out on purely intellectual lines. It may be artificial or speculative in character.[19]

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[19] Edith V. Brill, "What Method Shall We Use in Teaching Geography," Geography How To Teach It, George J. Miller, ed. (Bloomington, Illinois: McKnight and McKnight, 1934), p. 30.

The unit method is a very successful way of presenting geography. Teachers will find that the unit organization gives more opportunity for full consideration of a comprehensive problem than there would be if part-by-part consideration only were used for the basin for instruction. Unit organization in geographic education must bring out the recognization of peoples and regions all over the world. These units should recognize the demands of modern life upon youth and adults alike. To fulfill these demands, people need functional geographic understandings, skills, and attitudes assembled on the basis of life-problems and geographical units.

The importance of the unit method is explained in the 1951 Course of Study in Geography for the Secondary Schools of Pennsylvania.

> Geography education lends itself readily to a program of developing units at the elementary and secondary school levels. Geography influences the very being of each individual and the existence or nonexistence of people in every portion of the earth. Unique opportunities occur in geography education units whereby students, teachers, lay folk, and agencies, near and far, live and learn cooperatively. Geography understandings necessitate adventures beyond the school room and school building, beyond the local community, out into the great wide world.[20]

The outline method has also been used successfully by many geography teachers. It is, however, being used less

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[20]Pennsylvania Department of Public Instruction, Course of Study in Geography for Secondary Schools, Bulletin 412, 1951, p. 24.

and less as time goes by. This has happened because teachers have not fully understood it, reduced it to a mechanical process and thereby reduced its effectiveness. But, when used right, the outline method has great possibilities particularly in the arrangement of thought into outline form and making sure something of importance is not left out. Any method needs a live teacher-student attitude in order that the method will not be reduced to dull routine procedure, but kept full of fresh appeal.

The topical method is also losing supporters, mainly because of its wrong use. It provides all the relationships and associations necessary for well organized knowledge of geography. It, too, has been subjected to the dull, routine mechanical approach and thereby has lost much of its appeal. But when used right it is effective.

The type study has great possibilities, but it may be misleading unless care is exercised to keep the study true to actual conditions. Many users of this plan have failed to build up connections which would integrate the units of study. When used correctly the type study method is sound and unquestionably practical.[21]

The regional method is an excellent plan for the development of reflective thinking and reasoning, leading to the use of good judgment. It is a natural, reasonable,

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[21]Brill, op. cit., p. 31.

controlled examination of a well defined geographical unit with only incidental consideration of political boundaries involved. Many textbooks divide the world into regional areas, and thereby many teachers use this method by just following along with the text. Outside contributions should be added if this method is to become an outstanding success.

The contract method is a plan whereby the teacher and students enter a contract for a month's work in advance. They may do the work when they choose, within the month's limit. Conferences are held with teachers daily and the children check their own progress on their graphs weekly. The teachers direct pupils in matters of technique of work and by a system of checks see that standards are maintained. This system can work only if the teacher is a specialist and understands this method thoroughly. Under this method the classroom becomes a laboratory for a special subject. It fits geography especially well.

Some old methods have been modified a little by someone and given a new name. Such techniques as the visual method, journey method, dramatization, out-of-door observation, field trip procedures, the socialized recitation, the assignment, review, test, review, and retest, and the oral report method are just a few of the methods that have been used with highly satisfactory results.

These methods can be only a partial success if certain points are not kept in mind. The method of teaching

high school geography must be such that conclusions and morals are drawn by students themselves. The methods of selecting ideas and methods of teaching geography are more fundamental than the selecting of individual items of content, when framing a geography curriculum. The method of teaching must be such that concepts arise and grow naturally in the student's mind. No method will work in all situations; therefore, it is up to the teacher to improvise, substitute, co-ordinate, make additions to, or do anything else necessary to make the method work.

Besides these formal methods there are many informal methods and ideas which the teacher can put to use. In order to apply them he not only has to be trained in geography but trained to think geographically. He must take new methods and fit them into his own ideas. He must keep up to date on all the latest devices and suggestions that appear in educational and geographic publications in order to improve his own teaching. For example, one article recently pointed out the necessity of a teacher making places seem real to his students. This article also pointed out the importance of teaching students to reason and it also advised the teacher to know the background of his students in order to know about their abilities, interests, and the level of geographic experiences they already have. This is necessary in order to adequately plan the method and

how to use the method or methods chosen.[22]

One of the most important things to keep in mind when method is under consideration in the teaching of geography is to teach the students how to study geography. Any method will work better if this is done. It is the responsibility of every geography teacher.

Selecting the Basic Tools of Geographic Instruction in the High School

All high school geography courses have many geographic tools at their disposal. Many of the tools are necessary while others serve to enrich the offerings. The basic tools which are essential to successful geography teaching are textbooks, globes, maps, atlases, and pictures. Each of these must be carefully selected and used to get the best results. Their purchase should be made with careful consideration of the needs of the school and the geography course together. It would seem unwise to attempt to teach a course in geography in the high school without these basic tools. Teachers, however, often overlook many of the tools that are already available in their schools. For example, maps and charts, which could be used if the time and effort were expended to find a use for them, may be laid back in

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[22]Edna E. Eisen, "Making the Teaching of Geography Effective," Geography in the High School (Bloomington, Illinois: McKnight and McKnight, 1949), pp. 59-62.

some file box or in some unused corner of the building. Very often they might fit a need better than new ones, which cost money needed for other items. Many school libraries have books unread for years which contain valuable understandings for students of geography. Often many valuable specimens of products, rocks, soils, and plants can be obtained from the local community without cost. Many business firms offer publications free, as do most state and national governments on request. Often a very large geographic library can be organized with very little cost through these sources. These outside reading materials can serve as additional help to the text and other basic tools of geography.

In addition to the basic tools, many other tools and sources are available to geography teachers. The many reference books, both general and geographic, are of course a source of valuable information and research data. The home community is also a valuable source of information to the teacher and his students. The home community can offer resource speakers and organized field trips to business firms, recreational areas and geographical sites of interest. Also, there are many other tools available to those who are interested enough to enrich their offerings with such things as radio and television programs, travel talks, geography clubs, and geography assembly programs.

Textbooks

The most essential piece of equipment in teaching high school geography is a geography textbook. Most of the other basic tools are found in textbooks, such as maps and pictures. Very often there are other valuable aids to study such as charts, tables, and graphs, which give statistical information and may take the place of the atlases. It is indeed difficult to teach geography successfully without a basic text. Whitaker explains his views on this subject in this way:

> Perhaps the controversy over text versus no text can best be answered in this way; be no slave to a text, but use one or more until you have collected readings, pictures, and maps which are as good and which can be made available to all of the students. Even then you may want a text as a basis for discussion, to give all a common ground on which to work. To me the ideal is for the beginning teacher to lean heavily on the text, gradually working toward the point where it is more a source book and a collection of photographs and maps than a real course of study.[23]

Eisen suggests that guidance of the proper kind is easier with one text than with many different books in the hands of the students. Also, that reading to develop basic understandings can be directed more effectively and with the least waste when all students use the same materials as they are assembled in a good geography text.[24] She also lists a

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[23]Whitaker, op. cit., p. 18.

[24]Edna E. Eisen, "Reading Materials," Geographic Approaches to Social Education, Clyde F. Kohn ed. (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 94.

number of points to consider when selecting a geography text.

1. The type of paper and size of print should be pleasing. The book should be well made and mechanically as perfect as possible. Photographs and pictures must be clear and well placed on the page.

2. Pictures must truly represent the region they are intended to represent.

3. Maps must be built on a graduation of difficulties.

4. Maps must be tied in with the text and in sufficient numbers so that pupils may be directed to use them in making their discoveries and explorations. They must be accurate.

5. The material must be presented in as colorful and realistic style as can be obtained and retain accuracy and soundness of geographic treatment.

6. The verbal material must be organized so that regional understandings for which only relatively simple concepts are needed are developed first, gradually increasing in complexity until the goal is reached. That of global understanding.[25]

In most cases it is not the fault of the geography text that geographic understandings are not developed. In most cases it is the fault of teachers who fail to assume their full responsibility in teaching the use of them.

Globes, Maps, and Atlases

Globes, maps, and atlases are absolutely necessary to the successful teaching of geography in the high school or for that matter on any level. Many geographers place globes in a more important role than maps or any other kind of geographic tools with the exception of texts.

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[25] Ibid., p. 95.

Erwin Raisz explains his views in this way:

> No classroom in geography should be without a globe. The larger the better--it makes it easier to bridge the gap between a ball and an immense celestial body. Besides, climates can best be explained on globes, particularly on black globes with the outlines of the continents.
>
> Globes occupy much space and are hard to tuck away; they are more expensive than maps, and we can see only half of the earth at a time, yet if any one asks which to buy first, a set of maps or a globe, my answer is "Buy the globe!"[26]

Whitaker explains his views:

> Next to the text I would place the globe. A physical-political globe on a floor stand, one that can be adjusted in height and can be moved around the room, is essential. In addition, there should be another globe, possibly a cheaper one, in a cradle, so that it can be moved around easily and studied in various positions. The use of a globe resting in a cradle is one of the more valuable innovations of recent years. If funds permit, it may be desirable to purchase a large slate globe, one on which places and various facts can be shown.[27]

Katheryne Thomas Whittemore explains the value of maps to geographic instruction in this way:

> Each of the social sciences makes a contribution to the methods of studying problems through the development and use of a special approach. One of the major contributions of geography is the method of studying problems through maps. By the making, reading, and interpretation of maps, the character of a place can be analyzed. Differences from place to place in the land and in man's occupance of the land and the significance of those differences can best be examined and interpreted through maps.

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[26] Erwin Raisz, "Globes," Geographic Approaches to Social Education, Clyde F. Kohn, ed. (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 116.

[27] Whitaker, op. cit., p. 19.

> Therefore, it is important that a large part of geographic education concerns itself with maps. Geographic education must develop an understanding of the advantages and limitations of maps and it must provide experiences that contribute to the ability to use maps to the fullest extent.[28]

The value of maps to geographic instruction is very seldom questioned. There is, however, considerable variance in maps, and therefore a careful selection of maps is of prime importance. This is true whether or not the school is on a limited amount of funds or not. There are so many kinds and types of maps that it is getting more and more difficult to make wise selections. Especially is this true in those schools that have very little money for such purposes. Whitaker has offered some helpful suggestions for those who are considering the equipping of a geography class room with maps.

> In the minimum equipment for world maps are the following: a physical-political map, preferably on an equal area projection; a political map, equal area projection; a blackboard outline map, equal area projection; a population map; a two-season rainfall map; a world vegetation map; and a polar-projection map, showing populated areas, trade routes, and so on. For each of the continents a physical-political map is desirable. In addition, we should have a physical-political map of the United States and a blackboard outline map of our country too. There should also be a physical-political map and a blackboard map of the home state.[29]

In addition to the big wall maps there should be

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[28]Katheryne Thomas Whittemore, "Maps," Geographic Approaches to Social Education, Clyde F. Kohn, ed. (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 129.

[29]Whitaker, op. cit., pp. 19-20.

outline maps of desk size and material for the making of maps, charts, and graphs. Care should be taken not to spend too much money for mountings that are not needed. The money spent for mountings could well be spent for additional maps, which would enrich the geography program considerably.

An atlas in the hands of every student is a much desired asset to the teaching of geographic skills. Atlases, however, are expensive and most schools will not be able to achieve this goal nor wish to insist that the pupils buy them. Fortunately most geography textbooks for high schools include a number of colored maps, either in the back of the book or scattered throughout the text.

Pictures

Pictures are essential to all geographic study. Here again the texts are a valuable source of these aids. Textbook pictures, however, are not enough. They must be supplemented in every way possible, such as through the use of slides, opaque projections and motion pictures.

Svec emphasizes the use of still pictures in the geography classroom.

> Pictures can be a source of valuable geographic information but their use is not self-taught. First, the teacher must know how to read from the pictures the actual things shown as well as the more subtle relationships represented. Next, the teacher needs to teach children how to read information from pictures.

Pictures of items of the environment showing the natural-cultural-landscape-are-of-primary-geographic

value. Pictures should be correlated with maps whenever possible.[30]

Whitaker offers the following advice in the use of motion pictures in geographic education:

> The use of motion pictures is a highly valuable feature of geographic instruction and is strongly recommended when circumstances permit. There is little to be said, however, for the use of occasional films at times which do not fit into the program. Slides which can be used when needed are preferable to elaborate sound movies which have little relation to the theme in hand. Certainly first-class work in geography can be done without the use of motion pictures.[31]

The motion picture, when used right, can be of great value. F. Borden Mace and Fred E. Dohrs refer to its importance in this way.

> If the film and its subject matter are appropriate to the interests, abilities, and basic needs of the class, and if it increases the students' interest in geography it is worth the time, expense, and effort involved in making it part of the curriculum. The better teaching films will leave with classroom audiences the challenge of an unfinished problem and the incentive to pursue the subject further. As motion pictures become an integral part of the geography curriculum, they will do much in helping us achieve the true social objectives of global geography--better human relations and education for peace.[32]

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[30] M. Melvina Svec, "Still Pictures," Geographic Approaches to Social Education, Clyde F. Kohn, ed. (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 138.

[31] Whitaker, op. cit., p. 20.

[32] F. Borden Mace and Fred E. Dohrs, "Motion Pictures," Geographic Approaches to Social Education, Clyde F. Kohn, ed. (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 145.

Setting Up Better Facilities for the Teaching of High School Geography

The teaching of geography can be better accomplished if careful consideration is given to the furnishing of the geography classroom. There is a great deal lost when the subject is taught in any room available at the time it is to be taught. There should be a geography room. If possible there should be a classroom and a laboratory, although one room can do a wonderful job if careful consideration is given to its construction and furnishings. Almost all of the high schools of today have limited funds for this purpose and they especially must plan carefully.

There is no one set of furnishings that would fit every school's need. There are, however, a number of things that should be remembered so that substitutes can be made and indeed should be if necessary. A thoughtful teacher can and should improvise in order to get furnishings necessary to teach geographic concepts.

Whitaker believes that geography can be taught with very little cash outlay at the beginning. He believes that a globe, a first class physical-political map of the world, and some up-to-date atlases, is all that is necessary to get the class under way. Whitaker[33] and Neil F. Martin,[34] in

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[33]Whitaker, op. cit., p. 21.

[34]Neil F. Martin, "Equipping a High School Geography Room," Journal of Geography XXXVIII (Sept., 1939), pp. 226-232.

recent articles have offered suggestions as to the proper equipment for a geography classroom. Some of their most important suggestions are: (1) The room should be equipped for showing slides and opaque projections as well as motion pictures. (2) The room should include a space for the storing of wall maps and a filing cabinet or a series of drawers where desk maps, photographs, clippings, and pamphlets can be stored. (3) There should be room for a classroom library. This should include supplementary books both of college level and elementary level, geographic magazines, bulletins, reports, pamphlets, and reference books. (4) There should be a large blackboard and a large amount of bulletin-board space, for collections of materials by the students and teacher. (5) There should be space for exhibits, perhaps a geographic museum, for the display of the common rocks, minerals, agricultural products, models of various community industries or geographical sites, and this would require shelves, cabinets, and drawers for their display and storing. (6) Instruments for weather study, such as a barometer, thermometer, and a rain gauge are necessary for a geography room. (7) Special maps such as weather maps and topographic maps would be a great asset to a geography room. (8) There should be unlimited supplies of outline maps, ruled paper, drawing pens, triangles, rulers, tracing paper, and colored chalk.

Improving the Training and Certification of High School Geography Teachers

> All over the nation today there is a widespread enthusiasm and demand for the development of geographic literacy in the public schools. Geography, however, is one of the most difficult subjects to teach because of the special technique required to make it meaningful, and because of the special training in regional synthesis required on the part of those who would teach it.
>
> Thus, any hope for better geographic education in America must be predicated upon the need for professional training for present and prospective geography teachers.[35]

Obtaining more and better teachers is the most important part of the campaign to get more and better geography taught on the high school level. The high aims and objectives cannot be attained with poorly trained teachers. The best methods are worthless unless there are good teachers to use them. The finest and most expensive furnishings and equipment cannot make up for inadequate instruction. The best written textbooks, the finest globes, maps, and motion pictures will never replace a good geography teacher. All of these phases of geographic instruction are needed, but they will mean so much more if they are put at the disposal of a first rate teacher of geography. Carefully selected, well trained, and properly certified teachers are absolutely essential if the young people of the United States are to be

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[35] College Geography and Its Relation to Teacher Training in Secondary School Geography, Professional Paper No. 7, National Council of Geography Teachers, Clyde F. Kohn, Secretary, Evanston, Illinois, March, 1946.

taught to think geographically.

Not only do geographers believe that the teacher is the key to successful instruction but there are educators in many fields who have also expressed their opinions in the same way. Bining and Bining put it this way:

> The key to the successful attainment of aims is in the hands of the teacher; but if he himself does not understand which knowledge is of most worth in reaching the goals, the outlining of aims loses much of its meaning. However, the acquiring of knowledge is only the means to an end.
>
> Intellectual development goes beyond knowledge. The teacher must train pupils so that they develop reason and judgment, that they may proceed to independent methods of study, and that they may develop skills and habits. This again shows the need of the well-trained, efficient teacher. Even this is not enough, for aims are concerned also with the attitudes and behavior of the pupils. In order to attain these aims, the teacher himself must possess the important traits and be an example to those he leads. If civic responsibility is to be taught to the pupil it is best seen in the life of the teacher. The aims cannot rise above the teacher, for it is he in the school who has most to do with training pupils to take their places as citizens in the school, the home, and the community, and to be ready for the larger citizenship of the future.[36]

If the teacher is so important in the effort to educate students to think geographically, what shall his preparation be? Whitaker believes that the teacher of geography must be trained for the specific job of teaching geography. He must have special training in geography and in addition a rich background in many related fields.[37]

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[36] Bining and Bining, op. cit., p. 43.

[37] Whitaker, op. cit., pp. 21-22.

A number of surveys have been made with regard to the type of training and certification required of geography teachers. One of the most thorough and complete efforts was published in 1943 by the Committee of Standards of Certification for the Teaching of Geography in High Schools of the National Council of Geography Teachers. That committee recommended that all teachers of any subject in high school should take six semester hours of geography and that at least three of these house be in "Principles of Geography." Teachers of geography and other social sciences should be required to take from three to six hours of Principles of Geography, three hours of continental, historical, or political geography, and three hours of economic, commercial, or conservational geography.[38] Whitaker believes this should be an absolute minimum no matter what the individual state certification requirements may be.[39]

Lyda Beithuis suggests that certain courses are not enough to make sure that teachers do a good job in teaching geography. She points out that specific training in understanding maps is also necessary in preparing good geography teachers. She insists that introductory courses in physical and cultural geography as well as regional studies of various

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[38]"Report of Committee on Standards of Certification for the Teaching of Geography in High Schools," Alfred H. Meyer, Chairman, Journal of Geography, XLII (Feb., 1943), p. 46.

[39]Whitaker, op. cit., p. 21.

continents are not enough to really make the teachers competent in the field of geography, particularly in teaching map understanding. To make up for this need she suggests that an additional course be required for teachers which would include the following areas of map understandings: (1) comparisons of maps and globes, (2) map scales, (3) legends, (4) co-ordinates, (5) projections, (6) types of maps, and (7) map making.[40]

In the related areas, the field is long in approaches to the teaching of geography. In the social sciences, history, regional sociology, economics of land utilization, and anthropology are well suited for geographic learnings. In the Physical sciences, geology, meteorology, and botany are of outstanding importance. Without these types of training the teacher will lack an understanding of the various fields with which geography deals. As geography deals with both phases of the environment it would seem proper that both should be investigated by the prospective teacher.[41]

Whitaker adds another requirement in the adequate training of geography and related social and physical science teachers.

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[40]Lyda Beithuis, "How Shall We Train Our Prospective Geography Teachers," Journal of Geography, XLVIII (April, 1949), pp. 143-145.

[41]Whitaker, op. cit., pp. 21-22.

> The most effective geography teacher will have a genuine sympathy and liking for men of all lands: The narrow, the bigoted, the intensely nationalistic, the belligerent individual may convert geography into a school of hate, of odious comparison. If geography is to function in an effective way in furthering and understanding and appreciation of other peoples, whether in our own nation or in foreign lands it is necessary that the teacher himself be thoroughly imbued with regard for his fellow men.[42]

The constant improvement of any subject is the key to its growth and success. Geography at the high school level is no exception. The aims and objectives should be continually reviewed and reanalyzed to gain the full values of the subject. The content and organization of the geography program must be constantly changed or improved to fit it to the needs of the present. Methods must be fully understood and faithfully applied to present the true values of geography to the high school student. Geographic tools and permanent facilities should be obtained and utilized to gain as much efficiency as possible. Finally, the certification and training of teachers of high school geography may be regarded as the most vital area in bringing about more and better geography offered at the high school level.

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[42] Ibid.

CHAPTER VI

SUGGESTED PROGRAMS FOR THE TEACHING OF GEOGRAPHY IN THE HIGH SCHOOL

All high schools should offer courses in geography, provide adequate geographic materials for the teaching of geography, and employ qualified teachers to do the instruction. This statement would be agreed to by practically everyone who is concerned about the present-day lack of geographic knowledge by the people of the United States. However true the statement may be, the fact remains that all schools cannot, and should not, make the presentation in the same way. There are many reasons why, including: (1) the lack of well qualified teachers of geography, and (2) the lack of funds to purchase materials valuable for instruction in geography. Even if all schools employed qualified teachers and had sufficient funds to buy the finest equipment, there would still be a need for variation in the type and number of geography courses that various schools should offer. The size of the school, local community needs for a certain type of geography course, state laws, and the type of school organization are all limiting factors. There are,

however, geography courses and programs which can be adjusted to meet almost any situation.

The application of the values of geography at the high school is dependent in part on just what type of geography is offered to the students. This chapter presents some ideas for the one, two, three, and four year geography programs as well as for the schools which teach geography in a social studies core curriculum. The content presented here, as well as the organization of the different programs are, in the most part, those of the writer. They are a result of not only the wide reading done in preparation of this dissertation but also from past reading in the field of geography, course work, and teaching experience.

High Schools Offering One Course in Geography

Most authorities agree, as has been shown in previous chapters, that if the offering in geography is to be limited to one course it should be a course in world geography. It is also generally agreed that the course should be given in the ninth or tenth grade. Many suggest that the course should be required.

There are many possible programs and variations of programs in world geography. Many ideas have been expressed as to its content and organization. Two approaches, however, dominate the organization of such a course. One approach is to study the world by countries, while the other is to study

the world by regions--climatic regions, landform regions, agricultural regions--irrespective of national boundaries. Since there are advantages and disadvantages to both approaches it has been suggested that a combination, or dualistic, approach be used. Henry J. Warman[1] has attempted to do this in his three part division for such a course. He suggests that Part I be called World Patterns; Part II, Interrelationships of the World Patterns; and Part III, Regional Studies of Some Peoples of the World. In Parts I and II the global approach is used while Part II is a regional approach.

Parts I and II are to be taught during the first semester and Part III during the second. This arrangement would make the regional study more meaningful since the general world patterns will have been under study and discussion for 18 weeks. Warman suggests the division of Parts I and II into eleven units as follows:[2]

Part I. World Patterns
- Unit 1. Population of the World
- Unit 2. The Pattern of Climate
- Unit 3. The Distribution of Landforms
- Unit 4. The World's Major Drainage Patterns
- Unit 5. The World's Soil and Vegetation Cover
- Unit 6. Distribution of Natural Resources of World Significance

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[1]Henry J. Warman, "A Suggested Course in World (or Global) Geography," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 258.

[2]Ibid.

Part II. Interrelationships of the World Patterns
- Unit 1. World's Patterns of Occupations
- Unit 2. The World Areas of Surplus
- Unit 3. Trade Among Peoples of the World
- Unit 4. The Problems of Distribution of Wealth and Ideas Among Peoples of the World
- Unit 5. World Unity Based upon Geographic Principles.

Warman explains why the various units were selected for this part of the course.

> In the formulation of the course a definite attempt has been made to supply material which is challenging to high school students, so that no "elementary school" stamp may be placed on it. Too, it has been the intention to avoid duplication of previous material except where necessary . . . .[3]

The length of time required by each unit may vary from only a few days to more than two weeks. Different classes will study different units in varying amounts of detail. Current events will make some of the units more attractive in one year than in another.

Part III includes seventeen possible units from which choices can be made.[4]

Part III. Regional Studies of Some Peoples of the World
- Unit 1. The Mediterranean Region
- Unit 2. The Caribbean Region
- Unit 3. The Geography of Russia
- Unit 4. The Geography of China
- Unit 5. The Geography of the Japanese Empire
- Unit 6. The Pacific: Its Islands and Borderlands
- Unit 7. The Agricultural Far East
- Unit 8. The Agricultural Heart of North America
- Unit 9. The Geography of Balkan Europe
- Unit 10. The Geography of India
- Unit 11. The Geography of Brazil

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[3] Ibid.

[4] Ibid., pp. 258-259.

Unit 12. The Industrial Northeast of North America
Unit 13. The Geography of Australia
Unit 14. The Geography of Mexico
Unit 15. The Geography of Canada
Unit 16. The Oceans
Unit 17. The Polar Regions

Warman suggests ten units as a most likely number to be studied. Having a choice of units is an advantage since world conditions change and interest in a specific region may be greater in some years than in others. It is suggested that some areas be studied by individual nations and others by geographical regions which enclose several nations or parts of nations. Because of newspapers, magazines, radio, television, and other school subjects it is more important to stress the names of nations than of regions.

The list of units could be changed as occasion arises. Numerous other regional areas such as West Central Europe, Scandanavia, Argentina and Chile, Pacific North America, Tropical Africa, Southern Cotton Kingdom of the United States, Dependencies of the United States, Rocky Mountain Region of Canada and the United States, Central America, Geography of the British Isles, Geography of France, and Geography of South Africa could be added. No class should attempt to cover all or even most of these units, but should strive for techniques which will be helpful in future studies or when curiosity gives motivation for individual study.

The following check list for the study of a region

will be valuable in building units as well as teaching regional geography. By using this list there is less chance that something of importance will be omitted. Also the list will suggest to the superior student various avenues of approach to a deeper understanding of the problem. The 15 points which should be included in the study of a region are (1) location, (2) areal extent and landforms, (3) climates, (4) minerals, (5) soils and vegetation, (6) water bodies, (7) agriculture, (8) manufacturing, (9) commerce, (10) cultural heritage, (11) urban centers, (12) world trade relations, (13) transportation and communication, (14) regional problems, and (15) world significance.[5]

If this three part course is followed, the American high school student will have a much better geographic background. He will be better able to read and understand his newspaper. Also he will have a better background for studying the other social and physical sciences, not only during the remainder of his high school career but in college as well. Finally, he will be better able to fill his role as a citizen and as a member of an occupational group.

High Schools Offering Two Years of Geography

High schools which can offer two years of geography have a wonderful opportunity to enrich the offering of the subject for their students. The content can be studied in

[5] Ibid., p. 259.

greater detail, and a wider range of geographic concepts can be used to enrich the students' understanding. Should two full years be offered in geography, a few weeks might be devoted to some phases of the subject which should have been studied in elementary school but were not. The first year of the course should be offered either in the ninth or tenth grade while the second year should be given in either the tenth grade or the eleventh. An attempt should be made to give the students as much geography as possible before they take American History which is customarily offered in the eleventh grade.

The two year program suggested here is divided into five parts. For the first semester of the first year, Part I, World Physical Geography, is recommended, while Part II, World Economic Geography, is suggested for the second semester. During the first semester of the second year, Part III, Regional Study of Nations, and Part IV, Regional Study of Some Peoples of the World, are offered. Part V, Regional Geography of the United States, is recommended for the second semester of the second year.

The following units are suggested for the first year course.

Part I. World Physical Geography
- Unit 1. The Earth in Space
- Unit 2. Maps and Map Projections
- Unit 3. Weather and Climate
- Unit 4. The Oceans and Ocean Currents
- Unit 5. Land Forms and Their Significance

Unit 6. The Soil
Unit 7. Minerals
Unit 8. Inland Water Bodies
Unit 9. Forests, Grasslands, Deserts
Unit 10. Wildlife

Part II. World Economic Geography
Unit 1. Distribution of the World's Population
Unit 2. World Agricultural Regions
Unit 3. Economic Distribution of Minerals
Unit 4. Fishing Areas of the World
Unit 5. Products From the World's Forests
Unit 6. World Manufacturing Regions
Unit 7. World Power Resources
Unit 8. World Trade
Unit 9. Transportation and Communication
Unit 10. The Interdependence of the World's Peoples

Most of the units in Part I could be covered in one week's time. Unit 3, however, would require three, or possibly four, weeks. Unit 5 and 6 would also require a longer time than one week. Units 1 and 2 would vary in time required, depending on the background of the class in geography and/or general science. In Part II, some of the units would require considerably longer time than others. For example, units 2, 5, and 6 might need three weeks each while units 3, 4, and 8 might be covered in two weeks and unit 1 in three days.

The following units are suggested for the second year of the two year sequence.

Part III. Regional Study of Nations
Unit 1. Canada
Unit 2. Mexico
Unit 3. Brazil
Unit 4. Great Britain
Unit 5. Soviet Union
Unit 6. India
Unit 7. China

Unit 8. Japan
Unit 9. Australia

Part IV. Regional Study of Some Peoples of the World
Unit 1. Peoples of the Mediterranean
Unit 2. Peoples of the Carribean
Unit 3. Peoples of Tropical Africa
Unit 4. Peoples of Temperate South America
Unit 5. Peoples of Central Europe
Unit 6. Peoples of Southeast Asia
Unit 7. Peoples of the Pacific Islands
Unit 8. Peoples of the Polar Climates

Part V. Regional Geography of the United States
Unit 1. Topography and Landforms
Unit 2. Climate
Unit 3. Distribution of Population
Unit 4. The New England States
Unit 5. The Middle Atlantic States
Unit 6. Southeastern United States
Unit 7. The Middle West
Unit 8. The Great Southwest
Unit 9. The Rocky Mountain States
Unit 10. The Pacific Coast States
Unit 11. Possessions of the United States
Unit 12. Conservation
Unit 13. Geography of the Home State

No class should attempt to cover all the units listed in Parts III and IV in one semester. It is suggested that a choice of five units from Part III and four Units from Part IV be made. This will give about two weeks for the study of each unit.

In Part V each of the units needs to be taken up, if only briefly. Units 1, 2, 3, and 12 are of special importance and adequate time should be allotted for their complete coverage. Also time should be allowed for the study of the region in which the school is located as well as for the study of the home state.

Admittedly, this is an ambitious program for only a

two year course in high school. If great care is given, however, to the organization of the time and method as well as to the choice of units, it can be done. Nothing is included in this two year course which is beyond the ability of the average high school student, yet the program would challenge the more brilliant since it opens new avenues of learning as well as creating new interests.

High Schools Offering Three Years of Geography

Indeed fortunate are those schools which are able and willing to offer three years of geography in their high school curriculum.[6] A wide range of geographic concepts can be taught. This range should include human geography, conservation, economic geography, regional studies, political geography, and geography of the home state. Physical geography could be stressed in part of each of the different geography courses offered.

The first year of the three year sequence should be offered in the ninth grade and should emphasize human geography with special effort directed towards the interrelationships between man and his physical environment. These relationships should include the limitations placed on man by his environment and also the ways in which man has overcome

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[6]Some of the ideas for both the three and four year geography programs came from an article by Paul F. Griffin in the February, 1953 issue of the Journal of Geography, pp. 66-67.

some of these limitations and modified his surroundings. The second year of the subject should be offered in the tenth grade and would cover, in detail, the economic geography of the United States. Actually many physical elements would be covered as well as economic. This course certainly would help prepare the students for their American History, and American Government as well as other courses they may study. It is recommended that the third year of the program be offered in either the eleventh or twelfth grades. The geography program for this third year is divided into four parts; Part I, Geography of the Home State, Part II, Conservation, Part III, Political Geography, and Part IV, Regional Study of Nations.

The Human Geography course, offered during the freshman year, is divided into 14 units. It is recommended that the first six units be studied during the first semester and the last eight during the second semester. The first semester units would need about three weeks each. With the possible exception of units 10, 12, and 13, each second semester unit will require about two weeks of study. The following units are suggested for the course.

Human Geography

Unit 1. Map Projections, Interpretation of Maps
Unit 2. Relationship of the Earth's Surface Features to Man
Unit 3. Low Latitude Climate, Vegetation, and Man
Unit 4. Middle Latitude Climate, Vegetation, and Man
Unit 5. High Latitude Climate, Vegetation, and Man

Unit 6. Man and Agricultural Resources
Unit 7. Man and the Mineral Resources
Unit 8. Man and the Forest Resources
Unit 9. Man and the Ocean Resources
Unit 10. The Process of Manufacturing
Unit 11. The Need of Man for Power
Unit 12. World Population Distribution
Unit 13. World Trade
Unit 14. World Transportation and Communication

The second year of the three year course is divided into eighteen units which would enable a class to finish nine units in each semester. Suggested units are as follows:

Economic Geography of the United States
Unit 1. Areal Extent and Topographic Regions
Unit 2. Climatic Regions
Unit 3. Native Vegetation of the United States
Unit 4. Soil Resources of the United States
Unit 5. Agricultural Regions
Unit 6. Fishing Resources of the United States
Unit 7. Mineral Resources of the United States
Unit 8. United States Water Power
Unit 9. Manufacturing Regions
Unit 10. Inland Waterways of the United States
Unit 11. Transportation and Communication
Unit 12. Distribution of Population and Urban Centers
Unit 13. Possessions of the United States
Unit 14. United States and World Trade
Unit 15. United States and Canada
Unit 16. United States and Mexico
Unit 17. The United States as a World Power
Unit 18. Major Geographical Problems of the United States

The third year of this sequence consists of four parts divided into 30 units. Part I, Geography of the Home State, and Part II, Conservation, could be studied during the first semester while Part III, Political Geography, and Part IV, Regional Study of Nations, could be given the second. The regional study will permit a choice of five or

six units from an indefinite list of nations, depending upon the time available at the close of the semester and the interests of the class. Suggested units for the third year of the program are as follows:

Part I. Geography of the Home State
- Unit 1. Physical Geography of the State
- Unit 2. Industrial Geography of the State
- Unit 3. Commercial Geography of the State
- Unit 4. Social Geography of the State

Part II. Conservation
- Unit 1. The Development of Conservation in the United States
- Unit 2. Soil Conservation
- Unit 3. Forest Conservation
- Unit 4. Water and Grassland Conservation
- Unit 5. Conservation of Minerals
- Unit 6. Conservation of Wild Life
- Unit 7. Conservation of Recreational Resources
- Unit 8. Local Planning and Conservation
- Unit 9. National Planning and Conservation

Part III. Political Geography
- Unit 1. The Growth and Decline of National States
- Unit 2. Location and the Strength and Weakness of Nations
- Unit 3. Size and Shape and the Strength and Weakness of Nations
- Unit 4. The Significance of Boundaries
- Unit 5. The Significance of Topography and Water Areas
- Unit 6. The Significance of Resources and Manufacturing

Part IV. Regional Study of Nations
- Unit 1. Canada
- Unit 2. Mexico
- Unit 3. Brazil
- Unit 4. Great Britain
- Unit 5. France
- Unit 6. Germany
- Unit 7. The Soviet Union
- Unit 8. China
- Unit 9. Japan
- Unit 10. India
- Unit 11. Australia

High Schools Offering Four Years of Geography

The ideal geography program in any high school would be the offering of geography in each of the four years as is done in most European and Asiatic schools. There are many advantages. It permits enough time for the development of major geographic concepts, which are so important for the high school age citizen. A four year program makes possible a more workable co-ordination of geography and other high school subjects. Also, it gives those students who are interested a chance to pursue their interests during each of the four years in high school. Finally, it would develop skills in students that would be of practical use in their occupational pursuits, college work, and their life as a citizen.

When four years of high school geography are included in the curriculum, such as the program in New Kensington, Pennsylvania, there are many variations that would be profitable and workable. The following suggested program organization is an example of what could be done. It is believed that this program can help bring about the achievement of many of the values that should be inherent in high school geography.

Probably the biggest difficulty that would be encountered by any school trying to set up a four year geography program as a part of their curriculum would be the

selection of textbooks. There is no series of books available that would permit the use of one text for each year's course. The content of the courses, however, is covered to some extent in various texts. Under present conditions the school would have to purchase a complete set of six or seven different texts and make them available in each class as the need might arise. The use of many texts plus suitable supplementary material could make for a better course under a well trained teacher.

The ideal four year program begins with a full year of world geography, emphasizing the interrelationship between the physical and the cultural environment. It is global in its approach, national boundaries being mentioned only incidentally. During the second year Geography of the United States is stressed. Following a regional study of the country the geographical factors affecting American history are discussed. The last part of the course is devoted to a political geography study with special emphasis on the role of the United States in world affairs. Economic Geography is the title of the third year course. The course begins with a general world outlook and then breaks down into national and regional areas, the United States being studied only as the need arises. State and local geography is the principal theme emphasized during the fourth year of the program. This course includes a study of the geography of the home state, followed by a study of local and state

conservation needs. The year's work will be concluded by a study of city and regional planning. Extreme care must be taken in this fourth year not to repeat material covered in previous courses but to use the material as a basis for the study. Careful organization will be of prime importance.

The first year of study is divided into two parts. Part I, the physical section, should be offered during the first semester and Part II, the cultural section, during the second. Each part is divided into twelve units, and each unit would probably require seven or eight assignments to complete. Suggested units for the course are as follows:

Part I. The Physical Environment
- Unit 1. Movements of the Earth, Latitude, Longitude, and Time
- Unit 2. Maps, Map Projections, and Map Interpretation
- Unit 3. Conditions that Affect Weather and Climate
- Unit 4. Low Latitude Climates
- Unit 5. Middle Latitude Climates
- Unit 6. High Latitude Climates
- Unit 7. Land Surface Features of the Earth
- Unit 8. Water Surface Features of the Earth
- Unit 9. Soils
- Unit 10. Resources Beneath the Earth's Surface
- Unit 11. Vegetative Cover on the Earth's Surface
- Unit 12. Animal Life on the Earth

Part II. The Cultural Environment
- Unit 1. The World and Its Peoples
- Unit 2. Areas of Sparce Population
- Unit 3. Areas of Dense Population
- Unit 4. Growth and Development of Cities
- Unit 5. Geography and the Rural Community
- Unit 6. The Geography of Manufacturing
- Unit 7. The Geography of Agriculture
- Unit 8. Geography and Labor
- Unit 9. Geography and the Consumer
- Unit 10. Geography and Health and Education
- Unit 11. Geography and the Standard of Living
- Unit 12. Geography and the Air Age

The second year of the four year course of study is separated into three parts. Part I, Regional Geography of the United States, has 12 units and should be given during the first semester. Part II, Historical Geography of the United States, is divided into seven units and will probably take about eight weeks to complete. Part III, The Role of the United States in World Affairs, is divided into ten units and takes the remaining ten weeks of the second semester. The following units are suggested for this course.

Part I. Regional Geography of the United States
- Unit 1. Physiographic Regions of the United States
- Unit 2. Climatic Regions of the United States
- Unit 3. Soil and Vegetative Zones of the United States
- Unit 4. The New England States
- Unit 5. The Middle Atlantic States
- Unit 6. The Southeastern States
- Unit 7. The Great Lakes Region
- Unit 8. The Great Plains
- Unit 9. The South-West
- Unit 10. The Rocky Mountain Region
- Unit 11. The Pacific States
- Unit 12. The Possessions of the United States

Part II. Historical Geography of the United States
- Unit 1. European Geographical Conditions Which Caused the Migration of Peoples to America
- Unit 2. Geographical Factors Affecting the Voyages of Discovery and Explorations
- Unit 3. Geographical Factors Affecting the Founding of the English Colonies
- Unit 4. Geographical Factors Affecting the Movement of Peoples Across the Appalachian Highlands
- Unit 5. Geography and the Settlement of the West and South-West
- Unit 6. Geography, Slavery and the Tariff
- Unit 7. Geography and the Industrial Expansion of the United States

Part III. The Role of the United States in World Affairs
- Unit 1. Geography and the Boundaries of the United States

Unit 2. Geography and the Territorial Growth of the United States
Unit 3. Geographical Strength and Weakness of the United States
Unit 4. Geography and the Defense of the United States
Unit 5. Geographical Factors Affecting the Military Alliances of the United States
Unit 6. The United States and the Soviet Union
Unit 7. Geography, Neutrality, and Isolationism
Unit 8. The Oceans in World Affairs
Unit 9. The Polar Areas in World Affairs
Unit 10. Geography and World Peace

The work of the third year is divided into three parts. Part I, World Economic Geography, should be given during the first semester with Parts II and III, Hemisphere Studies, offered during the second semester. Part I is divided into nine units and Parts II and III are composed of a total of 18 units. The following units are suggested for this third year of study.

Part I. World Economic Geography
- Unit 1. World Trade
- Unit 2. World Food Sources
- Unit 3. World Fiber Sources
- Unit 4. World Mineral Resources
- Unit 5. World Forest Products
- Unit 6. World Fisheries
- Unit 7. World Manufacturing
- Unit 8. World Power Resources
- Unit 9. Transportation and Communication

Part II. Western Hemisphere
- Unit 1. Canada
- Unit 2. Mexico
- Unit 3. The Caribbean Region and Central America
- Unit 4. Brazil and the Guianas
- Unit 5. Argentina and Chile
- Unit 6. Uruguay, Paraguay, and Bolivia
- Unit 7. Venezuela, Columbia, Ecuador, and Peru

Part III. Eastern Hemisphere
- Unit 1. The Mediterranean Region

Unit 2. Great Britain and France
Unit 3. The Low Countries, Germany, and the Scandanavian Countries
Unit 4. Central Europe and the Balkans
Unit 5. The Soviet Union
Unit 6. China and Japan
Unit 7. India and Southeast Asia
Unit 8. The Middle East
Unit 9. Tropical Africa and the Union of South Africa
Unit 10. Australia and New Zealand
Unit 11. The Islands of the Pacific and the Polar Regions

The fourth year of geographical study is divided into three parts and 30 units. Part I, Geography of the Home State, has 12 units and will be studied during the first semester. Part II, Conservation of Natural Resources, is divided into eleven units while Part III, City and Regional Planning, has seven units. Parts II and III will be studied during the second semester. During this year of study a great amount of field work can and should be used. Using detailed field work requires students mature enough to be able to carry on the necessary activities. This fact, then, was a prime factor in placing the study of local geography last in the four year sequence of courses. Among the numerous field studies that can be made are visits to soil conservation projects, wildlife refuge areas, parks, both state and national, and industries; the mapping of business, residential, industrial, and rural areas; the collection of and the preparation of exhibits of local agricultural, mineral, and industrial products; building of displays of

local topographic features, historical points of interest, and special industries of note; and planning the solution of local problems such as slum clearance, zoning, new suburban areas, and new industries. The following units are suggested for this course.

Part I. Geography of the Home State
- Unit 1. Physiography
- Unit 2. Climate and Weather
- Unit 3. Soil Resources
- Unit 4. Agricultural Resources
- Unit 5. Forests and Grassland Resources
- Unit 6. Mineral Resources
- Unit 7. Power Resources
- Unit 8. Manufacturing
- Unit 9. Transportation and Communication
- Unit 10. State Distribution of Population, Educational Facilities, Racial Groups, Religious Groups, and Language Groups
- Unit 11. Urban Centers
- Unit 12. Wildlife Resources and Recreational Areas of the State

Part II. Conservation of Natural Resources
- Unit 1. The Need for Conservation, Both National and State
- Unit 2. The Development of Conservation in the United States and in the State
- Unit 3. Definition and Classification of the Nature of Resources
- Unit 4. The Conservation of Soil Resources
- Unit 5. Water Resources Conservation
- Unit 6. The Conservation of Forest and Grassland
- Unit 7. The Conservation of Wildlife
- Unit 8. Mineral Resource Conservation
- Unit 9. Recreational Resources
- Unit 10. Conservation of Historical Sites and Points of Interest
- Unit 11. Human Conservation

Part III. City and Regional Planning
- Unit 1. The City; the Suburb, the Metropolitan District, and the Trading Territory
- Unit 2. Zoning, Slum Clearance, and Growth
- Unit 3. Transportation and the City
- Unit 4. Mapping the Urban Community

Unit 5. Overall Planning and the Future
Unit 6. The City and New Industries
Unit 7. The Rural Community

High Schools in Which Geography Is Part of the Core Curriculum

Many high schools of this country now claim they are teaching geography in a social studies core curriculum course. But are they doing so? There is much evidence to show that geography, like many other social studies, is sadly neglected in most of the situations where instruction is limited to such an integrated course.

> Nowhere among the social studies subjects can a better case be made against the core curriculum, as it is now constituted, than in the field of geographic education. A truly astonishing amount of evidence has been compiled which shows that geographic understandings are not being developed in integrated courses at the high school level. Courses of study indicate it; classroom visitations prove it. Yet the world scene, the study of life situations, the problems which are studied in core curriculums, cannot be analyzed, cannot be understood without both geographic information and geographic understanding.[7]

It is also believed that the core curriculum needs geography. Instead it is the least functional of the social studies core curriculum subjects at the secondary level. Tuthill adds these comments:

> But the study of geography must be included; it is essential. Geographic understanding must be made

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[7] Richard L. Tuthill, "The Treatment of Geographic Understandings in Core Curriculums," Geographic Approaches to Social Education, ed. by Clyde F. Kohn (Menasha, Wisconsin: George Banta Publishing Co., 1948), p. 274.

> functional. The study of geography is basic to understanding the world scene, to the social studies point of view. The basic nature of geography cannot be argued. Its contributions to understanding need not be defended. What is needed is a dynamic treatment by geographers and the appreciation by others within the social studies field. Geography's contribution must no longer be unappreciated or depreciated.[8]

Actually the social studies core curriculum course should be built around geographic concepts. The core is built around major problems which present themselves in the current world affairs. If this is the situation, then, how can the environmental setting be left out of a world problem? Most emphatically it cannot be left out if the real answer is to be found. Geographical facts and concepts must be presented. Thus, this means more than merely presenting a few geographical implications and following them with lengthy discourses on economic, political, social, and historical developments. Geographical understanding can come only when geographical knowledge is there and a practical application of geographical principles is taught.

If geography is to be included, how can it be done? Tuthill believes that the following points must be taken into consideration when problems are being presented in a social studies integrated course. (1) The habitats of men cannot be disassociated from their problems. (2) The arrangement of things on the face of the earth and their areal associations are of great significance in current

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[8] Ibid., p. 275.

problems. (3) Almost invariably the local and regional combinations of man, man-made features, and natural phenomena form a basic foundation for problem analyses. (4) All of man's interrelationships are concerned directly or indirectly with these areal associations. (5) When analyzed from the distributional point of view, basic similarities rather than differences characterize the world's peoples. Similar climates, soils, terrain features, and natural resources are conducive to similar activities. (6) Cultural differences are being erased as new technologies appear. (7) No country is pre-eminently superior in its production of technological resources.[9] If the teacher of the core curriculum would recognize the above facts, and include them in the presentation or study of the world problems, which are included in social studies integrated courses, the core curriculum approach would have a chance to be more successful.

The following examples of core curriculum units show that geographic concepts and information can be successfully included in integrated courses. Also a better understanding of problems studied in the core will come as a result.

In the ninth grade geography can be a part of the social studies core program which calls for the study of state history and civics. In studying the discovery, exploration, and settlement of the state, a study of the

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[9] Ibid., p. 276.

state's physiographic regions and climate needs to be included in order that there be clear understanding of the factors involved in the making of the history of the state.

In the tenth grade the study of world history and world geography could be developed together in the core program. In studying the Egyptian, Greek, and Roman civilizations a complete regional study of the Mediterranean area would make the study more meaningful.

American History and United States Geography could be combined in the core program of the eleventh grade. In studying the colonial period of American History there should also be a study of land forms, climate, river patterns, soil and forest resources of the Atlantic coastal states. This would certainly add to an understanding of the peoples and their problems of that period.

In the twelfth grade the study of social, political, and economic problems combined with social, economic, and political geography, would make a very interesting and useful core program. For example, a unit on new industries would bring in not only governmental aspects such as taxes, regulatory laws, and protective laws, but also such social problems as housing, labor supply, and education. There would also need to be a study of power resources, transportation and communication facilities, market possibilities, raw material sources, and by-products. Geography should play a major role in this type of unit.

CHAPTER VII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study has been largely an investigation into the values of high school geography and how they can be attained. An attempt has been made to establish (1) a need for geography as it would apply to the American people, (2) a need for high school geography as part of the overall program for educating geographically the American people, (3) the general social values of geography especially as they might be attained in the high school, (4) the values of high school geography to the individual who studies the subject, (5) ways in which the general and individual values of high school geography can be attained, and (6) types of geography programs that would include the general and individual values of geography regardless of the number of courses of geography that could be offered in any particular school.

Evidence of many types and in many forms was used to point up the problem. Statements by recognized authorities pointed out the geographical connections with events in the daily life of almost every citizen of the United States.

Surveys were presented to show the extent to which geographical knowledge is or is not present among the people of this nation. Quotations from geographical and educational publications were used to emphasize the part the high school can play in the presentation of geographical information. Statistics were presented to confirm the status of geography in the high schools of the various states. These statistics were compared with those of previous surveys made during the past 25 years, to indicate the trend since 1930. The weaknesses of present-day high school geography programs, as seen by educators and/or geographers, was also presented. Statements by geographers, as published in various journals, were quoted to show the many general social values of geography when offered at the high school level. Information in the form of quotations from letters received from college and university professors in the various fields of learning, as well as letters from leaders in business and industry, were used to illustrate that there are many values for the individual who studies geography at the high school level. Also, suggestions were presented which included opinions expressed by college and university officials and teachers as to how to initiate these general and individual values of geography into a high school geography program. Suggested geography programs were also presented.

Summary

The material presented in Chapter I revealed the lack of geographical knowledge among the American people. In support of this statement the following incidents were cited. (1) During World War II it was found that numerous individuals who needed to make use of geographic information and concepts did not have the background to do so. (2) Special geography classes had to be organized in many colleges and universities to supply this background in geography. (3) Many colleges and universities were unprepared to teach the enlarged geography programs due to the lack of an adequately trained geography staff. (4) College and university students have little knowledge about the geography of the world. (5) Such elementary geographical facts as map reading and the location of the states of the United States were beyond many college freshmen. (6) Many college and university teachers state that the knowledge of any geographical facts cannot be taken for granted in their classroom instruction.

Investigation as to the part which the high school can play in the geographic advancement of the American people is based upon the following points.

1. The purpose of high school geography should be co-ordinated with the overall purpose of geography; that is to discover what adjustments man has made to his environment,

taking into account the various resources and conditions over the entire earth.

2. High school geography should not be a repetition of geography taught in the elementary school.

3. High school geography should lay a strong foundation for courses of geography taught in the universities and colleges. It should also contribute to other college and university courses.

4. High school geography should contribute toward the general education of any citizen.

5. High school geography should develop skills in the use of geographic tools, such as maps, graphs, charts, tables, and statistics.

6. Students of high school geography should become fact users, able to analyze, and reach their own conclusions.

7. High schools should give their students a start in thinking geographically, that is, teach them to think on a global basis.

The survey of the past 25 years of high school geography, as brought forth in Chapter II, reveals a great many differences and some similarities between the geography taught in 1930 and that of today. Some of the weaknesses found in the present day high school geography courses were also pointed out. Some of the outstanding differences, similarities, and weaknesses noted are:

1. In 1930 high school geography usually consisted of a one-semester course in physical geography followed by a one-semester course in commercial and/or industrial geography. Today, a full year of world geography with emphasis on human relationships and the environment is the most widely used.

2. High school geography, both in 1930 and at the present time, shows no uniformity from school to school nor any continuity from grade to grade.

3. One of the greatest weaknesses in the content of present day courses is that they are often not related to the environment of the student or to his other subjects.

4. Both 1930 teachers and present day teachers tried many different methods with varying results.

5. One of the most important differences in method between 1930 and today is in the field of testing. Tests which reveal geographic concepts and relationships are more commonly used today than 25 years ago. Also, the memorization of facts is not stressed as much now as formerly.

6. The project method, problem method, and similar ways of teaching are used more frequently today than in 1930.

7. Field trips, community resources, resource speakers, and visual aid materials are used to greater advantage in present day geography classes than in 1930. Also,

the use of current events, made popular in World War II, is more common now than formerly.

8. The use of workbooks was much more common in 1930 than in the present day geography classrooms.

9. There has been a decided change in mapwork during the past 25 years. In 1930 the emphasis was on drawing the map "free hand." Today, the interpretation of maps and learning from map making are more important. Outline maps are furnished and the emphasis is placed on the accuracy involved in the location of data rather than the expertness of cartography.

10. As in 1930, the present day teacher still depends too much on a single textbook.

11. The certification of high school geography teachers at present is, in some ways, quite similar to those of 1930. There are still great differences among states as to the requirements necessary to qualify for the teaching of the subject. Also there are still states that permit a teacher to teach geography in the high school although he has had no geography courses in his college work.

12. There are today, as there were in 1930, numerous groups which constantly propose more uniformity in the certification and training of teachers of high school geography.

13. In many states present day certification

regulations are more specific in demanding that a certain number of hours of college geography be required before the subject can be taught.

14. At present more states issue social studies certificates and fewer states issue certificates in the individual social studies subjects than did in 1930.

15. In those states which issue social studies certificates, and no certificates in individual subjects, history dominates the requirements. The amount of geography required, as well as work in the other social studies, varies greatly from state to state.

16. One of the greatest handicaps to the enlargement of the present day geography offerings lies in the fact that there are not enough qualified geography teachers available to increase the offering of geography at the high school level.

17. Textbooks of 1930 were much more uniform in content material than high school geography texts of today. However, texts of both periods include a wide range of subjects.

18. Present day textbooks devote much more space to the world outside of the United States than did the texts of 1930.

19. The presentation of content material, teaching aids, and reference lists, as well as charts, tables, and

graphs is noticeably similar in the texts of 1930 to those of today.

20. One of the most important weaknesses found in present day high school geography texts is that much of the material they present is out-of-date for too long a period prior to a revision of the text. Especially is this true of economic, commercial, industrial, and political geography texts.

21. The amount of geography taught in the various states fluctuated between 1930 and the present. From 1930 to 1940 the trend was a gradual decrease; then with the interest created by World War II, there was a large increase each year until about 1947, then a decline again until about 1952. Insufficient statistics are available to indicate the trend since.

22. Today there is a remarkable difference in the importance placed on geography by the various states. This range, in the school year 1951-52, was spread from one state with all of its schools teaching geography to another state which reported only 1.4 per cent of its schools teaching the subject.

23. There are a great number of high schools in the United States which offer no geography at all to their students.

Chapter III discussed the many values geography can

contribute to society in general. The following are especially noteworthy.

1. The goal of world peace can be more easily understood through geographic education. Geography can do this through its efforts to teach world understanding. Such world programs as trade, food supply, health conditions, relationships between large and small nations, and relationships between great and weak nations, are just a few of the understandings that are presented to the students.

2. Geography helps in aiding people to become better citizens, whether at the local, state, or national level. This can be done through the help geography can offer to an understanding of such problems as local community planning, statewide conservation programs, and the foreign policy of the country.

3. An understanding of what differences in the physical environment can mean to different places is better attained through a study of geography. This is done through the study of the effects of such things as climate, soil, and topography on man, and the way man adjusts to these conditions.

4. Geography can be useful in helping understand, and therefore helping solve, many human problems. This can be done through the development of the student's understanding of the interrelationship between men and their environment.

5. Geography is useful in teaching how man obtains the necessities and luxuries of life. This is done through a study of the complex economic aspects of world regions.

6. Geography is of special value in presenting the true meaning of conservation. A systematic study of world resources, which includes uses of these resources as well as the wastefulness of man, will greatly modify the outlook of each student toward supply and demand.

7. It is through geography that the meaning of relative location can be made clear. The idea of relative location is made significant by showing that the locational factors have meaning only in relationships within a series of patterns.

8. Geography is the subject which pictures man in his habitat. This subject probably more than any other branch of learning, emphasizes man in his physical setting. Without this picture man cannot be completely understood.

9. Geography can help bridge the gap between the physical and cultural aspects of society. This is true because of the dual nature of the subject.

10. High school geography can serve as a foundation course for a possible career as a professional geographer, as well as an aid to progress in a variety of professions.

Chapter IV pointed out the many ways in which high school geography can be helpful to the individual. The

ideas were presented under three headings--preparation for college, vocational preparation, and cultural education.

As a college preparatory subject high school geography benefits the student in two general ways. First, there is the function of geography as a basic or fundamental subject needed by anyone going to college. Second, there is the background value that geography can offer to certain subject areas. These specific areas include not only the physical and social sciences but also seemingly far removed subjects such as journalism, art, music, and religion.

Many factors indicate that a course in high school geography will be of help in preparing for a vocation. These values can be classified in two different ways: the value of geography to the employee of an industrial, business, or governmental organization, and the value of geography to the owner of a business or industrial plant, especially if he is engaged in certain occupations such as transportation, communication, and marketing operations. Evidence was presented, however, to show that almost any business can profit from an understanding of geography.

In the way of cultural educational values geography has much to offer. These values range from the simple enjoyment of reading and travel, making adjustments to new surroundings, and the solving of everyday problems to the understanding of current news and the securing of a world-

wide perspective of international issues.

Chapter V presented suggestions as to the ways in which the values of geography can be attained in the high school. The suggestions were centered around the topics of aims and objectives, content, organization, methods, tools of instruction, schoolroom facilities, and teachers' training and certification.

The aims and objectives of high school geography should be co-ordinated with the aims and objectives of the social studies. Geography should also have specific aims of its own. These should include an understanding of (1) how the environment affects people, (2) how regions differ in both their cultural and natural surroundings, (3) the political pattern of the world, (4) an appreciation of actual and relative location, (5) the causes of the world's problems, and (6) how to read and use maps.

Statistics were presented to show that the content of high school geography should be more carefully selected. Most of those who have recently written on the subject believe that (1) world geography is the needed course for high school study, (2) the human approach should be used in presenting the material, and (3) the content should be written so as to encourage the student to develop his ability to think geographically.

Few writers have given attention to the organization of high school geography programs. Among the suggestions

for improving the organization of the course are the following ideas. (1) Either a topical or regional approach can be effective if used by a skillful teacher. (2) A required course in world geography should be offered in either the ninth or tenth grade followed by an elective geography course in either the eleventh or twelfth grade. A three or four year sequence of geography courses in the high school would be even better. (3) Special courses in high school geography are preferable to an integration of geography with history or any other subject.

Methods used by the teachers were found to be extremely important to the success of the class. The points of special significance were that (1) both the physical and social science methods can be used successfully in the teaching of geography, (2) these methods, however, must be adapted to fit the special needs of geography, (3) the teacher's ability to use methods is the key to the success of any method, (4) currently the problem, project, and unit methods are receiving the most favorable recommendations, and (5) other methods such as the type study, outline method, and contract method are presently losing ground, although all can be used successfully if properly understood.

The selection and use of geographic tools in high school geography were found to be of fundamental importance. It was emphasized that: (1) the basic tools needed to teach any high school geography course are textbooks, globes, maps,

atlases, and pictures, (2) most schools have many geographic materials being used either improperly or not at all, (3) the resources of the local community can be used more effectively, and (4) Textbooks are the most important of all geographic tools and great care should be taken in their selection.

Carefully setting up the facilities for the teaching of high school geography was considered to be necessary to get the best results. The following points were mentioned. A separate geography room was needed. A beginning can be made with only a globe, a physical-political world map, and up-to-date atlases. The room should be equipped to show slides and motion pictures, and space provided for display of specimens, maps, photographs, clippings, and pamphlets. Instruments for weather study should be obtained such as a rain gauge, barometer, and thermometer. Special materials such as weather, topographic, and outline maps, and cartographic tools would be of considerable value in enriching the high school geography program.

Opinions were presented to suggest that the training, certification, and selection of geography teachers are the most important phases of getting more and better geography taught in the high school. It was suggested that: all high school teachers have some work in college geography, all geography teachers as well as teachers of all social studies have at least 12 hours of the subject in their college

training, specific training be given in map understanding and use to all geography teachers, and geography teachers be given specific training in related social studies fields such as economics, sociology, history, anthropology, geology, meteorology, and botany.

Chapter VI presented some suggested geography programs of varying lengths. It is suggested for schools offering only one year of geography that the course include a study of world patterns and regions of the world. Schools offering two years of high school geography should include world physical and economic geography, a world regional study of nations, and a regional study of the United States. Schools that offer three years of geography should teach such courses as world human geography, economic geography of the United States, political geography, regional geography, conservation, and geography of the home state. Those schools offering four years of geography could offer world human geography, world economic geography, regional geography of the United States, historical geography of the United States, geography of the home state, conservation, and regional planning. It was also suggested that if the social studies core curriculum is used, geography should be an integral part of all units of study.

Conclusion

One of the chief aims of any nation is to raise the

level of education to a higher standard. Particularly is this true in a democracy. Education in a democracy is indispensable to the growth and maintenance of independent thought on which democratic principles are based. The social role of education in a democracy should enable its citizens to understand, appreciate, and take part in its activities. Certainly, everyone wants the United States democratic educational system to be effective in presenting these social values to the young people of high school age.

It is believed that geography has a definite place in this social role of democratic education. It is believed that geography has a definite place in the high school curriculum. However, many improvements are needed in high school geography to make it the vital subject it should be in our social educational program. More high schools should offer geography to their students. High School geography teachers should be more uniformly certified to qualify them to teach the subject. The actual content of high school geography courses should be more fully analyzed to find out just what values are being attained. Then the content should be reanalyzed continually to meet the changing needs of society. It is believed that geography is especially valuable in its ability to adapt to the changing needs of education. High school geography programs should be more carefully organized to see that the program fits the needs of the students, the entire school curriculum, and the

needs of the community.

Recommendations for Further Research

In preparation of this paper the writer found many instances where more research was badly needed. Many lines of approach were cut off because of the lack of more information in that particular field. Some of the most badly needed areas of research in high school geography are listed.

1. Studies are needed to determine why more high schools are not offering geography. Most persons contacted agreed that geography was valuable and even necessary; yet, the statistics show a very low percentage of American high school students have an opportunity to study the subject.

2. New studies need to be conducted in every state on the status of geography in the high schools. There is at present very little recent data available. Most of the surveys available at the present time are out of date and in some cases there is no information at all.

3. Surveys need to be made to determine the readiness of students for the different types of geography.

4. Further research needs to be done in the area of certification and training. This effort should be directed towards more uniformity as well as toward better qualification requirements for teachers of high school geography.

5. Further research is needed in the use of the tremendous amount of geographic aids now available to high

school teachers. This might reduce the dependence now placed on textbooks by teachers.

6. An analysis of present day textbooks needs to be made. This could determine just what values are being stressed and just what values are being neglected in the substance of these books. It should help future writers greatly.

7. Further research needs to be done in the field of geography testing techniques. Techniques in all social and physical sciences need to be studied as well as studies directed towards the ways in which these testing techniques could be adapted to geography.

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APPENDIX

University of Oklahoma
Department of Geography
Norman, Oklahoma
July 14, 1955

Mr. Mark Goodman
Bureau of Instruction
Department of Education
Frankfort, Kentucky

Dear Mr. Goodman:

We are in the process of making a study of high school geography in the United States. It will be greatly appreciated if you can furnish us information about any or all of the following:

1. The requirements for the certification of geography teachers (or social science teachers) as they are today and as they were in or about 1930.

2. The number of high schools in the state that are at present offering a course in geography. If you have this information for 1930, or some year about 1930, it will be helpful.

3. Is high school geography a one-semester or a two-semester course? What kind of geography is it (physical, economic, or world)? Was it the same in 1930?

Thank you very much for your help.

Sincerely,

John W. Morris
Professor of Geography

University of Oklahoma
Department of Geography
Norman, Oklahoma
August 1, 1955

Mr. Warren L. Felton
Personnel Director
Phillips Petroleum Company
Bartlesville, Oklahoma

Dear Mr. Felton:

A study is now being made of the type and kind of geography that should be offered in the high schools of the nation. Several men in business, industry, and agriculture have written us expressing their ideas. It would be greatly appreciated if you would give us the benefit of your opinions along this line. Also we would be glad to learn of the values of geography, if any, to your specific industry.

Sincerely,

John W. Morris
Professor of Geography

University of Oklahoma
Department of Geography
Norman, Oklahoma
September 26, 1955

Dr. James H. Stauss
Professor of Economics
Grinnell College
Grinnell, Iowa

Dear Dr. Stauss:

There is now in progress a study dealing with the values of high school geography. Among other things we are trying to determine how a course in world geography, studied in the tenth, eleventh, or twelfth grades, would benefit a person just entering college. It would be greatly appreciated if you would give us your opinion as to whether or not you think the course would be of specific value, and if so how, to the student in his study of economics.

Thank you very much for your help.

Sincerely,

John W. Morris
Professor of Geography

University of Oklahoma
Department of Geography
Norman, Oklahoma
September 15, 1955

Dr. E. Willard Miller
Department of Geography
The Pennsylvania State University
University Park, Pennsylvania

Dear Dr. Miller:

We are in the process of making a study of the values of high school geography in the United States. It will be greatly appreciated if you will take time to answer the following questions for us.

1. Do you think the offering should be a one-semester course in physical geography and/or economic geography?

2. What do you think the general aims and objectives of such a course should be?

3. In what ways do you think such a course would help the student in:

    A. College work?
    B. Cultural activities?
    C. Business advancement?

Thank you for your help in this matter.

Sincerely,

John W. Morris
Professor of Geography