

The limestone in which the fossils occur has been brought to the surface by a pronounced structural uplift, and reveals the following succession of rocks:

*Section in Peregrina Canyon*  
(By Parker A. Robertson)

	Approximate thickness
	<i>Feet</i>
Cretaceous:	
Medium to heavy bedded limestone.....	2000
Unconformity (?).	
Cretaceous or Jurassic:	
Medium bedded light gray limestone above, heavy bedded dark gray limestone below.....	300
Basal conglomerate containing fragments of the underlying red sandstone and quartz pebbles .....	50
Great unconformity.	
Triassic or Permian:	
Fine-grained rather soft red sandstone.....	200
Medium bedded red shale, arenaceous in parts .....	485
Basal conglomerate with fragments of under- lying sandstone and quartz pebbles.....	15
Unconformity.	
Lower Mississippian:	
Medium to heavy bedded dense quartzitic, calcareous sandstone.....	350
Hard dark shale, containing fossils of lower <i>Mississippian age</i> .....	50
Medium bedded dark gray to black carbo- naceous shale interbedded with thin beds of sandstone.....	750
Unconformity.	
Probably pre-Cambrian:	
Schist, probably metamorphosed sediments.....	1000
Unconformity (?).	
Heavy bedded rather fine-grained light col- ored gneiss .....	1500

GEORGE H. Girty

GEOLOGICAL SURVEY,  
WASHINGTON, D. C.

## THE ASSOCIATION OF AMERICAN GEOGRAPHERS

THE Association of American Geographers held its twenty-second annual meeting at the University of Wisconsin, December 30, 31 and January 1, under the presidency of Professor R. H. Whitbeck. The meeting included six half-day sessions, an evening round table and the annual presidential dinner. Special half-day sessions were devoted, respectively, to "The Caribbean Region," "Field Geography" and "Urban Geography." The papers presented were, on the whole, of high quality. Most of them, in their careful attention to areal and quantitative detail, indicate gratifying progress in method and technique

of geographical investigation. The introduced papers clearly demonstrate that scholarly work is being done by the younger group of geographers. The plan adopted of scheduling time for discussion after each paper resulted in vigorous and illuminating discussion, and yet allowed the entire program to go forward on schedule. All the regular sessions were held in Science Hall, and the association is greatly indebted to the Department of Geology and Geography and to the officials of the university for their fine hospitality. For luncheons and the annual dinner the association enjoyed the facilities of the University Club. The feature of the dinner was a scholarly address by President R. H. Whitbeck on the subject of "Adjustments to Environment in South America: an Interplay of Influences."

As an inventory of American geography, this program demonstrated that geographic research of high order is under way at a number of institutions where separate departments have been established recently, or where the subject relatively recently has been introduced under the auspices of some other department. Thus, from the geography department at the University of Michigan, K. C. McMurtry gave the results of "A Study in the Use of Soil Types in Geographic Mapping," and Preston E. James read "A Geographical Reconnaissance of Trinidad." From the new department at the University of Minnesota D. H. Davis outlined the "Objectives in a Geographic Field Study of a Community," and Richard Hartshorne presented the "Factors in the Localization of the Iron and Steel Industry." C. C. Huntington, of the department of geography at Ohio State University, discussed "The Main Divisions in the Classification of Geography." From the geographic wing of the department of geology at the University of Illinois, W. O. Blanchard presented "The Landes—a Problem in Conservation," and John B. Appleton summarized the findings of a monograph on "The Calumet Steel District." Lewis F. Thomas, of the department of geology and geography at Washington University, discussed "The Localization of the Wholesale and Jobbing Industries in Metropolitan St. Louis," and Mary J. Lanier, of Wellesley College, in a paper on "The Early Development of Boston as a Commercial Center," presented a notable contribution in the field of historical geography.

That rapid progress is being made in the technique of geographic mapping and in the use of quantitative data in the solution of geographic problems was disclosed by the special session on field geography. Under the title previously mentioned D. H. Davis stated the objectives of a survey for an agricultural community and emphasized the importance of such objectives in orienting the study. Derwent S. Whitteley, of the University of Chicago, discussed the re-

sults of "An Experiment in mapping a Small Section of the Door Peninsula, Wisconsin, for Use in Geographic Study." K. C. McMurry reported the progress being made in his experiments at the University of Michigan, looking towards the determination of the place occupied by soil in the environmental complex, and also showed how the more recent work of the United States Bureau of Soils and allied bureaus may be adapted to geographic use.

A highly successful special session on urban geography betrays a rising tide of geographic interest in urban problems. V. C. Finch, of the University of Wisconsin, set the pace for this session in an illuminating study of "Culture and Landscape at Madison, Wisconsin." This presentation of an important aspect of the geography of the place of meeting established a precedent which may be followed with profit at future meetings. Three papers dealt with the geographical aspects of the iron and steel industries. Richard Hartshorne challenged the adage "Iron moves to coal," and showed that this generalization may or may not be true according to the alignment of the other factors involved. The geographic relationships of significance in the development of iron and steel industries were illustrated for a relatively new area by John B. Appleton in his study of the "Calumet Steel District" and for one of the oldest districts by John W. Frey, of the University of Wisconsin, in a paper entitled "The Iron and Steel Industry of the Middlesboro District, England." Frank E. Williams, of the University of Pennsylvania, reported significant progress in a distinctly original study of the "Philadelphia Suburban Industrial Development." He has mapped the distribution of factories in Delaware County at several periods and has traced varying products of typical establishments during the course of the hundred years or more of their existence. The geographic quality of a particular site within a metropolitan district was illustrated in the paper read by Lewis F. Thomas. He showed why the wholesale and jobbing industries in St. Louis have occupied the same site throughout the vicissitudes of transportation in that city. Howard H. Martin, of the University of Cincinnati, reported on the "Geographic Phases of the Cincinnati Resource Survey." This survey is being made by the University of Cincinnati at the request of a group of business men of the city. It is under the immediate direction of Nevin M. Fenneman, who is employing the augmented staff of the department of geology and geography for the purpose.

That existing railway lines in Central America do not cross political boundaries, that there are no connecting lines which might serve as links in the off-proposed Pan-American route, and that the railway pattern is closely related to relief and local resources

was brought out by Robert S. Platt in his study of "Central American Railways and the Pan-American Route." Another significant study of railway transportation was that by Raus M. Hanson on "Geographic Factors in Railroad Revenues of Nebraska." Continued interest among geographers in the problems of land utilization was evidenced in a number of papers. O. E. Baker, of the Bureau of Agricultural Economics, in a notable study of the "Shifts in Land Utilization as shown by the 1925 Agricultural Census" treated in a graphic way one of the more urgent of our national problems. He analyzed the factors which have accelerated the shift of rural population to urban districts in some sections of the country and those retarding it in other sections. He also suggested how such shifts in population reflect the degree of prosperity in the farming communities. W. O. Blanchard, in his study of the Landes previously mentioned, showed how an almost destitute section of France has been rejuvenated by a constructive land utilization program. Wallace W. Atwood reported the continuation of his studies in the San Juan Mountains in a paper entitled "Settlement and Economic Development in the San Juan Region of Colorado."

Noteworthy papers which do not come under the foregoing classifications were "Trade Routes used by American Trade," by Helen M. Strong, of the Bureau of Foreign and Domestic Commerce; and "The History of Geography: a Point of View," by John W. Wright, of the American Geographical Society. At its last session the association was highly honored by an address on "Geographic Sectionalism in American History," by one of its members of long standing, Frederick J. Turner. Professor Turner showed that, in the attitude towards and in the votes upon national problems, the states in many instances have lined up in regional groups rather than as individual units.

The meeting in 1926 will be held at the University of Pennsylvania on December 28, 29 and 30. The officers for 1926 are: *President*, J. Paul Goode, University of Chicago; *vice-president*, George B. Roorbach, Harvard University; *secretary*, Chas. C. Colby, University of Chicago; *treasurer*, V. C. Finch, University of Wisconsin; *editor*, Almon E. Parkins, George Peabody College for Teachers; *councillors*, Wellington D. Jones (University of Chicago), Oliver E. Baker (U. S. Bureau of Agricultural Economics and Clark University), Philip S. Smith (U. S. Geological Survey), Curtis F. Marbut (U. S. Bureau of Soils) and R. H. Whitbeck (University of Wisconsin).

CHAS. C. COLBY,  
*Secretary.*

UNIVERSITY OF CHICAGO