

Turning to the ocean, we follow successively the rise and decline of the whaling industry of the eastern harbors, the development of the menhaden fishery to supply cheap fertilizer, and its final concentration in the hands of a syndicate (cf. the author's "Geographic Influences in the Development of the Menhaden Fishery on the Eastern Coast of the United States," *Geogr. Rev.*, Vol. 10, 1920, pp. 91-100). Oyster fishing in Great South Bay exhibited a similar transition from the day of the bayman in an open rowboat equipped merely with long-handled rakes to the period of oyster planting and the steamer and dredge. As scallop beds will not remain stationary and so cannot be leased and controlled by large companies, scalloping in Peconic Bay is still carried out by individual fishermen.

Before the time of railroad building, turnpikes and coastwise sailing vessels competed for the carrying trade of Long Island. The isolation of the eastern villages around Peconic Bay gave them an excellent opportunity for smuggling and even piracy. They persisted in illicit trade with Boston and in evasion of duties to the despair of the governors of New York. It is worth noting that, later, Long Island for a short time afforded the easiest route between New York and Boston; indeed, the first line of the Long Island Railroad was built to connect with a ferry from Greenport to Stonington whence one might complete the journey to Boston by rail, making the entire trip from New York in "only eleven hours and a half." The great development of Long Island as a summer resort for the people of New York was advanced not only by the railroad but also by the coming of the highway, the bicycle, and the automobile. In the evolution of the island the sea has stimulated the variations, or the appearance of new vocations, and the hinterland has acted as the selective factor, determining which variations should survive.

This essay should be read by all who desire to gain from one significant example some comprehension of the typical trend of American agriculture and coast industries in the northeast. The clear and graceful style of the writer and his vivid descriptions of the farmer, fisherman, and adventurer of the past make his book an attractive and entertaining, as well as profitable, study.

ELEANOR S. BROOKS

A STUDY OF SEA INFLUENCE IN AMERICAN LIFE

S. E. MORISON. **The Maritime History of Massachusetts, 1783-1860.** xviii and 401 pp.; maps, ills., bibliogr., index. Houghton Mifflin Co., Boston and New York, 1921. \$5.00. 9 x 6½ inches.

Far back in the seventeenth century, English men and women, crossing the little-known Atlantic in tiny ships, established themselves along the seaboard of the western continent—the first American frontier. For more than two centuries and a half, the British colonies and then the United States knew a frontier facing the open country that lay to the westward. But all the conditions of the first frontier were never repeated in those that followed. To be sure, it, like all the rest, was bounded on the west by untamed lands; but, on the east, instead of villages and cities and settled farms, lay the ocean. These shore-dwelling first pioneers heard alike the call of the land and the sea. Their early answers to these two influences laid the foundations for both the land life and the sea life of the American people. As time went on and the land frontier pushed westward, the sea frontier was pushed eastward and southward until it encircled the globe; and the qualities demanded of the men in the cabins of the ships were little different from those required in the cabin homes of the forest.

Then there came a time in our history when our people abandoned the sea and we became so engrossed in the building of railroads and factories that the old packets and clipper ships were all but forgotten. But now that we have reared a mighty industrial structure, we are reviving the memories of those bygone days when American ships and sailormen knew every sea lane of the great commercial oceans. Professor Samuel Eliot Morison's "Maritime History of Massachusetts, 1783-1860," is the best of the true stories of the sea that this awakened interest has brought out. It is, by all standards, a good book. Massachusetts, through every phase of whose history, save the last, "blows the east wind," is chosen for the setting. "Nature seemed to doom Massachusetts to insignificance; to support perhaps a line of poor fishing stations and hardscrabble farms, half-starved between the two hungry mouths of Hudson and St. Lawrence. Man and a rugged faith have made her what she is." Then the story is told from the first frontier beginnings to the end.

There is little philosophy in the book; the reader, for the most part, is left to draw his own conclusions. But it is full of suggestive material for the student interested in the influence of the natural environment on the development of men. And here and there are striking interpretations. Perhaps the best of these is the explanation of why the seafaring people of Massachusetts and New England were so bitterly opposed to the War of 1812 as to be seriously discussing secession in 1814. "They that do business in great waters have little in common with their land-plodding countrymen. Their native land is but a resting place between voyages; a wharf and shipyard and cottage by the sea. . . . The Union ceased to be valuable when fresh-water politicians took bread from the mouths of honest seamen." It must be admitted that there is little sympathy for the point of view of the Jeffersonian landlubber. In fact, one puts down the book with the feeling that New England Federalism, with all its fine qualities and all its austerity and aloofness, is not yet quite dead. But the part played by the sea in shaping the Federalist attitude is set forth as never before.

The book makes vivid a phase of American life which was of the greatest significance in our national life and one which seems to have passed almost completely out of our national consciousness. The language as well as the atmosphere of the sailing ship pervades the pages. The whole story is there—the trading ships, the fishing smacks, the whalers, and the episode of the California gold rush—all set off with well-chosen illustrations. There is an extensive and useful bibliography which omits, however, mention of Ralph Paine's "The Old Merchant Marine," a book which as much as this makes the old maritime spirit of New England live again. A German monograph by Hans Keiler, "American Shipping, Its History and Economic Conditions," useful though dull, has also been omitted.

One concluding note sums up much of the influence which the sea has had in shaping American life. "Never, in these United States, has the brain of man conceived or the hand of man fashioned, so perfect a thing as the clipper ship. In her the long-suppressed artistic impulse of a practical, hard-worked race burst into flower. The *Flying Cloud* was our Rheims, the *Sovereign of the Seas* our Parthenon, the *Lightning* our Amiens; but they were monuments carved from snow. For a brief moment of time they flashed their splendor around the world, then disappeared with the sudden completeness of the wild pigeon."

RALPH H. GABRIEL

THE WOOD-FORBES REPORT ON THE PHILIPPINES

Report of the Special Mission of Investigation to the Philippine Islands, House of Representatives Doc. No. 398, 67th Congr., 2nd Sess. (Rept. of the Governor General of the Philippine Islands, January 1 to December 31, 1921), pp. 13-43. Washington, D. C., 1922.

This report, which is better known as the Wood-Forbes Report as published, is a very brief summary of 31 pages only. The bulk of the report—which, as far as the reviewer knows, has not been published—is contained in the voluminous "Exhibits." These contain much information of a confidential nature and are not generally accessible to the public. This survey in its entirety is perhaps the most exhaustive and searching inventory of a country and its people ever made in so short a time by another people.

The personnel of this special Mission included two of the foremost names ever connected with American Insular affairs. The chairman, Major General Leonard Wood, U. S. A., retired, now Governor General, of course needs no introduction since, besides his distinguished army record, he was said by Lord Cromer to be the only person qualified to "carry on" his own great work in Egypt, an estimate he has eminently justified in his last year and a half as a civil administrator in the Philippines. The second member of the Commission, Hon. W. Cameron Forbes, owing to his long service in the Philippines where he earned the sobriquet "The Road Builder," proved a strong collaborator. An especially able staff and a small army of co-workers, both American and Filipino, aided in the arduous work of this most intensive and extensive survey. In spite of the general disagreement with the findings of the report on the part of the leading Filipino statesmen, no one has been able to prove that it was unfair or in error.

In a short note of this kind it is impossible to call attention to more than a few outstanding results, and only those of especial interest to geographers will be noted here.

On page 20 the statement is made on the authority of Professor H. O. Beyer, it is presumed, since he was attached to the Mission and is the leading authority in ethnological matters in the Philippines, "there are eight languages in the islands, each of which is used by not less than 500,000 people, and some seventy-odd more which are used by smaller groups. Some differences between their dialects are slight enough so that people using different ones can make themselves understood, but many are so radically different that they are mutually unintelligible." These facts coupled with the lack of ready facilities for intercommunication are the chief factors tending to work against the solidarity of the people. As the report shows, these difficulties are being rapidly lessened.

The general land situation—and this of course is the foundation for any sound economic structure of a country—was found to be in a serious condition. The abolition of the Court of Land Registration was a serious mistake. Governor Wood is now taking steps to reestablish it.

The teaching of English in the lower grades of the schools is one of the few points on which the reviewer would take issue with the report and with our whole Governmental policy. Unless several thousand American teachers could be employed over there it would seem to be sounder policy to follow the methods of the Dutch in this respect. On this point the reviewer is well aware that he is in the minority and that most Americans would agree with the Mission.

Very pertinent is it that attention is called to the deterioration in the Bureau of Science previous to the incumbency of the present director, Mr. Merrill. The Bureau was formerly the leading tropical research institution in the world and, under the able administration of the late Dr. Paul C. Freer, was in some ways America's greatest single achievement in the Far East. The deterioration noted, it should be said, was not due entirely to lack of Filipino support.

When we come to that part of the report dealing with the economic conditions of the islands we must pause for more than a passing scrutiny, for herein are disclosed some facts which have caused many of the more far-seeing leaders of the people seriously to reflect upon the advisability of immediately cutting adrift from the United States. A few of the salient facts are:

1. The advance in rate of taxation, 124 per cent, since the Filipinos were given greater control over their own government.
2. The low per capita taxation due to the United States shouldering all military and naval expenses for the defense of the islands.
3. The failure of various national business projects.
4. The costly experiments made by the Philippine National Bank.

With reference to the investments in sugar, the reviewer believes that these operations on the part of the bank will redound ultimately to the credit of the Government, and he is not in entire agreement with the report in this particular. The sugar industry, for long a very crude and primitive business, promises to be one of the greatest revenue producers and one of the most lucrative projects in the archipelago and a formidable rival of the industries of Hawaii and Cuba.

On the next to the last page of the report of the Mission, among some twelve specific conclusions, this, perhaps the most important of all, is found: "We find that the people are not organized economically or from the standpoint of national defense to maintain an independent government." This is the crux of the whole matter—if this conclusion is correct, then a reasonable postponement of the granting of complete independence is the only honorable course open to the United States.

The all-important geographic factors involved in the strategic position of the Philippines—lying, as they do, athwart the entrance to the great all-water world way from the Pacific to the Atlantic, the character of her neighbors, her not inconsiderable latent natural resources as a temptation to unscrupulous nations, and the explosive nature of the various elements in the Far Eastern situation generally have received scant mention in the report, though they may be considered in the exhibits. To the reviewer these geographic factors seem of far greater importance than the internal condition of the islands, and, while he highly respects the aspirations of the Filipino people, he would urge their native leaders to give the geographic factors the most profound thought before committing themselves hastily to a step which might be irretrievable.

WARREN D. SMITH

LIFE OF THE GLACIAL PERIOD IN NORTH AMERICA

F. C. BAKER. *The Life of the Pleistocene or Glacial Period*. xiv and 476 pp.; maps, diagrs., ills., bibliogr., index. *Univ. of Ill. Bull. No. 41 (Contrib. from the Museum of Nat. Hist. No. 7)*. Urbana, 1920. \$5. 10½ x 7 inches.

This volume is the outgrowth of a detailed study of the succession of biota found in the sediments of the bed of the glacial Lake Chicago. The results of this study are presented in two chapters, which follow a brief historical review of the records of life in this glacial lake bed. Advantage was taken of the geological evidence of changes of environment to which the animal and vegetable life was subjected, or in other words to ecological conditions; and the study illustrates the value of ecology in the interpretation of the variations in the fresh-water life here found.

The succession revealed by these studies may be summarily stated as follows:

1. The highest, or Glenwood, stage of Lake Chicago, 55-60 feet above the present level of Lake Michigan. Waters were cold, and life had not yet entered or was very sparingly represented.

2. A low-water stage, the Bowmanville, estimated to have been only 10 feet above Lake Michigan level. At this time a protected bay in the vicinity of Bowmanville, north of Chicago, carried a fauna of swamp and shallow-water forms of life with such snails as *Galba*, *Planorbis*, and *Physa*. The trees along the shore indicating the persistence of cold climate, embraced spruce, tamarack, fir, and arbor vitae, now found in districts considerably farther north. The cause for this low stage is suggested to be the opening of an eastward outlet past Syracuse, N. Y., at the time of Lake Wayne, of the Huron-Erie basin. This would imply a sufficient recession of the ice border to permit a passage by the Straits of Mackinac from the Michigan to the Huron basin. It also calls for an undemonstrated differential uplift of the Lake Wayne area.

3. The Calumet stage of Lake Chicago, 35-40 feet above Lake Michigan level. Above the muck beds and swamp fauna of the low-water stage a bed of sand and gravel was laid down, and there developed a large fauna of mussels of species that now inhabit our large rivers, "indicating that the bay was more open and subject to some wave action." It is suggested that these naiades were brought to this habitat by the aid of fish, in the glochidial stage, and liberated from the cysts when the fish reached this bay. This stage of Lake Chicago, it is suggested, may correlate with Lake Warren of the Huron-Erie basin, a lake which discharged into Lake Chicago through the Grand River outlet. The Tolleston stage of Lake Chicago is thought to have directly followed the Calumet stage by a lowering of the outlet through the Des Plaines valley.

4. A second low-water stage, unnamed, is characterized by the absence of the river type of naiades and a return to the fresh-water pulmonates of the swamp and shallow pond types. This is suggested to have as its correlative the Kirkfield stage of Lake Algonquin, but in the reviewer's opinion it may have begun at the time of Lake Lundy and covered the time to the uplift that brought Algonquin waters up to their full height in the southern end of the Lake Michigan basin.

5. The Hammond (or high-water stage of Lake Algonquin), 20 feet above Lake Michigan level, at Chicago. At this time a silty sand was laid down on the earlier deposits, and in this are preserved a few cyclads and gill-bearing gastropods and some fresh-water pulmonates.

6. A third low-water stage, unnamed, in which the lake bed of the prolific area north of Chicago may have become a land surface, is strikingly indicated by the presence of crawfish burrows, which are covered by succeeding lake deposits. This is thought to correlate with the opening of the North Bay outlet eastward from Georgian Bay to the Ottawa valley, in the early part of the Nipissing-Great Lakes stage.

7. The Englewood, or high-water stage of the Nipissing-Great Lakes, 12 feet above Lake Michigan level. This stage indicates a shallow bay, inhabited by a few cyclads, gill-bearing gastropods, and fresh-water pulmonates.

8. The present stage, which is a land surface with a few small ponds and swampy streamlets. The deposits and organic growths of this stage are ordinarily confined to the upper foot or two, largely classed as soil.

Having presented the results of this detailed study of the life in the bed of Lake Chicago, the author devotes a chapter to the postglacial biota of the entire Great Lakes region, beginning with the proglacial lakes in each of the lake basins. Interesting data are presented as