SELECTED READINGS IN ECONOMICS

BULLOCK

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BY

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SELECTIONS AND DOCUMENTS IN ECONOMICS

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PREFACE

This volume aims to supply the collateral reading needed for a general course of study in economics. It makes no effort to present selections upon all the topics treated in such a course, but endeavors merely to provide supplementary material, historical, descriptive, and theoretical, which will enrich the instruction offered. The footnotes to the several selections disclose the extent of the editor's indebtedness to various authors who have consented to the reproduction of passages from their works. In this place, however, acknowledgment should be made of the helpful advice and criticism received from the editor's colleague, Professor F. W. Taussig, of Harvard University.

CHARLES J. BULLOCK

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CHAPTER I

THE EFFECT OF THE PHYSIOGRAPHY OF NORTH AMERICA UPON MEN OF EUROPEAN ORIGIN[1]

In their organic life the continents of America have always stood somewhat apart from those of the Old World. This isolation is marked in every stage of their geological history. In each geological period they have many forms that never found their way to the other lands, and we fail to find there many species that are abundant in the continents of the Old World.

The same causes that kept the animal and vegetable life of the Americas distinct from Europe and Asia have served to keep those continents apart from the human history of the Old World. Something more than the relations that are patent on a map are necessary to a proper understanding of the long-continued isolation of these continents.

In the first place, we may notice the fact that from the Old World the most approachable side of these continents lies on the west. Not only are the lands of the New and Old World there brought into close relations with each other, but the ocean streams of the North Pacific flow toward America. Moreover, the North Pacific is a sea of a calmer temper than the North Atlantic, and the chance farers over its surface would be

[1] By Nathaniel S. Shaler. Reprinted from Winsor's Narrative and Critical History of America, Vol. IV, by arrangement with the publishers, Messrs. Houghton, Mifflin & Co., Boston.

more likely to survive its perils. In the North Atlantic, over which alone the Aryan peoples could well have found their way to America, we have a wide sea, which is not only the stormiest in the world, but its currents set strongly against western-going ships, and the prevailing winds blow from the west.[1] If it had been intended that America should long remain unknown to the seafaring peoples of Semitic or Aryan race, it would not have been easy, within the compass of earthly conditions, to accomplish it in a more effective manner than it has been done by the present geography.

The result is that man, who doubtless originated in the Old World, early found his way to America by the Pacific; and all the so-called indigenous races known to us in the Americas seem to have closer relations to the peoples living in northern Asia than to those of any other country. It is pretty clear that none of the aboriginal American peoples have found their way to these continents by way of the Atlantic.

Although the access to the continent of North America is much more easily had upon its western side, and though all the early settlements were probably made that way, the configuration of the land is such that it is not possible to get easy access to the heart of the continent from the Pacific shore; so that though the Atlantic ocean was most forbidding and difficult as a way to America, once passed, it gave the freest and best access to the body of the continent. In the west the Cordilleras are a formidable bar to those who seek to enter the continent from the Pacific. None but a modern civilization would ever have forced its barriers of mountains and deserts. An ancient civilization, if it had penetrated America from the west, would have recoiled from the labor of traversing this mountain system, that combines the difficulties of the Alps and the Sahara. If European emigration had found such a mountain system on the eastern face of the continent, the history of America would

[1] It is likely that some part of the Aryan folk found their way to the Pacific shore in Korea and elsewhere; but the Aryan migrations setting to the east must have been uncommon, and the chance of Caucasian blood reaching America by this route small.

have been very different. Scarcely any other continent offers such easy ingress as does this continent to those who come to it from the Atlantic side. The valleys of the St. Lawrence, the Hudson, the Mississippi, in a fashion, also, of the Susquehanna and the James, break through or pass around the low coast mountains, and afford free ways into the whole of the interior that is attractive to European peoples. No part of the Alleghenian system presents any insuperable obstacles to those who seek to penetrate the inner lands. The whole of its surface is fit for human uses; there are neither deserts of sand nor of snow. The ax alone would open ways readily passable to men and horses. So that when the early settlers had passed the sea, all their formidable geographical difficulties were at an end, — with but little further toil the wide land lay open to them. I propose in the subsequent pages to give a sketch of the physical conditions of this continent, with reference to the transplanted civilization that has developed upon its soil. It will be impossible, within the limits of this essay, to do more than indicate these conditions in a very general way, for the details of the subject would constitute a work in itself. It will be most profitable for us first to glance at the general relations of climate and soil that are found in North America, so far as these features bear upon the history of the immigration it has received from Europe.

The climate of North America south of the Laurentian mountains and east of the Rocky mountains is much more like that of Europe than of any we find in the other continents. Although there are many points of difference, these variations lie well within the climatic range of Europe itself. On the south Mexico may well be compared to Italy and Spain; in the southern parts of the Mississippi valley we have conditions in general comparable to those of Lombardy and central France; and in the northern portions of that area and along the sea border we can find fair parallels for the conditions of Great Britain, Germany, or Scandinavia. As is well known, the range of temperature during the year varies much more in America than in Europe, but these variations in themselves are of small

importance. Man in a direct way is not much affected by temperature; his elastic body, helped by his arts, may within certain limits neglect this element of climate. The real question is how far these temperatures affect the products of the soil upon which his civilization depends. In the case of most plants and domestic animals, their development depends more upon the summer temperature, or that of the spring season, than upon the winter climate. Now the summer climates of America are more like those of Europe than are those of the winter. So the new-won continent offered to man a chance to rear all the plants and animals which he had brought to domesticity in the Old World.

The general character of the soil of North America is closely comparable with that of Europe, yet it has certain noteworthy peculiarities. In the first place, there is a larger part of America which has been subjected to glacial action than what we find in Europe. In Europe only the northern half of Great Britain, the Scandinavian peninsulas, a part of northern Germany, and the region of Switzerland were under the surface of the glaciers during the last glacial period. In America practically all of the country north of the Susquehanna, and more than half of the states north of the Ohio, had their soils influenced by this ice period. The effects of glaciation on the soils of the region where it has acted are important. In the first place, the soils thus produced are generally clayey and of a rather stubborn nature, demanding much care and labor to bring them into a shape for the plow. The surface is usually thickly covered with stones, which have to be removed before the plow can be driven. I have estimated that not less than an average of thirty days' labor has been given to each acre of New England soil to put it into arable condition after the forest has been removed; nearly as much labor has to be given to removing the forest and undergrowth: so that each cultivated acre in this glacial region requires about two months' labor before it is in shape for effective tillage.[1] When so prepared

[1] I have elsewhere (Introduction to the Memorial History of Boston) noticed the fact that this difficulty in clearing the glaciated soils led the early settlers

the soils of glaciated districts are of a very even fertility. They hold the same character over wide areas, and their constitution is the same to great depths. Though never of the highest order of fertility, they remain for centuries constant in their power. I have never seen a worn-out field of this sort. Another peculiarity of the American soils is the relatively large area of limestone lands which the country affords. America abounds in deposits of this nature, which produce soils of the first quality, extremely well fitted to the production of grass and grains. Although statistical information is not to be obtained on such a matter, I have no doubt, after a pretty close scrutiny of both America and Europe, that the original fertility of America was greater than that of Europe; but that, on the whole, the regions first settled by Europeans were much more difficult to subdue than the best lands of central and southern Europe had been.[1]

The foregoing statement needs the following qualification: owing to the relative dryness and heat of the American summer, the forests are not so swampy as they are in northern Europe, and morasses are generally absent. It required many centuries of continued labor to bring the surface of northern Germany, northern France, and of Britain into conditions fit for tillage.

Next to deserts and snowy mountains, swamps are the greatest barriers to the movements of man. If the reader will follow the interesting account of the Saxon Conquest given in Mr. Green's volume on "The Making of England," he will see how

of New England to use the poorer soils first. Along the shore and the rivers there is a strip of sandy terrace deposits, the soils of which are rather lean, but which are free from bowlders, so that the labor of clearing was relatively small. All, or nearly all, the first settlements in the glaciated districts were made on this class of soils.

[1] The slow progress of our agricultural exports, during the first two hundred years of this country, is in good part to be explained by the stubborn character of the soil which was then in use. The only easily subdued soils in use before 1800 were those of Virginia and Maryland. The sudden advance of the export trade in grain during the last fifty years marks the change which brought the great areas of non-glaciated soils of the Mississippi valley and the South under cultivation.

the tracts of marsh and marshy forest served for many centuries to limit the work of subjugation. In America there are no extensive bogs or wet forests in the upland district south of the St. Lawrence, except in Maine and the British provinces. In all other districts fire or the ax can easily bring the surface into a shape fit for cultivation. In taking an account of the physical conditions which formed the subjugation of North America by European colonies, we must give a large place to this absence of upland swamps and the dryness of the forests, which prevented the growth of peaty matter within their bounds.

The success of the first settlements in America was also greatly aided by the fact that the continent afforded them a new and cheaper source of bread, in the maize or Indian corn which was everywhere used by the aborigines of America. It is difficult to convey an adequate impression of the importance of this grain in the early history of America. In the first place, it yields not less than twice the amount of food per acre of tilled land, with much less labor than is required for an acre of small grains; it is far less dependent on the changes of seasons; the yield is much more uniform than that of the old European grains; the harvest need not be made at such a particular season; the crops may with little loss be allowed to remain ungathered for weeks after the grain is ripe; the stalks of the grain need not be touched in the harvesting, the ears alone being gathered; these stalks are of greater value for forage than is the straw of wheat and other similar grains. Probably the greatest advantage of all that this beneficent plant afforded to the early settlers was the way in which it could be planted without plowing, amid the standing forest trees which had only been deadened by having their bark stripped away by the ax. This rough method of tillage was unknown among the peoples of the Old World. None of their cultivated plants were suited to it; but the maize admitted of such rude tillage. The aborigines, with no other implements than stone axes and a sort of spade armed also with stone, would kill the forest trees by girdling or cutting away a strip around the bark. This admitted the light to the

soil. Then breaking up patches of earth, they planted the grains of maize among the standing trees ; its strong roots readily penetrated deep into the soil, and the strong tops fought their way to the light with a vigor which few plants possess. The grain was ready for domestic use within three months from the time of planting, and in four months it was ready for the harvest.

The beginnings in civilization which the aborigines of this country had made, rested on this crop and on the pumpkin, which seems to have been cultivated with it by the savages, as it still is by those who inherited their lands and their methods of tillage. The European colonists almost everywhere and at once adopted this crop and the methods of tillage which the Indians used. Maize fields, with pumpkin vines in the interspaces of the plants, became for many years the prevailing, indeed almost the only, crop throughout the northern part of America. It is hardly too much to say, that, but for these American plants and the American method of tilling them, it would have been decidedly more difficult to have fixed the early colonies on this shore.

Another American plant has had an important influence on the history of American commerce, though it did not aid in the settlement of the country, — tobacco. That singular gift of the New World to the Old quickly gave the basis of a great export to the colonies of Maryland, Virginia, and North Carolina; it alone enabled the agriculture of the southern colonies to outgrow in wealth those which were planted in more northern soil. To this crop, which demands much manual labor of an unskilled kind, and rewards it well, we owe the rapid development of African slavery. It is doubtful if this system of slavery would ever have flourished if America had been limited in its crops to those plants which the settlers brought from the Old World. Although African slavery existed for a time in the states north of the tobacco region, it died away in them even before the humanitarian sentiments of modern times could have aided in its destruction; it was the profitable nature of tobacco crops which fixed this institution on our soil, as it was

the great extension of cotton culture which made this system take on its overpowering growth during the first decades of the nineteenth century.

Another interesting effect of the conditions of tillage which met the early settlers upon this soil depends upon the peculiar distribution of forests in North America. All those regions which were first occupied by European peoples were covered by very dense forests. To clear these woods away required not less than thirty days' labor to each acre of land. In the glaciated districts, as before remarked, this labor of preparation was nearly doubled. The result was that the area of tillage only slowly expanded as the population grew denser, and the surplusage of grain for export was small during the first two centuries. When in the nineteenth century the progress westward suddenly brought the people upon the open lands of the prairies, the extension of tillage went on with far greater celerity. We are now in the midst of the great revolution that these easily won and very fertile lands are making in the affairs of the world. For the first time in human history a highly skilled people have suddenly come into possession of a vast and fertile area which stands ready for tillage without the labor which is necessary to prepare forest land for the plow. They are thus able to flood the grain markets of the world with food derived from lands which represent no other labor beyond tillage except that involved in constructing railways for the exportation of their products. This enables the people of the western plains to compete with countries where the land represents a great expenditure of labor in overcoming the natural barriers to the cultivation of the soil.

There are many lesser peculiarities connected with the soils of North America that have had considerable influence upon the history of the people; the most essential fact is, however, that the climatic conditions of this continent are such that all the important European products, except the olive, will flourish over a wide part of its surface. So that the peoples who come to it from any part of Europe find a climate not essentially different from their own, where the plants and animals on