


GEOGRAPHY
AND
WORLD POWER

JAMES FAIRGRIEVE

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GEOGRAPHY
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JUNIOR REGIONAL GEOGRAPHIES

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AND
WORLD POWER

BY
JAMES FAIRGRIEVE, M.A.

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IN THE THEORY AND PRACTICE OF EDUCATION

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PREFACE TO SECOND EDITION

IT would be ungrateful of me not to seize the opportunity presented by the issue of a second edition to express my thanks for the kind things which have been said about this little book. In deference to sundry criticisms, with the justice of which I fully agree, one, but only one, important change has been made: the last few pages of Chapter XVII have been expanded and form a new Chapter now numbered XVIII.

J. F.

October 1919.

PREFACE TO FIRST EDITION

"All the world's a stage."

IN this volume an endeavour is made to tell a coherent story and show that there is really some order in the apparently disorderly happenings on this planet. Dealing with world history and geography in such small compass, it is obvious that there must be many omissions. Opinions may differ as to what omissions ought to be made, and some things may not present themselves to others in the same light as they do to the author, but the correctness of the thesis as a whole does not depend on the accuracy of this or that statement or view. In particular it may be as well to emphasize the fact that while the book deals with world history, it deals with only one side of it. Its special concern, in fact, is rather with the setting of the stage than with the action of the drama. Its aim is to point out how the stage was set at different epochs in the history of the world, and specially how the stage has been set for that act of the drama now being played.

At a cursory glance, then, the book may possibly appear to be materialistic, but it is materialistic only in the sense that from the nature of the case it deals with material things. The ways in which geographical conditions affect the actors are traced out, but those spiritual aspects of the drama which do not exhibit the geographical control are naturally not referred to. This does not mean that they do not exist.

J. F.

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GEOGRAPHY AND WORLD POWER

CHAPTER I

INTRODUCTION

I. WHAT THE BOOK IS ABOUT

THIS book is written to show how the history of the world has been controlled by those conditions and phenomena which we class together under the title of Geography, and to point out which are the really essential geographical facts by noting those which have most effectively controlled the history. In that sentence there are three words about whose meaning we must be quite clear. They are "History," "controlled," "Geography."

(1) *History*.—When we speak of history in this way, we of course imply that we are speaking of the history of man on the earth, but even so history may mean a number of things.

(a) It may mean merely a statement of all the events that ever happened in the order in which they happened, without any comments on them whatever. Now it is very necessary to have a knowledge of events when we study history, but it would not be very interesting merely to know them, nor is it possible even if they could all be found out for any one to know them all. There must be a selection of the most important.

(b) Hence we get another idea of history, as a statement of the most important events in the order in which they happened. In the process of picking out the most important events we must, however, have compared them and judged which were the most important. To do this we must, of course, think why they are important and what we mean by important. Then we find that things are important if they affect the well-being of men to a great extent, and are less important if they do not affect man much.

(c) We have thus almost at once a third idea of history as a story of the important events which have happened, with a statement of the causes which have brought them about and of the effects which they have had on man. In estimating importance we must remember that some events affect man greatly for a time and only slightly afterwards, while others affect man only slightly at first, but continue to produce results for a long time.

When we look at history in this way, we find that some events that are apparently of little account are really the important events, while others that are apparently very important must take a lower place. We find also that the causes and results of history are so entwined that "history" becomes one organic whole. Some particular event has naturally led on to other events. What one man or tribe or nation has done has affected the action of other men or nations. The study of history is so interesting just because it is one of the studies which treat of men, their relation to one another, and the effect that each man or collection of men has on the rest. From a study of history, too, we find that men very widely separated both in time and space have yet possessed very similar characters, so that events very

similar to one another may happen in very different parts of the world, or even at times many centuries apart, just because of this likeness. There is thus a tendency for history to repeat itself, as we say.

But history is not all repetition. There has been an advance. If we go back a year or two we may not notice it, but if we cast our thoughts back some centuries and look all over the world, we are conscious that something of an advance has been made, and if we consider the whole history of the world the progress becomes most evident. We may be very doubtful how to express what we mean by "advance," but none the less we feel it is there. We are conscious, for example, that during historic times men's ideas of what is right and wrong have undergone a change which, on the whole, is for the better. But this is only one side of the advance. There are other obvious ways in which a change for the better has taken place. We are better off not only morally and intellectually, but materially; we have better clothes; our food is better; we have more conveniences; we have more time for ourselves than had men who lived centuries ago. In a thousand ways we know that on the average it is a great deal better to be alive in the twentieth century A.D. than to have lived five thousand years ago.

Now what is it that has been happening? Leaving out of account all religious questions, what does history mean? Is there no short way in which we can say what history *is*? Many answers may be given, and to the one given here there may be objections and there certainly are qualifications, but **it may be said that in its widest sense on its material side history is the story of man's increasing ability to**

control energy. By energy we mean the capacity for doing work, for causing—not controlling—movement, for making things go or making things stop, whether they be trains or watches or mills or men. In order that anything may be done energy is required. Man's life is taken up by the one endeavour to get and to use as much energy as possible and to waste as little as possible. Any means whereby he can get more or waste less marks an advance, and is important in the history of the world. All the discoveries which have been made of how to do things, inventions as we call them, which have marked various stages of progress, are not merely rather interesting facts that have very little to do with history. They have everything to do with it. The inventions of hieroglyphics, of writing, of numerals, of printing, of the compass, of spades, wheels, needles, of steam-engines, and of banknotes have had enormously important effects on the course of the history of the world, and are important just in so far as they enable men to use or to save energy.

Thus it is obvious that energy is very important in what might be called "social history," but it may be necessary to show that it is as important in constitutional and military history—the history which treats of laws and battles, kings and republics. Perhaps an illustration will be of service. Not only must the energy obtained from burning coal or falling water be used in order to keep machines going, but it must be expended in other ways. It must be apparently wasted in order that we may in the long run be able to make use of more energy, and this is done by methods which closely resemble those of whose working on a much larger scale we learn in social and political history.

(i) Energy may be used up by replacements of old parts of the machine or by additions which are more fitted for the work. It is used in making, setting up and adjusting the new part, and there is an apparent waste. So, when new methods of government are introduced we are but making improvements in the machine. Gradual changes of methods of government represent additions or replacements, while revolutions by which one form of government takes the place of another correspond to the substitution of a new machine altogether for the old one. Such substitutions are, however, so rare as to be almost unknown on any great scale. A very large amount of the old machinery is generally left and incorporated with the new, even in the most drastic revolutions.

(ii) Energy may be used up by oiling a machine: all the energy used in making and refining the oil and in applying it is apparently wasted, but the use of oil enables a machine to do much more work than it otherwise could do. In the same way the machine of government uses a great number of men as oil, so that it runs smoothly and in the long run energy is used advantageously to the individuals concerned. Banks, exchanges, commercial newspapers are all oil by which the affairs of the commercial world and indirectly of the social and political world are made to go smoothly.

(iii) Sometimes the energy of a machine, usually supplied in the form of heat, tends to escape without doing useful work. Then the engineer puts some packing round the parts from which the heat escapes. To prevent rust or outside energies of wind doing damage machines also require to be protected. In both these cases the energy used in making the packing and pro-

tection is apparently wasted, but in the long run more energy is saved than wasted. All buildings, whether to protect machinery or men, are erected for the same purpose. The police force, the army, the navy, and all such organizations are so much packing or protection; on the one hand, to prevent the energy of the machine from dissipating itself wastefully or in doing actual damage, and, on the other hand, to prevent outside energies interfering with its regular working.

There is also another engineering principle which has had a very great effect in history. It is that of the maximum load: that less energy is required at any one time to drive a number of machines together than it takes to drive them separately, for the machines are never all working at full pressure at the same time; for example, in a tramcar system it is more economical of energy to drive all the cars from a central station than for each car to drive itself, because, apart from the saving of energy in constructing less machinery, there is a great saving in that the cars are never all going full speed at the same time. This principle, like the others, is of wider application. It is because of it that towns grow nowadays. Great stores and businesses and trade unions owe their importance to the same cause, and it is even partly because of it that nationalities and empires exist.

(d) We have now a fourth idea of history, so that when we speak of the history of the world in its greatest sense, we mean an orderly relation of events which show the processes whereby man has gradually come to be able to use more and more energy, together with a statement of the causes and results of these events.

Connected with this idea of the maximum load is another engineering idea—the idea of momentum.

Momentum is the capacity of a body for "going on" when once started—whether it be a train, or a business, or a town, or the Lancashire cotton industry, or the British Empire—and the greater the body is, the greater its momentum. It is, on the whole, easier to keep each going than to stop it, for an expenditure of energy is required to stop things, and if things are stopped suddenly damage is done. When the energy necessary to keep a thing going is shut off, there is not at once a cessation of movement any more than there is a maximum effect when the energy is applied. An engine does not at once stop dead if the steam is shut off, nor does it at once leap to full speed when the power is applied. In the long run the machine slackens and stops if there is not enough energy to keep it going, but it does not slacken all at once. The Roman Empire kept going for three hundred years after *its* energy was seriously reduced.

(2) *Controlled*.—We must know what is meant by "control." Perhaps it may be a help to understanding if we say what it does not mean and if we take some examples. It does not mean "make" or "cause": that is something higher. If we have a horse we control the animal, determine whether he is to stop or go on, and where he is to stop or to what place he is to go, but we do not make either the horse or the energy which he uses to do what we wish. Or again, men can control a stream coming down a hillside to the extent that they can dig a channel for it, line its banks with stone to prevent it coming beyond the channel; they can lay pipes to take a portion or all of it where they desire, but they cannot make the stream, in the sense of bringing the water into existence. Man can control

his use of coal; he can determine whether he may use its energy to warm himself by its aid, or to cause a locomotive to draw him, or to make an engine drive a mill to make clothes for him, but he cannot make the coal.

So when we say that "history is controlled by geography," we do not say that man is compelled by geography to use more and more energy, but that the precise way in which he has come to do this is largely controlled by geography.

(3) *Geography*.—We must know also what is meant by geography. One must beware of thinking that a knowledge of geography means only knowing the names of places or even knowing where places are, or perhaps knowing something interesting about them. This is one very important part of geography—the part that corresponds to knowing events in history, but it is only a part. Nor must it be thought that a knowledge of geography means a knowledge of everything on the surface of the world. Everything on the surface of the world must have something to do with geography, but it need not itself be geography. From a study of geography we learn where things are, not towns and mountains and rivers only, but people and conditions. We learn how things are distributed on the earth's surface, where are land and water, where there is a heavy rainfall and where none at all, where the temperature is high and where it is low, where vegetation of all kinds grows, where are storms and calms, where are men and the different races of men.

Also, as very many geographical conditions are causes of other geographical conditions, we may very often have to include causes and results in our study, so that

we must know why the great majority of the things we are considering are where they are, and what effect their presence and absence have on the life of man. We have assumed, in considering what history is, that events have happened because of what men have done previously; here it is assumed that events may happen in the way they do on account of the action of other controls.

Remembering what we have now found to be the meaning of "History," "controlled," and "Geography," we can see that this book has been written to show how the way in which man has come to be able to use more and more energy has been determined by distributions on the earth's surface.

We thus obtain some kind of idea of the world stage on which men are now acting their parts.

II. THE GREAT, SIMPLE, FAR-REACHING CONTROLS

Before proceeding to trace out the effect geographical controls have had on the course of history, in directing that certain events or conditions should follow one another in order of time, we must first consider the effect of some of the very great controls which are so fundamental and so familiar that there is a great danger of forgetting how extremely important they are. They are always there, and every human being has become used to them, so that they are apt not to be noticed, but just because of their acting silently yet constantly on all men, in all stages of civilization, it is difficult to imagine how enormously great their effect must have been.

(i) *Place*.—It is obvious that every event must have

happened somewhere, so that the idea of place, the simplest idea of geography, is intimately connected with even the simplest idea of history also. Further, the events which have happened at a particular place or within a certain district very often have a definite relation to one another. They are usually all connected with one another in some way, and not so closely connected with places outside, so that series of such facts are taken as the histories of certain places or districts. We have thus come to speak of the history of England, the history of France, the history of Greece and the history of London. This is one very important if very obvious way in which history has been controlled by geography, of which the full importance will be realized later.

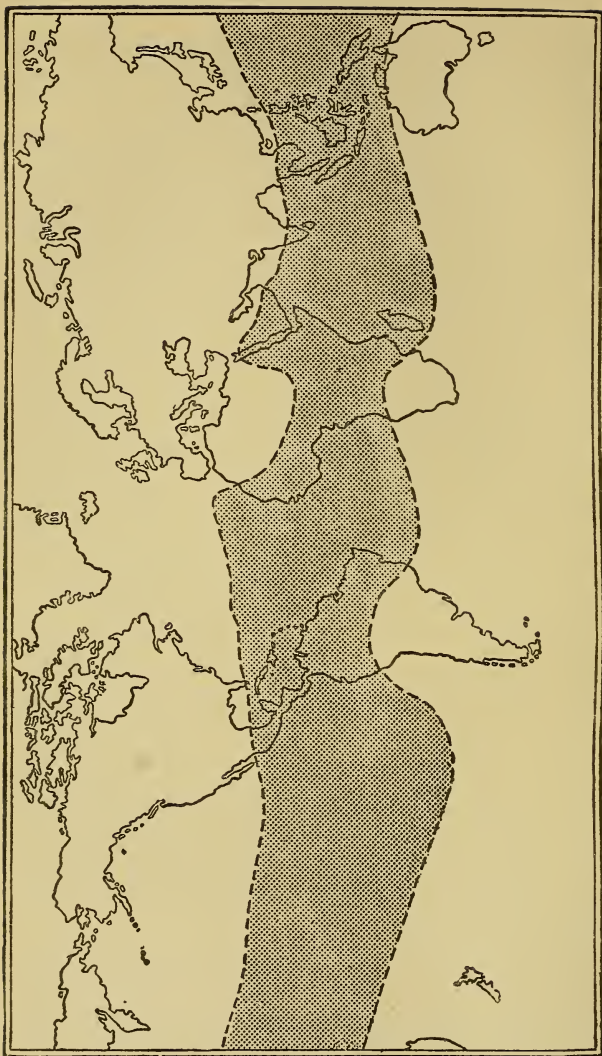
But we know that the histories of these places or districts cannot be taken by themselves. We cannot know very much of the history of London if we do not know something of the history of England, and we know that Englishmen have for such a very long time been brought into contact with Frenchmen, that the history of England has been affected, controlled to a certain extent, by the history of France. Similar statements are true of all histories: each is controlled not only by the fact that for some reason or another the district of which it is the history has a certain unity; but also by the fact that its inhabitants are affected by conditions in other districts, nearer or more remote, each with a unity of its own. In modern times this has been increasingly the case, but it is true of very ancient history also.

(ii) *Energy*.—Again, if we consider that history has been found to deal with the growing knowledge of how to use and how to save energy, we see that history must be controlled by the distribution of energy, by the distribu-

tion of the various forms of energy, and by the distribution of anything which may prevent the use of energy or which may induce men to use energy.

Almost all the energy present on the earth's surface has come from the sun in the forms of heat, light and perhaps other kinds of radiation. It is owing to this energy that men are able to do things, to move things; they make this energy their own, part of themselves, because they eat bread made from wheat or other grain grown by the light and heat of the *sun*: the flour is ground by means of coal compacted from vegetation, grown by the *sun's* heat, or it may be ground by means of water power obtained from the rain running down the mountain side, first pulled up—evaporated—from the ocean, by the *sun* and transported to the land by winds set in motion by the *sun*. Or men may derive part of their energy from the flesh of animals which have first eaten vegetation grown by the *sun's* rays. Or men may dispense with some food altogether, and heat themselves by fires of vegetable matter—coal or wood or oil—which have acquired their latent energy from the *sun*. Or men may save some energy by wearing clothes formed directly or indirectly by the energy of the *sun*. In all these very fundamental cases, and in very many others almost equally fundamental, it is easy to see that the energy controlled by man comes directly from the sun; while a little reflection will show that the vastly greater portion of the energy required for the multitudinous details of daily life is derived originally from the sun.

Thus the distribution of energy on the earth is very largely the distribution of sun's energy. Places directly under the sun receive more energy than places which receive radiations on a slant; that is to say, places near



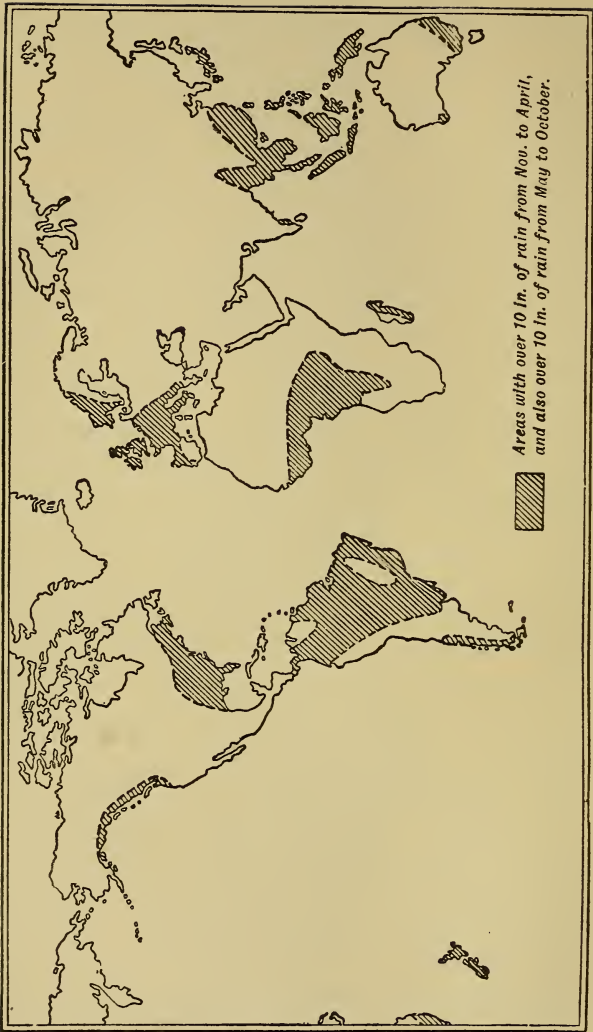
THE HOT BELT.

The shaded area shows where in an ordinary year the temperature never falls below 50° F.

the equator are on the whole better off than places nearer the poles. This is perhaps the most important permanent fact in the history of the world. The availability of this energy is modified by many other distributions in varying degrees at various times, but through all history it is the underlying fact.

The effect that this distribution has had on the history of the world will perhaps be more clearly realized if we imagine our globe, with continents and oceans just as we know them, to have revolved round the sun in such a way that always the same face was turned towards the sun. In that case the heat and light would have been concentrated on one half of the earth, and largely in the middle of that hemisphere. The other hemisphere would then have received no radiations at all. It is obvious that life would not be possible where it is now possible, and might be possible where it is now practically impossible. Or we might imagine the earth to rotate as it does now, but about a line other than its present axis; a very little reflection will show how enormously different the conditions might have been from those which actually do exist. These are extreme cases, but they emphasize how the distribution of energy in its present form must have controlled history.

It has been said that the effect of the general scheme of distribution of energy on the earth's surface is modified by the personal and what may be called the racial equation, but even the distribution of energy is somewhat modified by other distributions. Places near the equator receive on the whole more energy than those near the poles. The decrease of energy received is not, however, regular; some districts actually receive more



AREAS WITH ABUNDANCE OF RAIN ALL THE YEAR ROUND.

energy than those nearer the equator. This is due almost entirely to the distributions of air and air-currents or winds.

(a) The actual distribution of air is extremely important. It is well known that the higher we go the colder it gets, *i. e.* the less energy there is in a form which may be used. This is related to the fact that the higher we go the less air there is. Thus distances which are negligible on the horizontal scale on the earth are of great importance measured vertically, just because of this lack of energy. Wheat, for example—a staple food—can in Britain be grown as far north as Inverness-shire, but it will not grow even in England at a height of 1000 feet, because there is not enough heat to ripen it. The temperature falls on the average 1° F. for every 50 or 60 miles one goes towards the poles, but the temperature falls the same amount for every 200 or 300 feet one goes upwards.

(b) The distribution of air-currents is of equal or perhaps of greater importance. It is owing to the action of the winds in causing water drifts that England is warmer than Labrador. Human life on a large scale is possible in the one owing to the drift of warm water from the south-west raising the temperature above what is the average for latitudes 50° to 60° . In Labrador human life is all but impossible owing to the movement of icy water from the frigid North. A comparison of a map showing winds with one showing ocean currents will make it evident that the latter are largely due to the former, while a comparison of both with maps showing temperature will bring home the fact that the habitableness or the reverse of lands for 20° south of the Arctic Circle is due to the results of the wind system.

The wind system has exercised an extremely important control over history in another way. The dependence of man on food has already been referred to. Wherever he lives man must eat, and he must eat either vegetable things or animal things. As the animal things must eventually derive their food from vegetable things, it is obvious that it is the vegetable things which are of first importance. A very few communities may live on fish, which in turn live on lowly forms of vegetation growing in water, or on other creatures which eventually depend on these lowly forms, but the overwhelming majority of human beings depend for their food on vegetable productions grown by means of rain. Thus it is not enough that energy—heat—should be present; it is necessary that rain also should be present in order that vegetation may grow, *i. e.* there must not only be energy, but it must be available; it must exist in a form in which it can be used. Now rain is the moisture brought from the ocean to the land. The only carriers whereby it is brought are the winds. If they blow from the sea to the land, then lands possessing energy will almost certainly be habitable; if they blow from the land to the sea, the land from which they blow will be dry, barren and undesirable for human life.

Thus it is obvious that geographical conditions have in a very real if somewhat general sense controlled history in that some places rather than others are suitable for human habitation. But history has been controlled by geographical conditions in a far more particular sense, in that geographical conditions of various kinds have controlled the actual course of history. The action of these conditions we now proceed to consider.

CHAPTER II

THE DESERT: THE BEGINNINGS OF HISTORY: EGYPT

So far we have seen that history has been controlled by geographical factors in the sense that, owing to distributions of heat and moisture, life is possible in some places on the earth's surface rather than in others. We have now to consider the effect which other geographical conditions have had in controlling the lines along which advance has been made.

(I.) We must notice that geographical conditions supplied the stimulus under which the advance was begun as well as continued.

It is true that in equatorial regions, with their abundance of heat and moisture, we have conditions in which an animal existence may be most easily sustained, but as a matter of fact, it is not in equatorial but in temperate regions that man has advanced farthest in his ability to control energy. It is not in Equatorial Africa but in Temperate Europe that we have a history worth the name. This is owing to two geographical conditions, both of which owe their importance to the effect they have on the mind as well as the body of man.

(i) In the first place, just because existence—animal existence—is easy in equatorial latitudes, there is no inducement to greater effort than is required to take and eat the food necessary to keep the body alive. In temperate latitudes, the farther we go from the

equator, the more difficult life becomes, but because of this, if life is to continue at all, greater activity must be shown. Savages in Equatorial Africa need not wear clothes. Even savages in Northern Europe must wear some kind of covering, if it be only a covering of skins. Nor is food so easily obtained in Europe. It takes toil to get it. Thus, even when all races were savage we might expect to find a higher type of savage in Europe than in Africa, just because more mental activities are called into play by the very lack of solar energy.

(ii) Secondly, in equatorial regions one day is very much like another day, while farther north one day is not like another day. Owing to the swing of the seasons in temperate latitudes there are summer days and winter days. These differ either because the amount of energy—of heat—varies, or because the amount of moisture varies. In either case there is certain to be lack of food at one time and comparative plenty at another. Thus in Equatorial Africa, for example, the cycle being the day, the tendency is for races as for individuals not to look too far ahead, but to live in the present and make no provision for the future, whereas in Temperate Europe, the cycle being the year, the tendency is to take thought for the days to come.

Here are two sets of geographical conditions, typical of many, if not most, geographical conditions, perfectly obvious—so obvious that there is a danger of their being overlooked or thought to have little to do with the history of the world; but just because they are acting, if not insistently, yet continually and effectively in the long run on every man, woman and child of these two regions, they go far of themselves, and they are not alone, to explain the difference in the histories of the two

regions, the advance of Europe and the darkness of the Dark Continent.

The importance of both these conditions lies in the mental stimulus given towards saving energy in the so-called temperate regions—if life is to be continued at all. By wearing clothes radiation of heat-energy is prevented, and the energy is saved for some other purpose. Latitudes under the influence of seasonal change must have definite times of sowing and harvest, definite times for blossom and fruit, so that food-energy has to be saved from times of plenty till times of scarcity. In the temperate regions, as in equatorial regions, the line of least resistance is followed, but in the one case there is the stimulus almost amounting to the necessity which is the mother of invention, while in the other it is absent. Hence, owing to this absence of stimulus to thinking how to save energy, we should expect to find in equatorial latitudes lower types of race than elsewhere, at any rate for long ages after races elsewhere have begun to rise above the level of mere animal living; we should thus expect to find no advance, and consequently no history: while in temperate regions, owing to the continual presence of stimulus, we should expect to find that races continued to advance from strength to strength. This gives us the reason for the fact that the history of the world is mainly the history of temperate regions lying roughly between latitudes 30° and 60° .

II. In certain places rather than in others this stimulus, owing to geographical conditions, is able to have its full effect. When man has made energy his own, got it under control, whether in the primitive state by eating food, or in the twentieth-century manner by purchasing coal, he can use it in two sets of ways. He can use it in

ways by which he controls more energy, or he may dissipate his energy uselessly or even destroy means whereby it may be used. He may to a certain extent do both. He may use his own energy to take that of someone else. This is, of course, a way in which an individual is able to control more energy, but it is not a way by which more energy on the whole is controlled.

It is obvious that energy may be saved most effectively by communities living in peace, owing their cohesion to the increased power of saving energy brought about by their union. It is not to be expected that such communities will appear for the first time in equatorial regions. Not only is there no stimulus to consider the future, but, owing to the consequent naturally low state of civilization, it is not likely that individual men or tribes will be allowed to remain in peace. Tribes may exist because their existence is due to controls other than geographical, but it is elsewhere than in equatorial regions that the tribe can expand into something with more complex organization.

Even in lands where stimulus is present, protection is necessary also that expansion may take place. Protection may take various forms. A man may protect himself, or a nation may protect itself, by using some of its energy in defence, but it is obviously an advantage if protection can be secured without the expenditure of this energy, *i. e.* if it can be secured by geographical conditions, and we should imagine that that community, tribe or race would soonest emerge from barbarism which was protected most completely.

Nations at different times and in different circumstances have been protected by different geographical conditions. What is protection in one age may not be

protection in another, but at any time that will be a protection which prevents the interference of other tribes or races; special defences will be those geographical features which men cannot cross easily, and the greater the difficulty man finds in crossing them, or the more energy he expends in so doing, the greater will be the protection.

Many geographical features have acted as defences: rivers, lakes, mountains, precipitous ascents and swamps have all had their effect in protecting small communities, but the great features whose power of protection has affected the history of the world have been stretches of plateau so high as to be too cold for vegetation to grow, stretches of desert too dry for vegetation to grow, and the sea which provides no foothold. Each of these requires energy to cross it, and supplies no basis for human life. Before any of these could be crossed successfully a considerable advance in civilization must have been made, so that in early times the protection they gave was very complete. They were unknown and therefore terrible things, and the most unknown and therefore the most terrible of the three was the sea.

III. The action of these geographical conditions as controls must be briefly referred to and explained. The whole course of history—including its beginnings—has been affected by the distinctive characters of individual men and races. Some of these characteristics can be traced to the action of geographical controls, others cannot be so traced and must just be taken for granted. On the one hand, events of history, with all the results which have followed from them, have occurred when they did, or indeed occurred at all, because of the power of man to will to act; no events of history would have

occurred at all if man had not the power to will to act. But, on the other hand, men's acts are conditioned by their surroundings as much as by the shape of their bodies, and the larger tendencies of history have not to any great extent been affected by the distinctive characters of individuals. In the long run the geographical conditions are more powerful than the genius of individuals, more powerful even than racial characters, unless these racial characters are due to geographical controls. History began where it did because of the geographical conditions.

Now, it is obvious that our knowledge of the earliest forms of civilization must be wanting or at the most very scanty. From the nature of the case, there can be no record through long ages of the gradual advance that must have taken place ere men emerged from the condition of savages. The most that may be looked for is that we may find relics which, because they have survived long, must originally have been fairly strong; they must be relics of a fairly advanced civilization.

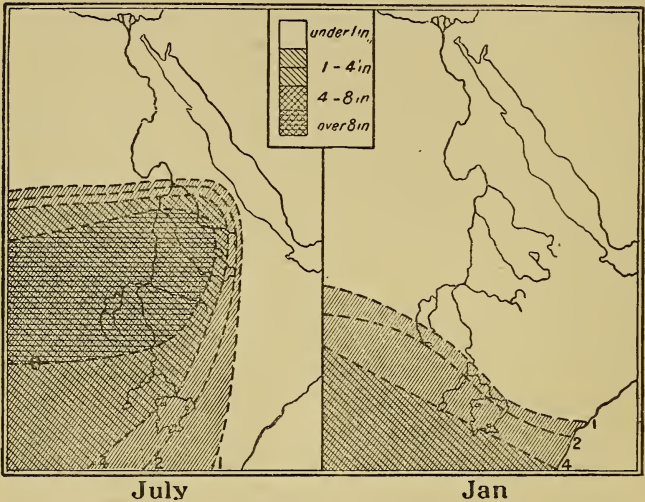
It is but natural that the civilization of which we first hear had reached a stage which could not have been attained to, except after a time certainly represented by tens of thousands of years. It is but natural that, as with a tree, the growth should have been at first slow as compared with the growth afterwards, when expansion is possible at many points. It is to be remembered that at the times which we first begin to consider as historic, history of a primitive kind and on a small scale had been going on for a time far longer than all the rest of the course of history has taken. But it is to be remembered that, as it is on a small scale, it is the less important from the point of view of the history of the world.

This slowness of growth is the natural result of the control exercised by geography. Just because geographical conditions are controls and not forces they take much longer time to make their effect felt than do forces, but in the long run the results of these controls are evident, perhaps all the more effectively. Because certain conditions exist, and certain other conditions do not exist, it is found in the long run better to act in a particular way. It takes a longer time for a man or race to find this out than to be told it, but there is this advantage: by finding it out, it is certain that the intellectual level has been reached which is necessary to use the discovery intelligently. There is no danger of an artificial civilization—a cram-civilization—being imposed on the race, so that more harm than good is done.

To sum up what has been said, we should expect to find the first dawnings of civilization in some place where life might be sustained comparatively easily, but where the cycle is not the day, *i. e.* some place where work for the present and future is necessary. In addition, we should expect to find the earliest civilized races in some spot where a community large enough to be something more than a family or tribe, yet small enough to form and feel itself a whole, would be afforded a considerable measure of protection against foes whose powers of destruction were greater than their powers of construction. Also when first we begin to know of these races, it is to be expected that many ages have passed since they emerged from savagery.

Now, in Egypt we see a land with a genial climate. Though rainless, and consequently protected on either hand by desert, it has a supply of water. This water

supply, though seasonal, is also constant. These seeming contradictions are explained only if Egyptian geography is understood. The Nile has two sources, one in the region of constant equatorial rain, from which a supply, equalized by the existence of lakes and swamps, is rendered so steady that little variation in flow is ex-



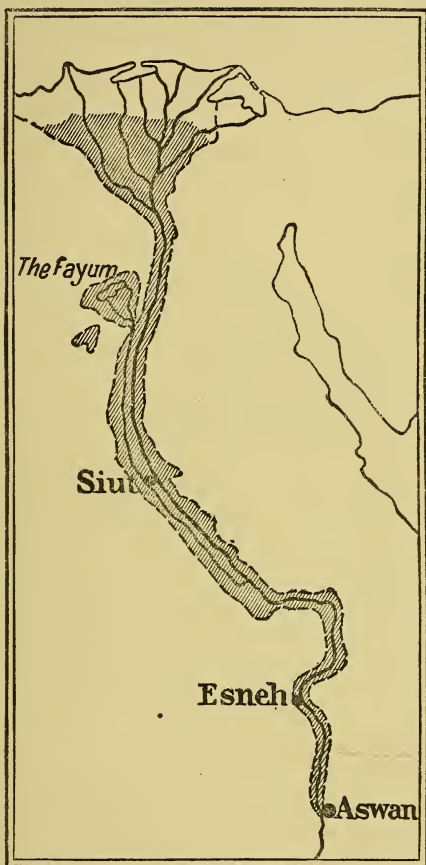
RAINFALL IN THE NILE BASIN.

The maps show that the southern tributaries of the Nile receive water both in summer and in winter, while the eastern tributaries receive a great deal of water only in summer.

perienced all through the year. The other source is in the highland region of Abyssinia, a land with a seasonal range of rainfall, so that in late spring and early summer deluges descend to the plain and from the plain to the dry land farther north.

Egypt is the Delta of the Nile and the lower Nile

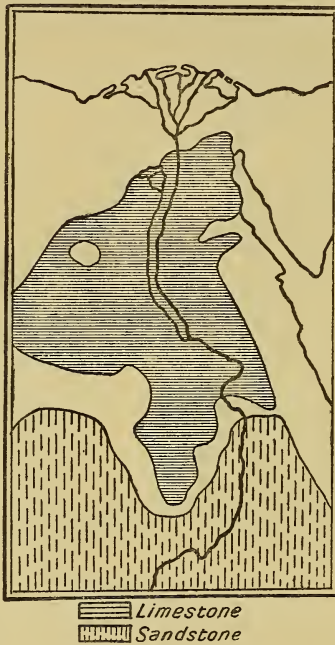
Valley for some 700 miles from its mouth—a narrow ribbon, for the most part ten miles wide, following the



EGYPT.

course of the great river to the sea. It is watered by the river and protected by the all-but-impassable

desert. That protection is even more complete than it seems. The Nile in its lower course flows through a land of limestone. Out of this it has first worn a valley, and then filled the valley with alluvium brought by the



EGYPTIAN GEOLOGY.

The Lower Valley of the Nile begins where the limestone begins.

floods from Abyssinia. South of the modern Aswan, however, it flows through sandstone, below which are great masses of hard rock. The river has here for great distances worn no valley but merely gorges separated by cataracts. A yard or two from the river's side there

is bare desert; practically nothing will grow; there is no inducement to settle, and Egypt is shut off from the south almost as completely as from the east and west.

On the north there is the sea, and in days when the sea was unknown it formed as great a protection as the desert. In no other land do we find such conditions, suited in so extraordinary a degree for the nurture of an early civilization.

From the first scraps that we can learn of the long past history of Egypt, we see it occupied by a race of men who, at any rate, are not of the lowest order of savages. They appear, however, only to give place to another race certainly with a higher civilization, but of whom we know little else. These people lived peaceably in the Nile Valley probably for 2000 years before those whom we call the Ancient Egyptians appeared on the scene.

The Egyptians in their turn, when they began to rule the land, about 4500 B.C., absorbed the civilization of those whom they found in possession, and comparatively quickly carried it to a still higher plane, so that by 3700 B.C., when the 4th Dynasty of Egyptian kings ruled the whole country from the first cataract to the sea, a very considerable advance had been made, and the people had reached a degree of organization which rendered possible the building of the greatest pyramids.

Then, as in the history of all countries, there was an apparent decline. The machinery of government seems to have become antiquated, so that during many dynasties the power of the central government became enfeebled; the subordinate rulers of the several "nomes" or states into which the long narrow Nile Valley was naturally divided came to gain more and more power at

the expense of the king, and there was an increasing tendency to anarchy, which affected the general advance. But the probability is that though the advance was slow, it continued fairly steadily, especially in the distinctively Egyptian forms of civilization, which depended on improvements in methods of irrigation. The seat of the centralized government during these early times was always near the head of the Delta, so it was natural that when one of the smaller states grew into importance by extending its influence over neighbouring states, the new power should be far from that central control.

Hence when Egypt again, about 2500 B.C., attained to a position of greatness under the kings of the 12th Dynasty, it was Thebes rather than Herakleopolis or Memphis that was the focus of Egyptian life. Under these kings the prosperity of the country increased, great works in connection with irrigation were carried out, and wealth became great, so that in some respects the country reached its highest developments at this time.

Thereafter the rule again became weak, and eventually, without any formal invasion the power fell into the hands of the Hyksos, tribes who had either been attracted to the Delta by the advantage of life there, or forced by other causes to find a refuge from their enemies. These tribes in the main adopted the civilization of the land, and were absorbed by the people among whom they lived. The Princes of Thebes, again partly because they were far from the Delta, the seat of the Hyksos power, having dispossessed these rulers and driven some of the people from the land, took the lead in the country.

For the first time in the history of Egypt invaders, though they came in peace, had been driven out of the land, and for the first time Egypt began, about 1600 B.C.,

a career of foreign conquest, under the kings of the 18th Dynasty, the Thotmes and Amenheteps, which was continued till Egyptian power extended northwards to the mountains of Armenia. On three occasions in Egyptian history points are reached which stand out as Golden Ages, not only because the gradual advance in civilization was more marked at these periods, but also because there was added the saving in energy due to the centralization of government—a saving to which was partly due that other more rapid advance. In material wealth and prosperity this third Golden Age marks the highest point reached by Egyptian civilization. Thenceforward, though the Rameses were still to come, Egyptian power and even civilization were on the downward path. Other conditions arose, some non-geographical, which modified the control exercised by the geographical conditions which up to this time had been of most effect. Other geographical conditions began to exercise their controlling effect. When Sennacherib defeated the “kings of Egypt,” it was but the first of many invasions which brought Egypt under the rule of many different nations, Assyrians, Babylonians, Persians, Greeks, Romans, Arabs, Turks and British. Since 330 B.C. Egypt has never been independent.

It was not to the inherent excellence of its inhabitants that the advance of the Egyptian state is due, for notwithstanding the extent to which the land is protected, we find that two, if not three, separate races successively inhabited the land in times known to history, and each possessed a high standard of civilization for the times in which they lived, and reached much higher levels of living than did the inhabitants of other lands at the same time.

It was the geographical conditions already referred to, and specially the exceedingly protected state of Egypt, that allowed the advance. The land was invaded, but the length of the period and the fewness of the invasions must be noticed. It is probable that for 4000 years, or 1500 years longer than the time that separates us from them, Egyptians never saw an invading host in their midst. Except for a period of a few hundred years native kings ruled the land. It was only after 2500 B.C. that the native monarchy appeared worn out, and gave place for a time to rulers of foreign extraction, and after these were driven out by the native kings of Upper Egypt, who had only acknowledged a suzerain and had not been deposed, there remained 1000 years of Egyptian empire before she finally gave place to other civilizations to which she had contributed not a little of the original stimulus which brought them into existence.

Think of the histories of all the states of the world. There is not one that lasted for half the time free from invasion. The length of time during which the state lasted was due to this absence of invasion or the possibility of invasion, which in turn was due to the protection afforded by the desert—a protection which during long ages allowed of slow natural growth through different forms of civilization, without the disturbing effects of interference from without during periods of transition.

And when Egypt fell from her proud estate geographical conditions still exercised their control on her history, and not the least of them was that same protecting influence of the desert, for in the 4000 years during which Egypt stood alone her inhabitants so learned to trust to that protection that they never have been able to stand against opposition. When other geographical

conditions produced more advanced civilizations, Egypt became indeed the broken reed that the far-sighted Hebrew prophet recognized her to be.

The particular forms of civilization which are characteristically Egyptian also show most clearly the effect of the geographical controls. It was natural that people who inhabited the Nile Valley should have learned how energy might be saved by means of irrigation, but it was not only the material side of life that was affected. The mental attitude is perhaps better shown in another way, for it is significant that the new idea of a future to be provided for was so drilled into the people by the seasonal variation, that the chief monuments which are left of them are temples and tombs—temples, essentially means by which the living could find out when they might expect flood and drought, seedtime and harvest, and tombs in which their frail bodies might be preserved for countless ages; while their great literary epic is the "Book of the Dead," which shows the Egyptians to be a nation given up to the consideration of the future life.

CHAPTER III

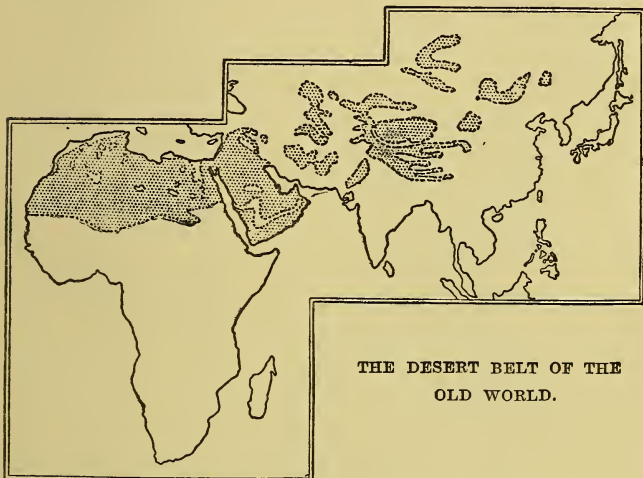
MARSH AND STEPPE: BABYLONIA AND ASSYRIA

WE have seen that the first dawns of civilization are found in Egypt, because there is found a protected land having abundance of water and warmth. It is uncertain at what time this land began to have anything we may call history, but by 5000 B.C. the peoples inhabiting it had advanced a long way from the condition of primitive savages, so far, indeed, as to be able to use stone for building tombs, if not houses.

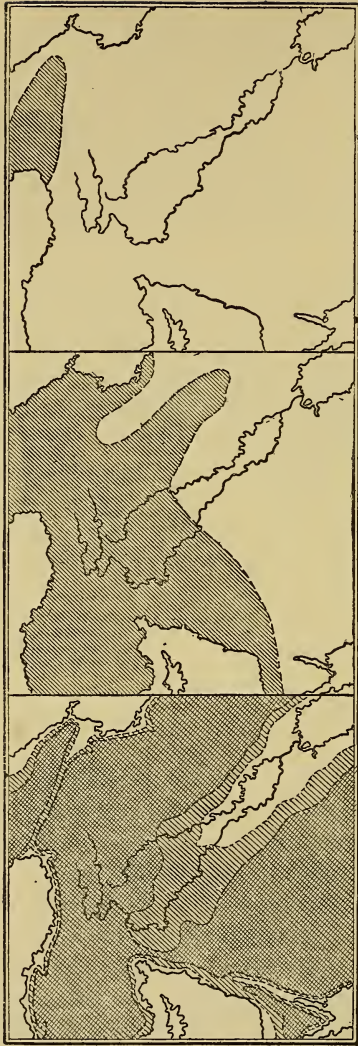
We may now look at our maps to see whether we can find any other region in the world which may have an early history because its conditions are similar to those in Egypt. We may neglect the latitudes near the poles and near the equator, because there we have found that either enough energy is not present or there is no stimulus to use it. As we have learned that the desert forms a great protection, we naturally look at the desert belt to see whether there is any other district with a supply of water to render it fertile. West of the Nile in all the Sahara there is nothing to compare with Egypt. Eastward the desert belt trends northward through the centre of Asia, which is dry because the winds have parted with their moisture on passing over the bordering mountains. But the desert is not so unmitigated as round Egypt, nor are the climatic conditions so favourable. The advantages of Egypt are unique; elsewhere

you may find protected lands, lands subject to seasonal change, lands with abundance of water or warmth, but you will find none in which they are all united so advantageously as in Egypt. Egypt stands alone.

Elsewhere there is no river like the Nile, with two sources, one in the region of constant rain, one in the region of seasonal rain, but we shall find flowing from the



belt in which light winter rains fall, two rivers, the Tigris and Euphrates, whose sources lie in lands high enough to provide in summer water from the melting of the snows which have fallen in the previous winter. Hence, while water may be obtained at all seasons, seasonal changes do occur. It might thus seem that the conditions are similar to those in Egypt, but there are differences which have materially affected the history. In Egypt the Nile flows in a narrow valley sunk steeply



RELIEF over 1600 ft.
 600 1600 "
 under 600 "

Dec.—Feb. RAINFALL over 5 ins.
 June—Aug.

BABYLONIA AND ASSYRIA.

some hundreds of feet below the level of the desert; the distance between barren waste and abounding fertility is to be measured in yards; the lands within reach of the river produce vegetation; elsewhere, as no rain falls, there is utter desert. The Tigris and Euphrates, on the other hand, have not valleys sunk far below the surrounding level. The lower part, indeed, from a little north of the latitude where Bagdad now stands, is a broad plain of alluvium brought down by the rivers. Nor is the whole lowland altogether rainless. Thus the Tigris and Euphrates do not flow through deserts. Deserts there are, on the one side and on the other. On the south-west, it is true, are the great stretches of the Syrian desert and of the Nefud, but it is only here and there that they approach at all close to the river; generally there is a belt of steppeland between. On the north-east we find deserts on the central portion of the Iranian plateau, but before even the mountain margins are reached there is a stretch of steppeland, not indeed to be cultivated except in favoured spots, yet not altogether uninhabitable, while the valleys of the mountains may collectively support a considerable population. The north-western portion of the lowland is again steppeland, so dry between the rivers as to be called desert, but with more moisture under the mountains and along the valleys.

We see, then, that Egyptian conditions exist in a modified form. There is, however, another condition present which was also present in Egypt, though in Egypt its effect was masked by the supreme importance of the desert. As the Tigris and Euphrates approach the sea and flow over the flat alluvium, they spread out in swamps and marshes which form a very considerable

protection on three sides. Extensive swamps form very effective protection for small communities; land may be traversed on foot, water may be crossed by boats, but swamps are to a very large extent impassable. Thus within the circle of marshes an early civilization was possible, all the more because the rivers themselves and their many interlacing branches afforded considerable protection, and because beyond the rivers and the swamps there was a belt of land only thinly inhabited and in parts merging into utter desert. As in Egypt, too, the sea kept off enemies; thus on the south-east, the sea, so much greater in extent than now that the Tigris and Euphrates flowed to the sea by separate mouths, was an effective protection.

This land is Babylonia. Again, as in Egypt, we see that it is the place with its conditions that is the important fact in its history, for though little is certain of Babylonia for the 4000 years after 7000 B.C., it is known that two races were concerned in the raising of the civilization in the form in which we know it, and that the earlier race had learned many of the arts of life ere they came into contact with the later.

The geographical protections were sufficient in a primitive age to keep off enemies and allow of development; they had also a tendency to divide Babylonia into smaller parts. Thus it is that, though a high state of civilization existed in Babylonia as early as, or even earlier than, the corresponding stage was reached in Egypt, yet a thousand years passed from the time Egypt was welded into a single state, before the first Babylonian Empire arose under Sargon of Accad, about 3800 B.C. Before that time the Babylonians had passed a peaceful agricultural existence in various small

independent states. Secure from savage foes behind their defences, they had very slowly through thousands of years evolved higher ways of living. They had learned how to make bricks, they had built houses and towns, they had made canals earlier than had the Egyptians, but they had not existed under one ruler. Even after Sargon's time, for another thousand years the tendency seems to have been to consider the polity as a loose confederacy of states bound together by common interests, rather than a single state under a common government.

As the conditions of living improved, it was only natural that the Babylonians should have entered into relations with their neighbours, and that a civilization originally based on agriculture should gradually have given way to one in which trade had a considerable part. This had important consequences. As long as the Babylonians remained within their defences and settled petty squabbles among themselves, the tendency was to progress free from interference from without, but expansion beyond these defences brought out the weaknesses of the position, and the history of the lowlands of the Tigris and Euphrates from 2500 B.C. onwards is the history of the endeavours of surrounding peoples to become possessed of the fertile heart land. The swamps were sufficient to keep off savages in a primitive age, when almost any protection is complete, but they were not impassable, especially after their area had been greatly reduced by the labours of the Babylonians. Beyond the swamps were districts habitable and inhabited by races who, after being brought into contact with a higher ideal of living, themselves became half-civilized, and looked with envious eyes on the fertile

lands within their grasp. Race after race held Babylonia and ruled the Babylonians, but the native dynasties were few and unimportant. On the mountains to the east bordering the Iranian plateau were the Elamites; on the continuation northward of the same highlands were the Kassites. Each held the land of Babylonia for a longer or shorter period, and such of them as descended to the lowlands adopted the civilization they found there, became separated from their kin among the hills, and were gradually lost amid the other peoples of the plain.

- Later, a power from the steppeland on the north-west came to the front. Probably founded by the Babylonians during the period of expansion, Assur or Assyria on the Middle Tigris for long was tributary to Babylonia. But separated by a considerable stretch of country, partly steppe, partly even desert, the tendency was for Assyria to become independent and dominate the more productive land under the mountains, so that by the time Babylonia began to be controlled by foreign kings, Assyria was already a force to be reckoned with.

As long as Babylonia was the centre of civilization the history of Mesopotamia was, in the main, peaceful. Its inhabitants depended on agriculture and trade, and there was little necessity or inducement to embark on conquest. Even when the dynasties from the north-eastern hills ruled Babylonia, its essential peacefulness asserted itself, but when Assyria had the upper hand the condition of things was changed.

The difference is due to geographical conditions. Except in a small area Assyria was not suited for agriculture, and there could be no great extension of that area. In Babylonia the land is flat and little above

the level of the streams, so that canals for irrigation and commerce could easily be constructed, but in Assyria the rivers for the most part lie just too far below the level of the land to be of much service. The district suited for irrigation and agriculture enjoyed a fertility which passed into a proverb, but it was too small to support a large population. Nor had it more protection than was afforded by the surrounding steppe, which becomes dry enough to be called desert only on the south-west. Its peoples, if they are to be defended, must defend themselves. Though probably not Babylonians themselves, they brought from Babylon a civilization in advance of the times, and were able to defend themselves successfully against their enemies. For defence, a strong centralized government is an advantage, so from the beginning Assyria, ruled from Nineveh, was a single monarchy, a state which grew by conquering the surrounding tribes less advanced in arts of war. By 1400 B.C. it was able to give up the farce of allegiance to Babylon, and was even able to invade Babylonia.

Fighting was bred into the Assyrians. The lesson they had learned under the stimulus of geographical conditions was that they must take energy from others, as there was not enough available to serve their needs. Babylonia, the mountains on the east, Syria, Palestine and Phœnicia were all laid under tribute. But for long they evolved no system of government to make the most of captured provinces. All the neighbouring states were overrun when they rebelled against the power of Assyria, but they were left to themselves while they paid tribute, or in times when the central authority was weak. It was only as late as 750 B.C., under what

is called the Second Assyrian Empire, that any attempt was made to consolidate conquests and use the subject states to the best advantage, so that the whole trade of the Eastern world might be controlled.

This was a somewhat higher ideal of government, but the attempt to found a trading empire by cruel conquest was as unsuccessful as the attempt to continue a trading empire without being prepared to defend it. First one tributary state and then another revolted. Some revolts were put down, but wherever Assyrian armies were *not*, there rebellion broke out afresh. Ringed round by races united in their hatred of a conqueror if in nothing else, Assyria was attacked and utterly destroyed.

Babylonia, having at length learned something of the value of united action, for a short time raised an empire on the ruins of Assyria, under a dynasty founded by a former viceroy; but on the heights of the Median plateau a new danger threatened. Brought into contact with the outer world by the trading schemes of Assyria, the Medes beyond the border mountains learned of the lowlands, and at length descended to the plain and made it all their own.

In all this history the geographical control is evident, but the history is not so simple as that of Egypt, because the geographical conditions are more complex. The main facts are, however, obvious. At first Babylonia had the opportunity to evolve a civilization of its own because to climatic conditions, at once providing sufficient energy and reacting on the minds of men towards a saving of energy, there was added adequate protection. Then Assyria took the lead because the geographical conditions stimulated her peoples to protect themselves. Just as long-continued exposure to protected conditions

evolved races in Egypt and Babylonia almost incapable of protecting themselves, so continued exposure to conditions requiring self-defence reacted in producing races in whom fighting for its own sake was an essential of life.

Since Nineveh fell, the geographical conditions have continued to act, for Assyria having failed to set up an empire based on force, the whole lowland of the Tigris and Euphrates has been a unit of which the most important part has been Babylonia. But, as in Egypt, the lesson taught by thousands of years was difficult to unlearn. The tendency of things to continue as they have been, is tremendously strong, and Babylonia has never been independent. To Elamites, Kassites and Assyrians succeeded Medes, Persians, Greeks, Romans, Arabs and Turks, so that, after 3000 years in which its original defences have counted for nothing to men who have reached a higher standard of living, and in which it has lain open to whatever people chose to take it and make what they could for the time, there is no wonder that Babylonia is now little more than its original swamp.

Yet the land is able as of old to produce its fruits and on a greater scale than in the past; vast reservoirs, as in Egypt, may hold up water from times of plenty for times of scarcity, and more effective provision may be made for the diversion of the floods which, uncontrolled, cause these swamps. Under wise rule it might again be a garden.

CHAPTER IV

THE WAYS: PALESTINE AND PHœNICIA

It has been pointed out that two centres of civilization arose in Egypt and Mesopotamia because the geographical conditions in these two regions gave the people living in them an advantage, on the whole, over their fellows elsewhere. The rise of these two centres, and especially of the latter, affected the inhabitants of other districts near them. Naturally those peoples inhabiting the lands between the two were affected not, perhaps, as greatly as others at any one time, but more continually and in the long run more effectively.

Though there lies on either side of Egypt an almost impassable desert, yet at the north-eastern corner, along the shores of the Mediterranean, the desert has a fringe of coast which is not so desert as the rest, and shades farther north into a strip of fertile, fairly watered, low coast land and inland hills, the home of Philistines, Hebrews and Phœnicians. This district forms a connecting link between the two great early centres of civilization, and owes its supreme importance to that fact.

Thus in the study of advance in civilization, of history, we are introduced to another geographical control. Not only do men *live* in places where existence is easiest,

in the sense that more energy may be used, but they *move* in the directions in which movement is easiest, where least energy is expended in motion. Movement is always along the lines of least resistance, as we say. When roads exist men pass along them, but long before roads existed there were routes along which, owing to geographical distributions, movement was easier than elsewhere. These are ways, not roads. A road is so many feet or yards wide, a way has not any definite width. There is a way from the door of a room to the fireplace, the way one walks avoiding any obstacles between, but there is no road. There may be one way and many roads. The way to Scotland from London lies northwards between the Humber and the Pennines, through the plain of York and the Newcastle plain, round the coast to Edinburgh. The Great North Road was, and is, one form of it; the Great Northern Railway with its allies is the corresponding *Railroad*. There is no road from Mesopotamia to Egypt, but there are very definite ways which for part of the distance become one. It was comparatively easy to pass from Babylon up the Euphrates valley, then across to the valley of the Orontes between Lebanon and Anti-Lebanon, down the valleys of the Leontes and Upper Jordan, across the plain of Esdraelon, past Megiddo or Armageddon, the meeting-place of the armies of this little world, through the land of the Philistines by the shores of the Mediterranean, across the narrow strip of desert to Egypt. It was less easy, but shorter and thus more economical of energy for traders who had reached a certain stage of civilization, to cross the narrow northern end of the Syrian desert to the oasis of Damascus, the jumping-off place for crossing the desert towards the east or the landing-place on the

west, and the essential part of Syria. However they came, they all passed through Esdraelon and Philistia.

This Way did not spring into importance at once; its importance grew with the growth in importance of the two lands between which it lay. Nor must it be thought of as having even the traffic of a country road in England; but it was the route taken by far the greatest portion of such trade as was carried on in the world at that time.

Naturally we need not expect the lands through which "the Way" passed to have a history as early as had Egypt and Mesopotamia. Between these there lies a wide space, so that they must have had a civilization of a high order, and their influence must have been extensive, before they came into contact with each other. Even then the first contact seems to have been purely accidental. In the times of the 4th Dynasty in Egypt and of Sargon of Accad, *i. e.* about 3800 B.C., expeditions from both lands were sent to the deserts of Sinai to work the copper mines or obtain stone suitable for sculpture. But by "the Way" in course of time commerce took place and armies marched, so that for 3000 years, during which Egypt and Mesopotamia were the important lands in the world, these fertile coasts of the southern Levant assumed an importance out of all proportion to their size. Since this home of Philistines and Israelites was the door between the two empires of the Ancient World, it is little wonder that these peoples figure so largely in history, though Palestine itself is so small as to be only about the size of Wales.

Egypt and Mesopotamia at various times claimed the right of suzerainty, but even when it was claimed the control was not always effective, and for the greater

part of the time we are considering, the lands through which "the Way" passed were occupied by peoples who owed allegiance to none and, at first continually at war with each other, were gradually civilized by recognition of the advantages obtained from trade passing through their midst. It was only about 1000 B.C., in the times of David and Solomon, when Egypt and Assyria had declined in power, that the hillmen of Palestine, the Israelites, as opposed to the coastmen, the Philistines, held "the Way" so effectively as to be able to establish an empire comparable to the other empires of the Ancient World. When that kingdom split in two, it lost effective control of "the Way," and became again merely a little hill state in its neighbourhood—centrally placed, indeed, but not politically effective. Leaning first to one and then to another of the two great empires, the kingdom of the Hebrews was finally crushed in the struggle between them.

When Egypt and Mesopotamia gave place to others, then the geographical importance of the way between became of little account, though Jerusalem must always have a tremendous significance for reasons with which we have here no concern.

A related geographical condition was the next to influence the world's history—a condition dependent on the distribution of land and water. It is obvious that man must live on the land. States must be on the land, so that history concerns itself in the first place and mainly with the land. But though no large body of men can live permanently on the water, can use energy profitably and have a history on the water, yet, on the other hand, movement, as opposed to settlement, is much more easily possible on water than on land. On land there

are barriers hindering communication; these must be surmounted or detours must be made to avoid them: in neither case is energy used with adequate return. Not only so, but very much less energy is required to move a given amount of matter on water than on land. That is to say, water is more fitted than land to form "a Way" by which men and goods may be taken from one place to another.

This fact was known to both the early empires. The Nile, Euphrates and Tigris not only supplied water for irrigation and man's more immediate personal wants, but were found to be *ways*. At first rafts, mere bundles of reeds, were used; then bladders were employed to give greater buoyancy; later, light boats were also made use of, and in the latter the Babylonian traders of 3000 B.C. may even have ventured out into the protected waters of the Persian Gulf, while Egyptians certainly used a few vessels in the Red Sea on one occasion a century or two later. These were, however, exceptional and noted with wonder. It was to the rivers that boats were restricted.

On rivers, though less energy is used than on land, there is the disadvantage that men must go where the river goes. Rivers, and especially those with few or no tributaries like the Euphrates or Nile, cannot, even when supplemented by canals, be of such service as the sea, for, when once on the sea, it is possible to go to the ends of the earth. Thus the geographical distribution of land and water is of enormous importance, and one of the most important features of that distribution lies in the fact that communication by sea is easy, just because the sea is one and the lands are many.

But to those early peoples, even after thousands of

years of civilization, the mystery of the unknown forbade a greater knowledge of the sea. Everyone was familiar with the land, but the fertile districts on which men lived were separated from the sea by marshes. Rivers flowing through the land were familiar, but no one knew the sea; to venture on it was a fearful thing. When men did discover the sea, they made one of the great discoveries of the world; henceforward it became part of history. It was no longer an impassable barrier, but a bond which united all lands on its borders.

It is significant that it was the people who lived where the great land Way came to the sea who really made the first discovery. Here under the mountains is a fertile though narrow belt of coast on which is no border swamp; here the sea is deep. Thus the inhabitants of this land are never out of sight of the sea; they are compelled to think of it, and they can with far less trouble than elsewhere launch their boats out on to the deep.

It was of extraordinary importance, too, that the particular sea that was thus discovered was the Mediterranean. It is, as many have pointed out, a place where seamanship, not merely river navigation, may be learned. As its name implies, it is set in the midst of lands, and because it is an inland sea not only are storms of less effect than on the open ocean, but, what was of even more importance for these mariners of old, it is a tideless sea, so that almost anywhere, at almost any time, small vessels, and such they all were, could easily land. These advantages it had in common with the Persian Gulf and with the Red Sea, though its far greater extent was of importance. But there are other advantages not possessed by either of the others. Its coasts on the whole are far more fertile, nor is it wanting

in good natural harbours ; with its many projecting points and indentations of coastline, and islands rising through the waters, land need never be far out of sight, and may always be a refuge. It is a very nursery of seamen.

When this sea was discovered to be a Way, the people of the junction land, the jumping-off place, the Phœnicians, the inhabitants of the city states of Tyre and Sidon and the rest, took their place as an important factor in that little world of olden time. It is obviously to be expected that the form of civilization based on the sea should develop later than those we have hitherto spoken of. It is natural that these states should develop only after the Way was recognized, and thereafter long time must have elapsed before the minds of men were stimulated to action by the ideas involved. By 1600 B.C., however, the Phœnicians were recognized as sea traders, so that long before this they must have begun their venturesome career. It is possible that originally they came, along the Way, from Babylonia, where they were familiar with boats and trade, where clear skies tempted to a study of astronomy, which was of incalculable service in guiding their ships by night. If this is so, their fresh surroundings stimulated them to advance in new directions. First Sidon and then Tyre took the lead among the cities scattered along the coast from which ships went out to barbarian lands ever more and more remote. It may have been that they went at first in search of the shellfish which were required in always increasing quantity to dye royal robes with Tyrian purple.

However that may be, search for the dye was not their only aim. Trade or commerce of any kind, so long as it repaid their trouble, was welcome, and that their

trade might be conducted with greater security, colonies were established from end to end of the Mediterranean, so that by 1000 B.C. the Phœnician confederacy, though loosely knit, formed a whole which had to be reckoned with. They ruled over very little land, it is true, for they were essentially traders, and traders do not require large areas of fertile land on which to grow their food; they can buy it with the profits of their business. Tyre, Sidon and Carthage dominated only small districts round them, and their territory was not, as was that of Egypt or Babylonia, a compact whole; it was scattered over the coasts of the Mediterranean, which united those isolated lands into a power of a different order from any that had been before.

Not only was the rule of the Phœnicians a new thing, but they individually possessed moral qualities of a new kind, likewise bred into them by their surroundings. That barbarian markets continued open to them so long implies that their behaviour must have commanded respect. Trade is essentially peaceful; so much the Egyptians and Babylonians had learned. But the Phœnicians learned more: they learned to be brave, and they were no mere fighters like the Assyrians. Constant voyaging over wild seas in fragile vessels not only bred a bravery of a high type, but a love of freedom which enabled them again and again to withstand successfully even the might of Assyrian arms.

Though Assyria failed to absorb Phœnician trade she crippled the trade she could not take, so that from the sixth century B.C. onward the Phœnicians of Phœnicia were of less account. They were not finally destroyed, however, till they were brought face to face with a sea-power whose story we have now to consider

CHAPTER V

THE SEA : I. GREECE

WE have seen how, protected by deserts and marshes, ancient civilizations arose in Egypt and Mesopotamia; how, as a result of the natural intercourse between them, other states became of importance, and how the sea became a bond as well as a barrier. In so doing, we have followed a natural sequence. We must now consider how in other places besides Phœnicia and Egypt the sea acted as a control, at first as a protection and afterwards as a bond.

The people with whose homes we are concerned are those who in later times called themselves Hellenes, but whom we call Greeks. The home of these Hellenes was Hellas, or, as we would say, Greece. Wherever Greeks were, there was Hellas, and it is Hellas with which we have to deal. A popular misconception must be avoided. If we look at a modern political map, and then think of Greece as only the south-western extremity of the Balkan peninsula, where the mountain ridges are beginning to break down to the sea, we are correct in the sense that this is the modern kingdom of Greece. We are wrong if we think of this land as the only home even of modern Greeks, and we are still further wrong if we think of this as the Greece whose history is now to be considered.

If we look at a map showing the distribution of races

in the Nearer East, it will be seen that the real Greece, the real land of the Greeks, to this day comprises *all* the coasts, peninsulas and islands of the Aegean Sea; and the Aegean Sea is, of all parts of the Mediterranean, that which has more islands dotting its surface and more peninsulas and promontories breaking the regularity of its coastline than has any other. So thickly is it sown with islands that the name given by the Greeks to their chief sea has come with us to signify an assemblage of islands. This but emphasizes the character which makes the sea important, for the most primitive culture of which we have any knowledge in Europe arose on these islands and peninsulas.

Here we have lands where, protected by the geographical conditions, there was a chance for men to perfect a civilization free from outside interference. In this region two contrasted forms of civilization arose. Which was the earlier, we have no means of knowing.

(i) On the one hand, in the large island of Crete, in the Peloponnese, which is almost an island, and in one or two other favoured spots, there gradually arose a higher standard of living, because in these lands, while they were almost entirely protected from invasion, there was room for considerable expansion. The condition of the people gradually improved, so that by 2000 B.C. great stone buildings were erected and many arts and crafts of a simple kind were practised. The cities thus built were placed as far inland as possible, so that there might be the less danger from seamen who might attack dwellers by the shore, but who would be chary of trusting themselves far from their element, the sea.

(ii) On the other hand, seamen did exist even in these early times. Possibly they came from the smaller

islands from which the sea was always in sight, so that it was bound to be familiar to all. Thus it is probable that, even earlier than the Phœnicians, the inhabitants of these lands had built boats and sailed from place to place.

As the culture which had its seat in protected parts gradually evolved, it was to be expected that the horror of the sea natural to land men should give place to knowledge of it. Thus when this culture reached its zenith about the time of the 18th Dynasty, 1600 B.C., it had spread over all the islands of the Aegean and the coasts of Asia Minor, and had left traces in what were later to be called Italy and Sicily, while the ships of Crete, at any rate, were known to the Egyptians, and embassies were received at the court of the Pharaohs. It was, however, a culture that spread, not an empire that ruled.

In early times the sea was a barrier, so that Greece, like Egypt and Babylon, has geographical conditions which favour the development of an early civilization; but the differences must be as carefully noted as the resemblances. As Babylon within its marshes was different from Egypt surrounded by desert, so Greece protected by the sea was different from either. Egypt, owing to its length, was divided naturally into Upper and Lower—the kingdoms of the North and South as they were called—the Delta and the Valley, and these again into smaller districts or nomes; but these latter were not separated from each other by any natural barriers of much account, so that Egypt in history is generally under one ruler, occasionally under two rulers, and only in exceptional circumstances under such divided authority that the nomes were independent. Babylonia, again, notwithstanding that it was much

more compact, was yet subject to a far greater tendency to division into smaller states than was Egypt, as the barriers between those minor states were more important and the unifying effect of the river was not so greatly felt. Eventually, however, since the barriers were not complete, the states of Babylonia were compelled to enter some sort of union. But the islands and peninsulas of Greece, when the sea was a barrier, were separated very completely not only from all else but also from each other, and even when it became a bond, distance still intervened; the frontier was not a line but an area.

These conditions not only controlled history more or less directly by making one course more possible than another, but also affected history more at second hand, though none the less effectively, by reacting on the minds of the Greeks. They looked on the sea with different eyes from the Phœnicians. To the Phœnicians the sea was a means of setting up trade routes; to the Greeks it was a means of preserving their independence. To the Phœnicians it was primarily a way; to the Greeks it was primarily a defence. For this reason mainly, one characteristic of Greek civilization is the intense feeling of independence felt by one state not only of men alien in race, but even of other Greek states. And this feeling is strengthened by the great differences which, owing to the physical features and consequent diversity of climate, exist between even adjacent parts of the mainland. Thus each state felt its own unity so strongly that no Greek empire was ever established.

This was no passing effect. About 1000 B.C. the form of civilization which had held the field in what is now modern Greece underwent a change. Tribes from

the north invaded the land, and for a time there was an apparent set back. This was not permanent, for the infusion of new blood helped to quicken the distinctively Greek form of culture, and brought it to a finer fruition. With this we have at present little to do. What we have to notice is that, though there was some change in the distribution of states, the action of geographical controls was little changed, and such changes as did take place were due to the different effect the controls had on the minds of men who had unconsciously learned more of the methods by which energy might be saved. The newer Greek civilization spread over the islands and peninsulas of the Aegean in the same way as did the earlier, but it spread faster because the sea was known better and was found to be something of a way. On the other hand, the lesson learned through long years that the sea was a protection, and the outlook on life implied in the lesson, are just as obvious in later as in earlier history.

The internal history of Hellas exemplifies the control of the geographical conditions. New states indeed arose. Instead of Argolis and Thebes we hear of Sparta and Athens, but the history is just such as might have been expected. Owing to the diverse interests of the small units we see continual kaleidoscopic change during the three or four centuries in which Greece is clearly before our eyes. There was little stability for each unit; indeed even the members of each unit were in a like case, and felt that individual claims ought to be considered. Through it all the fundamental importance of the sea stands out clearly; the internal history of these Grecian states—of Greece in the wider sense—consists in a struggle for supremacy between con-

federations of those city states based as much as possible on the land and confederations based as much as possible on the sea. Naturally, as we see it now, the victory rested for the longest time with the confederacy based on the sea, though, owing to the usual tendency towards separation, this time was itself but short.

The external history is equally instructive. We have seen that to the Greeks the sea was a defence, while to the Phœnicians it was a way. To them, the Phœnicians, it was little of a protection, for their danger came not from the sea but from the land. In their new enthusiasm, with no rivals, or at most only individual pirate ships, to dispute their claims, they at first went far afield and were much scattered. Phœnicia, if the term be taken to include all the lands under the influence of the Phœnicians, was much less compact than was Greece, because there was as yet no sea-power or idea of it. It had not entered into the minds of the Phœnicians that commerce required to be protected, defended, just as much as agriculture; that merchant ships moving on the sea required organized defence as much as cities and states fixed on the land. It was natural that, having no rivals, they should think so. Yet, though defence is necessary for commerce, there is no natural defence on the sea; wherever the sea is, there is a way open to all and debarred to none. The only defence lies in the seamen themselves, and, other things being equal, the more seamen there are in one place, the better is the defence. Viewing the sea as a battlefield, the Greeks, on the other hand, were little disposed to allow others to share with them in the advantages of the sea, and were the more able to enforce their will. Hence it is little wonder that when at last the Greeks did become traders, they should be somewhat

more cautious in extending their operations to districts in which they would be at a disadvantage, and they were able by force to oust the Phœnicians from trade with many lands to which they had comparatively easy access. The Phœnicians never cared for fighting for its own sake, and when they felt the pressure of competition, knowing there was room for all, they just went somewhere else. Thus on becoming merchants, stimulated by the example of the Phœnicians or as a natural result of the geographical conditions, or more probably in consequence of both controls, the Greeks eventually drove their rivals from the eastern Mediterranean and made it their own.

It was not, however, only with the Phœnicians that the Greeks were brought into conflict. We have seen that after Nineveh fell, the Medes held sway over much of the empire of Assyria. To the Medes shortly succeeded another race from the mountainous border of the Iranian plateau. The Persians ruled over all the empire of Assyria, and extended her frontiers in almost all directions, with the result that for the first time in history a land empire was brought to face a sea-power. Greece included the coasts of Asia Minor. These coasts Persia now approached from the plateau in the rear after the conquest of the kingdom of Croesus, which had never been tributary to Assyria. Probably the Persian rulers thought that the inhabitants of these coast-lands would at once submit, as the Phœnicians had done. The latter, with little idea of the protecting power of the sea, bent to the storm, paid tribute, and carried on their trading as before. To them it was a natural thing to do; it paid them to do it. But the Greeks looked at things in a different way: again the important fact is the

mental attitude induced by the geographical conditions. Even to the Greeks of Asia Minor independence was more than trade, and the coasts of Asia Minor were only part of Greece. They looked to the sea, not to the land; they looked away from Persia, not towards her. The Phœnicians of the Phœnician coast could receive no help from such colonies as they planted; the Greeks of Asia Minor could continually receive assistance from their brethren over the water. The Greeks on the mainland might be conquered, for a time, by an army, but there still remained the Greeks across the sea and on the islands which formed a base inaccessible to a land-power without a fleet. A sea-people can be crushed only by a sea-power. Persia, then, finally used the ships of her dependents, especially the Phœnicians, but also the Cilicians and even the Egyptians, and attempted to conquer the Greeks across the sea. Xerxes marched his army—probably the greatest the world had seen or was for many centuries to see—overland, and the very fear of it caused many Greeks to submit without a blow, but at Salamis, in the first of the long series of great sea-fights which the world has seen, the little sea-state of Athens, pushed to desperation, overthrew the fleet of Xerxes, and destroyed any effective control of the sea by the great empire of the east. Now it is to be noticed that it was the mental attitude of the Persian king, it was the want of familiarity with the sea, which was the crucial point, not want of ships. At the conclusion of the battle Xerxes had more ships fit for action than had the Greeks, but because Xerxes came from a land in which the sea was looked on as a strange thing, because he was not a seaman, he mistrusted the sea and retired defeated. If his fleet had been quite

destroyed, retreat might have meant no more than that the accidents of war were against him, and that he would come again, but retreat while his fleet was numerically superior implied an acknowledgment that the sea was beyond the rule of Persia.

This was in 480 B.C. Into less than the next century and a half is compressed the Golden Age of Greece, when those men lived who have made Greek culture memorable. During all the time the influence of the sea, direct or indirect, is always prominent. It is significant that one of the best-known stories in all history should be of that shout of the "Ten Thousand" when, after months of wandering, their eyes beheld the waters of the Euxine. That cry of "The sea, the sea," rivets attention on the controlling influence in the history of Greece, and is all the more striking as coming from an army made up for the most part of Spartans, who valued the sea somewhat less than did their brethren.

As it was natural that Athens, the state which was most dependent on the sea, should have been instrumental in bringing to naught the arms of Xerxes, so it was inevitable that Athens should then take the lead in Greece, and hold it for a longer time than did any other state. But this time was itself short—some sixty years. Embarking on a career of conquest oversea, one fleet was destroyed in Sicily by other seamen, and her prestige was in a moment gone. When a second fleet, endeavouring to protect the corn supply coming from the Black Sea, was also destroyed in the Dardanelles, her recuperative power was not strong enough to bear the strain; she was starved into submission, and became again negligible.

To Athens succeeded Sparta, but for little more than

a generation, and, to Sparta, Thebes for some ten years, ere again the forces of disruption were too strong. Thebes never had control of the sea, and Sparta held it for only a few years after Athens fell. It was then partly regained by the Athenians, partly held by the Greek city states of Asia Minor, and partly by the Phœnicians. The latter, as we have seen, had been compelled by their situation to throw in their lot with Persia. The Greek city states of the mainland of Asia Minor, though sometimes not in vain they looked to Greece for aid, were still almost in a like ill case. By the help of these, when Greece was disunited, the Persian king was able, on two occasions, at least to claim, though he could scarcely be said to exercise, some kind of control over the whole of Greece.

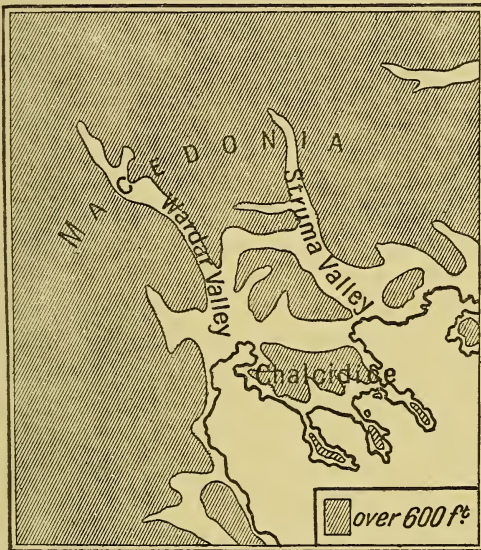
Two conditions were, indeed, necessary in order that the whole of Greece should be united: effective control of the sea and effective control of the land. Greece consisted of islands and peninsulas. The former can obviously be united only by control of the sea; the latter must always be vulnerable from the land. When an organized land-power arose, the disunited states of what is modern Greece were one and all compelled for a time to acknowledge one single overlordship; and when to power on land was added power on sea, there arose a state strong enough not only to subdue to itself the whole of Greece, but to unite for a short time all the world that then mattered. The Macedonian conquests under Philip and Alexander show the controlling effect of individual men on the course of history. Nevertheless, the geographical controls, if not so obvious as in other cases, are yet as effective in this case as in others, and are perhaps more obvious if it is remembered that the

geographical controls produce their effects by acting on the minds of men.

The little world known to men—to civilized men—consisted now of Egypt, Mesopotamia, Greece and the lands between. Beyond this circle there lay lands and seas known in some vague way to those within the margin of mountain and desert. The mountain men, the Medes and Persians on the east, had descended on Mesopotamia, and sweeping westward had found a limit to their conquests in the seas and highlands of Greece. In so doing they had forced on the attention of the Greeks, and especially of the European Greeks, the existence of a great civilized power to the east. The Greeks thus tended to look eastward, and gradually came to realize that more easily than Xerxes had come west could they go east. Individually better men than the Asiatics, because of their Grecian birth and training, the "Ten Thousand" had shown an invasion to be possible. Agesilaus of Sparta had begun an invasion, and Jason of Thessaly had dreamed of the conquest of Persia by a united Greece. But both Agesilaus and Jason were thwarted in their aims, though only because Greece was so disunited. Thus the idea of the conquest of the East by Hellenic forces was no new thing; it was the natural result of the geographical conditions.

The possibility of its accomplishment was equally the result of geographical conditions. Macedonia is not quite Greece. It is more remote from the sea than any of the states of Greece; it has the largest rivers and the largest valleys of all Greece. Thus the Macedonians were not seamen as were the Greeks; they were landmen and mountaineers for the most part. They were civilized to a considerable extent by their

nearness to the Greeks, yet because of their remoteness from the sea they retained more of their primitive habits, especially obedience to the authority of their chiefs. This made them excellent soldiers, in particular when fighting became more of a science, when energy was economized in fighting and the army became more of a



MACEDONIA.

machine, when some thousands of men were drilled to act as one. Somewhat remote from attack themselves, it was natural that when the time came, they should be successful, where men of other states had failed, in imposing their authority on all Greece.

Nor was Macedonia, like Persia, without all knowledge of the sea; expansion beyond the river valleys brought

her at once into touch with the far-projecting peninsulas of Chalcidice, with its many merchant cities dependent on the sea. Further expansion brought her at once to a position by which she was able to control the Hellespont.

She was thus in a very different position from either Persia or Sparta, the other powers essentially based on the land, who had attempted to control Greece. The former from afar attempted to control the sea cities of Asia Minor; the latter for a short time, across the water of which she was not really mistress, had held the Hellespont. The position of Macedonia, as a land power holding the sea, was stronger than that of either; there are no islands round Chalcidice to form a base for an opposing sea-power, and the whole coast is within easy reach.

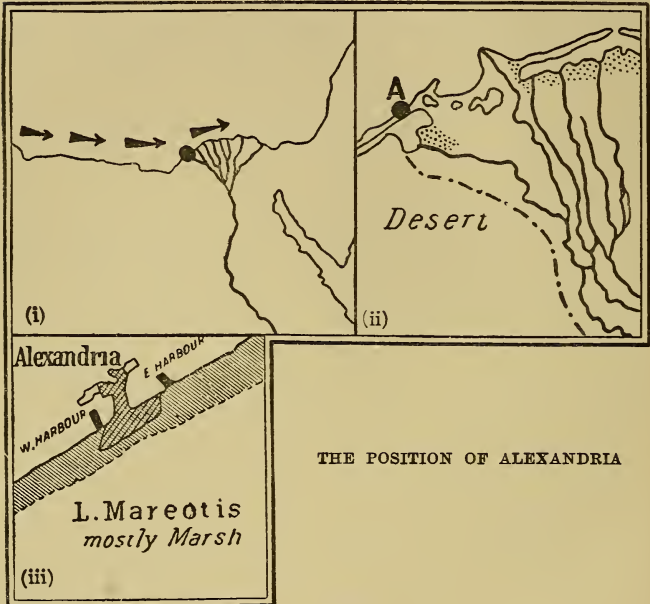
It was to be expected that with something new in life learned from the geographical conditions, the race of men inhabiting this mountain land should not pass away without having exerted some influence on their world; it is conceivable that one of the other Greek states might have produced men who could do what Philip and Alexander accomplished, but if forces which had their origin in Greece were ever to overrun the world, it is most natural that they should come from Macedonia. Here, on the one hand, with a continent behind it, the idea of a land empire would have much more effect, and it would be much more evident that conquest of land must be by an army; and, on the other hand, there would not be the fear of the sea natural to landmen, but it would be recognized, by acute minds at any rate, that the control of the sea was necessary as a preliminary condition.

Philip, taking advantage of the jealousy of the Greeks, bound all the separate units of Greece to Macedonia. Alexander the Great by means of fleet and army, a combination now used on a large scale successfully for the first time, conquered nearly all the lands that had a claim to be called civilized, and let in the flood of Greek civilization on the whole of Asia Minor, Egypt, Mesopotamia, the Persian Plateau, Turan, and even for a moment stirred the peoples of India, who, largely shut off from all else, had slowly been perfecting a civilization of their own.

The Greek ideal was, however, not empire but politics. The empire had been set up by two men, while the capabilities of the Greeks for government were unchanged. It is little wonder, then, that after Alexander's death all his empire should have tumbled to pieces, that the natural geographical units—Egypt, Mesopotamia, Persia, Asia Minor, Greece and Thrace—should have fallen into different hands; that, in the turmoils that followed, these lands should gradually have drawn apart, though for the most part ruled by Greek or Macedonian dynasties; that Greece itself should still have been disturbed by internal dissensions, and that in no long time it should have been absorbed into the new empire of the west.

But the sea still continued to control Grecian history. The whole eastern end of the Mediterranean was permeated by Greek civilization. Greek cities arose in foreign lands. For the first time the capital of Egypt was placed by the sea. The ancient capitals of Thebes and Memphis were inland; when the Greeks ruled, they had to place their capital, Alexandria, where they could gain fresh strength from their base of operations in

Hellas over the water. Antioch, too, owed its growth and importance to its position in the gate between the highlands on the north and south, where, by way of the Euphrates, access might be had to Babylonia; and it



THE POSITION OF ALEXANDRIA

Alexandria is—

- (i) at the Western entrance to the Nile Valley, to avoid the silt which the river brings down and which is carried eastward by the current of the sea.
- (ii) between the marsh and the desert on the first piece of solid ground where there was a natural harbour.
- (iii) on an island (since joined to the mainland) with a marshy lake behind and hence suited for defence.

was related not only to the sea-approach but to the land-approach, where the traveller coming by the land way from Byzantium, skirting the drier region in the

centre of Asia Minor, has to make his choice between Babylonia or Egypt.

Though in the lands of Syria and Egypt the Greeks remained only as merchants and rulers, a caste apart,



THE POSITION OF ANTIOCH.

yet they gave an idea of social unity to the whole area which had been the world, and when again after centuries the Roman Empire in its turn broke up, the Greek city of Byzantium, successor to the heritage of the earlier Troys, controlling the coasts of the Aegean and the Black Sea, remained the seat of a great eastern empire,

and these coasts were the last remnants of that Eastern empire to be submerged by the flood of Turkish races.

And the contrasts remain still; the Greeks still remain in the coasts and islands of the Aegean; modern Greece was one of the first nations to appear independent of Turkish rule, and that independence was won for her by a sea-fight on her western shores at Navarino. Once again Salonica and Chalcidice are under Greek rule, but coasts of Asia Minor inhabited by Greeks are held by a power based on the land.

II. CARTHAGE

We have seen how, protected in various ways, early civilizations had peace to develop. The geographic conditions both gave the protection and controlled the direction which the energies of the people should take, on the one hand by determining the line of least resistance, and on the other by reacting on the mind and causing it to choose courses of action which in the long run might be the easier, but which at first might be more difficult. Now we must remember two things in order to understand the further progress of history and the way in which geographical controls have acted.

(i) The peoples inhabiting the regions already referred to were subject to these controls for many ages, and under the influence of these controls the characters of the people, their tastes, habits and ways of living became fixed, so that even when in course of time some of the stock were forced or induced to move to other lands, the characteristics acquired through many generations were transmitted to their descendants.

How this "transmission" takes place does not matter; in some cases there may be some direct physical inheritance, in others the transmission takes place by some form of teaching, direct or indirect.

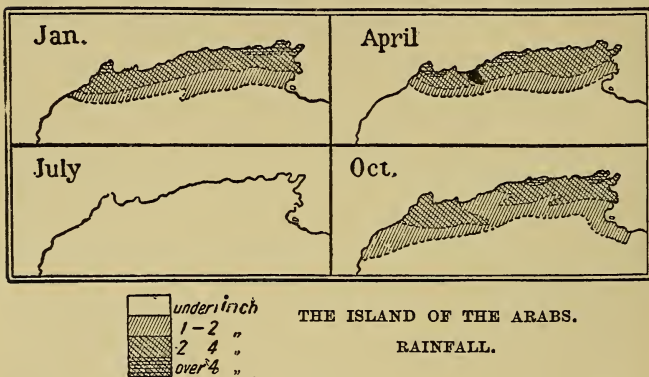
Henceforward history is not so simple as it was in earlier stages. The lessons learned by men under one set of conditions have to be modified to suit a new set of conditions. The new geographical conditions act as controls, but their action may be somewhat modified by the continued action of the old geographical conditions on the minds of men. The momentum of the machine, of which we spoke in the first chapter, is of importance.

(ii) Also, though some peoples were so favoured that they learned more quickly how to make the most of the energy that came to them, though they stand out so prominently because they show how energy may be saved, yet other men and races, perhaps stimulated by the more civilized, were advancing in knowledge of how to make the most of life. The average civilization of the world was gradually rising, but those folk who merely copy without originating must always be of less account than those who originate the advance. By the period we are now considering, many peoples were more highly civilized than were the ancient Egyptians of whom we learn first, but others had progressed much further still, and it is always the races which are in the forefront of the advance that tend to dominate the rest; hence the history of the world is largely determined by the more advanced peoples, the form which the advance takes being controlled by the geographical conditions.

Remembering these facts we shall see that the next stage is an advance, that it is a natural advance, and

that geographical conditions control that advance both directly and indirectly.

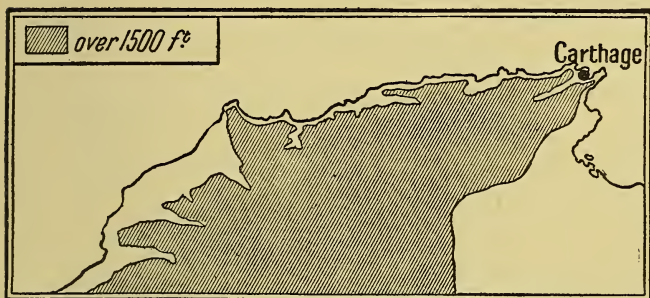
The Phœnicians were induced to become traders by sea because of their position; because they were traders by sea they found it convenient to establish stations, more or less permanent, on coasts to which and from which they took their wares. All the coasts of the Mediterranean were thus dotted with their trading posts. The Greeks, as we have seen, gradually ousted



their rivals from whatever posts they held in the Aegean, and Alexander, in securing that sea by taking to himself all the coasts of the Levant as far round as Alexandria, was only giving the last blow to the prosperity of the great Phœnician trading communities of the eastern Mediterranean.

Trading communities composed of peoples of Phœnician stock did, however, continue to exist in the western Mediterranean. These had been planted by the Phœnicians of Phœnicia beyond the range of Greek influence,

and were again and again reinforced by bands of emigrants from Levantine shores when the rule of the land powers behind became too oppressive. Such settlements were for long mere commercial factories like those planted by the British in India. Of these the most important was the group of cities in what is now Tunis. Looking at our maps of Africa we shall see that in the north-west, between the desert and the sea, there is a belt of land exposed during a part of the year to the westerly

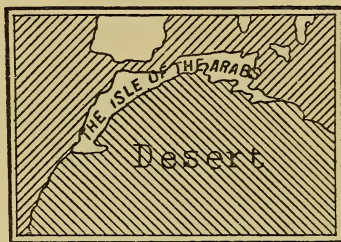


THE ISLAND OF THE ARABS: RELIEF.

winds, which bring rain; it is mainly highland and largely plateau. This is really an "island" in which a civilization of a kind might have a chance of evolving, but it is too large to be ruled by a power that has not reached a considerable degree of organization,¹ while it is too homogeneous to be divided into small pieces. The eastern and western ends are, however, somewhat distinct from the middle, as they contain plains or valleys of some extent. In the eastern or Tunis end—the end nearest their old home—the Phœnicians naturally

¹ Note what this has to do with the saving of energy.

planted their colonies. The inhabitants of these colonies were friendly to the natives, and did not look on themselves as owners of the soil. They were traders and sea-traders; they looked on the possession of land as unnecessary, not because of anything in their present surroundings, but because of the influence of other geographical conditions to which they were no longer exposed. They had been stimulated to act as they did by the existence of the "Way," but in the western Mediterranean there was no corresponding land way.



THE "ISLAND" OF THE ARABS BETWEEN THE SEA AND THE DESERT.

The existing geographical conditions also had their effect. In their old home they were between the two empires which had their seats by the Nile and the Tigris-Euphrates. They had been accustomed to the idea of others ruling the land, while they traded by land and sea. In their new surroundings they were the superior people. There were no overlords on whom they could look even as equals. The natives on whose land they had settled, and with whom they traded, exercised no rule over men. These geographical conditions reacted on the history. Not only did one city take the lead, as Tyre and Sidon had done in Phœnicia,

but Carthage did more, she actually set up an empire and subdued these other cities to herself, and extended a direct rule over what is almost exactly the modern Tunis.

Across the seas the result was the same. In the eastern Mediterranean the Phoenicians had given way with scarcely a struggle to the Greeks. In the west Carthage refused to withdraw from trade when the Greeks endeavoured to extend their colonies westward. Secure on land, or on as much land as they wished, the



PHENICIAN AND CARTHAGINIAN LANDS.

Carthaginians set up a sea empire based on trade, over all the western Mediterranean. The north coasts of Africa, western Sicily, Sardinia, Corsica and southern Spain were all under Carthaginian rule, and into the seas between no foreign merchantman dared venture.

The character of the rule, too, was due to geographical controls. Because of the unbroken coast and the lack of small islands, there was in the western Mediterranean a want of that spirit of individual independence which was at once the strength and weakness of the Hellenic civilization, so that once the rule was set up the empire of Carthage was by so much the more stable. Carthage

had the advantage, too, of its insular position, in that there was less danger of attack from the land, and, as a matter of fact, attacks were made on Carthage only from overseas.

But the position had its weakness also. Largely owing to geographical conditions the people over whom the Carthaginians ruled had not reached such an advanced stage of civilization. They were thus looked on as inferior, and were ruled as Assyria had ruled her conquests, with a high hand. As the Carthaginian Empire grew, the friendly feeling between natives and traders gave place to dislike and hatred of conquerors. When the time came for Carthage to meet another empire which had learned another lesson of government, of how to use men's energies to better advantage, Carthage fell, because, though other conditions were nearly equal, though fleets and armies were intelligently used by each, the Carthaginians were still at a disadvantage. Their armies were composed of men who were not in sympathy with their masters, and who supported the Carthaginian power only so long as they were paid. The money to do this was obtained as the profits of trading: it represented energy saved by the Carthaginians; but when the profits of their trading disappeared, when they lost the command of the sea, they were deserted by their mercenary soldiers, and they had no patriotism to fall back on. When Carthage lost her sea-power and fell, she fell utterly, and the Phœnicians disappeared from the scene.

CHAPTER VI

CONTRAST BETWEEN SEA AND LAND : HIGHLAND AND LOWLAND : ROME

THE next stage in the history of the world is one which is far more complex in its causes than any we have yet considered. It is not a single group of geographical conditions which we must now notice, but a series of groups, each of which in succession had more effect than the others. In addition, the cumulative effect of all the history that had gone before must always be remembered. The lessons might not be consciously known by those we call the Romans, but they were acted on, and the great discoveries of the peoples who had previously made history were so combined in the Roman Empire, that, perhaps more than any other, Rome has influenced the later course of history. Without those previous empires, however, Rome could scarcely have been what she became. Thus we have geographical controls acting at second hand, for the original existence of these empires was largely due to geographical conditions.

The possibility of combining the lessons taught by these empires was equally due to geographical controls. So far we have seen three empires—Egypt, Chaldea, Assyria—entirely based on land. Two of them were protected by the natural conditions, and the latest of them learned to protect itself. Then we saw a succession

of three peoples powerful on sea—the Phœnicians, Greeks and Carthaginians—who respectively did without protection, were protected, and protected themselves. For a brief moment a man arose who understood the



MODERN GREECE : RELIEF.

The map shows the central spine and the branching ridges.

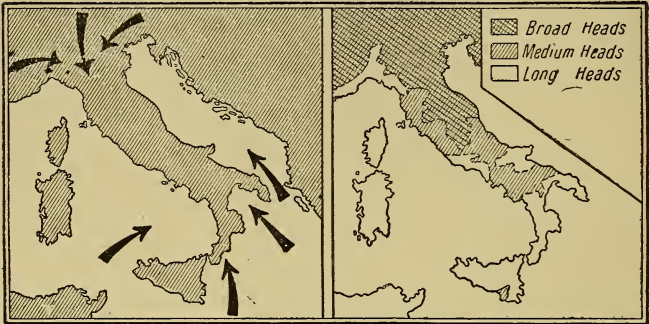
value of both land and sea, and by virtue of his insight, and the genius which gave him this insight, he conquered "the world." It is not wonderful, then, that the next development should take place in a land which

projected far into the sea, and in a land, too, which was exposed to the action of forces which had made history.

It is natural, from the very shape and position of Italy, in touch with, but separated from, the older civilizations, that here should arise a new great centre; but a consideration of the details of its structure will show more plainly how natural it was. If we compare Italy with Greece the difference is apparent. In Greece there is a whole network of mountain ranges rising to a central spine and descending steeply to the sea, breaking up the land into many small peninsulas, islands and coast-plains at the heads of bays. In Italy there is one great highland curving round concavely to the south-west and rising to the east. The outer rim faces a shallow sea shoaling to the north-west and filled with the rock waste from the mountains, so that the level is raised to form a plain, the plain of Lombardy. Except where this highland breaks down to the sea on the south, there are few peninsulas and islands, and, though there are hills within the curve, there is no barrier either greatly hindering communication or serving as a defence. On the south there are, moreover, many harbours; on the north there are few. Thus there is every reason why men from overseas should find a foothold on the south, and why men from the continental land mass should come southward, and it is to be expected that at some point in the region where they met there should arise a civilization stimulated by both. As a matter of fact, this is precisely what has happened. In the north of Italy the descendants of peoples who were there before history began are even now on the coast, squeezed into that position by the advance of peoples from the land; while on the

south the conditions are reversed, the older populations are inland.

Nor is it an accident that these forces should meet in Rome, and that Rome, rather than one of the other small towns or states, should be the focus of the new civilization. A look at a map will show that what are called the Etruscan Apennines are much lower than either the Ligurian Apennines to the north-west or the



APPROACHES TO ITALY.

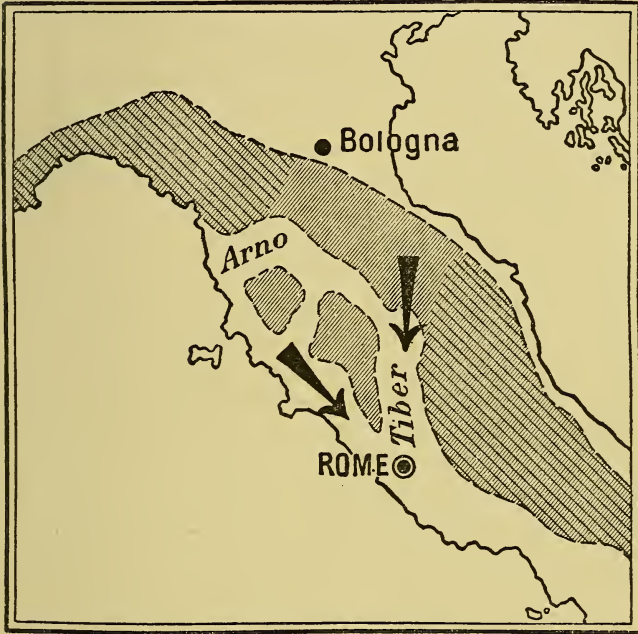
CRANIAL TYPES.

The northern approach is from the land, the southern from the sea.

It is evident (i) that the southern peoples are on the whole long heads and the northern peoples broad heads; (ii) the long heads are on the coast, while the broad heads are inland. Hence the people with broad heads came from the land, those with long heads from the sea.

broad mass of highlands between Rome and the Adriatic on the east. This southern highland mass descends so abruptly to the sea that progress along the coast lands on the east is beset with difficulties, which are increased by the existence of many streams that have to be crossed by anyone passing from north to south. Landmen entering the peninsula from the north almost certainly cross over these Etruscan Apennines by one of the river valleys between Bologna and the Metaurus. When they have

done this, they are as surely guided down the valley of the Tiber along the western edge of the mid-Italian Apennines. Even if they cross over considerably north of the Tiber, the advance is most probably made up the



THE POSITION OF ROME.

The diagram shows Rome at the place where ways from the north meet, and where the peoples of the south may stand on the defensive.

valley of the upper Arno, and along the valley between that river and the Tiber. In any case, between the sea and the highland, landmen will almost certainly come to Rome, but here they are as certainly in touch with the

influences from overseas based on the peninsulas and harbours of southern Italy. There is thus every reason why, owing to geographical conditions, civilizations based on sea and forces based on the land should meet in Italy, somewhere in the midst of Italy and at or near the position of Rome.

It is scarcely necessary to consider the matter more in detail, but as they illustrate the history of the Roman Empire in little, it is useful to notice two points. If Latium had advantages over the rest of Italy, Rome had advantages over Latium. Placed on the Tiber, at a position capable of defence though always exposed to attack, her inhabitants would naturally be continually prepared for defence. They might suffer, but however much they might suffer from roving bands of invaders the probability was that they would suffer less than those towns to the south. Thus relatively they would become stronger than their neighbours, and Rome would take the lead in Latium. Also, though the early history is obscure and seems confused, the obscurity and confusion are just what we might expect from the conditions. Moreover, almost the only fact that can be laid hold of is that the origin of the city was due to the fact that on some slight eminences rising out of a plain men of different tribes settled. These tribes learned, in the face of common dangers, to drop internal differences. They learned, moreover, that the best defence lay in themselves. The inhabitants of Rome thus learned what the inhabitants of Athens did not learn, that each man was not independent, but that account must be taken by each of the opinions and character of the rest. No single man may have clearly understood this, but, as a whole, they acted on the

principle because they found by experience that it was best to do so.

When the city or town of Rome began to extend her influence over surrounding communities, she was, on the one hand, more able to bring them to subjection, and, on the other, less inclined to domineer over them unnecessarily. Rome was definitely the *one* town in central Italy south of the Tiber, and in this she was more favourably situated than was Athens. Further, the peoples by whom she was surrounded were almost as civilized as were her own inhabitants. They were for this reason more difficult to subdue than were the inferior folk with whom the Carthaginians came into contact, but when they were subdued they were treated more as equals. Cruel these early Romans may appear in our eyes, but they were probably less cruel than other races. The cruelty of which they were guilty was not, on the whole, indulged in for the sake of giving pain to others. It was a cruelty the results of which had been calculated, and which had been decided on in the interests of good government—that is, to save energy in the long run. The Roman Government was thus more stable, not only than that of Grecian cities, but also than that of Carthage.

We have now seen how the larger facts, as well as the local conditions, tended to induce in Rome the growth of a civilization of a higher order than had hitherto appeared on the earth, though the local conditions would have had no effect had not the larger facts existed. With the increasing expansion of Roman power another set of controls was increasingly important. The great variety of relief and circumstance to be found in Italy came to affect the history. We have seen

how Italy differs from that other peninsula, Greece. It may also be contrasted with those other peninsulas, Iberia and Denmark. Spain is predominantly high, Denmark is predominantly low; whereas in Italy highlands and lowlands are present in almost equal proportions. There were in Italy peoples with the different outlook on life resulting from the different conditions due to land and sea. There were the southern coasts in touch with the sea, and settled to such an extent by the Greeks as to deserve the name of "Greater Greece." The inhabitants of these cities were traders, and wealth abounded. The northern lands had a civilization in which the sea had less share, and were exposed to influences which depended not at all on the sea. But in addition to this there were herdsmen and shepherd communities on the uplands and mountains, and agricultural folk on the lowlands, and between these there were again differences. To the north of Rome were the Umbrian and Etruscan peoples; to the south the cities of Tarentum and Thurii; but even closer to the plains of the lower Tiber were the Sabine hills and the high-lying lands of Samnium. The problem of the Roman state, as it expanded, was thus of the same nature as the problem of the city of Rome, and because the lessons of government had been learned in the city, the inhabitants of the state were able to evolve a system of government whereby the most was made of the energies of all the varied communities which came to recognize Rome as supreme.

The new ideas of government, induced by the geographical conditions, had their effect on the history in three ways.

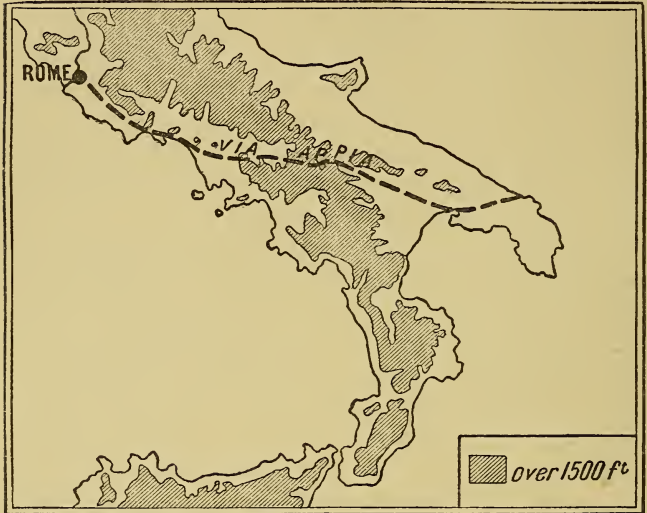
The Assyrian Empire was based on the idea of con-

quering countries for the sake of the tribute that could be wrung from them. At any rate in earlier times, when the traditions of government were forming, this was not the case in Rome. There the idea was to Romanize the different units, to make them one, while recognizing that there were differences. The process was somewhat slow at first, but it was thorough, for there resulted a solid nucleus in central Italy altogether Roman in feeling. The city gave its name to the governing state because of this fact. The internal troubles of the Roman state were never due to revolts against Rome, but to attempts to obtain fuller advantages of the government. Rome was something very different from Carthage or Assyria.

But neither was there the Greek and Phœnician lack of unity in action; Rome was no mere Tyre and Sidon, the chief among its equals, nor an Athens, the leading city of a league. In a sense these had common aims; Rome had something more. The people of Rome had had to defend themselves. Rome was not protected, though her position was suitable for defence. There is a great difference: the one condition makes for virility, the other, as we have seen in Egypt and Babylonia, does not do so. The Roman government might recognize that the peculiarities of individuals had to be reckoned with, but that did not imply that there would be any effeminacy or desire to escape from the duties of their position. Rome was to be supreme. There was to be not only a common aim, but a central government.

The great discovery of the Romans for the saving of bodily energy was also due to the same attitude of mind. It is quite in keeping with what we might expect, that roads, made roads, should have been constructed for

the purpose of strategy or commerce first by the Romans, that a Roman, Appius Claudius, should have been the first man to have a road—the Via Appia, laid southwards on the plain from Rome. The saving of energy by good centralized government implied that there should be a centre, and that that centre should be easily



THE VIA APPIA.

The road as far as possible follows the lowest ground.

reached from the districts round it. Roads are the easiest means whereby this may be done on land, but roads had not hitherto existed in the world. In the long past times of Chaldea and Egypt, men had passed from the one to the other by the "Way." Men and the animals with them stepped the whole distance, and all that was carried was carried on the backs of animals.

Then the Phœnicians discovered that the way by water was easier than that by land; oars and sails gave much more result for a given expenditure of energy. The discovery which the Romans made was that movement of men and animals was more easy over a smooth, level, hard surface than over a rough, uneven, soft one, and that wheels might be used with even greater advantage, so that animals might draw very much more than it was possible for them to carry. No doubt roads and wheels had been known, but the discovery of how to use them on a large scale was due to the Romans. Geographical conditions are directly or indirectly mainly responsible. The alluvium of Egypt and Chaldea was little suited to the making of roads; the want of stone, especially in Chaldea, made it almost impossible that roads should be constructed. On the deserts, whether round Egypt or between Egypt and Chaldea, movement was possible in any direction. There was not the inducement to make roads, especially as there was at best but little traffic, and the desert sand might soon obliterate roads when made. More important than all, there was not enough centralization of energy to make it worth while to construct roads. Assyria was in a like case. The Phœnicians, whether of Phœnicia or Carthage, looked too much to the sea as a way to have thoughts of made roads on land. In Greece the lack of unity, both geographical and political, is a sufficient reason why the Greeks did not construct roads. They wished to be separate from their neighbours, not bound to them. In the case of Rome, there was the inducement—the stimulus—to make roads, arising from the fact that there was no natural way like the desert or the sea, and the existence of stone was a new geographical possibility.

Shortly after 300 B.C. Rome had united all peninsular Italy under her rule. Thereafter she proceeded to extend the borders of her empire to take in neighbouring lands and seas. The lines along which the Romans had advanced were still the lines along which they continued to advance. The history of the Roman power was still due to the interaction of the two geographical controls, the sea and the land; but because the Roman power, though still centred in Rome, was something more than it had been, the effects were yet more complex.

(i) Because the Roman power was something more than the power of the city of Rome, because it now dominated all the peninsula, the conditions of Italy as distinct from those of the city on the Tiber, came to have a new significance. The city owed its existence and growth largely to the fact that where Rome was, there the forces from sea and land met. When the Roman state came to be coterminous with the peninsula, the forces themselves came to have a new importance, for then the state was brought into more direct relations not only southwards with a sea on which lay islands that always provided a foothold for enemies by sea, but also northwards with the land, whence attack was possible from men who, if less civilized, might yet come in greater numbers, because the land was of great extent. She was forced, as was Persia, to equip a fleet to dispute the command of the sea with those who might maintain a hostile base close to the shores of Italy, while it was equally natural that expansion should take place landward. These were new facts.

(ii) But because Rome was still the centre of government, because the traditions of the people of the city

weighed heavily in the balance, the local conditions and the historical momentum still had great effect.

(a) The sea was not unfamiliar to the people of Rome, as it had been to the Persian monarchs. It washes the shores within but a few miles of the city, and not only were the cities to the southward, which Rome had more lately made her own, actually dependent on the sea, but Roman tradition points to a much earlier control over cities on the coast of Latium. Without this early and constant familiarity with the sea it is very doubtful whether the existence of the peninsulas and islands on the south would have so quickly reacted in the way it did.

(b) On the other hand, Italy was no Greece; Rome was the centre which the rest of Italy acknowledged as supreme. Rome had not even the position of Macedonia. The whole rule was not the work of one or two men only; many of the citizens might be called on to lead armies or rule the state: naturally, not all of these were equal to the task, but the fact remains that in a crisis a man able for the emergency generally appeared. For similar reasons even the fighting machine itself was proportionately more efficient than the Macedonian phalanx, and the government of subject states was the more stable. This condition of things was largely due to historical momentum, to the tendency of existing conditions to continue to exist.

(c) The ideals which the citizens of Rome had ever before them in their early days also affected their later history. Rome was not a Carthage. It was not trade that was desired, but the Pax Romana and land on which to grow things to support life. This was the result of geographical conditions, and it affected the history of the greatly expanded state.

These factors have all to be remembered. Rome was successively embroiled with Carthage and Greece, because of their connections with the peninsulas and islands of the south. Her armies were superior to those of Macedonia and Carthage; her fleets eventually proved stronger than any brought against her. By 146 B.C. Carthage was destroyed, and Greece was forced to acknowledge the supremacy of Rome. When Greece and Carthage ceased to be independent sea-powers, there was no one to dispute the sovereignty of the seas, and the lands bordering the Mediterranean speedily fell to the power that held the command of the sea, but yet the Romans made little attempt to become traders. The island of Rhodes, between Phœnician and Greek, for long was the chief, if not the only, seat of a mercantile community, and Rome did not attempt to crush these merchants; they were not rivals. In the absence of an effective rule of the sea, anarchy appeared. At first this was little felt; military expeditions were undertaken most easily by sea, because the pirates that had sprung up would not attack them. It was only when the Romans began to draw their supplies from lands other than their own that they found it necessary to clear the seas of these sea-robbers, who found an excellent base in the islands of the east. That piracy had been allowed to increase from lack of inclination to deal with it, not from lack of sea-power, is seen in the fact that in the short space of forty days Pompey drove the pirates from the seas. Rome could dominate the sea when she chose. It is evident that she was a sea-power on a much greater scale than was either Greece or Carthage. Henceforward for many centuries the Mediterranean is entirely Roman.

Battles, and famous battles they were, were fought on it, but they were between rival candidates for the supremacy of the state, not between Rome and external foes.

Now while it is true that many of the later Roman dominions were reached, or reached more easily, by means of the sea, this was not so in all cases. Further, these dominions overseas were not mere strips of coast, but tracts of country which required to be ruled and kept in touch with the central government. Thus, though the sea was a controlling factor in Roman history, the land was equally so.

We must now consider another great geographical control. Besides the great contrast between sea and land there is another great contrast, namely, that between high ground and low ground. Notice that it is *not* the contrast between hills and valleys, but between high ground and low ground. There are districts where the level of the land is but little above that of the sea, and districts raised half a mile, a mile, or even two miles high. Even this latter height is negligible on a horizontal scale, but it is an enormous vertical distance because of the fact that at a great height there are entirely different conditions of living. There is less air, there is less heat and moisture. Unchangeably the conditions of life on a low district must remain different from the conditions of life on highlands. It affects even the bodies of men. Negroes cannot live long at heights of three-quarters of a mile, owing probably to the difference in amount of air; but this is only one aspect of the case. The conditions under which vegetation is produced are also different, and generally the conditions under which energy may be saved are different. Hence, races who

live on highlands will, *must*, have different occupations, different habits, different food, different ideals, different ways of thinking from the lowland races. Two lowland peoples on either side of a highland area are divided not by mountains only, but by peoples entirely different from them in almost every respect, and each of the three forms a separate unit. The Alps, for example, rise at their highest to a height of three miles, and average a mile, but they are 120 miles across. That is to say, the important fact is not so much that the Alps are a mountain range as that they are a highland area. The modern Switzerland, the Tyrol and Savoy, are highland states on the Alps, whose peoples are and have always been different from the peoples on either side.

Now we have seen that Italy is composed of tracts of highland and tracts of lowland. The differences among the peoples ruled by Rome were due to the differences between highland and lowland, as well as to differences due to the contrast between sea and land; and the same race which had developed qualities of government on a smaller stage in Italy was able to furnish rulers for the different lands that were subdued. There were in the later Roman Empire many units whose inhabitants were naturally hostile to one another.

Again, they were united by the same methods as had been used to unite Italy. As the sea could not everywhere be used as a way, roads were driven over the whole of south and western Europe to such an extent as to make it a proverb that all roads lead to Rome. And the same tendency to centralized government is again to be noticed, for all the roads *did* lead to or from Rome: there were few cross-roads connecting various units, so

that there might be as little intercommunication as possible, and the less chance of combination against the ruling power. These roads, too, naturally followed the line of least resistance; they were constructed where there was the least expenditure of energy, so that for this reason also the distribution of high ground and low ground in the lands surrounding Italy came to have increasing importance.

A glance at a map of Europe will show that all



THE RHONE ENTRY.

The Rhone Valley is important as affording the one easy way northwards from the Mediterranean.

the way from the west of the Black Sea to the Rhone there is a belt of highland over which no access can be had to the plain beyond except by rising to considerable heights. Spain also is a tableland. In the gap between the Alps and the Pyrenees is set an isolated mountain mass with its steep edge facing southward. This does not close the entry. The Rhone valley is left to give access to the land beyond—the only easy land way from the Mediterranean northwards. Thus, though the highlands of the Alps were occupied

by hostile tribes, it is little wonder that this entry, accessible from the sea, should have been easily held by the Romans, and that the whole of what is modern France should quickly have come under their rule.

Later, the Empire expanded north-eastward and eastward until, by the beginning of the Christian era, there was added to all the lands rimming the Mediterranean, which the power of the sea had given her, also those west and south of the Rhine and Danube; while, in the east, Asia Minor and the lands west of the Euphrates owned her rule. This was the Roman Empire. Here for some three or four centuries the Pax Romana allowed of the growth of a civilization over very different and widely scattered areas, which had no natural cohesion except that which was due to their common dependence on the Roman power and administration. Their peoples were able in peace, without spending their energies in war, to turn to useful account such advantages as their positions gave them.

The Empire had been built up by a power centralized at Rome. It owed its cohesion mainly to the military and administrative genius of its people, which was largely the result of geographical controls. Because it was the race and not an individual man who possessed this genius, the Roman Empire was not an interlude like the Macedonian Empire. It existed strong and powerful till the fifth century of our era. In the form of the Byzantine Empire it fell only with the fall of Constantinople in 1453, and in name it lasted till the other great Alexander, Napoleon, swept away the ancient traditions in Europe. Such, again, is the strength of momentum. Because it had been it continued to be.

Like the other powers which had exercised rule over

the world, the Roman Empire came to an end, but it came to an end almost as gradually as it had grown, for the great geographical controls came to make themselves felt in another way.

(a) The Mediterranean Sea is long and narrow. The Roman Empire, based on the lands rimming this sea, was thus long and narrow, about twice as long as it was broad. The desert on the south leaves between it and the sea only a narrow margin at best, so that if we consider only the land on the north of the Mediterranean, in which was the important part of the Empire, a greater disproportion between length and breadth will be seen. There was, then, a natural tendency to divide into two parts whenever the power that held the whole together became of less effect.

(b) The eastern end of the Mediterranean was different from the west. Just because it is far removed from the ocean, just because it contains the oasis lands of Egypt and Mesopotamia, and because Greece with its islands is also in this region, it is different from the west in many ways easily to be recognised. The difference between east and west had been there all the time. The difference was there even before the Republic of Rome became the Roman Empire, and the difference has lasted all through history. It is no accident that Actium and Lepanto and Navarino should all have been fought just west of Greece where the sea forces of the Western Mediterranean meet those of the Eastern. The Roman Empire held the two parts together, but with the weakening of the bonds the parts separated.

(c) Further, the Sahara desert lies to the south of the Mediterranean, so that attack was little to be feared from that side; westward and north-westward lay the

ocean, from which no attack could come in early times, but all north-eastward and eastward was the great mass of Euro-Asia, of which Rome ruled only a rim. From this mass enemies could—and did—come. It was natural that the centre of government should be shifted eastward, nearer the frontier that required defence, in order that that defence might be more easily undertaken. Because the city of Rome had been, it continued to be: just because it had a history, it could not at once become a provincial town, so that when Constantine set up his capital at Constantinople there were two Imperial cities within the Empire, one in the east and one in the west, and an additional impetus was given to the tendency towards disruption.

(d) Lastly, Rome had owed her very existence to the ability of her citizens to defend themselves, but just because they were far removed from any menace of attack by men outside the Empire, the later Romans gradually lost their powers both of defence and government. When attacks at last did come, the barbarian hosts passed by the newer and more virile city of Constantinople, but ancient Rome fell before them.

Thus the Roman Empire gradually divided into two parts having less and less cohesion. The eastern section continued to carry on the ancient traditions in a modified form for a thousand years, but with the fall of Rome itself the western section, far from any centralized government, became separated from the Eastern Empire and resolved itself into separate and often antagonistic units.

Then the geographical conditions controlled history in a different way from that in which they had done, because that which was to be controlled was different.

Set between forces from sea and land, but possessing no strong power within itself at a time when no strong power ruled on either land or sea, Italy was the sport of history for centuries. For a time in the hands of one power, regained for a moment by the Eastern Empire, taken and retaken in whole or in part, whenever a seaman might get a foothold or a landman settle; torn between Goth and Lombard and other Teutons from the north, and Vandal, Saracen and Byzantine in the south, it is little wonder that Italy, with the additional tendency to disruption induced by that very variety of highland and lowland which had been her strength, should have had no united history, and that consequently even till within the last sixty years the rivalries of the parts into which she was torn should have been the most noteworthy feature.

And the variety of highland and lowland of which the Empire itself was composed no less continued to control history. The units remained, and the history of the Middle Ages consists simply of a history of the arrangements and rearrangements and re-rearrangements of these units, struggling towards the more or less permanent state of equilibrium in modern Europe. The Roman Empire had stimulated directly or indirectly a great number of geographical units. They were brought into the world; each was civilized but in a different way, and the history of the Middle Ages is confusing simply because it is mainly the history of attempts on the part of those small and mutually jealous units to combine in stable forms. In Western Europe these units happen to be small and numerous *because* low ground and high ground are distributed in comparatively small areas, whose inhabitants are mutually jealous of each other.

But the importance of historical momentum must not be forgotten. Because history has to do with the minds of men, ideas have been a force in making history. Because of circumstances Rome had become an empire. The great discovery of the Romans had been that good centralized government saved energy, and the idea of empire and the methods of government remained in the minds of men as an ideal which has had an extraordinary effect in helping to combine loosely knit units.

And this idea gained additional importance because of another fact. Because of the ancient prestige of the city of Rome, as well as because of this idea of empire, the bishop of Rome came to have a power conceded to no other. When the civil power was destroyed, the ecclesiastical authority remained, and grew all the stronger because there was no civil authority with which it clashed. Even the ecclesiastical provinces remained when the civil provinces with which they originally were identical had totally disappeared. Thus over the western lands of the Roman Empire rather than over the eastern Christianity spread, and the Christianity, too, of that particular type which is essentially Roman.

It was the interaction of these two allied ideals, Empire and the Church, on the natural differences due to the differences of the units, which is largely responsible for the history of the times following the fall of Rome.

CHAPTER VII

THE PLAIN : INVADING TRIBES

THE course of history traced so far, has in its main features been due to the control and stimulus exerted on man by two geographical factors, the desert and the sea, each acting as a protection to communities so simply organized as not at first to be bound together by any strong ties. Other controls have been alluded to, but they have only modified the action of these greater controls. To the facts that surrounded by the desert there happened to be areas of fertile land and that surrounded by the sea there happened to be islands, were due the earlier civilizations. Because of their connection with those early communities other communities arose which owed their existence more or less directly to the same geographical conditions, and because they were near the original communities they were of necessity near the desert and the sea.

These communities were neither in the equatorial zones, where there is little stimulus to advance, nor in the colder north, where the difficulties of climate were too hard for primitive men singly to overcome them with any degree of success. They were for the most part along the shores of the Mediterranean Sea, on such parts as could be occupied by man. But there were early communities eastward of the Mediterranean Sea, and

later the Roman Empire brought the west of Europe into direct touch with such civilization as then existed. Thus Europe, and for the most part south Europe, had come almost inevitably to be the land the history of whose peoples was of most account in the world, because here and here only was a belt of desert *and* a belt of sea studded with islands and divided by peninsulas.

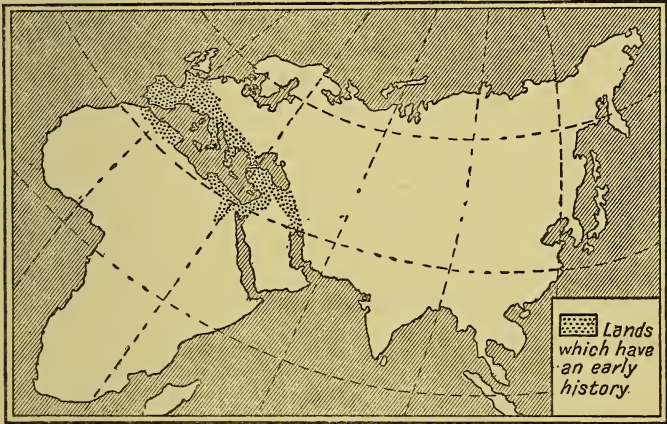
We have assumed that the distributions of land and water, of heat and cold, of rain and drought, have been all through historic times just as they are now. This is probably true, if we mean by historic times those times whose history we know, but there is good reason to suppose that, while man has been on the earth, things have not always been as they are now, and if, as we have seen in the case of Carthaginians and Romans, past conditions do influence later history, it is obvious that the prehistoric geographical conditions must also have acted as controls even in historic times, and even if the effects of these have been obliterated by the action of others more recent, it is useful to notice how areas with which we are familiar have been affected by conditions different from those we know.

Now as things stand at present, it counts for a great deal that Europe is in far more direct relation with both Asia and Africa than is either with the other. A globe shows that Europe, Asia and Africa form a great parallelogram, that Europe lies between a great part of Asia and a great part of Africa, and that in particular the lands whose history we have considered lie in a band diagonally across the great land mass of Euro-Asia-Africa.

Thus Europe, the land of early civilization, by reason of its position with reference to the great distributions

of land, is open to influences from two directions : from the south from Africa, and from the east from Asia.

At present and during all historic times, between Europe and Africa there has intervened not only the Mediterranean but also the Sahara : it is not the Mediterranean but the Sahara that separates the white man from the black. Even now, under most favourable circum-



THE OLD-WORLD PARALLELOGRAM.

The lands which have an early history lie diagonally across the great land mass, and between Asia and Africa.

stances, it takes three months to cross it, and the measure of its efficiency as a protection may be realized by noting the fact that, while south of it migrating tribes have wandered through the length and breadth of the continent, while in Euro-Asia there is scarcely a square mile that has not resounded to the tread of alien hosts, conquering as they went or seeking new homes, yet across the Sahara, though individuals have come in

peace, no body of men of any account has ever come in war or peace.

Thus through historic times Africa has had comparatively little effect on the history of Europe. The peoples to the south, in a naturally low state of civilization because of the want of stimulus, were unable to cross this great barrier and have the only effect they could have: they could not destroy such civilizations as had grown up to the north of it. The desert acted as a protection against attacks not only on Egypt but on all the lands in which the Mediterranean civilization had grown up—on Phœnicia, Greece, Carthage and Rome.

With Asia, as we shall presently see, it has been different, especially in historic times. There has been no impenetrable barrier between: the inhabitants of Asia have been able to throw themselves into Europe, not without some difficulty, of course, but the feat has been possible, and it has been accomplished.

It is probable, however, that in prehistoric times, after man's appearance on the earth, conditions were somewhat different. It is probable that the north of Europe was colder even than it is now, that over Great Britain and Ireland, Norway and Sweden, the north of Russia and Germany, and over all the seas between, there lay for ages a great mass of ice. South and east of this ice-sheet was a great sea, of which the Caspian and the Sea of Aral are now the remnants. Southward were conditions other than those we know. It is probable that the Sahara was not such an utter desert as now, but had a moister climate. Also there is some evidence to show that the Mediterranean was not so much of a barrier between Africa and Europe, possibly because the land connections were more continuous. Thus, on the one

hand, Europe was more directly connected with Africa and less directly connected with Asia than is now the case, and, on the other, the north of Europe was even less habitable for early peoples than it became in later times.

Whatever the cause, it is almost certain that in early prehistoric times men of the same race wandered over all the land northward from tropical Africa, but they had little, if anything, to do with men from Asia. To the north, as the life was harder, fewer men roamed. But of this time we have no record; there is no history, and it is scarcely to be wondered at; the factors were absent which so controlled man's thoughts and actions that he was stimulated to advance. The possibility of advance also was largely lacking. As long as there was no desert, there was no history worth the name.

When modern climatic conditions began to come into existence, the men of this more or less homogeneous race who inhabited Euro-Africa were divided from each other by three barriers, and it may be that the three were but manifestations of one phenomenon.

(a) The way from Asia somehow became more open, and a race of men, keeping to the highlands of Asia Minor, the Balkans and the Alps, drove a wedge, as it were, of highlanders between the lowlanders on either side.

(b) The Mediterranean became more of a barrier than it had been.

(c) The desert conditions in the Sahara became more marked, and the greatest barrier of all was established.

These three barriers divided the original race into four sets of men, who, exposed to climatic and other geographical influences, have gradually by adaptation to environment changed and fixed their characteristics.

(a) In the north were the Nordic peoples, at first comparatively few in number, and undarkened by excessive exposure to the effect of the sun's rays.

(b) South of the Alpine highlands was a race which, under blue skies and beautiful natural surroundings, is distinguished by the exquisite taste for form and colour which has been developed.

(c) Shut in between the Mediterranean and the desert are the Berbers, who under hard conditions have been little able to develop, and the Egyptians, who have responded to the stimulus of the yearly rhythm in the supply of water.

(d) South of the Sahara are the Negroes, black and able to withstand a powerful sun.

Of the great land south of the Sahara we shall speak later. Of the lands between the Sahara and the Alps we have already spoken. It is to the land north of the Alps that we must now look.

With the change in the climatic conditions not only did southern Africa become a land apart, but Europe was thrown open to influences from Asia.

Maps of Euro-Asia show a great band of high ground along its eastern, southern and western borders. Within, and shut off from the sea on every side except the frozen north, is a great plain roughly triangle-shaped, little of it higher than 600 feet above sea-level. This is the great plain of the world. We have already noticed the essential difference between highland and lowland, and seen that in Western Europe the very diversity of feature has had its effect on history. Here the point to be noticed is that the conditions are the same over vast areas. Notice what these conditions are. This plain is remote from the sea. Not only is it remote, but a belt

of high ground intervenes. Thus breezes from the sea have lost the greater part of their moisture ere they reach it: over the whole area rainfall is scanty, and



THE LAND OF EXTREME TEMPERATURE.

little but grass will grow, so it is a steppeland. The remoteness from the sea has another result; with little moisture in the air either to temper the heat of the sun when he shines or retain the heat when he has withdrawn, the climate is everywhere one of extremes.

These conditions have affected the inhabitants of the plain in five ways.

(i) There is some stimulus to advance owing to the



THE COLD LAND.

rhythmic swing of the seasons : as a hot summer alternates with a cold winter, men, to live at all, must not be savages of a type which may exist on equatorial plains. They must be hardy and brave, and must have a certain amount of physical endurance.

(ii) As the land is flat over vast areas there is neither such a natural defence as the desert gave to the Egyptian or the marsh to the Babylonian, nor is there a natural position for defence such as the citizens of Rome possessed. These people must defend themselves. The climatic conditions are hard, so that individuals or families would almost certainly perish if left to themselves. For defence alike against enemies and climatic conditions there must be organization of a sort. Thus these folk lived—and live—in tribes.

(iii) As grass is the staple, in most regions the only, vegetable production, it is obvious that these tribes cannot live directly on what is grown on the land; they must at any rate be able to use the energy in a more concentrated form. They must live on animals and on what animals produce. Thus these folk were, as they mostly still are, sheep-herds, cattle-herds, goat-herds and horse-riders, living on butter, milk and flesh.

(iv) Now, as the scanty pasture in one place is exhausted or destroyed by sand driven by powerful winds, they are forced to pass on to another. The natural difficulty of movement on land—a difficulty largely due to friction—is overcome by a greater force still: the desire for life. Further, as there is no means of defence at one spot more than in another, there is no inducement to stay in one place and very strong reasons why tribes should continually move on, so that the spirit of nomadism, of wandering, becomes part of their very being.

(v) Again, as they had in early times no protection except themselves, they were compelled to destroy all adversaries whom they overcame, being assured that otherwise they themselves would be destroyed if ever the fortunes changed. They were thus a cruel race of men.

Whether driven out by increasing dryness or moved only by their own natural restlessness, these dwellers in the central plain during all the times of which history tells have been a disturbing influence on the more or less settled peoples on the margins, and again and always again have emerged from beyond the mountain rim to overthrow rather than to set up, to destroy rather than to create. We have seen how the Assyrian Empire was so weakened by incursions of northern tribes that it fell soon afterwards. Perhaps even earlier still we have traces of the advent on eastern lands of these nomads from beyond the mountains, while the earlier Greek civilization also was for a time overwhelmed by incursions from the north. However that may be, it is certain that as we come to know more surely of the actual events in the world, the influence on history of these migrating tribes becomes more and more clear.

Now Europe, as we have seen, was to a considerable extent separated from Asia in prehistoric times. Thus the plain was not one but two. It is doubtful whether such people as inhabited each section of the plain in those distant times were exposed to the conditions that induce habits characteristic of steppe-dwellers, but at any rate they were different races. Thus the invaders from the plain were of two kinds—the bearded inhabitants of the north of Europe, the Teutons, and the beardless dwellers on the plains of Asia, the Tatars and Mongols. This difference of race corresponded to other differences due to geographical causes. As it happened, the peoples of the European half of the plain were more in touch with civilizing influences than were those of the eastern half. We have seen that as the result of natural conditions the south of Europe was civilized: for reasons which we

shall discuss later the south of Asia was not. In any case, the belt of highland is so much broader in Asia than in Europe that a greater barrier is interposed to the movement either of men or of ideas, so that the Asiatic half of the plain is more shut off from other centres of civilization. The climatic conditions, too, are more rigorous in the east than the west. As the mass of Asia is so much greater than Europe and so much more shut off from the sea, the temperatures of the centre are more extreme. The breadth and height of the Asiatic highlands, too, prevent rain reaching the centre in anything but small amount, and the distance from the ocean, and especially the western ocean, also tends to make the rainfall smaller than that of Europe.

Thus the European plain-dwellers, though barbarians, were considerably more civilized or less uncivilized than were the Asiatics. They had the characteristics of the plain-dwellers rather less developed; they were to a slightly greater extent attached to the soil and the less inclined to migrate. As might be imagined, it is the Europeans of whom in early times we hear somewhat the more, but the probability is that in most cases the incursions of these hosts were due rather to the disturbances of the Asiatic nomads who were pressing on their rear than to any overwhelming desire of migration which possessed themselves.

No tribe of these nomads had very great numbers. Though organization of a kind was necessary for its very existence, it is little likely that a moving band would be so highly organized as to be able to include many individuals without some confusion, while there would be a great advantage in having to provide pasture for only comparatively small herds of those animals on which

their lives depended. But though any tribe might be small it would usually exceed the numbers of settled people at the point at which it had arrived: these settled peoples would be forced to give way and press in turn on others who would retire before the attack. Thus, just in proportion as these tribes were true nomads, they at once caused more destruction of settled peoples and their organization, and also left little mark on the further history. They passed over the land like a whirlwind and vanished.

Remembering all these results of the geographical conditions, look now at the details of the history.

Before the time of Rome we have only dim ideas of the effects these peoples had on the history of civilized lands. We hear, indeed, of mysterious northern tribes who were looked on with fear by all the civilized peoples of ancient time, by Assyrians and Persians and Greeks alike.

Rome, during the centuries of her strength, held the barbarians beyond the rivers, but when Rome split in two, when the ancient city of Rome gave place to Constantinople, tribes passed into all the lands that owed allegiance to her rule, partly forced by the movements of the utter barbarians, partly attracted by hope of plunder.

As was natural, the Germanic tribes came first—Chatti and Allemanni, Goths and Vandals: it was the intrusion of those tribes that finally broke up the western power of Rome. They set up kingdoms within the Roman Empire, at first owing a nominal allegiance to a Roman head, but gradually loosening the ties which bound the whole together.

In the third century came the Frankish tribes bringing

discord for a time to Italy and Spain, but shortly disappearing among the rest of the peoples. Whether or not these first comers were greatly affected by the pressures from the plain we can only surmise, but we know that when in the end of the fourth century the Goths, who had appeared on the lower Danube a century before, began to press on Franks, Germans and Romans, they in their turn were pressed on by the far more terrible Huns. In the beginning of the fifth century the Goths under Alaric, nominally upholding law and order, invaded Italy, and Rome was sacked. When Alaric died, however, the respect for the power of Rome was still so great that his successor withdrew to Southern Gaul and Northern Spain, setting up a kingdom which lasted for three centuries, but recognizing the authority of Rome so long as any shadow of authority remained in the imperial city.

In the middle of the fifth century the Huns under Attila—the “Scourge of God”—also came from the east, and penetrated as far as the centre of what is now France ere they received a check in one of the great battles of the world at Châlons.

Again, twenty-five years later, another wave of Goths came out of the east and set up in Italy a kingdom of their own on the ruins of the Roman power.¹

In the sixth century Slavonic peoples appeared on the borders of the Eastern Empire, and scattered over all the lands northward to the Baltic. They had scarce appeared when the Avars, the most dangerous of all the invaders and ravagers of imperial territory, emerged from the vast distances beyond. The Germanic

¹ The kingdom of Odoacer was nominally under the East Roman Empire, but practically it was independent.

settlements on the Danube were checked, and the tribe known to history as the Lombards driven from their homes. These were in their turn forced to invade Italy, where they set up a kingdom, and gave their name to the plain between the Alps and the northern Apennines—the plain of Lombardy. The Avars also, by occupying the plain of Hungary and forming the beginnings of a kingdom that lasted till the ninth century, drove as it were a wedge between the northern and the southern Slavs. The latter moved south of the Danube within the Empire, and acted as a defence against more dangerous foes still. This was the beginning of the series of small Slavonic states which, now free, now under the lordship of a stronger power, have remained to this day. Serbia, Croatia, Carinthia, Dalmatia, all owe their origin, as lands inhabited by more or less permanent communities, to the settlements of the Slavs in the seventh century.

Almost simultaneously with the invasions of the Avars we hear of the inroads of another tribe, the Bulgarians, who established a kingdom in the land between the Danube and the Hæmus—a land still called by their name. At various periods since that time the peoples in this land have asserted their freedom and raised Bulgarian kingdoms which have lasted many years, but the Bulgarians as well as the Avars, like the Normans in England, have been lost among the people whom originally they conquered.

In the ninth century another series of movements took place which, having their origin on the far steppes of Asia, materially affected European history. At the end of that century the Khazars coming from the east drove the Patzinaks from the district of the Volga, where they had appeared some fifty years earlier. These in turn

drove another eastern people, the Magyars, farther to the west, so that again the Western world was disturbed by invasion. As usual, the advent of these Magyars or Hungarians was marked by raids, but in a comparatively short time an organized government was set up in that island of steppe within the Carpathians, Hungary, where the Magyars remain to this day, a people of Eastern descent yet received within the circle of nations which aim at Western ideals of civilization. The Patzinaks and Cumans, who had taken the place of the Magyars in Southern Russia, were up till the twelfth century a power to be reckoned with by the Empire on the Bosphorus, but have long since passed away.

In the thirteenth century the plain came under the rule of one man—the great Jenghiz Khan—and for three centuries his successors held sway to a greater or less extent over Central Asia, sending out armies which ravaged and subdued for shorter or longer periods the countries on the margins. In the thirteenth century Russia, Poland and Hungary were devastated by a general of the great Khan. Later, under the scarcely less famous Kublai Khan, Mesopotamia was conquered. In the fourteenth century Tamerlane ruled over a great part of Asia, and in the sixteenth a descendant of his invaded India and established the kingdom of the Great Moguls.

Finally, the Turks came by way of the steppeland of Asia Minor rather than by the gate between the Urals and the Caspian.¹ By the middle of the eleventh century they had gained control of all this area, and in a very

¹ The movement may have been caused by those Khasars who had been instrumental in bringing about the invasions of the Magyars.

few years—by the time of William the Conqueror—had added a considerable stretch of land to the south, including Jerusalem. This caused the crusades to begin at this time, but otherwise did not affect European politics till much later. The power of the earlier ruling house, the Seljuk Turks, was in fact much weakened by the Mongol raids on their eastern front in the thirteenth century, and it was only when the Ottoman Turks arose as a band who first served the Seljuks against the Mongols and then took the whole power to themselves, that advance towards Europe was continued. Though a large part of what was but lately Turkey in Europe fell into their hands by the middle of the fourteenth century, it was not till a century later, in 1453, that Constantinople was at last taken and the Roman Empire finally came to an end. In the sixteenth century even Hungary came under Turkish rule, and remained so till the end of the seventeenth, when she again became free.

Thus we see as an ever-recurring phenomenon the emergence of peoples from the plain disturbing the settled folk on the margins, not only in Europe, be it noticed, but also in Western Asia, in India and in China. From prehistoric ages to within a few centuries of our own time the nomads of the plain have acted as a solvent on the fixed conditions of the people on the margins. To use a chemical metaphor, the process of crystallization has been retarded. The crystals already formed have been dissolved, but always after a while new crystals have formed to an even greater extent than before. Ever more and more geographical units have been occupied by fixed peoples with settled governments. Egypt, far removed from the plain, was little

affected by the nomads, but, as we have seen, Assyria, Greece and Rome to an increasing extent were impelled to look in fear towards the mountains on their northward borders, from the defiles of which emerged peoples whose incentive to move was produced by the steppe conditions beyond. The Roman Empire was more exposed than the earlier powers to the incursions of these tribes, for her borders were carried north and eastward of the mountains on the south of Europe, and her frontiers lay open to attack far more than did the frontiers of the earlier empires. Thus it is that the later history of Rome is more intimately connected with the history of the peoples of the plain, that for centuries after stable states had formed in Western Europe the east was still open to forces from the steppe, and that the Eastern no less than the Western Empire was at length overthrown by the incursions of the steppe peoples.

The effect of these peoples on the history of the world is, then, obvious. It is equally obvious that geographical conditions of many kinds reacted to produce this effect. We have now to see whether there was really any advance, whether there was really any saving of energy. There was certainly some waste. The great "going concern" of the Roman Empire was largely wrecked. Were there any compensating advantages? Was the destruction of a great part of the Roman Empire absolute waste, or was it not rather the "scrapping" of obsolete machinery which was necessary before new and better machinery could take its place?

The advance took three forms.

(i) Both Asiatics and Western barbarians were brave and hardy. The majority of the earlier peoples—Egyptians, Babylonians, Greeks, Romans, Phœnicians—

lived under easier geographical conditions, but just because of the *hard* geographical conditions of the plain—hard because the plain lies northward and less natural energy is available—the peoples of the plain possessed certain qualities in a higher degree than did the peoples in the south, and these qualities tended to greater advance. Personal courage was necessary to fight against daily hardships of climate and sterile soil as well as against human enemies, and on the whole the Northern races were superior in bravery to the rulers in Italy after the second century. These had long forgotten how great a factor in the stability of a state is the personal courage of individuals.

(ii) Among the Teutonic nations this individualism showed itself in other ways. Individual initiative was necessary, but it was subordinated in part to the good of the whole. In after times this union of the two ideas was seen, among other things, in the growth of the feudal system; but the geographical conditions of early times were favourable to the growth of the attitude of mind which desires a personal freedom like the Greek, with orderly rule like the Roman. This individualism also is evident in other moral qualities which make for advance. Love of the family, and all the virtues which spring from that love, are much more likely to be fostered in the north than in the south of Europe.

(iii) The invasions of the Asiatic barbarians, destructive as they were, were also not without their effect in bringing about a great material advance. They gave a wider outlook on the world. These invasions hammered into the minds of the Western nations the idea that the world was larger than the Mediterranean lands. Traveliers did actually reach China and return to tell the tale. The

world that mattered grew enormously, and with this growth the amount of energy that was available grew also. Further, it is not too much to say that invading tribes, by enlarging the outlook, had a very distinct effect in producing the train of circumstances which led to the discoveries of Columbus and his followers.

CHAPTER VIII

THE OASES: MOHAMMEDANISM

IN the last chapter we have seen how the great plain has affected the course of history. There is another



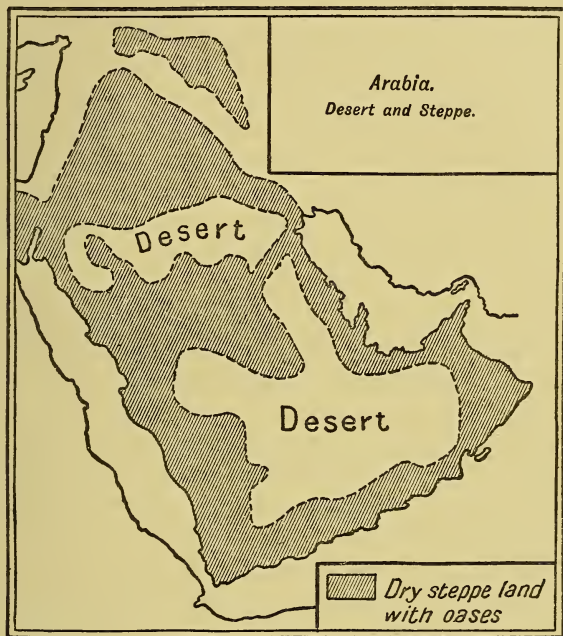
THE COMPARATIVE SIZES OF EUROPE AND OF ARABIA.

The maps are drawn to the same scale.

steppeland, not so great but still of large size. This also has affected the course of history, but because of the differences of the geographical conditions it has affected history differently. Comparatively little of the great plain is desert, while considerable stretches are

somewhat better than steppe. Arabia, on the other hand, has great stretches of desert, and almost all the rest is steppe.

Arabia is about 1500 miles in length, the distance from London to the Caucasus: it is about half as broad.



It is not all desert, a great part is dry steppeland. Within it are patches of oases more or less fertile, while in places it gradually passes into utter desert.

The dry steppe-oases land is the real Arabia, the land of the Arabs. In consequence of the geographical conditions several results follow.

As it is a steppe, its peoples tend to be nomads, but

(i) As it is drier than the steppe of Asia, it can support fewer people even in the same area.

(ii) As it has oases-patches in it, some of the people tend to become settled.

(iii) There are, then, two distinct classes—the nomads and oases-dwellers: the latter are not anywhere numerous enough to have any effect by themselves, and the power tends to fall into the hands of the nomads who dominate the steppeland between oases. Because they are even slightly dependent on certain oases, the steppe-dwellers of Arabia are somewhat more tied to one spot than are pure nomads. Small powers tend to arise for a time with dominion over a few oases and the intervening steppe.

(iv) Further, as the steppeland is practically surrounded by desert and sea, both impassable in early times, the inhabitants of Arabia form a people apart, on the one hand protected from conquest, and on the other little able to have any great effect on outside peoples. They are the less able to interfere in external affairs, as such steppe powers as arise are small and possess little cohesion.

Thus it is not wonderful that while the inhabitants of the great plain made their influence felt continuously for many centuries, yet the inhabitants of Arabia, near as they are to Egypt and Palestine, Babylonia and Greece, did not till late in historic time greatly affect the history of the world. Though there was the same tendency to spread over neighbouring lands, yet the emigration was fitful and by no means so well marked.

But the question now arises, "Why then did the Arabs affect history at all?" To answer this we must consider

another way in which geographical conditions act. We have seen that men may advance or fall behind because the geographical conditions affecting their bodies react on their minds. We have seen that the protection which the desert afforded to the material prosperity of the ancient Egyptians and Babylonians eventually induced the state of mind which trusted to protection. The geographical condition of the Greeks, with their numbers of city states independent of each other, reacted on their minds to make them politicians.

In the same way the material conditions have affected directly the minds of the Arabs. Passing slowly from oasis to oasis over steppe and desert, the sameness of the landscape, where nothing attracts the eye for miles together, has driven men to meditation. In the presence of the desert they are insensibly forced to feel their own impotence: oases may be improved; they respond to labour spent on them in a greater production: the desert responds to no labour; it cannot be subdued. Here man feels there is a great silent something greater than the greatest. All circumstances of life, in varying degrees, force men to see that they are not free to do as they wish, and all kinds of men have their religion by which they attempt to explain more or less vaguely the things they do not understand in the world around, and especially for what purpose they themselves are in the world. Most races and tribes feel themselves exposed to many influences; they have many different things to explain, many things which have apparently no connection, and they have in consequence many gods. On the desert-dwellers, however, the influence of the desert is overwhelming; even when they recognized many deities the almost universal tendency was to recognize

one supreme God. Thus it is not to be wondered at that from the land of Arabia or from its borders there should have come three of the great monotheistic religions of the world—Judaism, Christianity and Moham-medanism—nor that the distinctive teaching of one of them should have been summed up in the phrases “Thou shalt” and “Thou shalt not.” They found out that in some directions advance is not possible; they saw that there is some key to the mystery of life; they saw that man’s energies are lost unless they are directed in certain ways, and that the mind, which directs the use of energy, must be educated to this conception of life.

It is not to be supposed that all men hold their religion so strongly that they desire to make converts; savages who reverence gods because they are afraid of them do not extend their religion. But in proportion as they see that some things ought not to be done because they are wrong—because they are in the long run a waste of energy, in proportion as they see that some things ought to be done because they are right—because in the long run they save energy, in proportion as they realize the meaning of life, they desire to make converts, to bring other men to their way of thinking. This idea is scarcely present to the minds of ruder peoples, and though we find many wars, we find few religious wars; the further we advance in history, however, the greater the number of religious wars and disputes which we find. This may seem a set-back, but it is not so, for it is a record of the fact that men are recognizing, however vaguely, that there is a purpose in life, and that that which directs the energy is of greater value than the energy itself.

We see, then, why the higher religions have made

many converts while the lower regions have made few; in particular we see why the Arabs, when under the teaching of Mohammed they realized what they knew, should have set forth to convert the world.

We have now seen why the Arabs are a people apart, why they came to have a monotheistic religion, and why they were thus marked out to spread this religion, and incidentally but necessarily their own temporal power. These are the results of geographical conditions. We must now notice precisely how far they realized what they attempted.

Now the time at which the attempt was made, and the conditions of the world on which the attempt was made must be noticed. The Arabs failed to Mohammedanize the world partly because of geographical momentum, because of conditions that had arisen owing to the geography, partly because of the natural geographical conditions which always existed. We have seen that Palestine owed its importance to its situation between Egypt and Babylonia; it seems, then, to be naturally what we might call semi-eastern in character. But because it borders the sea—the Great Sea—ever since it has had a history its people have looked west as well as east: in early days Phœnicia sent her mariners far westward, it came within the circle of Greek conquests, its people to a great extent accepted the Greek language, and when Christianity came into existence not only were the sacred books written in Greek, but the land itself formed a part of the Great Empire of the West—Rome.

It was natural, then, that Christianity, if it spread at all, should spread within the Roman Empire, and largely because of the momentum carried by the Roman Empire

the Bishop of Rome became the acknowledged head of the Church, rivalled, indeed, by the Patriarch of the Eastern Roman Empire at Constantinople. Christianity of a kind did, however, spread east and south—eastwards to Mesopotamia, Persia, across the plain even to China, southwards to Abyssinia, India and Ceylon. In Abyssinia and Malabar to this day a kind of Christianity survives. But there was a difference between the Christianity within the Roman Empire and that without. The government of the Church within the Empire was modelled on that of the Empire itself, and remained powerful long after the power of Rome was but a name. The Christianity of the lands which had been part of the Empire was a homogeneous whole, except in frontier lands such as Syria and Egypt, where allegiance to both Church and State was less strong. The Christianity of the lands beyond the Empire was opposed to that within; it was heterodox; nor did it ever gain a hold on all the members of a tribe: it was only a missionary Church, and as a result of this, as well as owing to natural differences of circumstance which transformed and weakened it by divisions, it was altogether a frailer thing. Thus the lands which had once been Roman withstood the power of Mohammedanism; the others yielded to it.

There is another way in which geographical momentum affected history at this period. It was probably the existence of Christianity which in some way affected the mind of Mohammed, so that he realized what life meant, and he was impelled to start on his mission. It was merely, however, the match to the tinder, not only with the leader but with his followers. Unless their minds had been prepared by the teaching

of the desert during long ages, they would never have accepted Mohammed's teachings as they did. We must notice, too, that Arabia—the real Arabia—was so protected from outside influences that Christianity in any but very debased forms had never penetrated to it. The Christianity of Malabar, for example, has lasted long, for though it may have been transformed by the conditions of its new home, yet it was superior to any form of religion in the lands around. The new religion founded by Mohammed was superior to all others with which it could at first be compared.

Now we must distinguish between the spread of Mohammedanism and the conquests of the Arabs. The lands which the Arabs conquered occupied a smaller area—large as it was—than did the lands overspread by Mohammedanism. Mohammedanism—the desire of spreading the knowledge of the one God, who demands that an account be rendered whether or not life has been used for the best—Mohammedanism gave the impetus to the Arabs, who went forth to subdue the earth. When the Arabs reached the final limits of their conquests Mohammedanism still continued to spread, even among those who in their turn conquered the Arabs. What we are concerned with in the first place is not so much the spread of Mohammedanism as the conquests of the Arabs.

The inhabitants of Southern Europe withstood Arab conquest because they were Christians and were organized to withstand the advance; to the east Christianity was not organized, and there was little resistance to Arab advance. These results followed from the previous political conditions, from geographical momentum. South-westwards, however, the Arab conquests were

directed by a condition purely geographical, the existence of the desert over which no body of men could pass. It was only along the northern edge of Africa that the Saracens, as the Arabs came to be called, were able to gain any political control.

East and west, then, the Arabs conquered, and the process was extraordinarily rapid. These lands are steppe, drier or moister, and allow of movement such as that to which the Arab has been bred. Depending for food only on the animals which carry him and his baggage, accustomed to the sameness of the steppe, where one home is as good as another, the Arab has no ties and he can move fast. The lands he first overran were just those which geography and past history seemed to determine.

Turn now to the historical facts. In the first thirty years of the seventh century Arabia was united under Mohammed. In the next twenty years the Saracens conquered and converted to Islam, Egypt, Syria, Mesopotamia, Persia, Turan and even a small part of India. Then there was a check. Unlike Syria, Asia Minor had been thoroughly Christianized and brought under the control of the Eastern Empire, so that the Saracenic dominion was never able to obtain a permanent footing north-westwards of the Taurus. Further, the Arabs were essentially land men, and attack on the states along the north of Africa and beyond was difficult by land, especially as the Eastern Empire still had a fleet to give some assistance to its distant colonies. The Saracens, however, now controlled the old nursery of seafaring men in Phœnicia and Egypt, and after the lapse of another fifty years, at the beginning of the eighth century, by the help of naval expeditions the northern

coast of Africa was added to the lands under the power of the successor of Mohammed. The Saracens even crossed the Straits of Gibraltar, and within a few years conquered the whole of Spain—the land farthest from centralized Roman rule—except, and the exception is important, parts of the mountainous north-west in which the Christians still held out.

This dominion was set up in little more than a century. Arabia was the cradle of the dominion, but like other cradles it was not suitable for later conditions of the power that had arisen. Damascus and Bagdad were chosen in succession as centres of rule. Now, partly because of the existence of Christian states to the north, partly because of the existence of the Sahara to the south, this dominion was long and narrow: all long and narrow states are difficult to govern from one centre. It was so with Egypt and the Roman Empire. The difficulty is increased if the seat of rule is not centrally placed. It was natural, then, that this dominion of the Saracens should divide into two parts, each under a Caliph who claimed to be the legitimate successor of Mohammed and ruler of all the Saracen lands. This took place in the middle of the eighth century, when Spain formally separated from the rest. About the same time, and for the same reason, Barbary, the western half of the northern shore of Africa, also separated by long distance from the centre of rule, acquired a virtual independence, though still remaining Mohammedan in religion. Less than a century and a half later Arabia, with the remainder of the African dominions, became independent and formed a third Caliphate, which nominally for a time embraced the states of Barbary also. These four divisions, Spain, Barbary, Egypt and

the remainder of the Eastern Caliphate, thus came to have separate histories, bound together not so much even by the fact that they had been Saracen conquests as that they were of one belief. Even their Saracen conquerors had not all been of the same race, but consisted of many who had been swept up into the advancing hosts by previous conquests. The natural differences of geographical conditions intensified the contrasts and induced enmities which identity of religion could not heal.

In Spain the Western Caliphate remained strong till the beginning of the eleventh century, then divided into numerous petty kingdoms, which continuously lost ground before the advance of the Christian states of the north till, finally, only the kingdom of Granada remained in the mountains of the south. Even this at last was conquered by the end of the fifteenth century, and the Peninsula came wholly under Christian rule.

In the Eastern Caliphate the Saracen rulers in the enervating lowlands of Bagdad exercised control over the very varied lands nominally under their rule only till about A.D. 800, when they were forced more and more to rely on mercenary bands of Turks to hold together lands continually in revolt. The temporal power passed naturally, then, from the hands of the Saracens to those of the Turks, and though it was not till the middle of the thirteenth century that the Saracen Caliphate at Bagdad was totally destroyed by the Mongols, yet the real control was exercised more and more by Turkish viceroys under different names, and independent Turkish powers were set up on the Iran plateau. Now we have seen that these Turks came originally from the plain. They were heathen: at most heterodox Christianity

had been preached to them. Coming into contact with Mohammedanism they embraced that religion. Thus the destruction of the Saracen rule was no destruction of the Mohammedan power, rather an extension, for Asia Minor, which had never been Saracen, became gradually Turkish and Mohammedan, and the Turkish powers who descended into India set up more permanent Mohammedan states there than the Saracens had ever done.

The Mohammedan lands of Northern Africa and Arabia, after the Mediterranean ceased to be a Roman lake, remained for long shut off from contact with Christian nations. They were not strong enough to extend temporal power across the Sahara, but the religion of Mohammed, the religion of the desert-dweller, gradually spread from steppe to steppe and from oasis to oasis, till the natural difficulty of crossing the great barrier of the Sahara, increased by the presence of hostile tribes, was for Christian nations yet further augmented because these hostile tribes upheld a hostile religion.

The function of the Mediterranean has thus undergone a change. In early times it had been a barrier; later, it became under the Phoenicians a highway, and to the Greeks a defence. We find that the Romans made it a base for sea-power and subdued all the lands on its margin. With the weakening of Rome came a weakening of sea-power. The Barbary States and Spain became Saracen only because the naval power of the Eastern Empire was not strong enough to hold the whole sea, but neither was the Saracen able to gain supreme control. Thus the conditions were the same as in the earlier days of conflict between Rome and Carthage :

the Mediterranean became a moat separating the rivals, though first one and then the other had somewhat more control. The islands became alternately Saracen and Christian. Crete and Sicily were held by the Saracens for centuries before they were regained by a Christian power.

In the Persian Gulf and Indian Ocean new conditions arose. Here the Arab naval power had no competitor of any kind, and the extent of their earlier rule—stretching from the shores of the Atlantic by the Mediterranean, the Persian Gulf, and Red Sea and Indian Ocean to India, and holding the keys of the ways between East and West by sea and land—could not fail to induce the Arabs to become traders of a kind, so that Ceylon, though it never came under Saracen rule, was yet a centre of Arab trade in the eighth century.

The disruption of Saracen power, the division of the Caliphates and the practical independence of Arabia, Egypt and Barbary did not for a long time affect Arab trade. It was only when the Western Caliphate became weaker in the beginning of the eleventh century, that the new city states of Genoa, Pisa and Venice, which had risen on the ruins of the Empire, began to seize both the sea-trade and the naval power which till then had been in the hands of the Saracens. Their supremacy allowed of the dispatch by sea of expeditions of Christians on crusades to attack the Mohammedan power in Palestine itself when the rule of the Saracens was replaced by the more severe régime of the Turk. Even then, however, the Moors of Algiers and Morocco continued in some degree the control of the western Mediterranean, and retained it as corsairs and pirates for many centuries; and more important still, there was, for

an even longer time, no rival to Arab trade in the Indian Ocean, largely because there was a land barrier between east and west; indeed it is only in our own days that the destruction of that barrier has led to the collapse of Arab trade.

Thus we see the influence of the desert on history. The great belt of the Sahara and Arabia stretching into Asia and existing because of natural climatic conditions, has been and is the source and strength of Mohammedanism. An advance in the use of energy has taken place, because as a result of Saracen conquest the same power had control of the Mediterranean and Indian Ocean, and the men of the West were familiarized with the ways to the East by sea as they had been with a way to the East by land when invasions took place from the plain: more energy became available. This result followed from the situation of the desert with reference to that of the diagonal water channel across the great land mass of Euro-Asia-Africa. Because the desert belt intersected the channel, and because the land and not the water was continuous, the naval power belonged to the Arabs. Further, the desert reacted on the minds of men exposed to its influence during many ages, and through them has affected others not so exposed. These had all been stimulated to think, on a larger scale than had been possible previously, as to the reasons of things, and in turn the later developments of history were made possible.

CHAPTER IX

THE OCEAN: THE DISCOVERY: IBERIA

THE shape of the earth has always been of importance in history, because the distribution of heat and cold, rain and drought, forest and grassland, depends fundamentally on the way in which the earth rotates on its axis, and on its attitude with reference to the sun. We have now reached a stage when the shape of the earth is important in another way.

Hitherto it had seemed to man as if it did not matter whether the world was flat or not, and for nearly all people it *was* flat. Learned men, however, knew that the world was a globe. Eratosthenes of Alexandria had even calculated its size, of which he had a more accurate idea than had Columbus. The calculation was possible, since the distance from Syene or Aswan to Alexandria was very accurately known, because Egypt, with its valuable land annually flooded, required to be carefully surveyed. In the time of Eratosthenes, however, the shape of the earth did not affect history directly. It was a scientific fact the knowledge of which had no practical bearing on the lives of men. When men were able to use for their own advantage the knowledge of the fact that the earth was round, then the shape of the earth began to control history in another way.

But the discovery of the shape of the globe was of importance, because the discovery of its shape was related to other facts. The power of the Arabs, as we have seen, depended partly on the control of the sea which they possessed. The Roman Empire, also, owed its importance to the same fact. The power of the Phœnicians and Greeks was based almost entirely on a knowledge of seamanship. The Mediterranean Sea was the source of most of this activity, but ships did sail round other coasts. Phœnician ships may have sailed towards India. Arab merchants certainly reached China. Agricola sailed round Scotland. The Vikings crossed the sea to our islands and Iceland, and probably even to Greenland, and in early mediæval times formed more or less permanent settlements on all the western shores of Europe.

The effect which the discovery of the sea has had on world-history is enormous. The ease of movement on water as compared with that on land has been already spoken of, but there were limitations to the extent of this movement. Because of the terrors of the unknown the early navigators confined their attention to the inland seas and coasting traffic on the margins of the ocean. The most important sea was the sea set in the midst of the land. Thus the distribution of land has had a controlling effect. Owing to the limitation of man's knowledge, till 400 years ago there was one land and many seas. The great land mass of Euro-Asia-Africa extends so far to the north that there is no ice-free passage along its northern edge. Africa extends so far to the south that men had been afraid to venture, though many ancient geographers believed that Africa could be circumnavigated. There was, indeed, an idea

that the world was a land mass surrounded by a "stream of ocean," but there was no suggestion that there might be other great lands set in that ocean, and for all practical purposes there were two oceans separated by a mass of land.

The achievements at the end of the fifteenth century were not simply that a seaway was found to the Indies, that America was discovered, and that Magellan sailed round Cape Horn. By the voyages of Vasco da Gama and Magellan the oceans were found to be connected, and Columbus and Magellan discovered that the oceans could be safely crossed. The shape of the world and the oneness of the ocean were discovered. Henceforward coasting traffic becomes subsidiary to ocean transport, and politically sea-power gives place to ocean-power. Of the results of these discoveries some were immediate and some are beginning to be felt only at the present time.

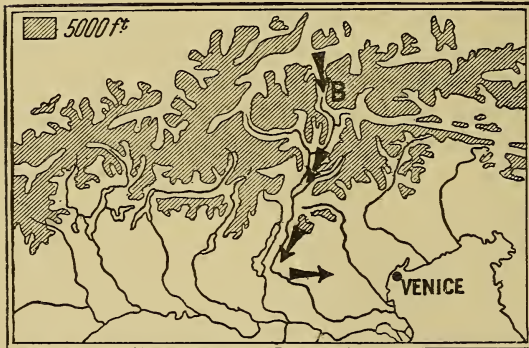
Now we must notice why it was that the shape of the globe and the existence of the one ocean began to control the course of history. We have seen how gradually the world had been growing larger; more and more lands and seas had been brought to man's knowledge, and the special products of different lands had been used all the world over. The invasions of the tribes did much to extend ideas of what the world was, while the Arabs did much to spread knowledge of the Eastern seas. Both these advances in knowledge stimulated the minds of men, but the knowledge that the East could be reached partly by sea had a greater direct effect on the course of history just because movement is easier by water than by land. Marco Polo made his memorable journey to the East by land, but he returned as far as he could by sea.

It has to be remembered that the temporal power of the Arabs—of the Moslems generally—depended not on the use of great military power, but on controlling a vast trade area. This control was possible because the land was continuous and the sea for all practical purposes was not; it was effective because the Arabs occupied that land which must always have extraordinary significance, lying as it does between the Mediterranean on the one hand and the Persian Gulf and the Red Sea on the other. The Arabs had in fact the whole carrying trade that had belonged to Romans, Assyrians, Persians, the people of Central Asia as well as those of North-East Africa. This trade cannot have been great in amount compared with trade of the present time, because transport then was so much more difficult than now, but they had in their hands the trade of the world such as it was. The idea of trade had also been steadily extending. Men were beginning to depend on the results of trade. It was being found more and more profitable to exchange commodities produced in one area for those produced in another; that is, it was found that on the whole there was a saving of energy in using up some energy in carrying the productions of one land to another, rather than in producing all that was required in one place, even if that were possible. In particular, men were becoming accustomed to the idea that there was a way to the Indies almost entirely by water.

Further, the Roman Empire *had* been civilized. The chief men and their immediate dependents had grown accustomed to luxury, to the control for their own use of a superabundance of energy, to the accumulation of more energy than they could assimilate. Though Rome



Venice is set far inland, with the plain of Lombardy behind it, having access to the northern lowlands by ways round and across the Alps.



The lowest pass over the Alps, The Brenner (at B), gives access to Venice.

THE POSITION OF VENICE.

fell politically there still remained cities in Italy where such men lived accustomed to luxury, *i. e.* to a variety of foods, clothing and house furnishings which could not be supplied in Italy itself. All these were brought from the ends of the earth by Arab trade.

Also Europe generally had been advancing in civilization. States had been gradually appearing out of the ruins of the Roman Empire, buffeted into shape directly or indirectly by the menaces of the nomads from the east, the Arabs on the south, and the hardy seamen of the northern peninsulas. The standard of living of these new states had been gradually rising. The salt meat consumed in winter, when the production of the land ceased, was found to be more palatable if seasoned with spices, especially pepper; the energy of food was more easily made available by increasing the appetite and digestive powers. Hence the trade in spices came to be of importance. This trade also was in the hands of the Arabs. Thus all the commodities carried were valuable in proportion to their bulk; they could "stand" transport not only by water but by land, and by land on camel or on horse, and the profits of the valuable trade were largely made by the Arabs.

But the Arabs had *not* conquered Europe, and there grew up in Europe in favourable spots trading towns which had enormous power. These favourable spots were naturally in Northern Italy, where luxuries were consumed and where there was easiest access to the northern lands of Europe. Venice in its sandy lagoons enjoyed protection from land and sea and had an enormous trade for many years, but Genoa and Pisa were also important trading-town republics. The great populations in Northern Italy "required bulky goods from

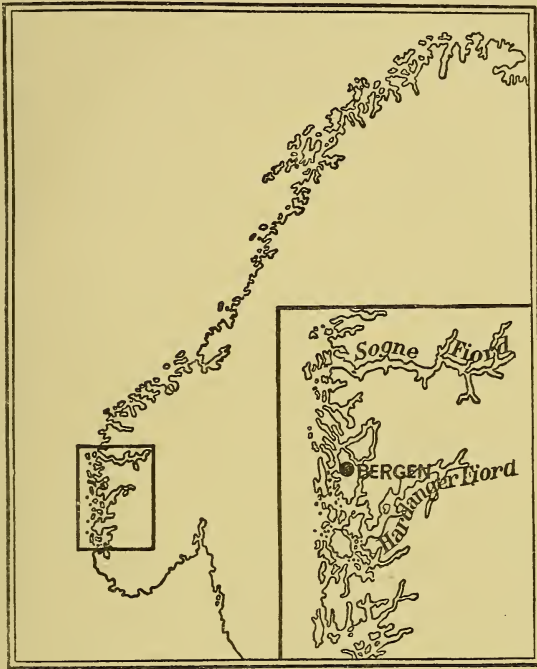
close at hand, and so, because the ships were carrying goods, in any case, to them, through Genoa and Venice came a greater proportion of the valuable goods of the East than was brought to other parts." Thus these towns grew into still more important ports because such a trade, though small in amount, puts great profits into the hands of those who carry it on with success.

But as only valuable commodities could be brought from the Indies, men naturally thought that the Indies were rich lands, and as time went on there sprang up a desire on the part of Western nations to reach these new lands for themselves in order to bring home "riches" that had not first had to pay toll to the Arabs.

It is to be noticed now what lands border on the ocean. To give them their modern political names these are Portugal, Spain, France, the Netherlands, Germany, Denmark, Norway and Britain. These had all directly or indirectly received the impetus towards civilization from the centres on the Mediterranean, but till the discovery of the ocean they were on the outer fringe of the world. Though the Roman Empire fell, the centre of interest was still in the Mediterranean, routes converged on the Mediterranean and on the east end of it, and trade had there its greatest volume.

At first sight it would seem that any one of these lands might have discovered the ocean. In a sense the Norwegians *had* discovered it. The poverty of their soil almost compels men to eke out existence by fishing. The Inner Lead, protected by the rampart of islands, forms a "Great North Road" of which the innumerable fiords are byways. There is a nursery of hardy seamen here, and it is no wonder that men had gone out westwards across the ocean as well as southwards along the

coasts, where they had settled as crofters and fishers wherever they could find a foothold. The Danes and Saxons were less naturally sailors, and crossed the



THE COAST ROAD OF NORWAY.

The "Inner Lead" is the island-protected channel along which boats may sail. It forms the Great North Road of Norway. Bergen is on this main road, between the great side roads of the Sogne and Hardanger Fiords.

North Sea rather because of force from behind—the pressure of the nomads from the East—than because of any natural liking for the sea. A sea-empire was for a moment, under Sweyn and Cnut, based on the North

Sea, but this led to no discovery of the oneness of the ocean. It was but an empire of the same kind as the early Roman based on the Mediterranean Sea; in this northern empire there were fewer people and less naturally available energy, and it lasted only a short time. Even the Norsemen's discovery of America had no effect on the course of history. It was merely another land farther removed from the world, cold and providing little energy. Neither then nor later was there any very great interest in the question whether there was one ocean or two, for it did not affect the daily life of the people.

On the shores of the other lands bordering the ocean, there were fishermen and sailors of small coasting vessels which entered the many estuaries cut into the land, but there was no connection by sea with the mass of world traffic. The Arabs held the Strait of Gibraltar, and traffic was all local.

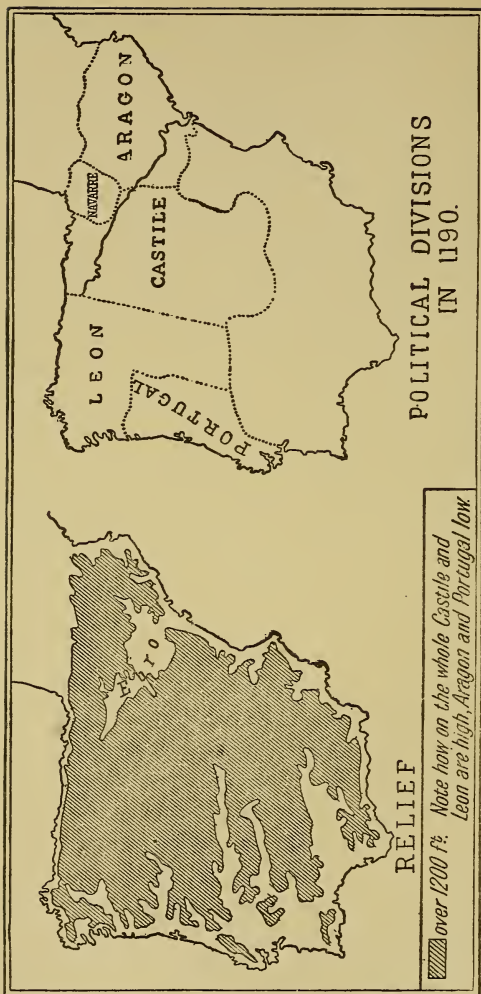
In view of the geographical facts, then, it was most natural that the discovery of the ocean should fall to Iberia, and that Iberia should be the first to profit by that discovery. We have seen that nearly all the peninsula had been overrun by the Mohammedans; by the time they reached the West, however, the first fervour of slaughter had died out, and the lives of the original inhabitants were spared: they were suffered to live, though in subjection.

In the North, in the forest fastnesses of the Pyrenees and Cantabrian Mountains, where the Arab horsemen could not easily follow, an unconquered few were left, who remained not only free but Christian. In the Cantabrian Mountains arose the small state of Leon, and in the secluded valleys of the Pyrenees the state of

Navarre took its rise. These gradually made headway against the Mohammedans, and recovered and re-christianized the land. As each gained in importance, the natural differences between lowlander and highlander asserted themselves. The lowlands on the west of Leon made themselves independent and formed the nucleus of Portugal. From the extended Navarre there split off the valley of the Ebro on the east to form the state of Aragon, and the plateau on the west to form the state of Castile, leaving but a remnant in the mountainous north to be still called Navarre. Later Castile and Leon united to form a larger Castile, so that by the fourteenth century there were three great Christian states in Iberia, Castile alone being still in touch with the sole surviving Mohammedan state of Granada.

Portugal had finished her work of expelling the Moor, but just because Portugal had come into being as a Christian state fighting against the infidel Moor, the tendency was to continue in the course which had brought the state into existence. Because the people were Christians and were accustomed to fighting for their faith against the Moors, it seemed natural to continue to fight as Christians against the Moors even though this involved crossing the sea to Africa. Hence by the middle of the fifteenth century there was a province of "Algarve beyond the sea" on the shores of Africa, and the time was ripe for the discovery of the Ocean.

The discovery of the Ocean was probably hastened by the sagacity of one man; but as might have been expected that man was a Portuguese, and his action only hastened the natural course of events. Prince Henry the Navigator grew up having ever before him



THE HIGHLANDS OF IBERIA AND THE CONTROL THESE EXERT ON DIVISION INTO STATES.

the power of the Arabs as traders; on the rocky promontory of Sagres, beside Cape St. Vincent, Prince Henry in 1418 built an observatory, and in the following years sent out ship after ship southward along the coast of Africa, with the express purpose of fostering exploration for the discovery of a sea way to the Indies.

At first progress was slow. Beyond Morocco, the land of the Moors, stretched the vast Sahara desert extending to the verge of the ocean. There the steady trade winds, blowing to the south-west, have parted with their moisture and drop no rain on which vegetation might live. Further, from Morocco the coast of Africa trends south-west, and these same trade winds blow so steadily that mariners from Europe were afraid to sail before them as there would be no winds to bring them back. Cape Non seemed to say "No" to the farther advance of such daring sailors as ventured so far. Thus there were good reasons why Africa had never been rounded from the west. But encouragement from Prince Henry and the desire to share in the wealth of the Indies combined to bring about an advance, and in 1447 the object of the exploration was published abroad, so that all good Christians might know, by a grant being made by the Pope to the Crown of Portugal of all lands then or at any future time to be discovered between Cape Non and India. It is interesting to think how much historical momentum that grant represents, the history, as we have seen, being controlled by the geographical conditions.

Prince Henry did not himself live to see the success of his schemes, but within eighty years of the occupation of Sagres, Portuguese sailors had won their way

southwards along the coast of Africa, Diaz had doubled the Cape, and Vasco da Gama had sailed to India and returned with bags of spices to show that he had been there. Henceforward in history there were not two oceans but one, and henceforward world trade fell to the ocean sailors, because there was a saving of energy in carrying goods all the way by sea. Another great advance in civilization was thus made. Less than five years after da Gama returned from India the galleys from Alexandria and Beirut, which were wont to bring the spices, entered the harbour of Venice empty. Within a dozen years of his return, the conquest of the Indies—the East Indies—was complete, the Arabs were defeated in the Arabian Sea and in Malacca, and the power of the Portuguese was established all along the coast of India.

Thanks to her position and to Prince Henry, Portugal had taken the lead in discovery. Thanks to the fact that the Iberian peoples were Christians and zealous Roman Catholics, the bull of the Pope granting a monopoly of her discoveries to Portugal was not likely to be disregarded by her rival Castile; but interest was roused in the advance southwards, especially when the Guinea coast had been reached and its products actually brought to Europe.

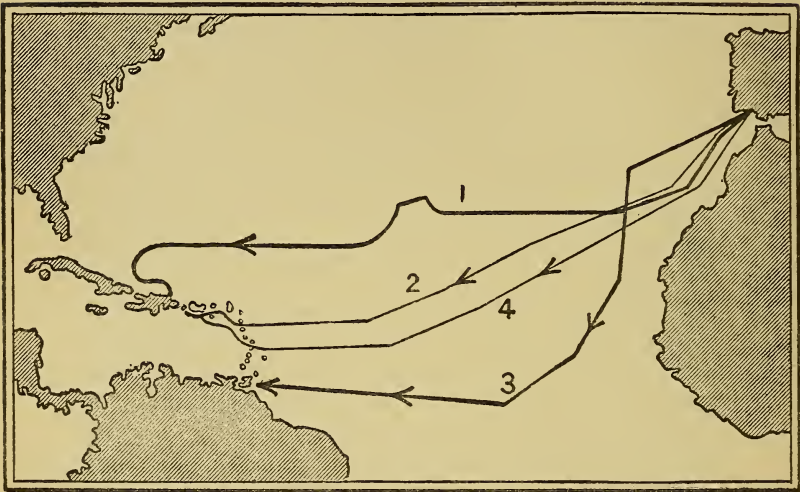
Then, and not till then, the fact that the world is round became of importance. If the world was round there was another way to the Indies—westward. This way lay open to whoever would take it. As Iberia lies at the west end of the Mediterranean, round which lived all the sailors who till now had been engaged in world commerce, it was most natural that many Genoese, Venetians and Pisan sailors should find employment

under Portuguese authority when Portugal embarked on a career of world conquest overseas, especially as there had been little reason in earlier times why Portuguese should be sailors. It is no wonder that Columbus—a Genoese, familiar with trade conditions, a resident for many years in Portugal, where ideas of world trade were in the air, a sailor on the open sea to Madeira, the Azores and even to Iceland, familiar with the theories as to the shape of the globe—should have thought it worth while to make a voyage westward.

But Portugal was not interested: all her energies were engaged in the exploration of the obvious way eastward. The Italian states wished rather to keep the Mediterranean as part of the route to the East than to open any new route. Britain had not yet realized what world trade meant. It was in Castile that Columbus found a certain sympathy with his ideas, though it is not to be wondered at that it took him many years to break down that distrust of the open ocean which had possessed the minds of men through all time. As in the case of Prince Henry, though the great work was done by a single man, yet it would probably have been done within a comparatively short time by someone else if not by him, and he was just such a man as the geographical conditions were likely to produce.

That the discovery of Columbus was rated at its true value by the Powers of Europe is seen by the fact that within seven *weeks* of the return of Columbus, in 1493, a bull was issued by the Pope, assuming that the world was round and giving the Western Hemisphere to Spain as the East was given to Portugal. Now these lands, which Columbus had discovered in his attempt to reach the Indies, had not belonged to the circle of lands that

then mattered. The Portuguese in the Indies had merely diverted to their own ships such trade as had already used the ships of the Arabs. In the New World there was no trade to divert; there were no spices. The Spaniards who followed Columbus in ever-increasing numbers came with the three ideas, fighting, Christian-



THE VOYAGES OF COLUMBUS.

The return voyages are not shown. The direction of the trade winds determined the route of each of the voyages.

izing, and the possession of gold and silver. Trade did not enter their minds. Again this is not surprising. Castilians had for centuries been accustomed to fighting, to fighting for Christianity, and their own plateau land yielded precious metals and was unsuited for trade.

But though the Western Hemisphere was given to Spain, the Spaniards did not conquer the whole of the

lands set therein. The parts which came under their influence were determined by geographical conditions. A map showing the winds in the Atlantic will show that the trade winds still blow south-westwards, so that Columbus did not go due west across the Atlantic but west-south-west, with the result that he reached the islands now called the West Indies. In later voyages he reached South America and Central America. Because the Isthmus of Panama is narrow he heard of the existence of the Pacific Ocean, and within a few years Spaniards had crossed the Isthmus and built vessels on the shores of the Pacific. But Columbus never knew of the existence of North America. The Spanish dominions, then, spread from the West Indies to Mexico, and southwards along the Pacific coast of South America in the mountainous parts where the precious metals were mined. The old inhabitants were killed or converted at the point of the sword, and sold into slavery to toil for their new masters, so that the lands which the Spaniards conquered became Spanish even in speech.

While Mexico was being conquered Magellan was endeavouring to complete the work of Columbus, and sail westwards to the East Indies for the sake of the spice trade. Portuguese by birth, he had himself visited the East Indies, perhaps having gone as far as the Moluccas, and had realized that the spice trade was the source of enormous wealth. As we have seen, the Portuguese were not interested in the Western Way to the Indies; the Spaniards were not greatly interested in the spice trade, but rivalry with Portugal induced them to give assistance to Magellan as they had given assistance to Columbus.

Magellan's task was that of both Diaz and Columbus. Like Diaz and his predecessors he had to find a passage round the south of the great land mass which separated the oceans, and like Columbus he had to cross a mighty ocean which had never been traversed. He had to pass farther south than had Diaz, and to cross a mightier ocean than had Columbus; yet the very fact that similar difficulties had been overcome made success the more probable, as the sailors were more willing to continue at work though the actual difficulties were really much greater.

Magellan's attempt was successful, though he perished. The East Indies were reached, westwards; spices—cloves—were brought home. Lands on the far East became Spanish; and the Spanish occupation left its results; the Philippines still bear the name of a Spanish king; they remained Spanish for four centuries, for more than three of which they kept the calendar of ships sailing westward from Spain not eastward from Portugal; and even now they inherit the evil results of a nominal but ineffective rule granted by a pope to Spain when she was a power fighting the infidel Moors.

Yet the Spanish route to the Indies was a failure. Not only was the western route much longer than the eastern, but that greater length was due to the fact that it had to cross a vast stretch of ocean, half-way round the world (North China, on the one side, is the antipodes of the south of South America, on the other). In this vast expanse of water there is no land. Now, on the ocean movement is more easy, there is less expenditure of energy for a given result than on the land; but on the land alone can man settle to produce things—to make energy available. On this vast ocean

nothing could be produced, and in the Indies on the farther side only spices, which, however they were valued by the Portuguese, were thought nothing of by the Spaniards, who despised trade and thought only of gold and silver.

Thus the discovery of the oneness of the Ocean resulted in the Portuguese holding the keys of world commerce in place of the Arabs, while the discovery of the shape of the globe led to the Spaniards bringing under their control much of America, though even in that continent Brazil fell to Portugal, as it was held to lie within the Portuguese half of the world.

CHAPTER X

THE OCEAN: OCEAN POWER: HOLLAND AND FRANCE

SPAIN and Portugal between them shared for a while the advantages that arose from the discovery of the ocean; it might have seemed that, backed by the authority of the Pope, they should have continued to share that power for all time. But the Pope could not alter geographical conditions nor the control exercised by these on the minds of men.

We have seen that the advantage which water traffic possesses over land traffic lies in the fact that goods can be carried long distances far more cheaply by the former than by the latter. Now Iberia may face the open ocean, but it is evident that the Peninsula of Iberia—almost cut off from the rest of Europe—is not a suitable landing-place for the greater part of goods intended for the continent. Behind Venice, *i. e.* in the plain of Lombardy, there was a land populous partly because of its own richness, partly because of the past conditions of which we already know. Behind Lisbon there was not a large population; there is nothing like the Plain of Lombardy, and Spain is for the most part an arid plateau. Thus the bulk of the spices brought to Lisbon had to pass into the interior of the continent along ways by which goods could be carried more cheaply.

This is not the place to speak exhaustively of the causes of the Reformation, or of the Renaissance of which it was one phase. Both were due in a large measure to the wider outlook on the world induced by the historical events which we have seen to have been controlled by geographical conditions. But it is to be noticed that though the Renaissance affected all Europe, the area in which the Reformation took most hold was that farthest removed from the lands dominated by the Catholic Church, just as Christianity took firmest hold on lands untouched by Judaism. It was the area inhabited by peoples to whom the methods of presentation of the doctrines of the Catholic Church appealed less than to those who had been under the power of Rome for long, and who were under somewhat different geographical conditions. The historical momentum in the north was different from that in the south of Europe. The machine was not so well adapted to the conditions, and there was more friction. By the invention of printing in these northern lands an enormous saving of energy was effected; energy was set free which could be diverted to other uses, and in particular the new doctrines were spread far more rapidly than otherwise would have been the case. There was thus a certain latent antagonism between North Europe and South, so that when an occasion arose for the antagonism to become manifest, it is not wonderful that it was used. The Protestant Dutch revolted from the Catholic Spaniards.

Their ability as well as their inclination to free themselves depended on geographical factors. During the Middle Ages it was necessary that some communication should be held between Northern Europe, which was

gradually becoming civilized, and the already civilized lands of the South. The Strait of Gibraltar was held



THE RHINE VALLEY.

The Rhine Valley is an almost isolated portion of plain surrounded by highland.

by the Moors; there were no roads, so that rivers were all-important. Now, alone of north-flowing European

rivers the Rhine rises in the mountains on the south of Europe, in the Alps. Further, on a map of Western Europe its valley is seen to be cut down through the surrounding plateau to a few hundred feet above sea-level. This valley was the main street of North Western Europe; wool from England—the Australia of the Middle Ages—was sent by this route to the manufacturing cities of Northern Italy such as Florence and Pisa, because in these cities there was a population which could afford to pay for the luxury of fine woollen clothing. The traffic in wool, rather a bulky article, induced traffic in other commodities. In course of time woollen factories were established in the Netherlands, the land through which a good portion of the wool was sent. These manufacturing towns were in what is now Belgium, but the importance of Holland advanced along with that of Belgium. The Belgians were not sailors; the Dutch, to give them their modern name, had always been seamen. Inhabitants of islands along the shores of a shallow sea, they had been forced to earn a scanty livelihood by fishing. Then, as a wealthy population gradually gathered in the lands to the west, they made much profit on the fish they supplied to this community. The fishing industry increased, and with it the wealth of the Dutch and the numbers of their fishermen. This intercourse also naturally led to the employment of these fishermen as sea-carriers for the merchants of Belgium. In Spain and Portugal only a small proportion of the population were sailors: very few ships sufficed to bring all the spices or gold and silver to Iberia. So many ships belonged to Holland, however, that it was seriously proposed, when the fight for freedom seemed hopeless, to place the whole popu-

lation on board ship and seek a home beyond the seas. Hence in the Netherlands there were communities of merchants and traders, and southwards from this land there ran the finest waterway into the heart of the continent. It was no wonder that the Belgian city of Antwerp became the principal merchant centre in Europe, and that the Dutch added to their other trade that of carriers of spices, and made much profit therefrom.

The Belgian Netherlands had access to the sea, but the inhabitants were merchants and manufacturers rather than sea-carriers. The wealth of the Indies poured into the country, but their land was not easily defended. The first Dutch centre of freedom was the outermost island of the Rhine estuary. They could and did flood their land so that they might drown their enemies and allow their flat-bottomed ships to approach beleaguered cities, and they speedily found they had command of the sea. Belgium had none of these advantages, and remained under the power of Spain, while the Dutch not only became a nation of traders, but for a time held the ocean power of the world.

Now the Spaniards made an essential mistake. Gold and silver and so-called precious stones in themselves are not wealth. By a convention they stand for so much energy, but they are not energy. There was no saving of energy to any land by the Spanish conquest of it, and that conquest brought little real wealth to Spain. The small territory of the Netherlands brought four times as much income to the Spanish coffers as all the lands of Mexico and Peru. In the one land, energy was saved and there was much to spare; in the other, little was saved and there was none to spare.

The ocean power of the Spanish depended only on their gold; the ocean power of the Dutch depended on the fact that they used their own energy to make more energy available, and more energy accumulated in their hands, so that a great part of the gold which the Spaniards obtained from the Indies eventually passed to Holland. Mere military conquest of a land brings about no saving in energy.

And not only did Spain conquer lands across the ocean, but for a time she even brought Portugal under her control and destroyed the power which, not so favourably situated as was Holland for trade with the rest of Europe, was yet accumulating energy by the trade in spices of which she had control. Holland seized the opportunity. By 1578 Holland, under the leadership of William the Silent, had thrown off all effective control by Spain. At enmity with Spain, recognizing no Papal bulls, the Dutch roved the seas and snatched from their enemy any lands with which trade was possible. These lands had been Portuguese for the most part, but now, Spanish or Portuguese, it made no difference to the Dutch. Before another half-century was over Dutchmen had sailed all over the world. At the zenith of their power a few years later, they were supreme in the East Indies; they had settlements in Brazil and Guiana; they had discovered and rounded Cape Horn, which they named after one of their own little fishing villages. They possessed trading-stations on the coast of Guinea; they had settlements at Cape Town on the way to the Indies; Mauritius (called after their own Prince Maurice) and Ceylon were theirs; and they held the key to the entrance of North America at New Amsterdam. In addition they did

the greater part of the European carrying-trade, and even had the carriage of goods between America and France and Spain. They had made themselves, as they said, the wagoners of the seas. Such ocean power as Portugal and Spain had possessed passed entirely from them, yet Spain still retained her conquests.

But for geographical reasons a lasting Dutch ocean power was as impossible as was a Spanish or Portuguese dominion. There was an advance in the saving of energy; products of far distant lands were made available more cheaply, but something more was necessary.

Any engine requires "packing" and protection; the energy of the machine must be prevented as far as possible from dissipating itself without doing work, and adverse influences must be prevented from injuring it. To do this, energy must be expended in suitable ways, but the less energy thus expended the better. Now Holland is not naturally able to supply enough energy to protect herself. The Rhine Delta is too small; it cannot support a very great population. The number of men with a community of interest and sympathy must of necessity be small. The Spaniards were not really seamen; the Dutch were seamen, and when the struggle was between these two, command of the ocean went to the nation of seamen; but when there came a struggle between the Dutch and another nation of seamen other considerations arose.

Further, though the marshes and channels of the Delta were of great service—as the lagoons of Venice and the marshes of Babylonia had been—in protecting the sailor state, though it was owing to them that Holland gained her independence of Spain and a century later kept it against France, yet the very fact that her

borders required defence shows that a certain amount of her scanty man-power had to be set aside to guard these defences, and when she was attacked by both land and sea it is no wonder that she succumbed.

We must now consider that state which, while an agent in bringing about the downfall of Holland, at the same time made an effort to gain the ocean power of the world—France.

We have seen how the Roman Empire extended over all West Europe, Iberia, Gaul and South Britain. Under the Roman Empire these lands began to be of account in history. We have seen also how the Roman power was overthrown by tribes outside the Empire. Eventually there grew up among the Germanic tribes to the north, who had never acknowledged Roman rule, a power which was recognized by the Pope at Rome, and, because recognized by him as representing the past in history, was called the Empire. This Empire included what is now France and Germany. It did not include Iberia, which, as we have already seen, was at this time Mohammedan or Moorish. This Empire split up quite naturally at first into three parts: that on the west which had been Roman, that on the east which had not been Roman, and the debateable land between. The two first were naturally more important than the third, and the debateable land became absorbed to a greater or less extent in one or other. France, then, gradually emerged from the western portion, but it must be noticed that there was no France in Roman times; there was no France under the Early Empire of Charlemagne. Under the Roman Empire and under the Teutonic Empire the land called France was civilized, but there was no France. Now it is necessary to notice what

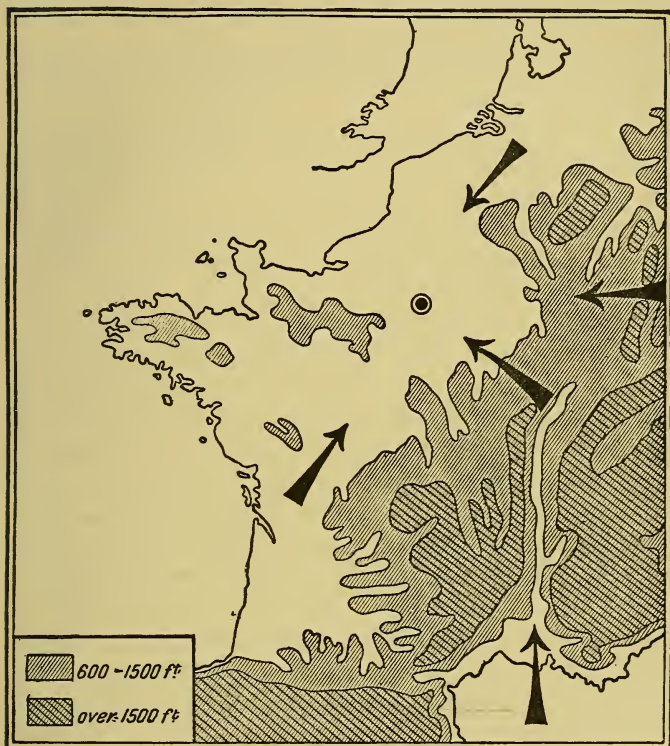
are the natural units of this land called France. We have already seen the importance of the Marseilles or Rhone Valley entry in Roman times. Here the Romans ruled a land before they had conquered the plain of



THE NATURAL RELIEF REGIONS OF FRANCE.

Lombardy: this was their first province. Here there is a lowland made up of the coast plain, the Rhone-Saone Valley and the gap between the Pyrenees and the southern highland. This highland is set in the gap between the Alps and the Pyrenees. It has upland

economic conditions, and is thus contrasted with the lowland on either side. The Cevennes form merely the steep south-eastern edge of the highland. From



THE SITUATION OF PARIS.

The natural land roads of France are directed on Paris.

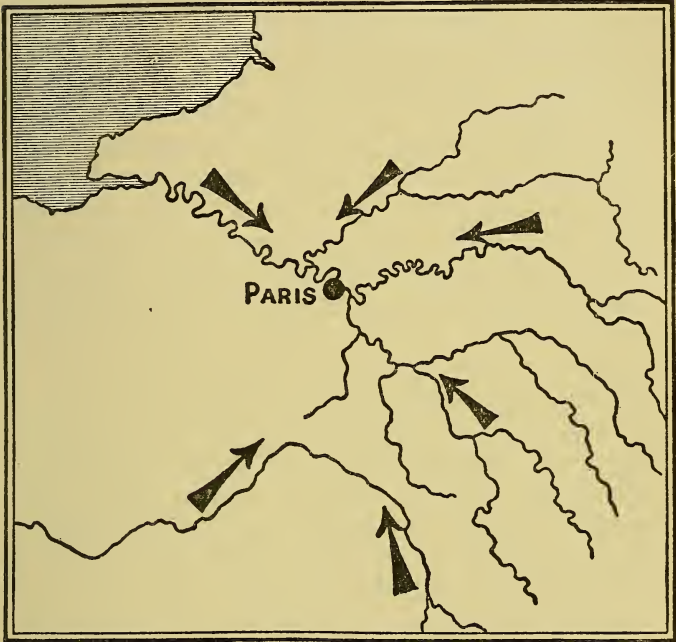
the highest central part of the Cevennes runs a high water-parting in the direction of Brittany. On this the Auvergne heights are set. On either side of this

water-parting are plains, Aquitaine, and the plain of Northern France, having soils composed of the well-mixed debris of different rocks and therefore fertile. The strata which fill the valleys of the Loire and Garonne just go through the gate of Poitiers, produce a fertile soil, and allow of easy means of communication between the plains.

There were no roads in the Middle Ages, as the Roman roads had fallen into disrepair and disuse. Traffic was then mostly along rivers, even along rivers such as we should not use now. In the northern plain the influence of the waterways is supreme. The Seine and its tributaries are navigable almost from their sources; the Oise from the north-east joins the Seine just below Paris; the Marne from the east just above; the Yonne comes from the south. There is thus a convergence of waterways directed on Paris. But this is not all: the two stretches of the Loire which meet at Orleans are also two ways directed on Paris, one up-river and the other down. The up-river stretch leads from the direction of Aquitaine; the down-river stretch leads from the heights of the south valleys in the southern highlands. Further, the long Rhone-Saone Valley, giving access to the southern plain of Languedoc, is also approached by an easy climb over the Côte-d'Or, so that even this area may be brought into touch with Paris.

Thus, just in the same way as the Roman Empire grew round the city of Rome, so did France grow round Paris. Rome became important when the south of Italy was assailed by landmen from the North; Paris first became important when the Norsemen, sailing along the coasts of Europe, entered the river Seine and passed upwards till they came to a small island in the midst

of the stream. Here, because it formed a convenient crossing-place, a bridge had been erected; but a bridge prevents the passage of boats, and here the seamen from the North found a limit placed to their invasions.



THE WATERWAYS OF THE NORTHERN PLAIN OF FRANCE.

These waterways are directed on Paris.

Paris withstood the Norsemen and gained in importance by so doing.

Then the rulers of these same Normans became not only conquerors of England, but rulers of various parts of the west of what is now France. To the common

people it mattered little who ruled them, but on the whole the ruler of England, just because he *was* ruler of England, was rather less trusted than the ruler in Paris, and eventually all the various units acknowledged the ruler in Paris as supreme. This process was hastened because the King of England and his representatives unconsciously looked on the lands south of the Channel as foreign; *e. g.* the Black Prince ravaged southwards from Bordeaux for no other reason than to obtain booty.

Now France being a land whose centre is Paris, the actual limits of France are of less account, but they are clearly marked by the sea on the north and west and part of the south. On the western half of the south there is a highland region, the Pyrenees, which also marks off fairly definitely the limits of France in that direction; only on the east there is no such definite frontier.

Within these limits France, during a great part of her history, was occupied by the evolution of a national unity. Her people were almost entirely engaged in agriculture. With a pleasant climate, neither over warm in summer nor cold in winter, with sufficient rainfall, and for the most part a fertile soil, France produced food enough for her people. There was little to tempt or force them on to the seas. There was little to tempt them beyond their own lands, except on the east. French armies and French navies there were, but they were for defence. No considerable number of her people were sailors, for there was little to be gained on the sea.

Here, then, is France, her south-east within touch of the early civilizations of the Mediterranean, so that Marseilles was a Greek city and Provence was the first

Roman Province outside the peninsula of Italy, and the language of the people is but a dialect of Latin; set between Spain and Holland, facing the open Atlantic and having opportunities for ocean power, but with a doubtful frontier on the east which seems to tempt to land expansion; and yet self-sufficient if she would.

The later history of France has been dominated at one time by a trust in that self-sufficiency, at another by attempts at land expansion, and at a third by a desire to obtain control of ocean power; while always the centralizing effect of Paris has been to introduce a systematizing centralization into each policy.

This state, then, was an agent in bringing about the downfall of the ocean power of the Dutch, but was not able herself to gain command of that ocean power because her interests were divided.

By the middle of the fifteenth century the unification of France round Paris was complete; by the end of the century Provence, Brittany and the Duchy of Burgundy had been added. The first and second then lay farthest from the centralizing influence of Paris, the last on that debateable middle land where no definite natural frontier exists. But this led to trouble with the land power on the east, and for another fifty years the external history of France is taken up with the story of the attempts to hold this new eastern frontier, while the internal history shows us France united under an absolute monarch in Paris, now the finest city in Europe.

Thence onward for another half-century this united centralized France had to grapple with the problems of religious contention introduced into all the northern lands by the doctrines of the Reformation. By 1600

these problems had found a solution, and this united France remained Catholic.

By this time the Dutch were entering on their career overseas. The aims of the rulers of France were beginning to be influenced by these new conditions, but still the fact that the eastern border was an indefinite land frontier determined that the policy should be divided. Richelieu aimed at the development of a great sea-power which should add to the *wealth* of the kingdom, but he also aimed at the extension of the boundaries of France to the eastward, so that more agricultural land should be under French rule. The result of this double attempt was to destroy the power of Holland, to weaken the power of Austria which now dominated the land beyond the French frontiers, and eventually to cripple seriously the power of France. These results were, however, brought about largely because of the influence of the latest ocean power of the northern world. We must, then, consider the geographical conditions of Britain as far as they have affected the course of history.

CHAPTER XI

THE OCEAN : OCEAN EMPIRE : BRITAIN

ONE obvious difference between Britain and other lands which we have already considered is that Britain

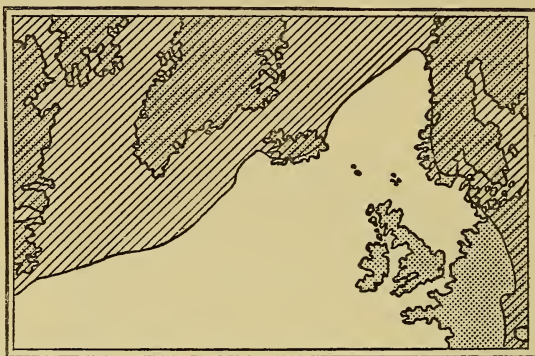



SEA TEMPERATURES IN THE BRITISH SEAS IN JANUARY.

alone is an island, or pair of islands, of a fair size, capable of supporting a considerable population. There are, however, other geographical conditions which must be

considered before we can understand the peculiar part she has played in history.

(i) *Climate*.—Britain, in common with the other ocean lands, possesses an equable climate. The prevailing westerly winds have banked up along the shores of North-Western Europe a half-mile-deep mass of water



 *Area frozen on the average during the whole of January.*

THE GULF OF WARMTH.

The map shows the exceptional climatic position of Britain.

warmer than is normal in those latitudes. This in winter prevents the freezing of the soil, of the rivers, and of the shore waters. Britain also lies far enough north to be warm rather than hot in summer, and is besides still under the influence of the ocean. Thus work by land and sea is possible all the year round. There is cold in winter to brace, but not to numb; there is heat in summer, but it does not enervate. Energy may be saved all the time. Further, the westerly winds bring cyclonic storms which drop the rain over the land, grass may grow at all seasons, and

there is no great likelihood of drought in summer. Even the changes of weather for which Britain is vilified supply a constant stimulus.

(ii) *Relief*.—In the island of Great Britain there are two lowlands; the larger in the south-east being the essential part of England, the smaller between the Forth and Clyde being the essential part of Scotland.¹ In Ireland a lowland extends east and west through the midst of the island. Hence in those lowlands there are possibilities of agriculture over considerable areas. The units are fairly large; the lowland of England is comparable with the lowland of France, and though there may not be much stability in an age when political units are all small, yet when civilization has advanced far enough to allow of one government controlling the whole lowland, that government may be fairly homogeneous and stable.

(iii) *Tides*.—Now if we look at a map of North-Western Europe showing the depth of the sea, *i. e.* the relief below sea-level, we shall notice that Britain is set on a ledge which is just covered by water; if the land were raised some 600 feet Britain would be joined to the Continent, not only across the strait of Dover but across the whole North Sea and English Channel. This has important results. The tidal wave generated in the great Southern Ocean where the water extends completely round the globe, sweeps up the Indian, Atlantic and Pacific Oceans at a great speed, but causes a rise and fall of only a foot or so. When this wave approaches a shallow shore, its speed is checked but its height is increased. If this shallow shore has great width, the tidal rise and fall become considerable; but if the tidal wave approaches a continent whose shores descend

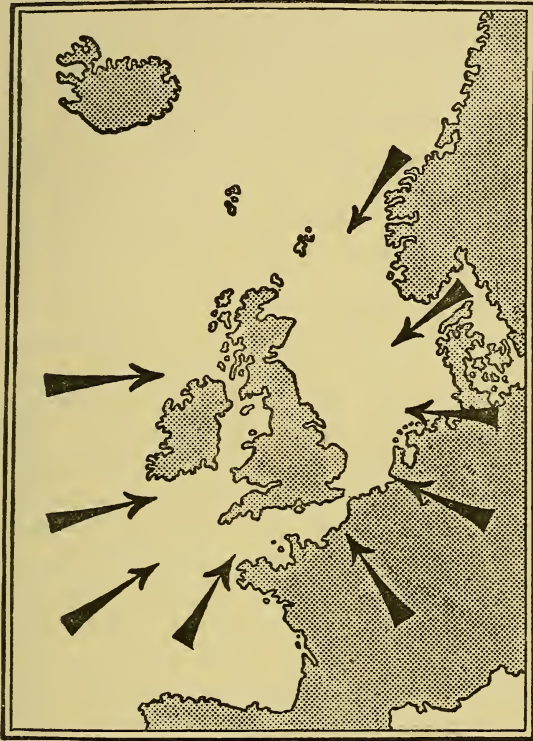
¹ These are "lowlands," not "plains."

steeply to great depths, the height is scarcely increased at all, and there are no tides. For this reason there are no tides of any size on the shores of Norway and of Spain. There are no¹ tides, obviously, in enclosed seas like the Baltic and Mediterranean, because the oceanic tidal wave cannot enter those seas. It is only on the shores of Britain, and on the opposite shores of the Continent from Hamburg to the head of the Bay of Biscay, that the ebb and flow of the tide twice a day can keep the mouths of rivers free from silt, and can at all times carry boats to and from the sea round curves which sailing vessels find it difficult if not impossible to pass. Thus Britain shares with Northern France and Western Germany the advantage of having estuaries which can be entered from the open sea. Goods might be brought far inland, and energy might be saved by so doing, especially in the Middle Ages when men had forgotten how to make roads, and railways were not yet thought of.

(iv) *Position with regard to the Old World.*—Britain also shares with the other lands on the north-west of Europe the characteristic of being on the outer fringe of all the world that mattered in the days before America was discovered. Britain was at the end of all things, and on the road to nowhere. Neither the steppe-dwellers from the East nor the Mohammedans from the South ever saw her shores, though the Moors reached Poitiers and the Bulgarians crossed the Rhine. Thus Britain was left alone: she was not like Sicily, an island which seemingly ought to have had a history of its own, for Sicily was set between East and West, between North and South, between Greek and Phœnician, be-

¹ This requires qualification; there are local tides, but for practical purposes they are negligible.

tween Roman and Carthaginian, between Christian and Mohammedan, between Norman and Saracen, between



THE APPROACHES TO BRITAIN.

The map shows that Britain is approached effectively from little more than half-way round. Northern Norway is of comparatively little account.

Turk and Spaniard; so that the history of Sicily is simply the history of strifes between different powers which met in Sicily on common ground, because Sicily

was in the midst of the ancient and mediæval world round the Mediterranean. Till the ocean leaped to importance with the discoveries of Portuguese and Spaniards, Britain was largely a land apart, and even now Britain does not owe any of her importance to her position in the centre of the land mass. If we consider the routes that ships take from and to Britain we see that from nearly half a circle—from west round by north to north-east—practically no traffic reaches Britain. Northwards is *still* the road to and from nowhere. Attack is the less likely to come from that side.

Now all those conditions have controlled the history of Britain, sometimes together, sometimes separately.

Set at the end of the world, Britain was for long ages the last refuge of many tribes who entered at the continental angle at Dover, and were forced by later immigrants farther and farther towards the north-west. What the force was that impelled those people to cross to Britain, whose shores they could see from the continent, we cannot say, though we may surmise. Each successive wave of immigrants seems to have had a higher form of civilization than the preceding; they were more able to use energy in either war or peace. The methods of using and saving energy they had learned, no doubt, from other people, but as they were only imitators they scarcely counted in history. Then at last the English lowland became part of the Roman Empire, and Britain was brought into the world.

With the departure of the Romans, the fact that Britain was an island continued to have effect. There was then no central organization within Britain, so that the fact that Britain was an island resulted in successful

attacks on all sides by seamen who came from over the North Sea. The Saxons and Jutes and Angles and Danes and Norsemen attacked on south and east and north and west, setting up small states and introducing customs and ways of living the influence of which is felt to this day. There was even for a few years an empire based on the North Sea and including practically all the lowland of England.

At length the Channel was again crossed by the Normans, and the lowland of England was strongly ruled from within by William and his sons. The rule naturally centred in London. Near the head of the tideway, and on the first firm ground amid the marshes of the northern bank, it was marked out as the crossing-place to which roads converged in the Lower Thames Valley, as well as the point to which ships might come. Between the Downs and the Chilterns it had no rival; only in the other basin entered by Southampton Water, had there been another possible centre at Winchester. It appeared for a time as if the plains of Northern and Western France might also be ruled from the English centre: the Angevin kingdom stretched from the Cheviots to the Pyrenees. Then the fact that Britain is an island began to control history in other ways: the natural jealousies of peoples speaking alien tongues asserted themselves, and the peoples of what is now France, hating the ruler in Paris who spoke French rather less than the ruler across the Channel in London who spoke English, eventually united round Paris to form the French nation. Yet the Channel Islands never belonged to France: they were held by the Normans before they conquered England, and remain as a reminder that for many centuries in British history

the sea was not a protection, but a means of approach for seamen.

Then the centralized government in the English lowland gradually came to control more than the lowland. For long the highland of Wales, with different characteristics, was a land apart; for long the lowland of Scotland, with a central government of its own, had an independent existence defended as it was by the broad stretch of moorland, inhabited only by raiding cattle thieves, which fills all the north of England and the south of Scotland. Neither in Roman times nor for more than a thousand years thereafter was Great Britain one: the highlands here, as always, tended to produce different political conditions as a result of different economic conditions. But eventually the whole island became one centralized political unit, defended by the sea and using the sea as a defence.

Within this political unit, and while the lowlands were still separate, energy was being accumulated. Wool was obtained from sheep fed on grass, which could grow all the year round; sheep could be kept, because the strong government guaranteed alike freedom from invasion, and an absence of anarchy. The wool was sold to merchants overseas. Gradually a trade grew up by which further energy was accumulated, due to the fact that men could work all the year round, and ships could come far inland with and for their cargoes. This advance was possible, not only because a protection was afforded all round by the sea, but also because there was a central government. England became, in fact, the first centralized European state of modern times.

And all this time Britain was at the end of the world.

By the discovery of the ocean and of America, Britain was affected in two ways.

(i) She was found to be open to the ocean, just as were Portugal, Spain, Holland and France. From Britain, as from those lands, men could and did easily sail all over the world; they even attempted to find the Indies. For some twelve years before the voyage of Columbus, merchants of Bristol had sent vessels out into the Atlantic to try to discover islands which should at any rate form stepping-stones to the spice lands of the East.

(ii) When traffic developed along the ocean way to the Indies and to America, the southern shores of Britain were in close touch with it, yet the north-west remained remote from all traffic and attack.

Then, as we have learned to expect, the previous history of Britain as well as the geographical conditions controlled the further history. Defending herself on the surrounding seas, saving energy because her government was centralized, and because she was secure, England had taken her place among the states that had arisen in the Middle Ages. Many of her inhabitants were sailors; her merchants, on whom her growing wealth, that is, her accumulated energy, depended, recognized that they drew their wealth from commerce overseas. The sea was not an unknown thing. But at first no very great advantage came to Britain from the discovery of the Indies. First Portugal and then Holland took the larger share of the trade that had belonged to the Italian Republics, and Spain controlled the lands from which the precious metals came. It is true that the English seamen were more than a match for the soldiers of Spain, who, unaccustomed to the sea, came in their great Armada. The English ships, though smaller than

the Spanish vessels, were more easily handled, for they were essentially merchant ships, built for sea and used by sailors; while the Spanish ships were rather floating castles, built for soldiers who were fighting on sea, and suitable for fighting after the manner of land warfare. English seamen such as Raleigh and Drake did attempt to bring home treasure from the Spanish lands on the west, but the rulers of England, unlike those of Spain, were unaccustomed to the idea of conquest, and so were not then eager to hold distant lands beyond the seas; little resulted from the founding even of Raleigh's colony of Virginia, where he looked for gold but could find none, except to give men of later generations the idea of crossing the seas to cultivate the land.

Nor was Britain's prosperity at once affected, as was that of Portugal and Holland, by the idea of trade. At first, before the Reformation, Portugal, by decree of the Pope, had the monopoly; and later the Dutch, holding the key to the main route by which the produce of the Indies entered Northern Europe, were naturally stimulated to become the wagoners of the seas, and to accumulate energy enough to enable them to win their independence of Spain, sooner than Britain, through whose land no obvious route passed. But Britain lies so close to Holland that British merchants soon endeavoured to supply Britain with the products of distant lands cheaply, and so found themselves in competition with and opposed to the Dutch. Enmities naturally arose. Britain was brought into conflict with Holland and with France, and in little more than a century became not only a sea-power but *the* sea-power, *the* Ocean Power.

The struggle lasted from the end of the sixteenth century till the beginning of the eighteenth, but the first

half of the time was spent in nominal peace. From 1600, when the Dutch put up the price of pepper from 3s. to 6s. a lb., and in self-defence the British East India Company was founded, till Cromwell's Navigation Act of 1651, British commerce was spreading and coming more and more into conflict with that of the Dutch, but there was no actual fighting. It is to be noticed that it was during this period of increasing tension that Richelieu also attempted (1628-1642) to develop a sea-power for France; but the attempt was not rooted in the natural activities of the people, and the policy was not persisted in, so that the results were not as great as might have been expected.

The Navigation Acts declared that all imports into England or her colonies, which had been gradually growing, must be conveyed exclusively in vessels belonging to England herself or to the country in which the products carried were grown or manufactured. This was a challenge to the Dutch, and war with Holland naturally followed. The contest for the supremacy of the sea lasted sixty years, and four phases are clearly marked.

- (i) Britain fought against Holland alone.
- (ii) Britain fought against Holland and France allied.
- (iii) Britain, allied with France, fought Holland.
- (iv) Britain, allied with Holland, fought France.

(i) The first stage lasted from 1652 till 1665. In the first war under the Commonwealth, Britain had, if anything, slightly the better. In the second, under Charles, Britain was on the whole more successful; but her real strength was brought out only accidentally, for in the

autumn of 1665, notwithstanding her naval successes, her fleets were not able to put to sea on account of the plague. Then the difference in the positions of Holland and Britain was clearly brought out, for Britain hired mercenaries with her accumulated energy to attack Holland on land.

(ii) This led to the second stage of the contest, for the Dutch at once sought French aid to hold the land frontier; but this stage did not last long—only during 1666 and 1667—for though again Britain gained more advantage than did Holland, yet each saw that France was profiting by their trade losses; a peace was patched up, and even an alliance was formed for a few years.

(iii) It was now that France, under Colbert, made another of her spasmodic attempts to become a sea-power. Organized in the characteristic centralized French way, the production of home commodities, the building of ships, and the establishment of colonies, were so co-ordinated and stimulated that France bade fair to leap to the front as a sea-power; but again historical momentum and the geographical conditions had their effect. On the one hand, the people, accustomed to their own ways of living, could not at once take advantage of the governmental facilities, and on the other, the geographical conditions again tempted the government to think of expansion beyond the eastern frontier, and to withdraw these facilities before they had produced much effect. Now on this land frontier, approached by the easiest way out of France to the north-east, lay the Netherlands and Holland. Spain was weak, the Netherlands, which had remained Spanish, fell at once to France, and Holland was directly menaced. This

seemed to suit British aims, especially as France, though her fleet had become of more importance, was not a commercial rival of Britain. Thus in 1672, after a period of strain during which England claimed more and more authority on the sea, England and France united declared war on Holland. In the course of it Holland, largely because of subsidies paid from the profits of her commerce, was aided by allies who took off the pressure from her land frontiers, and was able, because of the strength of her fleet, to prevent direct invasion from the sea; but the need for those subsidies arose from the fact that Holland was small and open on the land side to a great centralized land-power, and on the sea her strength was evidently failing before that of the sea-power which had no land positions to defend, but could use her subsidies for attack; for when Britain withdrew from the war in 1674, the supremacy of her flag was recognized from Finisterre to Norway. The advantage to Britain did not end there, for as a neutral during the remainder of the war, which lasted till 1678, the carrying trade of the Dutch was transferred to her ships, because they crossed the sea more securely than did those of Holland, which were still menaced by the French privateers.

France, too, by deliberately choosing to look landward rather than seaward, practically allowed Britain a free hand on the sea. Even as early as the days of James I. Britain had claimed and received the acknowledgment of supremacy over France at sea; but if the schemes of Colbert had been allowed to prosper, and the advice of Leibniz taken, the geographical advantages of position possessed by France would have allowed her to set up a sea empire that it would have been impossible for Holland to withstand and difficult for Britain to over-

come. If she had used her front on the Mediterranean, where there was now no sea-power, to dominate Egypt, she could have controlled a great part of the trade of India and the Levant; she would have been compelled to occupy stations on either side of Egypt, and would have become a sea-power more important than Holland, and, gradually taking the place of her weaker ally at home, would have strengthened her position there, and made herself at any rate a serious rival to Britain.

(iv) Thus we come to the fourth stage, when, with Holland as the ally, but much the weaker ally, Britain ruined the navy and shipping of France. This lasted from 1688 to 1713, during which time France was also engaged in the continental struggles of the Wars of the League of Augsburg and of the Spanish Succession. Now it is to be noticed that a supreme military navy does not of itself give sea-power. At the beginning of the period France had a navy superior in numbers and equipment to the combined navies of Britain and Holland; what she lacked was the sea commerce by which energy was accumulated. The losses which Britain suffered were speedily made good, while there was such a continuous drain on the resources of France that her ships could not be replaced; and these resources drained away, because they were expended on fighting on her land frontiers. Britain supplied to the opponents of France the subsidies with which this fighting was kept up. Thus, though there are no important sea-fights after the first year or so, though Britain appears to have very little connection with the affairs on the Continent, yet the period was one of the most noteworthy in British history, and the silent pressure exerted by her increasing sea-power was the important factor in the whole struggle.

Her commerce suffered somewhat from French privateers, but the losses were much more than made good by the enormous increase in that commerce, with the profits of which, *i. e.* the accumulated energy, Britain was able without undue strain to support the land contest till France was exhausted.

During the struggle Holland finally ceased to be a sea-power at all. She was unable to make good, as Britain did, the losses of her navy, for her resources, like those of France, were exhausted by land warfare, and she tended more and more to lean on Britain on the sea. She gained nothing of any account at the peace of Utrecht, and her carrying trade and her navy were gone. To Britain came all the advantages of the struggle. Her commerce had been greatly increased: this was her outstanding gain. She obtained control of the trade of Portugal, while the cession of Gibraltar and Port Mahon in the Mediterranean, and of Newfoundland and Nova Scotia across the Atlantic, gave her new bases from which to extend and protect her trade.

There was another result to the commerce of Britain which followed from the geographical conditions and the use that was made of them. Not only could commodities be carried more safely by her vessels than by those of her rivals, so that the carrying trade of the world gradually came into her hands, but, the whole land being more secure, that trade was managed with greater economy of energy than elsewhere.

It was a great advance in civilization when metallic coin took the place of barter. The things to be exchanged were clumsy and difficult to carry, and it might easily happen that, though one man had more surplus products, yet he could not find another who had the

things he wanted and at the same time was in need of those products. Metallic coin, acceptable to many people, facilitated exchange, *i. e.* the energy of production was made more available.

In all civilized lands now, but in Britain especially, a further advance has been made. Except for small retail transactions practically no coin changes hands. All the commerce of the country is simplified by systems of book entries by banks, by which a man, or business, is credited with the possession of so much wealth as the value of so much work done, *i. e.* energy expended. When he wishes to buy anything, he transfers by writing a cheque assigning this to someone else, who in his turn may transfer it again. Now all this is possible only in a country which is secure, where men trust one another, where there is little unnecessary expenditure of energy. It is no accident that the Bank of England, the keystone of this edifice of credit or trust, was established in the last decade of the seventeenth century, nor that in London alone in all the world is one certain of obtaining gold¹ at will in exchange for a piece of paper which shows that money is owed. London became and remains the centre of the commerce of the world because trade could be organized there safely with less expenditure of energy than elsewhere.

Thus commerce began to be organized on a large scale about the beginning of the eighteenth century, when and because Britain had become the sea-power. The condition of things at the time of the South Sea Bubble, in 1720, shows on the one hand that there was a great

¹ Gold is in a sense more valuable than paper money, because its artificial value is more widely acknowledged, not because it is really more valuable: neither gold nor paper are energy, they are merely tokens.

accumulation of surplus energy, *i. e.* capital, in the country, and on the other that beginnings were being made in organizing that capital on a larger scale, this being possible because security was great. The South Sea Company was formed in 1711, before the end of the war, and owed its institution to the fact that government wished to reduce the rate of interest for money it had borrowed. It was another attempt, in 1719, to reduce still further the rate of interest, that opened people's eyes to a way of increasing their money by using it. The Bubble burst, not because security was not great—the £100 shares of the Company never fell below 175—but because the element of trust in security, which depended on command of the sea, was quite naturally but unjustifiably extended to things with which the command of the sea had nothing to do.

During the eighteenth century the supremacy of British trade and the command of the ocean were again and again challenged; but Britain always emerged from the struggle with extended dominion and trade, and only from the American War with serious loss.

France and Spain from 1739 to 1748, and again from 1756 to 1763, were at war with Britain directly or indirectly, because of the expansion of her trade. On each occasion these countries were at the same time engaged in continental wars, and on each occasion Britain supported their opponents by the profits of her commerce, so that their resources were exhausted by land wars, while such commerce as had sprung up tended more and more to fall to Britain. French commerce had been growing up in India under the French East India Company, in Canada and in the West Indies, but it was left entirely unsupported by a navy, and these

lands rapidly became either British altogether or became so dominated by Britain that their trade was to her advantage.

Hitherto British possessions outside the British Isles had been for the most part merely trading-stations or points of call for the navy. The ideal had been rather the Phœnician than the Roman; trade, not conquest. But there had been gradually growing up also real colonies, where men of British birth had settled with no intention of returning to their native land. On the eastern seaboard of North America open to the ocean, with a climate more extreme indeed than that of Britain, but more temperate than anywhere else on the east coast, they had founded a New England, and a New Scotland added by conquest had also been settled, while southwards and westwards stretched the beginnings of New York, the old colony of Virginia, and the newer colonies of the Carolinas and Georgia. As these had already a population of two million people and seemed to require room for expansion, it was natural that they should come into conflict with Frenchmen, who had entered the continent by way of the great river systems of the St. Lawrence and Mississippi, and who, though fewer than one-twentieth of the British, were endeavouring to control the whole vast area so easily reached by these magnificent waterways. Cut off from France by the navy of Britain, Canada became a British dominion.

In India, too, along with rivalries in trade there had been growing up a rivalry as to land conquest, but unsupported by a fleet the French aims came to nothing. At the end of the Seven Years War France was indeed allowed to retain her trading-stations, but the conquests

passed to great Britain, and even the trading-stations became of less account as the great proportion of the trade naturally went to the neighbouring British ports. Thus by 1763, partly peacefully as colonies, partly as conquests, great areas of land had come under British rule, and the kingdom of Great Britain had become in effect the British Empire, while British trade was still increasing.

But, just as mistakes were made when trade suddenly expanded at the time of the South Sea Bubble, so mistakes were made with regard to the government of the colonies. From the nature of the case these lands required more from Britain than they sent to Britain; there was always a balance of trade against them. In other words, energy was being drained away. This required to be made up in other ways. It was made up by trading illegally with the Spanish colonies to the south, and supplying them with much-needed products which they could not grow. Irritation was started by interfering with this arrangement, directly by forbidding the illegal trade and stopping it by men-of-war, and indirectly by requiring the colonies to contribute taxes which they could ill spare to the English Exchequer. Though the incidence of these taxes eventually became the test question, it was the stopping of the trade which began the trouble.

By this time France had realized that her schemes of land expansion had always been thwarted by Britain's sea-power, so that now, when Britain's resources were being drained by a land war on the American continent, seemed the time to challenge that power again; further, France recognized the fact that on the sea lay Britain's strength, and refrained from becoming entangled in

European wars which Britain endeavoured to excite. Thus Britain was taken at a disadvantage. During years of peace, too, when every penny not spent on obviously commercial pursuits seemed wasted, the British navy had been allowed to become weaker, and when war was declared the allied fleets of France and Spain were actually superior. Yet even so Britain lost only ¹ the American colonies, for the past history—controlled by the geography—counted. In the one navy there was a sea tradition, which was to boot largely a tradition of victory; in the other there was an unfamiliarity with the sea. Though mistakes were made on both sides, yet the farther-reaching mistakes were made by the allies, and at the peace in 1783 Britain obtained remarkably favourable terms, as France was again suffering from financial exhaustion.

And the British navy not only had a naval tradition behind it, but a tradition of advance in ability to use and save energy on the sea. British seamen had learned more of the art of sea-fighting than had their opponents. In the early days in which hand-to-hand combat was the only method of conducting warfare, fighting on sea was much the same as fighting on land. Opposing fleets sailed or were rowed straight at each other, and just as the compact Greek phalanx drove its way through the opposing army, so ships close together brought many men together to attack the enemy already thrown into confusion. Familiarity with the sea and conditions on the sea, and ability to handle a ship, were the chief requisites of men who wished to fight on sea. As long as the contest lay between seamen and landmen, the supremacy of the sea went to the seamen, mainly because

¹ There were some exchanges.

they knew the sea and could manage ships. The Spaniards, as we have seen, were not really seamen at all, and were overthrown at sea by the Dutch and English. It was only during the sixty years after 1653 that there emerged the principle of sea-fighting under the conditions that then existed, by which the advantage went to those using their fighting strength most economically.

A ship has much greater length than width, and in the days when ships came to be armed with a great number of small cannon, more cannon could be pointed from the sides of a ship than from either the bow or the stern, so that ships could attack most effectively sideways; while, for the whole of a fleet to be most effective, the sight of the enemy had never to be interrupted by a friendly ship. Thus ships giving battle must needs be in a line moving at right angles to the direction of fighting. In order that this line should be equally strong at all points, only ships of a certain strength could be allowed in it. These ships were the line-of-battle ships. Fighting thus became something different from going straight at an enemy. Wind conditions required to be taken into account, even more than before. The fleet to windward had the advantage of choosing whether or not to attack, but if it did attack it was at a certain disadvantage, in that it required to sail straight at the enemy, in which case few cannon could be used, or it came into action gradually and the first ships were greatly damaged. If it was defeated it had little chance of escape. The fleet to leeward had not the choice of attack, but had a better chance of escape, and while being attacked could cripple the enemy. It is significant that even in the war of American Independence, when

France was attacking Britain, the British fleets habitually chose the windward station and the French the leeward station.

This characteristic difference of action was not an accident; it was due to the fact that, partly as a result of greater experience, the British seamen knew more of naval warfare and of the principles of naval warfare. Important military stations are chosen on land because their positions are advantageous for defence or attack. Some lands, like Egypt and Chaldea, are naturally defended by deserts or marshes; cities like Rome or Paris are at positions where they can most easily repel attack. But on the sea there is no one place more easily defended than another. There are, in the military sense, no "positions." This by greater experience the British seamen had learned. They had learned, too, consciously or unconsciously, that, as a result of this, the best defence was attack, not on the enemy's coast, but on his fleet, wherever it could be found, since the fleet afforded the only means by which Britain might be invaded. They had learned that more was saved in the long run by a greater expenditure to start with; while Frenchmen were naturally inclined to a more cautious policy, to keeping fleets in harbour when not actually required, and not attacking unless sure of victory. The one endeavoured to increase the amount of stored energy by spending, the other to hoard and save what was already stored. Britain had found that the former gave the better results in commerce and in war.

And their greater experience, too, gave them a better chance of finding out methods by which attacks might be made to obtain the best result; how a smaller force

might defeat a larger by using advantages of wind, or of the momentum of ships in motion.

The War of American Independence, then, came to an end, mainly because the resources—the stored energies—of France were exhausted; and this was no new thing, for we have seen that there had been for a century a continual drain on the resources of France without any corresponding supply. The government, centralized in Paris, was able to keep up appearances by forcing from the scattered tillers of the soil the supplies that were necessary, but this had only made them the poorer and the less able to get the best out of the land, so that the poorer classes in the towns naturally suffered also from want of food.

When this state of affairs at length resulted in revolution, though the monarchy was overthrown and though the constitutional States-General, turned into a National Assembly, lost the power it had apparently secured, yet the centralizing power of Paris, which underlay the original centralized power of the king, brought about a change of government against which through the length and breadth of France there was no revolt that had any chance of success; each revolt, whether in the Rhone Valley, in Bordeaux, in the Vendée, or in Brittany, whether against Republicanism as such, or the particular form of it in power at the time, was isolated from the others and was easily attacked and put down from Paris.

And, again, the land frontier of France on the east controlled the external policy. The desire of the new government was at first not so much land for dominion as the spread of the new ideas of Liberty, Equality and Fraternity; but the aim was more and more lost in the

method, so that land expansion, at first the method by which ideas were to be materialized, became in the end the aim itself. "The French system," said the government, "is to be extended to all countries occupied by her armies"; but the idea of the extension of the French system was lost in the attempt to occupy the countries by her armies. In this attempt the old conditions controlled the issue, for the countries most easily occupied lay beyond the eastern border of France.

At first under the driving force of the whole French people, and later under the magnificent leadership of the greatest general of modern times, France bade fair to subdue the continent entirely, and, had there been no ocean power, it is almost certain that France would have dominated the world for many years, but always the ocean power of Britain met and checked her. By means of her fleet and the old method of paying to her allies money amassed by commerce, Britain hindered the expansion of France, and Napoleon, on whom the direction of affairs gradually fell, came to see clearly that Britain and British commerce were his real enemies.

In the further struggle four distinct phases are clearly marked, and in each the importance of Britain's ocean commerce, the result of her ocean power, is obvious.

(i) Napoleon at first thought that India was the source of British commercial supremacy, of her wealth and resistance. Thus after, with consummate skill in diplomacy and war, subduing separately between 1795 and 1797 many little minor states in Italy and on the Adriatic shores, and establishing little republics on the French model, he made in 1798 a descent on Egypt, while yet some French ships of war were left him. He thoroughly

subdued and organized that old land, and attempted even to reach and conquer the other old land of Chaldea. By these conquests he hoped to set up stepping-stones from which to advance on India. Meantime, Britain had apparently, and to some extent actually, lost much by the French conquests on the southern shores of Europe, by which she was cut off from bases for her fleet. Now, however, she sent a fleet back under Nelson, who after a six weeks' hunt through the whole Eastern Mediterranean, in absolute ignorance of Napoleon's plans and movements, found the French fleet in Aboukir Bay, and in an hour or two Napoleon was cut off effectually from Europe. Between September 9, 1798 and February 5, 1799, he did not receive even a dispatch. His plans of conquest eastward were fruitless, because he could not leave Acre in his rear unsubdued, and, aided by no more than two ships of the line, it withstood his attacks. He himself escaped secretly, but his army was shut away from all military movements till allowed to leave just before the temporary peace of 1801.

(ii) Then Napoleon endeavoured to strike British commerce in the North of Europe. Commerce with Holland and with the Rhine had been, of course, checked before this, but farther east the Weser, the Elbe and the Baltic had remained open, as the states which used these waterways were far removed from France, and had remained neutral. As neutrals their ships were safe, and there was a tendency on that account for trade to go in their ships, but in the attempt to prevent France from accumulating any resources, Britain claimed that neutral states should not aid France by carrying her trade for her, nor by bringing to France such things as would help her to rebuild her navy—most of these, such

as timber and hemp, coming from the Baltic. Thus there was a source of discontent, and Napoleon, on his return from Egypt, and after defeating with masterly strategy the armies opposed to him in Central Europe, so worked on this discontent as to rouse these northern powers of Europe—Prussia, Denmark, Russia and Sweden—to unite, in December 1800, in an Armed Neutrality, to oppose Britain's claims by force if need be. Britain was thus left alone in Europe to face France. But the destruction of the Danish fleet at Copenhagen and the murder of the Czar, attempted because of the restriction of the Russian trade, brought about the break-up of the Armed Neutrality; each of the states saw that, notwithstanding restrictions, its interest was better served in the circumstances, *i. e.* more energy was accumulated, by acceding to British claims and continuing their trade. Thus by the end of 1801 Britain was again friendly with all the states of Europe except France.

Napoleon had again pushed troops to the South of Italy in another attempt to reach Egypt, but the attempt was again vain, for Britain still had command of the sea. Even Napoleon was desirous of peace. The preliminaries were signed in October 1801, and the Treaty of Amiens in March 1802, but Napoleon still thought that "England alone cannot contend against France," and his obvious intention to disregard the terms of the treaty led to a renewal of the war in 1803.

(iii) Since the attacks on Egypt and on British trade in the North of Europe had been unsuccessful, Napoleon resolved to strike direct at the heart of Britain. This was really the only effective attack, but the question was whether or no it was possible. While preparations were being made for this invasion, the older

methods of attack were attempted. Troops were again pushed to the south of Italy. This was futile, as Britain still had control over the sea. Hanover was occupied by troops, and the mouths of the rivers Ems, Weser and Elbe closed. Even Cuxhaven was occupied by troops to stop the trade of Britain with the Elbe. This was done without the consent of the states through which these troops went. Napoleon knew now that his one foe was Britain; the others did not really matter, and the strength of Britain lay in the fact that he was compelled to make the peoples of these other states his enemies in order to reach Britain.

As regards the invasion itself, a great army of 100,000 men was to be carried across to Britain. For this, ordinary transports were out of the question. There were not enough in the whole of France; the commerce of France had been destroyed. Nor could they be built; the supplies of timber, etc., were stopped. There was no harbour space if they were built, and if they could be used troops could only slowly be disembarked from them on the English side. The projected invasion had perforce to be made in an enormous number of small boats, which could be beached quickly together, so that troops might land at once in sufficient force to overcome any army that could be brought against them. These might cross in a fog or calm, when battleships could not move—and Napoleon took care to emphasize this fact—yet it made success much more likely if, for a comparatively few hours, the French could hold the Straits, and in his own mind he determined that it was necessary to have the support of an adequate fleet.

But this attempted blow at Britain also came to nothing, because the different detachments of the new

French fleet, built with much labour in the different protected harbours of France, were never given a chance to unite into a compact body powerful enough to protect the flotilla of small boats collected with much difficulty at Boulogne. For by this time Britain had made a further advance in the knowledge of naval warfare, and had found that the best, *i. e.* the cheapest, defence of her shores and her trade lay in preventing the French fleets from coming out of their harbours, where, in the "saving" French way they tended to be kept, preventing the men becoming accustomed to the sea; while the British seamen, scarcely leaving their ships for years—Nelson never left his flagship for two whole years—were hardened, toughened, and so trained in the management of ships that, when it came to be a question of handling ships in battle, they were easily superior.

Thus from the very beginning of the war in 1803 the French harbours were blockaded. Some squadrons did escape, but these escapes could never be timed so that there could be any union in sufficient numbers to hold the Straits, nor with sufficient secrecy to elude the British ships, which immediately followed. The key to the whole situation was, however, at Brest, where Napoleon's main fleet was shut up by Cornwallis, who never for a moment gave it a chance to escape. The advantage of thus blockading the ports depended from a strategic point of view on another difference which then existed between the sea and the land. On the land, except in impassable deserts, there are men almost everywhere, and an army cannot move for any distance without its presence being known, while on the sea, and especially on the ocean, a fleet may sail long distances without anyone being able to find out what its move-

ments are. We have had an example of this, even in the Mediterranean, when Napoleon sailed for Egypt. The West Indies, then, because of their being across the ocean, were at first chosen to be the scene of the union of the detached squadrons of the French fleet, but the holding of the detachments within their harbours forced Napoleon to attempt to unite his vessels in the Bay of Biscay, where the union would be known and suitable disposition of the British ships made. Villeneuve, indeed, did escape from Toulon with one of the squadrons, and reached the West Indies, but he was joined by none of the other divisions. Instead he was followed at once by Nelson, who knew so well what the effect of such a pursuit would be, that he not only divined that Villeneuve would at once return, but even the route by which he would return. Choosing another route by which he utilized the westerly winds to greater advantage, Nelson was in European waters with his fleet to await the French. Villeneuve made one last attempt to unite with the Brest fleet, but his heart failed him, and he sailed south to Cadiz. Then Napoleon saw that an invasion of Britain was hopeless, and moved his long-waiting troops from Boulogne.

It was not till three months after the danger of invasion was practically over that the Battle of Trafalgar was fought. It was fought because Villeneuve *had* failed; he was superseded, and learning the fact before the arrival of his successor, who was to take the fleet again to the Mediterranean, he determined to run all risks and take the fleet through the Straits of Gibraltar himself. But Nelson was waiting, and by destroying a large part of the French fleet prevented a recurrence of the threat of invasion.

Thus the sea was used as a defence by the men who knew it against those who, like Villeneuve, felt that they were not as familiar with it as were their opponents, or those who, like Napoleon, were unable to understand the peculiar conditions of sea warfare; and Britain for a century was not even threatened by invasion.

(iv) Napoleon, then, was unable to carry an army across the Channel, and had to attempt to conquer the ocean by the land. To do this all the world that counted must be united against Britain, and he set himself to reduce Europe to his will. Even by the date of Trafalgar his troops were far into the heart of Europe, and a few days longer saw Austria at his feet. Prussia succumbed by the end of 1806.

The struggle then at last became a question of resources—of accumulated energy. Napoleon endeavoured to shut out Britain from all profits to be made in the markets of the Continent; even ships not British which came from Britain were to be seized. Britain attempted to shut out France and her conquests from all traffic on the sea, except such as had come from a British port and had paid duty to her. In 1807 the British design was the most successful, for Napoleon was engaged in bringing Russia into line with the other European states, and soldiers could not be spared to enforce the French edicts; while the fleets of Denmark and Portugal were withdrawn under British persuasion before these lands were finally coerced by French troops.

When Napoleon at last gained control of all Europe but Sweden and Turkey, the position of Britain seemed much more hopeless, but she only declared that all foreign trade must be through Britain, and that dues

must be paid; this she enforced by means of her fleet. Thus not only was Britain strengthened by taking a percentage of all external European trade, but she tended to weaken Napoleon in two ways. In the first place, it was to the interest of the peoples of, at any rate, the northern European lands to trade with Britain, even under the British restrictions; traffic did take place, and Napoleon alienated the sympathies of these peoples by stopping the illegal trade by means of his troops. In the second place, it was the need which Napoleon felt of preventing British trade with the North of Europe that compelled him to spread his best soldiers all along a fifty-mile-wide belt of coast there, and prevented him sending sufficient force to repel the English military attack on the Peninsula.

He was on the horns of a dilemma. If he withdrew his troops from Northern Europe to oppose Britain in Spain, then Britain continued to renew her resources by trade in the north. If he kept his troops in the north—as, in fact, he did—he had not enough men to drive the British out of Portugal. His resources of men were scattered, and could effect little. France became poorer and poorer; all commodities became dearer as they were brought nearer to France, for they were more easily imported, and therefore cheaper, as the distance from France increased.

Even the military attack under which Napoleon fell was directly due to the policy forced on him by the fact that Britain was a defended island open to the ocean; for Russia, far removed from France, while agreeing to exclude British shipping, would not agree to exclude British goods brought by other vessels. This was fatal to Napoleon's plans; a quarrel ensued; the disastrous

expedition to Russia followed. The governments of Prussia and Austria, supported by the whole people, took courage again. Napoleon continued to lose ground, for his energies, human and material, were exhausted; finally the allies entered Paris, and the game was up. Ocean power had proved too strong.

CHAPTER XII

THE FOREST

I. RUSSIA

IN the last two chapters we have seen how the discovery of the ocean stimulated the minds of those who dwelt on the outer rim of Europe, and how those peoples were enabled to utilize the advantages afforded by the discovery, so that the natural units bordering the ocean became of importance. The stimulus either started the crystallization of those units, or greatly hastened the process and strengthened the result. This discovery of the ocean by the Western nations, and all that it entails, followed quite naturally from contact, on the one hand, with the tribes of the plain, and, on the other, with the Arabs and those whom the Arabs had converted to Islam.

Before continuing the story further, however, we must look back and consider how other states of Europe came to take their places among the Powers. To understand this we must notice yet another important geographical control, "The Forest," and its characteristics. There are many kinds of forest, but they are all alike in several respects. (1) They cannot be easily traversed; but they can be more easily traversed by small bands or by single men than by large bands, by men on foot than by men on horseback; thus they differ

essentially from grasslands, where we have seen movement is easy in all directions, and where there is a certain advantage in living and moving in considerable numbers. (2) The forest *may* be cleared in parts, and settlements made, protected by the surrounding forest, but it is difficult under primitive conditions to make large settlements quickly; if the forest supplies natural fruits, there is little reason for making settlements or inducement to accumulate possessions. (3) Agriculture rather than pastoral pursuits will be practised in those settlements; the existence of forest implies that there are no great periods of drought throughout the year, and thus that crops may be cultivated, and more made of the soil than is possible in a dry grassland. (4) As a result, population will be rather small and scattered, and such agricultural communities as exist will tend to be clannish and distrustful of strangers.

Thus the conditions of life are different from any of those which we have heretofore noticed. In none of the lands where early civilization flourished, is there a great amount of rain, nor do trees grow in such numbers as to affect movement to any extent, or to afford protection to settlements in clearings.

Now the great plain of the world, though it appears to be one on a map showing relief, is really divided into two parts, according to the presence or absence of forest. The northern and north-western part of the plain, coming under the influence of the westerly winds, is somewhat damper than the more southern and eastern part. Being cooler in summer, also, there is less evaporation. Thus, although the southern and eastern portion can produce only grass, the northern and western part is a forest land. Pine forests cover

those areas which have a dry winter cold, but deciduous trees predominate in the more temperate western section south and south-west of the Baltic. Here, then, is a vast area difficult to traverse, difficult to govern, difficult to unite in one coherent whole, so that it is comparatively late in history ere it becomes of importance.

It has been noted that among the tribes whose movements became evident at the time of the break-up of the Western Empire were the Slavs. The movement of these people, like that of the German tribes, was due to pressures from farther east, rather than to any desire of movement on their own part, or stimulus from their immediate surroundings, and it is not likely that they moved far. However that may be, they eventually settled in the area lying between the Baltic on the north and the Balkan lands on the south, partly on the plain, partly on hilly land. They have thus been cut in two by the later inroads of the nomads from the east, who kept to the central grasslands. The Southern Slavs, left on the hills, we have already spoken of; it is with the Northern Slavs in the forest that we are here concerned.

In this forest land of the Northern Slavs nomad pastoral peoples find conditions which are unfamiliar to them, and with which they do not know how to cope. Here the Avars and the other nomads never came, and the Northern Slavs found some measure of protection in clearings comparatively easily made among the pines. Separate and isolated communities, however, and situated far to the north out of touch with the stimulating influences which had developed round the Mediterranean, they naturally were long in taking their

place in the civilized world, and the first stimulus came, as might be expected, from the sea.

About 800, as the result of the expansion of the great German Empire to which we shall presently refer, the inhabitants of what are now Denmark and Scandinavia had been stimulated into activity. Charles the Great's conquest of the Saxons had forced the attention of these northern peoples to be directed southward. The minds of some were fired by desire for plunder; others had visions of northern kingdoms where there had been but small communities, but these communities were small and isolated because food could not be obtained in any considerable amount in any one place; the younger men were accustomed to the idea of leaving the parental home; they were all accustomed to danger and hardship in obtaining the necessaries of life from sea or land. They were accustomed to thinking and acting for themselves, and by themselves, or with a few supporters; many could lead and comparatively few could be led. There was, then, for two centuries an exodus in all directions of these Norsemen or Normans, exploring, fighting, settling, giving dynasties to England and other states.

At first destructive in all the older lands, their influence on the less civilized areas, where dwelt the Northern Slavs, was constructive from the first. Novgorod, the centre most easily reached by these seamen, took pre-eminence over all the other forest settlements, and the area which owed allegiance to the ruler in Novgorod gradually grew greater, till Russia extended southward to the parkland on the edge of the forest. Further it did not extend, but here it was within touch of Byzantine civilization and the Greek Church, so that the people were influenced by both.

Internal divisions natural in forest regions, where communication is difficult, caused the state to split up in the eleventh century, and sometimes one, sometimes another of the minor states was pre-eminent, but the tie connecting them, as we might expect, was but slight. Later, they passed to a greater or less extent under the



THE POSITION AND EXTENT OF MUSCOVY.

The map shows the position and extent of Muscovy in the fourteenth century, and the relation of the state to the forest area.

control of the Mongol. Even these terrible people, however, horse-riders as they were, failed to penetrate to the old centre of Novgorod, and here in the forest there always remained the nucleus of Russia, as the nucleus of Spain remained in the Pyrenees among surroundings unfamiliar to the horse-riding Moham-

medans. With the decay of Mongol rule there grew up, stimulated by the unconquered Russia to the north, near the borders of the forest, but still within the forest, the state of Muscovy round the centre of Moscow, which might act as an intermediary between the Mongols without and the Russians within forced to unite by the external pressures. Eventually, throwing off the yoke of Mongol rule, Muscovy became the centre for a real independent centralized Russia in the end of the fifteenth century. After one strong central government had been established, it did not take long to realize that the power of the steppe people lay in their union and mobility, but that their very mobility might be a source of weakness, as it arose from the fact that they had no definite centre. If a centralized settled power could organize a mobile force to meet these nomads, they could at least be brought into control. This was done; within fifty years the greater part of the steppeland of what is now Southern Russia was organized under Russian rule, and by the end of the seventeenth century this rule was extended over the vast plains of Central Asia, which till then had been a menace to all the civilizations on the border lands. Elements which had been disturbing to civilization during the whole of history were finally removed and, further, were so organized as to become sources of energy, not means of its destruction.

Here, then, is Russia organizing the whole plain from the forest land to the North; thereafter allowing the gradual settlement of those areas where the nomads had swept the land bare; bringing into cultivation by means of irrigation lands where pastoral peoples could find but scanty herbage for their flocks; driving railways over a land void of stone and therefore without the

possibility of making roads; and centralizing the whole life of many varied peoples in Moscow rather than Petrograd.

Occupying this central land of Euro-Asia, the great continent, Russia is cut off from the ocean, except on the useless frozen North, and the external policy of the country for two centuries has consisted in attempting to reach the open ocean; now by the Gulf of Finland through the Baltic, now by the Bosphorus and the Mediterranean, now across Afghanistan or Persia, now southward from her far eastern borders on the Pacific; but till the present time without great success, for westwards states had crystallized earlier into stable forms, and southwards and eastwards there lies the great and almost impassable mountain barrier. But with vast areas capable of supporting great populations and yet vacant, with a territory that can be organized and has been organized so as to be practically self-sufficing, occupying the heart land of the old world, and breeding men who must be brave and hardy to stand her climate. This central land of Russia, however divided, is essentially one, and is not yet at the end of her resources.

II. GERMANY

There remains yet the north central area of peninsular Europe, which is roughly Germany. Here the geographical conditions are most complex, and naturally the historical conditions are not less so.

(i) The most obvious geographical fact is that the area *is* central, and not central merely in the sense that the great plain is central. That has, indeed, land on all sides except the north, but it has been so cut off by great highland areas from all the lands that mattered

on east and west that, though from time to time the tribes from the plain penetrated to these margin lands, there has been practically no reverse action till Russia emerged from the western forest. Even Russia during the greater part of her history has been influenced by only three external stimuli: the Norsemen from the north-west, the Byzantine civilization and Church from the south-west, and the tribes from the south-east. The central heart land of Northern Europe has been influenced by many stimuli from different directions. (a) It has been influenced by all the varied stimuli which originated in the civilized lands to south and west, from the time of the Roman Empire onwards. (b) It has been influenced, not once but many times and in many ways, by the stimuli proceeding from the sea to the north and the ocean beyond the sea. (c) It has been influenced by stimuli from the east, not by the tribes from the plain alone, but by the barbarians from Asia Minor. The stimuli have not acted once or twice merely, as in the case of Russia, but almost continually from the time of Rome, and have been continually changing their forms.

(ii) The relief is very complicated. The western end of the plain just comes to the open sea. South of this tongue of plain the land rises, but there are considerable areas sunk below the general level, some comparatively narrow valleys, others that may be called plains, like that which stretches from Bâle to north of Frankfort, and through the greater part of the length of which flows the Rhine. In contrast, there are highlands of greater or less extent and elevation, like the Black Forest or those which surround Bohemia. These relief units vary greatly in size. They are not all small like

those of Greece, but large and small they result in a diversity of modes of life which does not make for unity.

(iii) This diversity of life is not all; there is a diversity in Italy, but heights and lowlands in peninsular Italy are so arranged that Rome forms a natural centre. In the heart land of Northern Europe there is no one centre comparable to Rome in the definitely marked peninsula of Italy, much less comparable to Paris or London. Rome may not be an ideal centre for modern Italy, but there is no other that can be compared with it. In Germany there are many centres, but no one which under all circumstances is more important than the rest. Under varying conditions, and when the area has been subjected to varying stimuli, sometimes one, sometimes another has been of most account, but has never become so pre-eminent as to acquire so much historic momentum as under new conditions would still ensure that it would remain *the* centre. Frankfort in the north-west, Munich in the south-west, Vienna in the south-east, Berlin in the north-east, have each in turn been found satisfactory centres for a time.

(iv) In early times the forest, within which Russia began, also spread over the northern plain and a considerable part of the highland to the south. While it remained, it helped to keep communities apart, and, like all the other geographical conditions already mentioned, it fostered the tendency to disruption. This forest was left almost in its natural state for a longer period in the east than in the west, with the result that the west became organized some considerable time before the east.

(v) On the whole, this is a much colder land in winter



THE ROMAN EMPIRE AND THE WINTER COLD.

The Romans avoided excessive cold.

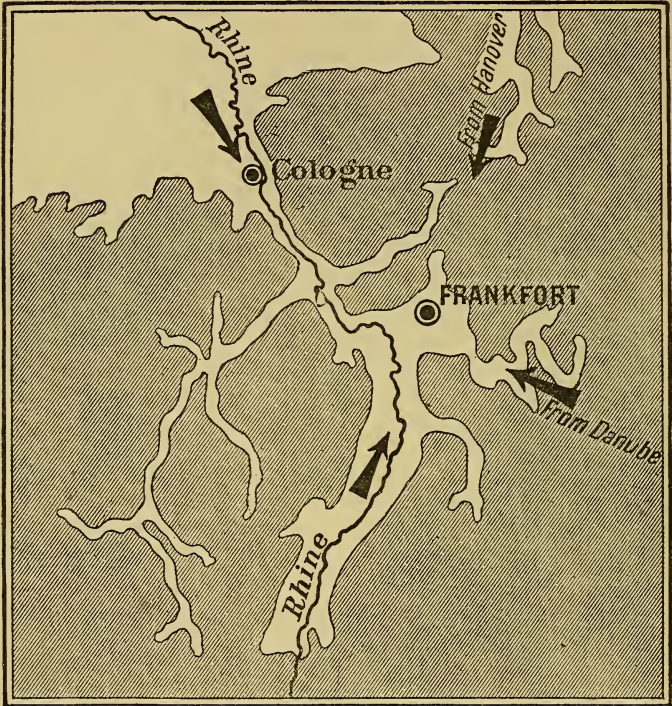
than any except the plain of which we have spoken. All the other lands know of cold, but continuous cold is exceptional. In Germany, and especially in East Germany, the land remains frozen for considerable periods.

Thus, with no definite centre, ringed round by all the peoples who have mattered, with many different characteristics in many parts, peopled by men with many different views of life, open to external stimuli from all directions which have reacted differently on each unit, this heart land of peninsular Europe has been *one*, only when the government has been strong.

It was left outside the Roman Empire partly because the forest was difficult to penetrate in force and difficult to govern, partly because the land was colder in winter than that to which the southern European was accustomed. Hence the communities, Teutonic in the west, Slavonic in the east, though they lived more or less independently in their forest clearings, were yet influenced for some centuries by that Empire from which filtered ideas, not the least the idea of central government, and such tangible products of civilization as clothing and arms.

With the weakening of the Roman power and the pressure of the tribes from the plains, the Teutonic peoples were the first to be partly tempted, partly forced into the lands that had acknowledged the sovereignty of Rome and were comparatively rich because the Pax Romana had allowed wealth to accumulate. The Saxons crossed the seas to Britain; the Franks, without moving altogether from their homeland round the modern Frankfort, acquired power in Gaul; the Burgundians migrated to the Rhone Valley; while Goths, Vandals

and Lombards overran various portions of the Mediterranean shorelands. The latter tribes were sooner or later lost among the peoples whom they conquered for



THE POSITION OF FRANKFORT.

Four great routes converge on Frankfort.

a time, but the Franks, who had not all left their old home and the conditions with which they were familiar, were able, while gaining much from their proximity to the Empire, to retain many of their old manners and

customs. Notice the position of the homeland of the Franks; it was situated in that part of the Rhine Valley which lies round the towns of Mainz and Frankfort. Here is a piece of land fertile and comparatively warm, with lowlands through which movement is easy stretching in four chief directions — north-westward down the Rhine gorge to the open plains of the Lower Rhine and the Delta, north-eastward through the Wetterau to what is now Hanover and was then Saxony, eastward by the valley of the Main and so to the Danube and Bavaria, and southward up the Rhine Valley to Swabia. It is not accident that those Franks, partly within, partly without the Empire were the first of the Teutonic peoples to set about the organization of that land which had not yet really mattered. By way of the Lower Rhine the Franks spread first in the direction of Roman civilization in Gaul, and then extended their power in other directions over the neighbouring Teutonic peoples not so centrally placed as themselves. Twice did the independent eastern Franks establish a state partly in Gaul, partly in Germany, once under Clovis on the ruins of the Roman power, and later, when the first had become decadent, Pippin, Charles Martel, Pippin II. and Charles the Great, again from the eastern homeland, re-established the state on a stronger basis than ever. Christianized by the Roman Church, defeating under Charles Martel the Saracen assault on Western Europe, the Franks became the champions of Christendom; and, recognized as such by the Pope, who had inherited what was left of the authority of Rome, they set up another Empire which owed a great part of its power to that recognition. Charlemagne greatly strengthened this Empire and extended it south-

wards to take in the Pyrenees and Lombardy, as well as eastwards and south-eastwards. But these extensions were sources of weakness. In the first place, the expansion brought the Frankish power into touch with the Scandinavians, and a stimulus was given to the outward movement of the Scandinavian peoples and to the attack by the heathen Norsemen on all the coasts of peninsular Europe, so that for a time Christendom was hemmed in on all sides by enemies. Further, as long as the Frankland in the Rhine Valley was the only area that mattered outside what had been the Roman Empire of the west, the Franks, strong and virile, were almost certain to take the lead, but when what had been other lands with their many different conditions were brought into the civilized world, an additional impetus was given to the formation of minor states. Even before the time of Charlemagne the natural tendency to division between Gaul and the land of the Franks had shown itself; while Charlemagne lived and for a short time after his death the Frankish Empire remained whole, but in a few years it fell apart, first into three and then into four parts, two of which corresponded to, but did not coincide with, the modern France and Germany; the others being Burgundy and Northern Italy, the essential part of which was Lombardy. Burgundy and Lombardy were again united to the German area in a later form of the Empire, but the essential part of Burgundy—the Saone-Rhone Valley—eventually became incorporated in France, while Northern Italy long remained within the Empire, and suffered with it from the lack of centralization.

The natural tendencies to separation exhibited by areas with different geographical and therefore different

historical conditions is shown more strikingly still within the German area by which the title of Empire was retained because it held within it what had been the German or Frankish centre of government.

(i) On the extinction of the Carolingian line, no one power was able to succeed the Franks and dominate the rest. Eventually a compromise was arrived at: the selection of an emperor was left in the hands of Electors. The organization of Germany into a whole has been greatly retarded because the tendencies to disruption, partly geographical, partly historical, which produced the condition that led to the establishment of Electors, gained additional weight thereby; for it was on the one hand an acknowledgment of this lack of unity, and also a guarantee that organized disunion should continue. An emperor elected by the goodwill of rulers of other states equal or superior in importance to his own, was emperor only on sufferance, and, the central power being thus weakened, the Empire could for the most part be an empire only in name. For a time one man or one family was able to dominate the rest, so as to procure election and rule strongly; but this ability to rule depended not so much on his being emperor as on his having power as an independent ruler, and his having shown it by his election. The electoral college remained through the centuries; some of the electors ecclesiastical, representing old forces under new conditions, some secular, representing in some sort the greater natural units, dividing the actual power between them and leaving only a semblance to the nominal power.

To the Franks, then, succeeded the Saxons, to the Saxons the Hohenstaufen or Swabian House; then,

after an interval during part of which no emperor was elected at all, the Hapsburg or Austrian House became predominant in the first half of the fifteenth century, and held this predominance till a hundred years ago. Prussia finally took the lead. Each emperor ruled, as far as he did rule, from his ancestral home. We have seen that there is no natural centre in Germany comparable to London or Paris. Thus the emperors were not forced, as were the English kings, to rule from a particular centre. In Britain and in France there have been different dynasties, but there has been no manner of doubt as to where the centre of government has been since Winchester gave place to London and Laon to Paris. James came all the way from Scotland to be king in London. London and Paris have tradition behind them. In Germany not only is there no natural meeting-place, but the very fact that rule *has* taken place from different centres implies that there is no continuous tradition in any one, and yet that several have historic claims to being considered the governmental centre of Germany.

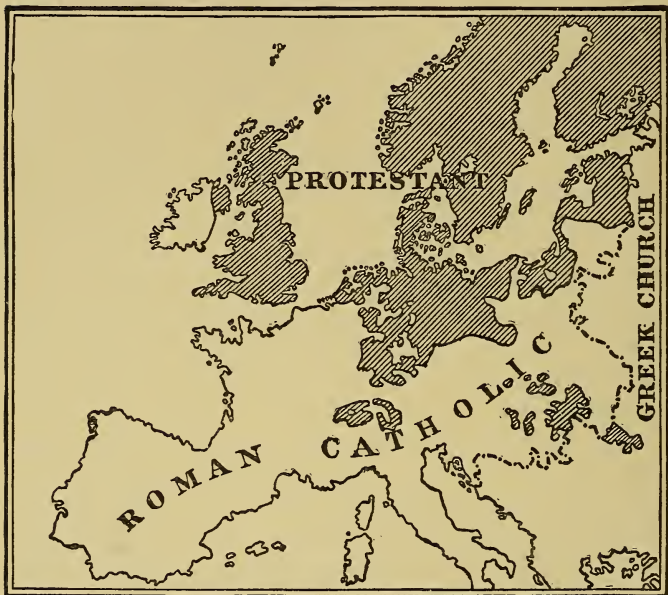
(ii) Further, the method by which an emperor was supposed to make his rule effective, on the one hand was determined by the existence of tendencies to division, and on the other emphasized these tendencies still further. There was no imperial taxation to provide troops, who should see that the emperor's commands were obeyed either within or without the empire. Instead, the feudal system was developed to a greater extent here than elsewhere; this system depended for its successful working on a method of division and subdivision. Theoretically, the great landholders—the electors among them—were bound to supply troops for

the service of the emperor; practically, they learned to use their troops for their own purposes, and even on occasion against the emperor. Thus the system added no strength to the position of a weak emperor.

A nominal supporter, who supported a ruler only because he was weak, was certain to fail him at a critical time. But it was not only the emperor who suffered. The greater lords depended in turn for supply of troops on the minor lordlings who owed allegiance to them, and just as the greater lords failed in their duty to the emperor, so did the smaller landholders sometimes fail in their duty to their superiors. The extent to which the subdivision was effective depended on particular circumstances of time and place, and on the character of rulers, but the final result was that the Empire of the Middle Ages was made up of practically independent states of all sizes from that of a single town to that composed of the far-spreading territories of a really powerful lord.

(iii) At first, from the tenth to the middle of the thirteenth century the tendencies to disruption were not so marked, and under stern Saxon and Hohenstaufen emperors the Empire was strong. One reason for this was the existence of another condition which at first made for unity, but which later aided these disruptive tendencies. This was the authority of the Pope and of the Church. We have seen that it was largely because of the recognition by the Pope of the Frankish kings as champions of Christendom that they became emperors. It was largely because the Pope continued to recognize the emperors that these emperors, Frankish, Saxon and Swabian, retained their power. Time and again, when the Saxon Henry and the Hohenstaufen Frederick dared

to defy the Pope, their power fell from them because the people believed in the Pope, and he whom the Pope did not recognize could not have authority. Later, when the other forces making for disintegration had become stronger, the Reformation found the Empire



EUROPE: RELIGIONS.

The northern and western portion of Germany is Protestant: the southern and eastern portion is Roman Catholic.

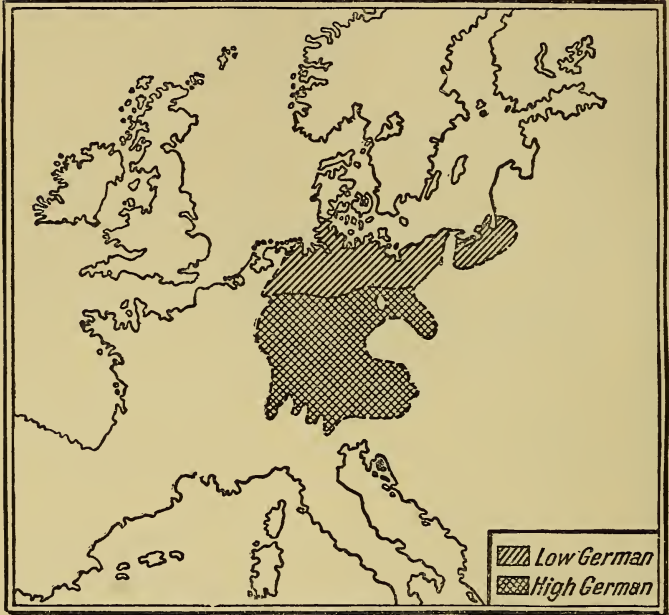
rent in pieces. There was not, as there was in England and in France, an effective central authority which eventually determined the general result, and Germany was left partly Lutheran Protestant, partly Roman Catholic, in a condition which again strengthened the

differences which already existed and the tendency to disruption.

(iv) A fourth cause of division resulted from the method under which the Empire took shape. Extensions of territory, made outside the Empire by individuals or by states, did not in general enlarge the borders of the Empire itself; they belonged to those states or individuals who had made them their own. The knights of the Teutonic Order organized East Prussia, but East Prussia remained outside the Empire and was related only to Brandenburg to give additional importance to the Elector. Hungary was regained from the Turk by the Duke of Austria, who became its King, but as King of Hungary he owed no allegiance to the Emperor. Later, the Elector of Hanover became King of Britain, but Britain did not become part of the Empire. This acquisition of extra-imperial territory gave to those rulers power which was quite independent of the Emperor, and obviously tended at first to disruption; but herein lay, in fact, the seeds of such unity as Germany has hitherto attained.

On the other hand, though there was a certain loss of energy due to this lack of effective government, itself due to the geographical conditions, there was an advance in saving energy. From the time of the Franks, when the Teutonic lands were being civilized, the advance was evident; great territories were, to use a phrase used often before, brought within the circle of lands that mattered; the border lands or marks became states, and formed bases from which to energize other mark lands farther and farther east. Government by the Franks was comparatively easy as long as the Franks were evidently the superior people. The Saxons and Swabians were

in a somewhat similar almost unchallenged position, but it was natural that the decentralizing tendency should grow greater when the mark lands became more and more able to stand alone, because they contained



GERMANY : LANGUAGE.

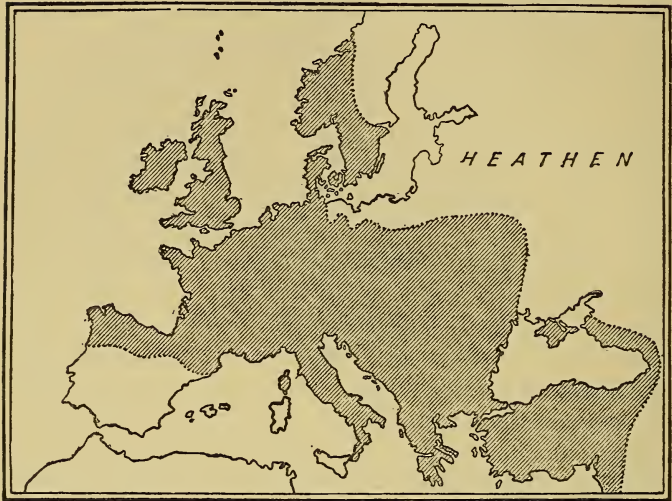
The same language is spoken throughout Germany, but there are differences between north and south.

a greater population, because that population was not so scattered and isolated as it had been, and because they formed states that became the equals of their civilizers to the west. Thus even the increasing tendency to decentralization of government is in part a result of advance.

Further, there was a *feeling* of Unity which was intensely real. This was due partly to the possession of a common language, partly to the persistence of the Imperial Idea, and partly in the earlier centuries, as we have seen, to the existence of a common Church. In so far as it was due to the latter two causes, the feeling of unity spread beyond the boundary of empire, and permeated the whole of Christendom hemmed in between the Mohammedan and the heathen Norseman, whose attack, indeed, made it more intense. It found expression in the enthusiastic support given to the Crusades, and in the growth of, and friendly relations between, many universities. The more purely German sense of unity is shown in the rise and federation of trading cities. The divisions were governmental; territories were divided among the sons of a ruler; they were united by marriage with an heiress. There *was* waste, because of the lack of that security which a strong government enforces, but there was not anarchy; men were gradually learning how to make the most of themselves, and energy was being accumulated. It is significant of the disruptive tendencies that in the northern plain, far from the nominal centre of government, the Hansa towns should have become independent, like Brunswick and Magdeburg inland, like Hamburg, Lubeck and Stettin on the coast as ports, or even like Wisby and Bergen overseas as outpost factories; but it is equally evident that the advantages of unity were recognized, for these towns formed a federation; while the fact that trade cannot be carried on at all without energy, without saved energy, and without saving energy, is evidence of advance.

Now let us consider how Germany has made a further

advance, and saved more energy, by becoming effectively organized politically. Because of the way in which the Empire was governed, with no provision for an imperial force, it had little and ever-decreasing chance to expand its borders. New territories could not easily find a place in the state, but after the Empire had taken

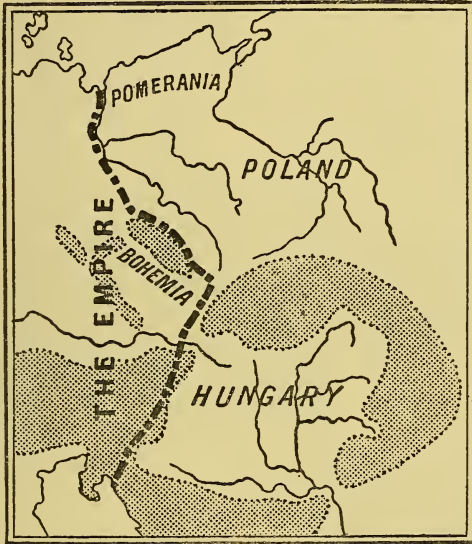


LANDS REACHED BY CHRISTIANITY ABOUT 1000 A.D.

All the southern shores of the Baltic were still heathen.

shape, Christianity continued to spread, south-eastwards among those who had come as heathen from the distant grasslands of Asia, and eastwards among the dwellers in the forest; but the lake-dotted moraine land made the southern shores of the Baltic more difficult of approach, and these were left heathen for centuries. Thus three quite distinct regions lay between the Roman and Roman-Catholic Empire of the West and the Byzantine and

Greek Church civilization of the East : Hungary, within the Carpathian highlands, peopled by the mixed race resulting from the union of all the steppeland peoples who had threatened Europe, yet christianized from Rome and bound to Western civilization by that fact ; Poland, centred in Warsaw but with no natural frontiers,

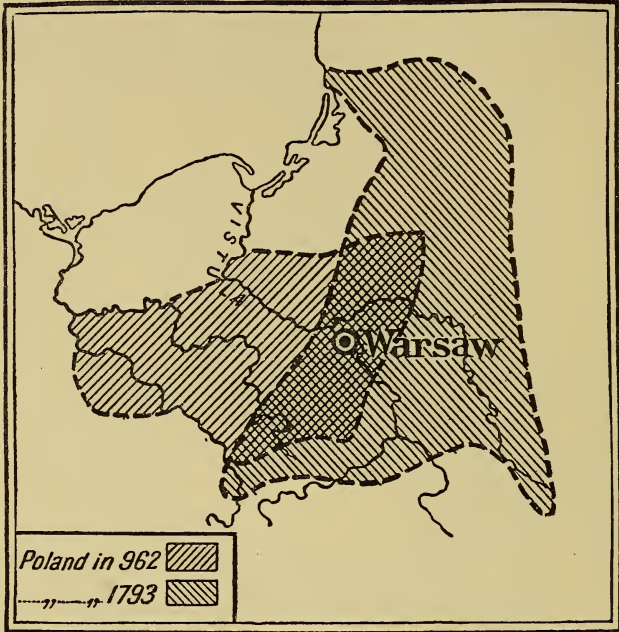


THE THREE NATURAL AREAS TO THE EAST OF THE EMPIRE.

peopled by Slavonic tribes within the forest, who united under the stimulus of attack from the west and of conversion under the influence of missionaries from the Western Church ; and, lastly, Pomerania and Lithuania, lands of the heathen to the north and east.

The longer these regions remained outside the Empire, the more difficult their inclusion within it became.

Bohemia, a natural region easily governed from Prague and inhabited by Slavonic peoples, was included within the Empire, while Poland, farther to the east and less easily reached, was organized only just in time to prevent



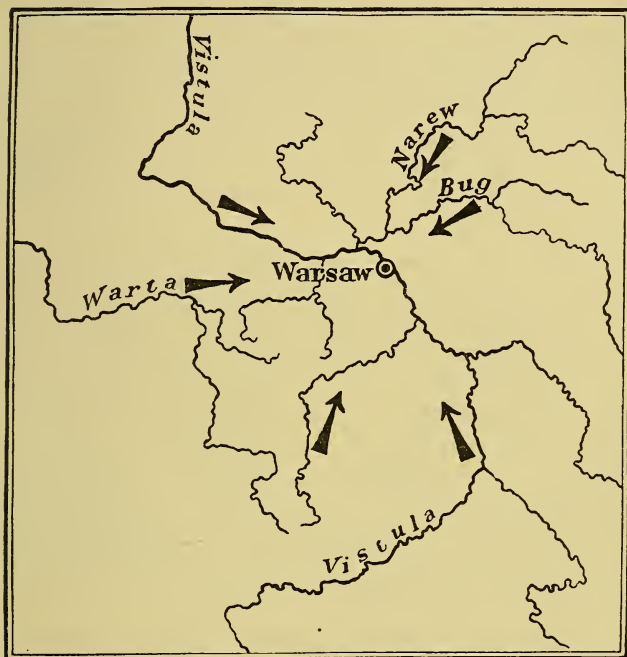
POLAND.

The only area common to ancient and modern Poland is a district including Warsaw.

its inclusion, though claims were indeed made for centuries to consider Poland as a fief, and the western portion of the first Polish state became almost at once tributary to Germany.

These territories, then, on the one hand were always

a menace, greater or less, to the eastern frontier, and on the other allowed of the chance of expansion as a result of their conquest, not by the Empire but by states within the Empire. It is thus no accident that while the earlier



RELATIONS OF WARSAW TO THE RIVER SYSTEMS.

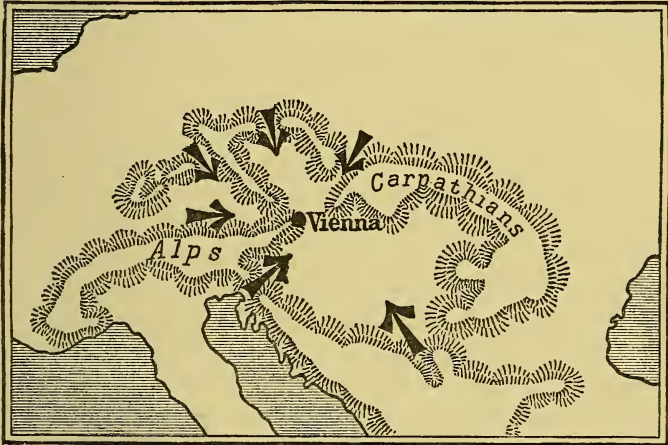
Poland is essentially the area centred on Warsaw. Before roads were made, rivers were of extraordinary importance. The river-ways of Poland converge on Warsaw.

centres of Germany lay in the west, the later powers were centred in the east. The eastern menace either prevented disruption or brought about union in the face of a common danger, while the chance of expansion

was seized on, and states grew larger by extension eastwards to include lands outside the Empire. In particular, two states, Prussia and Austria, gradually became pre-eminent, based respectively on the northern plain and on the higher land to the south of it. The latter developed first, and from it was made, by Charles V., an attempt which just failed of success in organizing this heart land of peninsular Europe; the former took longer to develop, but, under Prussia, Germany has at last achieved such a unity as had not hitherto been hers, though even now Austria remains outside the political organization.

Austria.—The map shows how there stretches across Europe the great belt of highland formed by the Alps and Carpathians, unbroken except for a short distance at one place, and hence crossed with difficulty except at this one place where the two mountainous areas approach one another. To this passage, then, there must come by far the greater number of those who wish to pass from one side of the highland to the other, whether in peace or war, and on this small area, Vienna and the surrounding land, routes must converge. Here a stand could be made against the horse-riders from the south-east, and from here, when these were subdued, expansion was possible. It marked, in the first instance, a convenient and natural limit of the Empire, to which it came to be of extraordinary importance. In the face of common danger, this area and the lands to the north-west were more likely to unite, and the ruler of this area was bound to be a man of importance in the Empire. It is thus no wonder that the House of Hapsburg—the House of Austria—held the imperial crown for centuries almost by right. Further, partly by marriage, but still

more by conquest, Hungary was added to the dominions ruled by the head of the House of Austria, and gave him additional authority. Because of a marriage he became the heir to the throne of Hungary; because the Turks at last destroyed the Eastern Roman Empire and overran Hungary, the Hapsburgs gradually drove them back, and in regaining the land for Christendom made it effectively their own, so that when Napoleon finally



THE POSITION OF VIENNA.

brought the Holy Roman Empire to an end, there remained the state of Austria-Hungary centred in Vienna, a capital from which many different parts might be easily governed.

Of the eastern states of Germany Austria developed first, because the menace from the south-east was more obvious and more insistent than that from any other direction. This was due to two causes: the existence of the Eastern Roman Empire, and all the momentum

of civilization in the south-east were of influence in bringing into existence organized communities within the circle of the Carpathians and Balkan highlands; and further, the land in which these communities lived was still semi-steppe, and lay open to other nomadic hordes from farther east until Russia emerged from her forest and barred their passage. Thus the attack from the south-east was more often renewed and more serious, because better organized, than the attack from any other quarter, and it was natural that a state should arise here to withstand that attack.

Prussia.—The menace of the forest and marshland between the Carpathians and the Baltic was never serious; movement was just as difficult in these lands as it was easy over the steppe, so that there was no need to hold the north-eastern frontier strongly. In a sense, indeed, it was the south-eastern menace which first brought some kind of importance to the north-eastern frontier. It was the attack of the Magyars which stimulated the abilities of Henry the Saxon and his son Otto the Great, and the Saxons, having acquired power and become trained in organization, endeavoured to use the results of their training in other directions, so that the North Mark was organized about 930 and the bishopric of Brandenburg instituted about the middle of the century. Following this, an attempt was made to Christianize the heathen Prussians farther east about 1000. It was, however, a failure, and it was not till the crusading idea began to permeate Christendom that a real advance was made. About 1200, colonists and missionaries again visited Eastern Prussia, but, as things did not go well, the aid of the Teutonic knights was invoked. They organized and christianized the country, and under their

rule Germans settled in the land, but it was Poland which was suzerain, not the Empire, even when, at the beginning of the sixteenth century, the state became a secular Duchy under a Hohenzollern who had been the grand master of the order. Not even when the Elector of Brandenburg succeeded to the Duchy a century later, did he become an independent ruler of Prussia; it required a real attack from the north-east to consolidate the state. This attack came from Sweden. Out of this contest Prussia emerged independent; Poland was weakened, and Saxony, whose Elector had been King of Poland, finally lost importance.

Meanwhile, the Reformation struggle had come while the land was still disunited. Austria under the Hapsburgs, bound to Rome by historical and geographical ties, upheld the ancient Catholic religion; the northern plain, more naturally one than the highland south, albeit never yet effectively united, and more open to help from without, became and remained Protestant. The natural differences between north and south were intensified. Political rivalry took the place of religious zeal, and Prussia and Austria became definitely opposed. A struggle naturally followed in which Prussia gained what Austria lost. The climax came in 1870 when Prussia, having defeated Austria four years before, finally controlled the northern plain and united all Germany against France, and the modern German Empire took shape under a dominant Prussia, including all German-speaking lands except Austria and the land at the mouth of the Rhine, which had won its independence after the discovery of ocean trade.

Here, then, is Germany; a modern state occupying the central position in Europe, having the advantage of a central position as long as she is really strongly ruled.



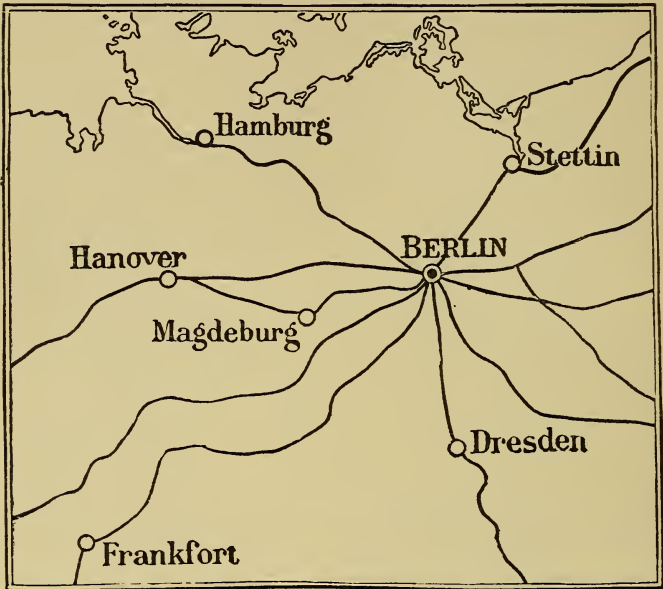
THE POSITION OF BERLIN.

Berlin lies in the plain at the meeting-place of natural great land routes.

The state is centred at Berlin in Brandenburg on the cross-road between the valleys of the Oder and Elbe, at a point where the natural east and west road through the northern plain meets the old road from the Oder mouth to the ancient Frank base. It was organized late, and therefore on more modern lines, with less of old machinery to scrap than Italy or France or Spain or even Britain, or rather with no doubt but that the old machinery must be scrapped. It had rulers who understood that Germany was one, and must be made to recognize the fact. Achieving her destiny at the time when the Industrial Revolution was having its effect, she constructed railways to radiate impartially in all directions from Berlin, and make Berlin as inevitably the geographic centre of Germany as is London of Britain or Paris of France, so that the land was forced to become a strategic and economic unit. Industry was organized so that energy should be most easily saved; learning was organized so that men might be taught how best to save energy and how best to look for new ways of saving energy. Great things are made with the energy of her coal mines; small things are made with the least expenditure of human energy, and yet do their work in the best way. "Made in Germany," instead of being a reproach, is taken as a motto, and was painted in huge white letters on the side of the great German liner as she steamed up Southampton Water after her voyage across the Atlantic.

Equipped with an army and able to defend herself from a land attack, ruled with no doubt as to the central authority and the power of the central authority; for the first time since the days of Charles the Great ruled from Brandenburg in Prussia; ruled, that is to say, for the first time from a land in touch with the sea, the land of the

Hanseatic League, the land which formed the old Anglo-Saxon base; Germany was naturally forced or tempted to seek her destiny on the ocean, to develop sea-power, to use, as did Macedonia and Rome, an army and a navy.



THE BERLIN RAILWAY SPIDER WEB.

An advance has surely been made; as surely it has been controlled by the complicated conditions, partly geographical, partly historical. That material efficiency has been made a fetish, almost a deity, has been the cause of the great war, and it has taken almost the united strength of the whole world to overcome the efficiency of the German people. Though the conflict ended as it did, that does not alter the geographical position of Germany nor the characteristics of her people.

CHAPTER XIII

THE LAND OF RIVERS: CHINA

IT seems perfectly natural that the history which starts with Egypt should have developed just as it has done; that man, by learning to control such energy as is possible in Europe, should have developed the type of civilization we call Western.

Let us now turn our attention to the East, and first to the Far East—to China. We shall see that the history of China has been controlled by the geography of China just as much as the history of Europe has been controlled by its geography. The history is very different because the geography is very different. A comparison of these differences in the history will show how important the geography of each is. We must notice what features of the history and geography are common to both, what phenomena are present in European history and geography that are absent in Chinese history and geography, and what phenomena are present in Chinese history and geography that are absent in Europe.

Maps of the Far East show these facts—

(1) That China ¹ is on the eastern front of the great continent of Euro-Asia, in latitude 20°–40°, is exposed

¹ On some political maps China is shown as including a great deal of Central Asia, but Mongolia has repudiated the suzerainty of the Chinese Republic.

to the monsoon system of winds and rains, and is about the size of Europe without Russia, or of half of the United States.

(2) That on the land side there is a great stretch of high ground, with Tibet, the highest stretch of highland in the world, on the south.

(3) That the sea border is a great curve in the shape of quarter of a circle, with no part of Asia beyond, with no land of any account till the other side of the Pacific is reached,¹ and in addition that there is no Mediterranean Sea.

(4) That there is only one peninsula, Shantung, and that projects north-eastward.

(5) That three great rivers flow from the plateau to the sea. The most northerly — the Hwang-Ho — flows from the lower part of the plateau on the north; the other two—the Yangtse-Kiang and the Si-Kiang—flow from the high plateau of Tibet. The Hwang-Ho, when it descends from the highlands, flows over a plain largely deltaic. The Yangtse-Kiang, not only the largest of the three but that with the longest course after leaving the plateau, flows across hilly districts. The Si-Kiang flows in a valley with a high mountain belt on the south.

All these physical facts have had their effect at different times in ways that correspond very closely to the ways in which similar facts have affected European history.

We do not know *how*, nor even very accurately *when*, anything like the dawns of civilization began to appear in China. It is, however, pretty certain that in China history begins much later than in Egypt, and

¹ Peking is almost exactly the antipodes of Valparaiso, *i. e.* the Pacific is half the world broad.

somewhat later than in Babylonia. It is not difficult to suggest a reason for this. Nowhere is there such an ideally protected position as Egypt enjoyed. No desert in China protects a river valley so completely as the Sahara protects Egypt. Yet the beginnings of Chinese civilization are as like the beginnings of Western civilization as the geographical conditions allow.

We have seen that a great triangular plain occupies a great part of the central portion of the continent of Euro-Asia, and that this low ground is rimmed round by highlands on all sides but the north. This highland area becomes in Eastern Asia more than a belt. Here there is a wide triangle of plateau land facing south-east and north-east. It is in three levels: the highest, Tibet, in the south, is two to three miles high; the second, three-quarters to half a mile high, is set round Lake Baikal. All the rest is just under half a mile. Each level is bordered by mountain ranges. Owing to its height and its consequent cold and drought, Tibet is permanently uninhabitable except in special areas. The lowest level is so rimmed round by mountains that a great portion of the moisture carried inland by inflowing winds is condensed before it reaches the interior; as a result, its surface, like that of the plain farther west, is partly desert, partly grassland, and has a sufficiency of water only under the curtain of the mountains, where streams emerge on to the lower land. Thus on the southern half of its western frontier China has a great stretch of absolutely impassable land, and on the northern half a semi-desert, not indeed so impassable as to form a sure defence, but yet a great protection. Both southern and northern defences extend far westwards.

On looking at the map more closely it will be seen that where the Hwang-Ho descends from the highlands on to the plain it receives a tributary, the Wei—or “clear”-river, which has a valley deeply trenched into the surrounding plateau. This valley was the nursery of Chinese civilization, where the first Chinese Adam used his spade, as did his Egyptian and Chaldean brothers, not only to dig but to ditch. Protected it was to a certain considerable extent by the surrounding semi-desert conditions, and here, as in Egypt and Mesopotamia, the seasonal variation of summer and winter is most marked, while extremes of heat and cold, though more marked than in Egypt and Chaldea, are not too trying. Water is not too plentiful, and none can be wasted. There is protection with a certain stimulus to use brains, to make the most of a situation which has natural energy neither too great to overpower man nor too scanty to be used. It is not accident that between latitudes 30° and 35° the beginnings of civilization have first appeared in widely separated districts on the earth's surface.

But if the beginnings of Chinese civilization were of the same character as and controlled by circumstances similar to those of Western civilization, it has shown different characteristics and developed in a different way. It would perhaps be more correct to say that Chinese civilization has continued to develop on the original lines all through its history, whereas Western civilization has been influenced, as we have seen, first by one factor and then by another.

The difference in site is largely responsible. In Egypt the land available for settlement is small, with very definite limits. Even the land bordering the Euphrates and Tigris available for a young state, though larger, is

not very extensive. This is perhaps an advantage to a primitive race. In China, however, the Wei Valley, with its continuation the middle Hwang-Ho, opens out into one of the most fertile deltaic plains in the world. Here was a larger field to be occupied by settlers, or to be civilized if already occupied, when the available space in their original land became too small. There was no need to change occupation; there was no other area with which trade might take place; there was no "way"



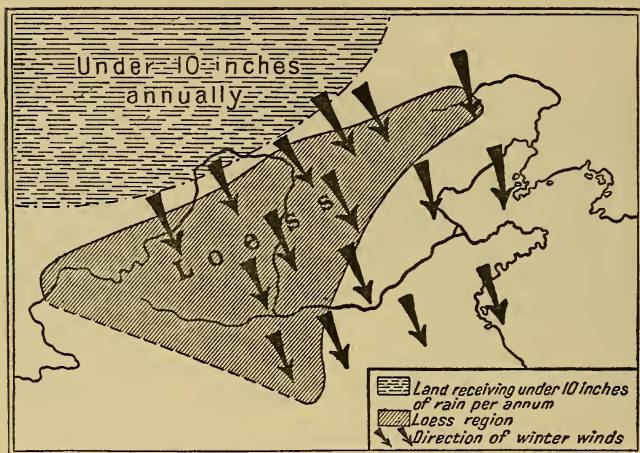
THE WEI VALLEY AND THE GREAT PLAIN OF CHINA.

The size of the plain should be compared with the size of the Nile Valley drawn to the same scale.

by which other conditions could be set up. The delta required only the same kind of civilization, but slightly modified to make the most of the swampy land through which natural channels, continually changing, took the water to the sea.

This is the original China; here men probably existed in prehistoric times, before there appeared even the dawns of the civilization we are considering. Here, and perhaps to the southward, there lived men whose descendants, having given place before the advance

of a superior race, are found in the more inaccessible mountain districts of the south-west; men who very probably form the rootstock of the present Chinese, the stock on which have been engrafted many other related branches. To this original China — the yellow land, yellow with the loess of the Western steppe; watered



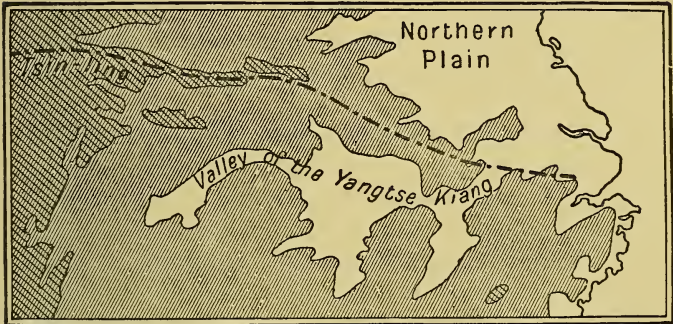
THE LOESS REGION.

Loess is the very finest dust blown by the outflowing dry winter monsoon winds from the central arid regions: it accumulates on the margin of the plateau.

by the Yellow River, yellow with mud, flowing to the Yellow Sea, yellow from the same cause—up to within two centuries of the Christian era Chinese civilization was confined, slowly perfecting for 2000 to 3000 years methods of spade culture and irrigation which to this day are characteristic of the race.

But why were the Chinese so confined to the north of what we know as China? That the sea should have

been a barrier in front was most natural before the arrival of an ocean age; that the plateau should not have tempted them back to its wildernesses is equally natural; the northern lands, reached through the narrow strip of low ground—narrower then than now—between mountain and sea, were not at first more attractive than the plateau. But why should they not have gone south? The reason lies in the fact that central and south China, the basins of the Yangtse-Kiang and the Si-Kiang,



▨ over 600 ft ▩ over 5000 ft --- Limit of Earlier China

THE SOUTHERN LIMIT OF EARLIER CHINA.

South of the boundary was forest and jungle.

have a different character from the basin of the Hwang-Ho. A map shows that they are hilly, in some parts even mountainous, and specially it should be noticed that just south of the Wei and middle Hwang-Ho is a range of mountains, the Tsin-ling. This range and its continuation eastward were for long ages clothed with forest which did not tempt the agricultural Chinese till the plain was reaching a limit to its capacity. Not only was the mountain forest-covered, but all the lands southward, thanks to a warmer and moister climate, were

covered with a jungle growth, and had to be slowly cleared ere any organized settlement was possible.

It was only towards the close of the third century B.C. that the first real attempt was made to extend Chinese rule over these districts, though Chinese settlers must for long have been slowly extending Chinese civilization southwards. The process was not completed for a century or two longer, but it is worth noting that the first attempt to rule effectively over the south was made by the short-lived dynasty of Tsin, from whose name we get the name by which we now speak of the land—China. The process was, however, left to be practically completed under a dynasty which ruled during the two centuries preceding and the two centuries succeeding the Christian era, and after whom the Northern Chinese still call themselves the “men of Han.”

But, again, how was it that, if South China is so different from the North, Chinese civilization was able, however slowly, to make South China one with the North? How is it that China was, and is, so homogeneous? The south is hilly, but it is well provided with rivers and river valleys—rivers that have a constant flow, though owing to the monsoon system of rains they have a seasonal variation in volume. The problems connected with irrigation and agriculture generally are somewhat more complex, but they are not different from those in the north, and the hill-sides can bear cultivation to a greater height than would be possible farther north, so that the same kind of civilization is possible; and, with a 3000-year experience of agriculture and irrigation work behind them, the geographical momentum was so strong that the Northern Chinese easily overcame what might appear even serious difficulties.

People with other habits and ideals, *e. g.* the Romans, might, probably would, have developed South China on other lines, but the Chinese developed it in the same way as the land to the north, and, once the initial difficulties were overcome, it was found to be every whit as suitable for the peculiar Chinese civilization. It is not a mere coincidence that the first governor of Sechwan, after it was annexed to the Northern Empire, is remembered not for any schemes of conquest but for his great irrigation works, and that his son and successor is even more famous for the same reason, having had one of the most magnificent temples in China raised in his honour.

The Han dynasty ruled while the Roman Empire was most flourishing, and though there are many differences there is a certain similarity in the problems which confronted each. In each case there was a greatly expanded empire which demanded some means of holding it together, some means by which communication could be kept up between the various parts. The Romans, as we have seen, invented roads. To the Chinese, accustomed to water, it was much more natural that they should turn to account the great Yangtse-Kiang with all its tributaries, one of the most magnificent waterways in the world. This helped to bind together the whole of what otherwise might have been split into smaller units. The smaller units do exist, for the most part river basins small and large, but the great river to which they all look has bound them together. In the south the Si-Kiang played a similar though a less important part.

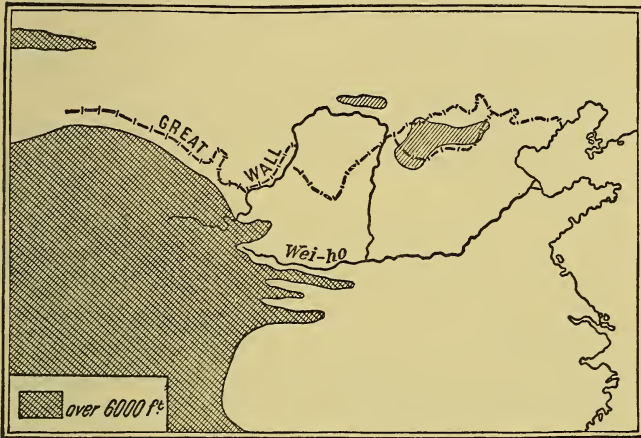
The result is twofold. On the one hand, we find that the smallest river basins form the smallest political

divisions which are the most permanent features in all Chinese history, and the largest river basins form provinces which, though under different names, reappear again and again at successive periods of re-organization. On the other hand, we find that river communication is looked on as the one natural way of carrying on trade. The idea has been so forced on the minds of the Chinese by the supreme excellence of some waterways that the rest, though far less suited for traffic, are by infinite toil pressed into service. It is significant that even now the Chinese call such roads as do exist "dry ways"—the natural sequence to the idea that *the* way is a wet way, a river. Thus China is specially a land of rivers, not only in the sense that rivers flow through it, but in the sense that its history has been greatly affected by this controlling fact, just as we have seen that the histories of other lands have been affected by other controlling facts.

It is significant, too, that when China did break up at the close of the Han Dynasty in A.D. 220, as did the Western Roman Empire in the fifth century, it did not break into almost numberless units, but into three parts only: (i) the original China in the north, (ii) the Lower Yangtse, and (iii) Sechwan separated from the Lower Yangtse by the great series of rapids above the modern Ichang. It is significant, too, that even that separation lasted but little more than a generation. China was held together not by a governing power from a centre, but by the oneness of its people, who had the same ideals of life, the same customs, because the geographical facts were essentially the same, or had been made so.

In another way the conditions of China were similar to those of Rome. Rome broke up because of direct

and indirect attacks from without, from the plain. She defended herself by taking the Rhine and the Danube as a defence, and by building forts to keep out invading tribes by force of arms. Similar conditions compelled the Chinese, even as early as the Tsin Dynasty, to build a great wall along their north-west front, to protect the only frontier open to attack from the nomad tribes of



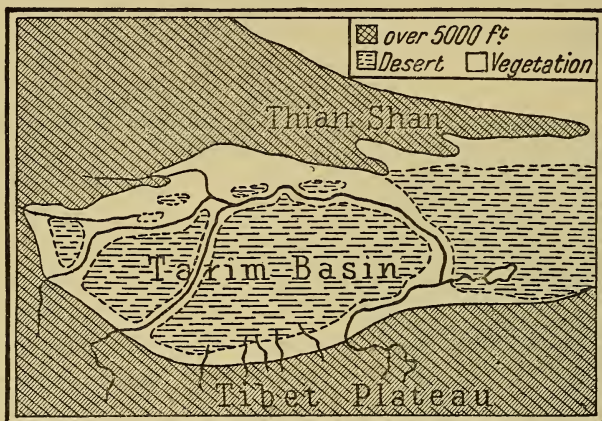
THE GREAT WALL OF CHINA.

The great wall was built to guard China only on the north: it was built so as to include the way from the west, which entered China by the Wei Valley.

the semi-arid plateau. It is again significant of the Chinese attitude of mind, however, that in the west, where the river, the Hwang-Ho, was no road and was quite unfitted for irrigation, it was never used as a defence, but trust was put in the wall.

Let us now consider more particularly the influence of the plateau on Chinese history. In its northern portion, at any rate, the plateau is not a desert comparable

to the Sahara, but is rather a steppeland with wastes stretching over great tracts. On the less arid districts nomad peoples have lived since history began, and from it have come down by the only way, the valley of the Wei and Hwang-Ho, on to the plains of China. Such steppe people, as we have seen in ancient Assyria, in lands overrun by Mohammedans, and in more modern



THE TARIM BASIN.

The Tarim Basin is protected and well supplied with water along its edges.

Russia, because of their daring and endurance bred into them by their nomad life, are generally able to conquer and rule an agricultural people.

It is indeed possible that the beginnings of Chinese civilization can be traced even farther back than to the times when we find something more than barbarism in the valley of the Wei. Notice that at the north-west corner of the high plateau of Tibet huge mountains make

a great curve round to the Thian-Shan, enclosing a bay of the lower plateau shut off from all else on north-west and south by high lands and on the east by the desert. The great height of the surrounding mountains squeezes yet some moisture from the dry air, so that round their bases is a series of oases of great fertility. If protection counts for anything, it is in just such a situation that we should expect to find the beginnings of a civilization. It is possible, perhaps even probable, that the beginnings of distinctively Chinese civilization are due to those who found their way thence under the curtain of the mountains bordering Tibet on the north, to what was to them the much more desirable valley of the Wei.

But this was not the only occasion, if it was an occasion, on which the plateau peoples descended to the plain, and other invaders were rather nomads of the steppe than settled agriculturists, so that they were felt to be a menace, as is seen in the existence of the wall. At the same time, the incursions of such hardy races were not without advantage. It is probably not alone owing to their colder climate that the peoples of the Hwang-Ho are a sturdier race than are those of the south. It is they who have had to bear the brunt of attacks, and who have benefited to the greater extent by the addition of new blood; some of the intermixture may have been at first during war time, but probably some has taken place during times of peace, and even plateau tribes, which have entered the land as conquerors, have in the end been absorbed into the general stock.

It was about 100 B.C. when the Chinese, recognizing that the best defence is attack, first succeeded in extending their rule, if but for a short time, over the inhabitants

of the plateau. At the break-up of the Han power we have seen that there was a certain disruption, and in this, as was natural, the control of the plateau was lost. When China did at length, shortly after A.D. 600, settle down under the powerful rule of the Tang Dynasty, it was also but natural that another attempt should be made to extend its borders still farther. On both occasions the chief objective was the Tarim basin, and on both occasions the influence of the intervening distance across all but impassable deserts was too strong to allow the rule to be more than nominal or to last for long. The occasions are, however, noteworthy, for the Chinese then made a contact, however slight, with the Western nations from whom they were separated by the great breadth of the plateau and the great plain, and yet more by the peoples on them.

Before considering the last and in some respects the greatest influence exerted by the plateau, we must consider an allied phenomenon. We have seen that in Europe a civilized centre is apt to rouse to action some neighbouring centre less civilized if more forceful; we have now to notice a similar fact in the case of China. Manchuria lies to the north, separated from China by the deeply cut Gulf of Pe-chi-li, which allows only a narrow neck of land to intervene between its western end and the plateau edge. Lying farther north, Manchuria is a colder land and altogether less desirable for an early civilization than China. Here, however, men lived, and in course of time they were roused to action by the neighbouring civilization, though the geographical conditions separated them sufficiently to allow them to feel and be independent. A tribe of these Manchus—the Kitan Tatars—extended their rule southwards, so

that by A.D. 900 we find a semi-alien power occupying the north of what had been China. These Tatars never dominated much of the country, but so much did they strike the imagination of the few travellers who found their way from the west, that it is from their name we get the mediæval name of China—"Cathay."

This wakening of Manchuria was a new feature in Chinese history, and its newness was marked by the fact that it was now that Peking was founded. Before this time the capital of China had lain, now here, now there, in the valley of the Wei or Middle Hwang-Ho. Henceforward, with a break for but a short time, it is from Peking that China is governed. Notice the significance of its position within, but just within, the northern plain, at the exit of the narrow way from Manchuria, between the highlands of the west and the Gulf of Pe-chi-li on the east: a centre for the organization of the land from a Manchurian base, as Vienna is a centre from which the Austrians could organize Hungary, as London is a centre from which those who came from the opposite shores of Europe could organize England, as Edinburgh is the centre from which those who came from England could organize Scotland, or as Dublin is the centre from which those who crossed from Anglesea could organize Ireland. Awakened Manchuria sent yet another horde to replace the first, and to dominate yet more of China, while distinctively Chinese power was forced farther and farther south till it held only the Yangtse and Si-Kiang basins—the hilly regions.

Then at length the plateau peoples were again roused to action, perhaps by the influence of China, perhaps by the influence of Mohammedanism. Jenghiz Khan first dominated all the plateau peoples from his home in

the Altai, and descended west and east with his Mongol hordes from the plateau to the plains below. His son and grandson continued the process of conquest and reduced all, Chinese and Tatars alike, to their rule. As they came from without, it was nothing to them where previous frontiers had been, so an attempt was made to continue conquest beyond them. On land this policy met with some success; it is noticeable that in the third generation, under Kublai Khan, they made the attempt seawards also upon the land we know as Japan; but such an attempt made by landmen was doomed to failure. The Japanese warded off the attack from their homes, and again we see how a great empire whose power lay in its landmen was met and foiled by rude sailors in the Tsushima Straits, as Xerxes had been at Salamis, and Russia was to be, but a few miles away, more than six centuries later.

This invasion by the Mongols was a conquest, and, like all conquests by races whose ideals of civilization are lower than those of the conquered, and whose power lies in their physical bravery and hardiness, it ended in the conquerors becoming more effeminate, losing control, and being absorbed. Now it results from the geographical conditions that China is surrounded by lands whose peoples possessed a less advanced civilization even when they have been brave and hardy, so that during its long history China has never been conquered by superior races, and its peoples have always absorbed their conquerors. None the less this Mongol invasion in the thirteenth century marks another definite advance, for such extensions as they made were made in the name of China and remained when the invaders themselves had disappeared.

Following the absorption of the Mongols, we have naturally enough the third notable historic period of pure Chinese rule, that under the Ming Dynasty from the fourteenth century to the seventeenth, when an attempt was made to rule the land from Nankin, a more central position than the Wei Valley or the northern entry. Though Nankin was the capital for only a few years, and soon gave place to Peking, yet the fact that such a position was chosen at all for the rule of the whole country is significant of a development of ideas. Peking took its place in order to be as near as possible to entries open to invaders from the north. The foresight was justified, though unavailing in the long run, for in the seventeenth century the Tatars of Manchuria for the third and last time attempted the conquest of the whole of China, this time with success. The conquest was not sudden. Two generations elapsed from the rise to importance of the Tsings in the eastern mountains of Manchuria to the time when they were able to take possession of Peking, and it was another generation thereafter ere the whole of China owned their rule, the last district of China proper to do so being very naturally Fokien in the south-east. As the Mongols had extended Chinese rule, so now the Manchus continued their conquests beyond the limits of China proper, conquering and consolidating their power in Mongolia, and as late as the closing years of the eighteenth century extending their rule beyond Tibet even across the Himalayas, where the Nepaulese till the beginning of the twentieth century owned their suzerainty.

Now, before we proceed to consider the last great series of geographical facts which have controlled Chinese history, notice what we have already learned. Broadly

it comes to this, that owing to the existence of three rivers, themselves the product of the more remote geographical conditions of relief and climate, China has produced a homogeneous people, whose essential unity has been strengthened by the existence on the west of a plateau of enormous breadth. These two sets of features, the river system and the plateau, are the chief controls of Chinese history.

Other geographical conditions have had a like result; the position of China fronting the open ocean, on the road to nowhere by sea, and the absence of any Mediterranean Sea, are great, silent, negative controls which have to an incalculable degree tended to confirm the Chinese in their habits as landmen, and to prevent them from becoming seamen. Nor were the Chinese forced to take to the sea, as were the Norsemen, by the poverty of a cold, sterile land. There was no effective pressure behind, as was the case with the Saxon. China is vast enough to allow such pressures as did come from the plateau or Manchuria to dissipate themselves ere the seaboard was reached, and there was always the southern land where these pressures were less felt. No way reached the sea, as was the case with the Phœnician. The coast of China is a great round curve with no peninsulas to tempt men seawards, as was the case with the Greeks. China has never been a sea-power, because nothing has ever induced her peoples to be otherwise than landmen, and landmen dependent on agriculture, with the same habits and ways of thinking drilled into them through forty centuries; so that even when tribes from the plateau have broken in and seized the reins of power, even when millions of inhabitants have been massacred, China has not broken up into numberless

units, as did the Roman Empire. The homogeneity of her people, the result to a very large extent of geographical conditions, has always asserted itself.¹

It is the discovery of the ocean by Western civilization which has gradually brought a new important factor to affect the history of China. Hitherto the Japanese — whose civilization originated in China — had been the only seamen with whom the Chinese had come into contact, and the contact was not friendly, for the earlier Japanese of whom we know visited the coast of the mainland only in raids, as the Norsemen visited the rest of Europe. The last, and perhaps the most important series of such raids, took place early in the sixteenth century, just prior to the earliest noteworthy results to the Chinese of the discovery of the ocean by the Western nations; and the only effect then, as earlier, was to drive inhabitants inland away from the sea, on which the seamen alone felt safe. It is significant that till the thirteenth century of our era the Chinese never even heard of Formosa, lying only seventy miles from their coast, and never made it their own till 1682, after first Portuguese and then Dutch had planted trading-stations on the island. Even then it was seized only at the accession of a new alien dynasty seeking for new worlds to conquer, and, when it was conquered, was little valued during the two centuries it was held.

¹ One cannot ignore the existence of the ideographic writing which enables Chinamen in all parts of China to understand one another; it has no doubt had an enormous effect, but unity of language, of speech even, has not prevented Germany and Italy from breaking up into independent states; it has not prevented the separation of Norway and Denmark, nor of Britain and the United States of America. Geographical conditions have been the stronger.

With the growing lack of control, owing to the increasing effeminacy of Manchu rulers and the absorption of their followers into the common stock, China has been left more and more between two sets of forces : forces from the land, the like of which she has known before, and forces from the ocean, which bring new



CITIES WHICH HAVE BEEN CAPITALS OF CHINA.

These three towns are situated at the three corners of the triangular plain.

controls into Chinese history. The forces of European origin coming by sea must approach from the south; hence there arises a new condition of things. Up to this time the strategic centre of China has been in the northern plain. Chinese capitals have usually been at one of the three corners of the triangle, as at Pekin

to guard against approach from the north round the Gulf of Pe-chi-li, or as at Sian to guard against approach from the west down the valley of the Wei; or the capital has been placed still on the edge of the plain, but as at Nankin in touch with the southern river system. With the advent of ocean power coming from the south, the southern ports of China have taken on a new importance. The Treaty ports opened in 1842 are all ports of the hilly south, two in Fokien and one just beyond its southern frontier. The entry to China is by Canton or Shanghai, not Peking or Sian.

And yet entries to China remain by Sian and Peking. The Manchus have disappeared off the face of the earth. The Mongols, tamed by Buddhism, have lost their ancient daring, but there still remain the possibilities of the plain beyond. The forces coming from the plain reached Manchuria by the shortest way across the plateau, and Russia was within an ace of entering China by the old gate round the Gulf of Pe-chi-li. That has been closed for the present, if not permanently, but there still remains the old way by way of Sian through the Zungarian gate, between the Altai and the Thian-Shan, under the curtain of the mountains, and there exists a well-frequented way across the grassland from Baikal directed on Peking through easy defiles in the mountains to the north. The political position is intensely interesting; the history of China is not finished; what will be the outcome time alone will show.

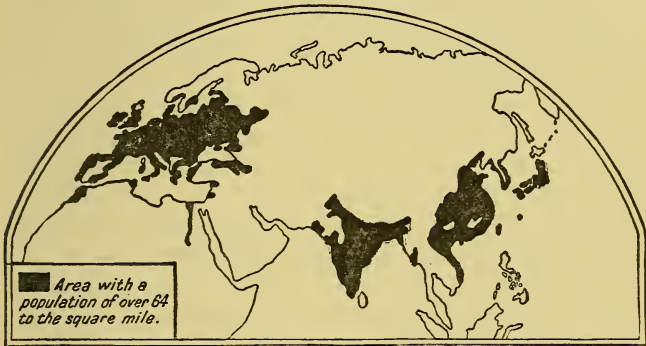
Whatever happens, we are safe in saying, on the one hand, that the Chinese people are not worn out whatever their Manchu rulers may have been, and, on the other, that the history will be controlled by geography and by some of the great forces coming from land and

sea; specially the interplay of these forces will have a growing tendency to unify China and make her more homogeneous than ever. The railway and the steamship, these characteristic modern forces of land and sea, each supplementing the other, are on the eve of bringing this about. China will have but one main railway line; this is what no other country has. It will run, and it is half made, from Peking through Hankow to Canton, from the capital of the north to the capital of the south. It will be fed from the sea at either end, and by the magnificent Yangtse navigation in the centre also. Nor is the Sian entry of less importance, for across the plateau, via Zungaria and Sian, will surely come a great railway of the future to strike the Chinese main line at right angles and feed it from the land. These and all the other subsidiary lines, which must be built to supplement the great water system of communication, cannot fail to make and keep China one. This unity makes for stability, so that men may obtain control of energy, to save it or to use it to the best advantage.

CHAPTER XIV

THE WARM LAND: INDIA

IF again, as a preparation for further work, we survey what we have already noticed, it is seen that we have traced out the growth of two civilizations, each affecting a quarter of the population of the world—one in Europe, the other in China; the one taking many forms, because



THE THREE AREAS IN THE OLD WORLD WITH GREAT POPULATION.

it was affected in many ways by different geographical controls; the other a continuous growth along the same lines, because of the overwhelming importance of one set of factors; both being affected by the open steppeland civilizations of the great heart land of the old world. The existence of each seems to have depended on the possibility of making a beginning with

small things, in having protection to organize small communities to save energy.

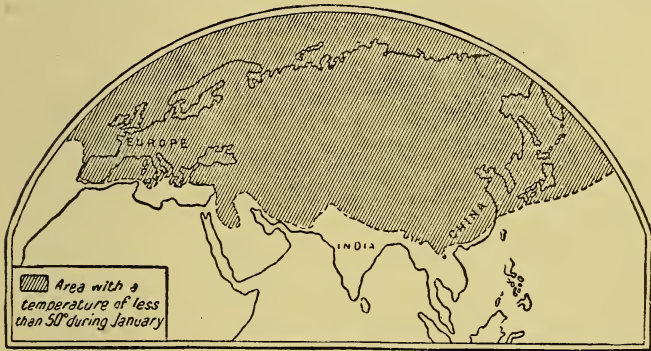
Now, if we consider the third area of the old world with a great population, India, we are at once struck by the fact that though there is a distinct type of civilization which may be called Indian, yet, on the one hand, India has never been organized as a whole from within, as China has been for centuries; nor, on the other, has Indian civilization had influence all over the world, as had European civilization. And this distinct type of Indian civilization takes far more forms than does Chinese or even European. Further, while the civilization of Europe is a continuous growth from the seeds planted in Egypt and Babylonia, and that of China grew naturally from a beginning in the Wei Valley, the beginnings of Indian civilization can be traced to no such simple origins, and Indian history has been far more profoundly controlled by external forces.

Consider the geographical facts.

Like China and unlike Europe India has no Mediterranean Sea; there is no assemblage of islands off the coast; the land is warm and, on the whole, productive. There is neither temptation, as in the Mediterranean, nor necessity, as in Scandinavia, for the inhabitants to venture on to the sea; they have remained at the early stage of landmen to whom the sea is unfamiliar.

There are highlands and lowlands; a map shows the great highlands of the north and north-west, the Himalayas, backed by the plateau of Tibet, continued eastwards and south-eastwards as many great mountain ranges separated by steep, densely forested valleys, and continued westwards by a fan of mountains descending

to the plateau of Iran. In the peninsula is another much lower and flatter highland, steep-sided on the west, sloping gently eastward, and to a considerable extent worn away by the rivers which have followed that slope; there is a very narrow lowland on the west and a wider lowland on the east. Between the northern mountains and the southern plateau lies the great alluvial plain stretching for 2000 miles from the mouth of the Ganges to the mouth of the Indus, without a



EURO-ASIA : TEMPERATURE.

India is warmer in winter than either China or Europe.

stone on its surface over its whole extent except close to the hill margins, and rising so gently at the rate of a foot a mile that to the eye the slope is quite imperceptible. Here there is nothing of the variation of relief in the Balkans or in Italy; here nothing of the centralization which has made France.

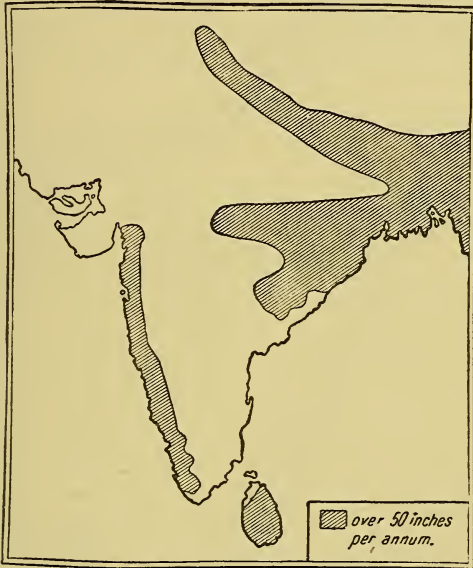
Even when climatic conditions are taken into account, there is a sameness which is reflected in the lives of the people. Though it is true that India may be said to possess almost every variety of climate, and though

scattered up and down through India there are hill stations whose climate is very pleasant for a greater or less part of the year, yet the fact remains that these are the exceptions, and the land as a whole is hot, not only in summer but in winter. During the latter season nearly the whole of India is warmer than any part of China, and of course warmer than any part of Europe. This is one great difference between India and the other two areas with great populations—a difference which goes far to explain the different histories. There is less need to save bodily energy by wearing clothes at any season of the year.

This general statement, however, requires qualification. The north-western border does experience cold such as is felt in no other district. In winter the Punjab is the coldest part of India, while Sind and the Baluchistan highlands to the west, though extremely hot in summer and during the day, may at night even in autumn experience many degrees of frost. Here, then, you would expect to find that the Indian type of civilization is somewhat modified.

If we consider the rainfall and the effects of heat and rainfall on vegetation, we see that the northern plain at its eastern entrance is drenched with rain and so near sea-level that the water cannot run off; thus it is wet and marshy and therefore jungle-covered. As one goes westwards the conditions change imperceptibly. There is less rain and the water has somewhat more chance of running off, till 1000 miles from the sea the supply of water is deficient. Continuing to the mouth of the Indus the land becomes drier and drier, and the last 400 miles is steppeland or even desert. The western slopes of the southern plateau and the southern slopes

of the Himalayas, and the highlands north-east of the Bay of Bengal, are also drenched with rain in summer, and retain enough moisture to allow of the growth of forests, which become jungle in the lower and damper areas. The south-west monsoon which deluges the



INDIA : RAIN REGIONS.

Most rain falls in summer.

Western Ghats blows up the straight valleys of the Narbada and Tapti, and carries heavy rain farther inland here than elsewhere, while eastwards the air-current meets that which has come more directly from the Bay of Bengal, and induces a heavy rainfall over the land from the heads of these two river valleys, even to the coastlands south of the Ganges' mouths. Here

the soil is a heavy black clay, so that a belt—part forest, part jungle, and in part now cultivated land—extends across the northern part of the peninsula from Gujarat to the Mahanadi delta. South of this belt,



INDIA : FOREST LANDS.

There are three belts : (i) The Himalayan belt; (ii) the Mid-Indian belt; (iii) The Western Dekkan belt.

with the exception of the river valleys and the coastal plains, the land is drier and for the most part grass-covered.

The same conditions extend over great distances, and the land is difficult to organize and keep organized. The reason is not only that it is too large to organize

as a whole by people unaccustomed to organization—that would not be wonderful; Europe even now, though organized, is not organized under one government—but also that the natural divisions are too large; there is no nursery like Egypt or Babylonia or the Wei Valley, where life is comparatively easy, where the unit is small so that men might learn methods of government and organization, and yet where there is need for forethought.

Thus, while the heat and moisture combine to fix solar energy in a form suitable for human use, there is less stimulus to save this energy individually, less stimulus and ability to organize communities to save energy or to protect energy that had been saved. Indian civilization has always been less advanced than external civilizations in the genius for organization, and whether in peace or war immigrants have organized and dominated with greater or less success the peoples among whom they came.

And whence have these immigrants come? To understand the answer note the obvious fact that India is a Continental Peninsula. It is, on the one hand, far nearer the dry heart land of Central Asia, the home of the nomads, than is either Europe or China, and, on the other, though there is little temptation to natives of India to become seamen or force to make them so, the land is still open to approach from the ocean. From north-east overland, from north-west overland and from the sea, India has been entered by greater or less numbers of people.

From beyond the forested north-eastern border, by ones and twos through that forest and jungle, men have wandered and entered the jungle lands of India. These

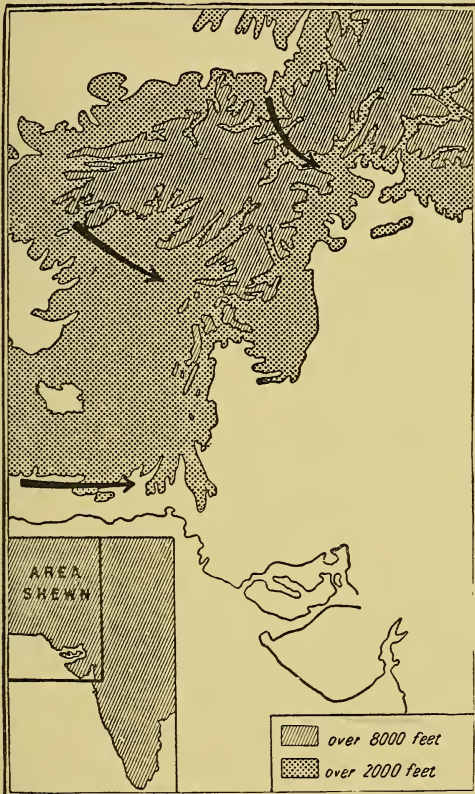
are no organizers; they have formed no states. A forest, as we have seen, is at any time one of the great barriers to organized movement, and when those forests grow on the sides of deep steep-sided valleys, one behind the other, it is no wonder that the north-eastern approach has never been effectively used.

It is very different with the north-west. Here, as we have seen, it is dry; no forests bar the way, and India is here in touch with two virile civilizations. Across the comparatively narrow, if high, mountain ranges which fan out from the western end of the Himalayas lies the great plain with its steppeland peoples; while by the northern and southern mountain edges of the Iran plateau, where streams descend from the hills, are ways to the lands with old civilizations—Persia and Babylonia and Assyria. Those peoples who from the mountains have looked out on the north-western plains of India will be tempted down, for there may at times be felt there a refreshing coolness like that to which they have been accustomed, and for which they have been prepared.

From the north-west, then, into Northern India have streamed by ones and twos, by thousands and hundreds of thousands, immigrants and merchants, exiles and conquerors. Some have stopped on this threshold. Assyrian and Greek, long before the days of Alexander, had reached this land and come no farther. Alexander marched his armies into the heart of the Punjab, but the unknown conditions made his soldiers mutiny, and he retired. Others, however, both before and after Alexander, from the north-west frontier have spread to a greater or less extent over the whole of India.

The sea, too, is a way open to all who have been trained to use it, so that, as far back as we can trace,

the peninsular part of India has been influenced by sea peoples; to a slight extent in the earlier periods by the more civilized men of the dry west and the



THE APPROACHES TO INDIA FROM THE NORTH-WEST.

ruder folk of the wet east, but in the later years the organizing forces have come from overseas, first from the south round the Cape, and then from the west.

Those peoples, then, coming from north, west and from the sea have, on the one hand, usually brought something higher than was already there, and, on the other, have tended to destroy such civilization as they found, and to displace to some extent the earlier inhabitants of India.

It is natural that the earliest aboriginal peoples should exist in the hilly forest and jungle belt which stretches across the northern part of the Dekkan. Here they find not only protection against newcomers, but food to keep them alive. Those forests are similar to the forests of Europe in that they afford protection, but differ from them in this, that while life could be preserved in the colder European forests only by the exercise of forethought and the taking of trouble, and it paid to clear portions of the forest and to settle, in those Indian jungles the bare necessities are easily obtained, and there is little stimulus to advance.

To disturb those aboriginal peoples the stream of humanity was flowing from the north-west even before the dawn of history, whether from the great plain or from the Iran plateau we do not know. These first-comers in time were in part driven south-eastwards, and in part absorbed by successive waves of races of different stocks who certainly came from the north during the three thousand years from 2500 B.C., and who gradually established themselves in the northern plain of India, leaving the Dekkan from the forest belt southwards to those who had preceded them. Thus the natural differences between northern plain and southern plateau have been intensified by the fact that each is inhabited by peoples with different characteristics.

Among those peoples organization of a kind occurred,

more effective in the north, where kingdoms stood for 300 years, less effective in the south; but our information is significantly lacking. The very absence of information indicates a want of continuous organization in any one place. What is fairly clear is that men with



INDIA : DISTRIBUTION OF HINDUS.

The people of India are predominantly Hindu. The effect of the forest in obstructing southern movement is evident.

different characteristics lived and organized themselves in ordered communities, and that the differences largely depended on geographical conditions. The northern plain is not all one. In the south-east, Bengal, it is wet and naturally jungle-covered; in the north-west, the Punjab, it is dry; and in the west, Sind, it is drier

still, so that the Indus is like the Nile and receives no tributaries in its lower course. Between these two extremes lies an area roughly corresponding to the old Middle Land, now the North-West Provinces, whose rainfall is sufficient for man's needs, but not excessive. This is the region where to this day are the greatest numbers of people in cities and in the country.

By A.D. 600 these three areas were more or less effectively organized by three groups of people; but though the three regions exist and are markedly different, they shade imperceptibly into one another, and neither between each nor within each are there any natural frontiers, since the inhabitants do not look on the rivers as boundaries, but as channels of communication and beneficent suppliers of water. Hence friction is almost unavoidable except under a stable central government. The stable central government did not exist, and an active source of unrest was to be found in the continual inroads of steppe peoples, those Huns, Tatars and Scythians who in the Far East caused the same unsettled conditions directly or indirectly. For a time, union in the face of a common danger could, and did, take place, but the bond was not strong enough to be permanent.

There was also a fourth area, which had reached a fairly high level of organization. To the east of the Indus, and stretching parallel to it, is a belt 200 miles wide and 500 or 600 miles in length, which may fairly be called a desert. Its north-eastern portion lies as a wedge between the Punjab and the Middle Land, while between this desert and the forest belt across the north of the peninsula is an area higher than the plain, and yet protected from attack on the north-west

and the south. Less productive than the Middle Land, this land, roughly Rajputana, was less attractive to invaders bent on plunder, and it was sufficiently organized to withstand for some centuries such attacks as were made on it.

In the far south-eastern plains of the peninsula, too, remote from the inroads which disturbed the northern plain, enjoying some measure of protection from the sea, the earlier comers apparently were able to set up a state which lasted, in some form or another, for more than a thousand years; and, indeed, the example thus set seems to have been followed across the water in Ceylon, and northwards in both the lower and the upper valleys of the Cauvery, so that these became and remained independent states for several hundred years. Here, however, life is easy, and there was little stimulus to advance beyond the stage of organizing themselves to resist pressure from the north; thus no advance was made comparable to the advance made in Europe. They solved their own problem of living well, but when they met a superior civilization on equal terms they could not withstand it.

With the advent of a civilization of another type, and of peoples keeping written records, we begin to be on more sure ground. Mohammedanism spread, not only westwards towards Europe but east to India. As a religion it replaced forms of heathendom to which it was evidently superior; those who brought the religion organized lands where the forms of government were poor and the government weak. Europe withstood the attack for reasons which have already been stated. India was subject to the same attack and in almost the same shape, and the result reflects in a curious way

the differences between Europe and India. India was, at length, to a greater or less extent conquered and governed by Mohammedans, but Islam never took a real hold on the people of India, and, except for the descendants of those who were such when they entered India, there are very few strict Mohammedans in the land.

This is not the place to do more than point out that the result is not altogether surprising. Last of all the great religions, it found other forms of religion already strongly believed and organized in the lands of Europe, India and China. Other things being equal, that which *is* tends to go on. It might seem that the "tangled jungle of disorderly superstitions, demons, demigods, household gods, tribal gods, local gods, universal gods," which make up Hinduism, is not the equal of Islam and of Christianity, but to those dwellers in this hot and for the most part wet land, who are less able to see the reality behind the outward appearance, the obvious fact is not the existence of one supreme, unchanging deity which is fixed in the mind of the wanderer in the desert, but the myriad changing forms which life takes. There is no ideal unity to strive after; thus, on the one hand, because the tendency to division is emphasized and there is nothing which could unite India in the same way that the Crusades united Europe, there is the opportunity for a conquering people to use the divisions to obtain control; but, on the other, Mohammedanism is not a satisfying explanation of the meaning of life to a dweller in India, and he has not accepted it.

From the seventh century to the sixteenth, then, Mohammedan peoples successively entered India. The

Arabs, as was natural, came first by land along the coast, and by sea coasting along the shores, but they effected nothing permanent; the Turks next, from a little before A.D. 1000 onward, over the plateau of Iran and through Afghanistan. In little over a century, largely because of disputes between Hindu rulers, the

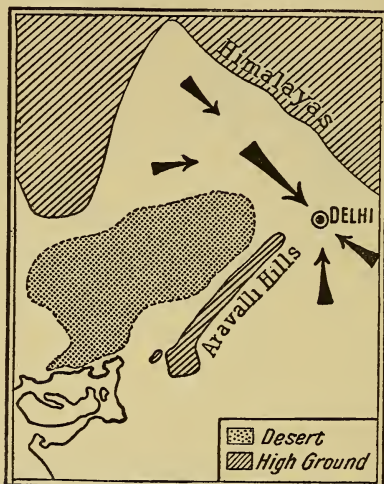


INDIA: DISTRIBUTION OF MOHAMMEDANS.

The Mohammedans are (i) in the Indus Valley to the west of the desert; (ii) in the gateway between the northern end of the desert and the Himalayas.

whole northern plain had acknowledged Mohammedan rule. The dry Punjab became Mohammedan, and has remained so, as the stronghold of the orthodox; but elsewhere, though the rule was acknowledged, the people retained their ancient religions. At first, such of the land as was ruled by these new peoples was ruled from

centres in Afghanistan, but with the completion of the conquest of the northern plain in the beginning of the thirteenth century the real power became centralized in Delhi. Now, notice where Delhi is; Sind and the Indus Valley, including the Punjab, though they have given their names to the whole land, form but the ante-chamber to India, to which there is a comparatively



THE POSITION OF DELHI.

Delhi lies at the exit from the passage between the desert and the Himalayas.

narrow passage, 150 miles wide, between the Indian desert and the Himalayas. At the exit from this passage stands Delhi. And here, too, the actual lowland is narrowest; running along the eastern edge of the desert is the hill land of the Aravallis, one of the oldest mountain ranges of the world, and now, like all old and stable mountain ranges, much worn down. It is highest

towards the south, but continues as an upland almost to Delhi, which thus stands in the gateway between the hills on the south and the Himalayas on the north. Behind it is the Mohammedan land; in front the land, never quite Mohammedan, which had to be governed; to it routes from both converge. Here is the natural capital of India north of the forest belt, so that again and again, from the time when the north was first organized by the Mohammedans, till our own day, some spot within a radius of a few miles has been chosen as the organizing centre and called Delhi. For a few years at a time Agra, a little farther within the plain, has been chosen as centre, but always the superior advantages of Delhi have been recognized.

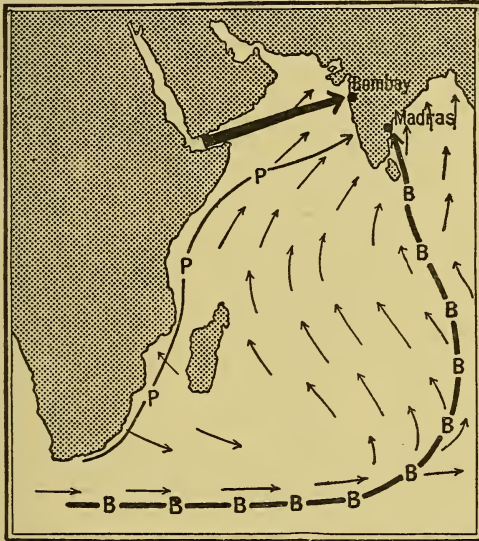
For long, however, Delhi was the capital only of the north; it was not till the fourteenth century that the first attempt was made to bring India south of the forest belt under Mohammedan rule. Then armies marched through the length and breadth of the Dekkan, and the attempt was for the time successful; but too much had been undertaken, and by this time, also, the third Mohammedan people had begun to enter India and disturb the existing conditions, so that in a few years the remoter provinces threw off the allegiance to Delhi. The central authority had not only to fight against the natural tendencies to disruption, the difficulty of ruling a subject people who looked on life with different eyes from those of their conquerors, and difficulties introduced by the existence of natural differences between Bengal and the Dekkan and the North-West Provinces; they were weakened by new immigrants, who again were finding their way in from the north-west. These were Tatars from the steppe-

lands of Central Asia. From about 1250 onwards successive bands entered the Punjab, and at the same time added to the number of the Mohammedans in India, and increasingly weakened the government which they found there. The collapse of central rule from Delhi was brought about in the end of the fourteenth century by the devastation caused by the invasion of Tamerlane, or Timour. He returned to Samarcand, but left India again split up, with independent states in the jungles of Bengal, in the dry Punjab, in the grasslands of the Dekkan, and in the plains of the south, some under Mohammedan, some under Hindu rule.

For a century and a half no central power existed. Then again from Central Asia descendants of Timour, the Moguls or Mongols, entered India, and after varying fortunes began in 1556 to establish central rule from Delhi. Between that date and 1605 Akbar—a great contemporary of Queen Elizabeth—consolidated a power which lasted till it slipped gradually into the hands of the British. Step by step he reorganized the whole land north of the forest belt on sounder economic principles than had been tried before, but gained control of little else. His power was chiefly due to the fact that he was able, though a Mohammedan, to unite the more virile Hindus who lived in the harder lands to north and west, and keep in check the other elements which caused disruption. Fifty years later his great-grandson Aurangzeb, during the fifty years of his reign, attempted with more success to bring Southern India under his rule, and actually ruled over a greater portion of India than any of his successors; but on his death the old story was repeated, differences reasserted themselves, and in 1739 fresh hordes from the north-west

trooped down on the plains of Northern India to destroy central government and carry off booty.

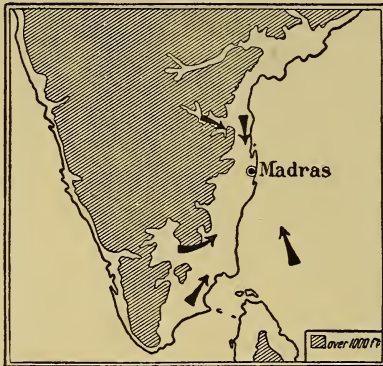
But by this time those who had reached India overseas from the south had begun to make their power felt. Portuguese and Dutch had given place to French and



Map to show the Summer Monsoons, and—P—the Portuguese Route hugging the East coast of Africa, —B—the British sailing route first to Madras then to Calcutta. —>—The Northern steam route to Bombay.

British, and now the latter began to take control of the disunited states which went to make up India. Blown across the seas by the summer monsoon, they naturally approached the land from the south and south-east; the parts they came to first were thus the plains of the Carnatic and of Bengal. In these, which had always

been farthest from the north-west sources of disturbance and centres of authority, the government was now centralized in Madras and Calcutta, and from Madras and Calcutta English power spread north-westwards through the plain and westwards across the Dekkan. From westwards also, first when India was approached by hugging the east coast of Africa, and again since the Suez Canal was opened, is the land entered, by Surat, the oldest British station, and by Bombay, the oldest



THE POSITION OF MADRAS.

British possession, which for long was of less account than Madras or Calcutta, but which now has far surpassed the former and equals the latter in population. Till the Suez Canal was opened, this approach was less effective, so that in the disorders which followed the collapse of Mogul rule the reorganization of the land under British dominion was directed from Calcutta and Madras, rather than from Bombay, and time was given for native confederacies to form in the more distant west and north-west—the Marathas in the dry plateau

eastwards of Bombay, and the Sikhs in the dry land of the Punjab. It is possible that, had not Britain intervened, one or other of these confederacies might have attempted to dominate the whole land. In any case, it was these confederacies which British power eventually had to face, and they required more ability and force to subdue than had been necessary elsewhere. Far from the sea entries of Calcutta and Madras, it is little more than half a century since the Punjab came under direct British government. Since that time, though territories have lapsed to British control because of bad government or in the absence of a direct heir to absolute power, there has been no extension of territorial rule by the exercise of military force.

Here, then, is India, many parts ruled, as any great Indian area always has been ruled, by foreigners; organized now from Calcutta, because there is the entrance to the plain from the ocean, in the future from Delhi, because alone of the cities of India it has the claim that the land has been ruled from there; with so-called native states, which have no greater antiquity than British rule in India itself—the greater number of them despotically governed by those who are as foreign to their subjects as any Englishman; India, supporting a vast native population on the supply of energy for the body gained from the produce of its hot, wet land, and yet never yet able to govern itself nor have a permanent organization for government; policed and ruled so that there is less dissipation of saved energy than ever before since internal anarchy has been ended, and since the north-west, now approached not only from Calcutta but by railway up the length of the Indus Valley, has been held strongly against any danger of

disturbance or domination from Afghanistan or beyond. An advance has been made. And yet the British rulers are rulers merely; the conditions of life in India are so different from those in Britain that they never intend to remain; they exile themselves to India for a time, and return "home" when their work is finished. They do not even settle as the Mohammedan conquerors settled at Delhi, and if they did settle they would be absorbed or overwhelmed as surely as other immigrants have been overwhelmed or absorbed. And, further, though the steppe peoples of the plain beyond Afghanistan are tamed and organized, yet the way is as open as it has ever been, and no one can say which is more dangerous, organized attack or the invasion of loosely united hordes.

The geographical controls still remain. The hot, wet continental peninsula is still open to the sea and open to the north-west. Europeans from overseas, in their northern land with its diverse and difficult geographical conditions, have learned to solve ever harder and harder problems; they have learned how to approach and how to govern India, but they are unaccustomed to the conditions of life in India itself, where the inhabitants, while able to obtain bodily energy easily and to increase in numbers, yet find that life so easy that there is little stimulus to save and control energy on a large scale. The European does not stay in India, and the native is not yet able to govern the land as effectively as the European.

CHAPTER XV

THE AFRICAN GRASSLANDS: SPHERES OF INFLUENCE

IT is now evident how the general course of history in Europe and Asia has been controlled by the geographical conditions, and specially how three types of civilization have gradually been evolved on the margin of the great plain. In all the story so far, we have taken account in Africa only of a narrow strip along the Mediterranean; of the rest it has not been necessary to say anything except to show that the discovery of the way to the Indies by the Cape was one of the outstanding facts of history.

Here, then, is a set of apparently extraordinary facts. While history began in Egypt,¹ while many of the early scenes were enacted on the northern shores of Africa, yet the rest of the continent was unknown to the civilized world till within the last five centuries. Not only so, but notwithstanding the fact that the way to the

¹ The reader must not forget that before Egyptian times, for thousands of years, man had been advancing in knowledge of how to use and save energy under diverse conditions of human life on the earth. There have been many attempts to obtain some idea of how long he had been engaged in this toilsome ascent; estimates vary between tens of thousands and hundreds of thousands of years. Our knowledge is so scanty, however, that it is not worth while to discuss what are little more than theories; the growth of civilization in Egypt forms a striking chapter with which to begin.

Indies round the coasts of Africa had been discovered before Columbus sailed across the Atlantic, yet Africa remained the dark continent till the last half-century, while Spanish and Portuguese America was conquered and Northern America had become the seat of a great civilization ranking with that of Europe.

We have spoken, in Chapter II, of the absence of stimulus to native races to save energy in equatorial Africa; let us now consider the facts more in detail, to see whether they give any clue to this extraordinary history.

The relief map tells us that Africa as a whole stands high above sea-level, and that the margins descend steeply to great depths. On maps which show variations in temperature through the year, it will be seen that no part of Africa at sea-level is ever cold; at any time of the year most of the land is warm, and considerable areas are hot. The area of greatest heat is, however, not constant, but there is a swing with the sun north and south of the equator, the heat from a given pencil of rays being spread over less area when it is received on a surface at right-angles to the axis of the pencil than in any other position; or, in other words, more heat is received on a given area when the rays are vertical than when they are received at an angle. Partly owing to the less average height of the land in the north, partly owing to the greater amount of land not only in North Africa itself but also to north and north-east of the continent, the higher temperature is found in the north.

Connected in some way with this swing of the heat belt is the well-marked north and south swing of the rain zones seen in the accompanying maps. Rain is



January.



February.



March.



April.



May.



June.



July.



August.



September.



October.



November.



December.

AFRICA : RAINFALL.

The shaded areas show where more than four inches of rain falls. There is a seasonal swing northwards in the northern summer, southwards in the southern summer.

caused by the cooling of air, which is forced to rise to regions where it expands, and in so doing reduces its temperature. This rising may be caused by meeting with an obstruction such as a landslope up which it must go. It is for this reason that the western edge of the Dekkan is so wet in summer, for the south-west winds are compelled to ascend and cool themselves by expanding. The westerly winds also blowing against the highlands of Britain cause the west to be wet, while areas equally high but farther to the east are comparatively dry, for there is no further ascent. It is not only land, however, which causes wind to rise; a current of heavier air pushing under another which is lighter, usually because it is warmer, causes the latter to rise, and again this must cool itself. This interference of currents can be the only cause of rain over the ocean, or over land so flat that air is not forced upwards merely by flowing over it, and it may of course be a contributory cause of rain on slopes also. The rainfall over the warmer part of Africa may be caused somewhat in the same way. The air in the equatorial belt is heated, and cooler winds from north and south may press in under it: these tending to keep moving in the same direction in space, are turned round so as to come in general from some easterly direction. But it is by no means certain that conditions are so simple as this; there are, on the one hand, indications that the air in equatorial regions sinks and rises in comparatively thin streaks rather than in great masses, and, on the other, investigations of the upper air are showing that a good many beliefs as to the relation between pressure, winds and rainfall founded on information obtained near ground-level must be revised in the light of fuller knowledge.

Whatever be the cause of the variation, there is no doubt that there is a north and south swing of the wet and dry belts, so that there are on the west seven climatic zones: there is a narrow strip along the shores of the Mediterranean which has most rain in winter; then follows a broader belt, the Sahara, on which rain is rare, stretching from east to west across the continent with the northern tropic as axis; this is succeeded by a somewhat narrower belt, the Sudan, with a wet summer but a dry winter; the equatorial regions have constant rain, greatest when the sun is overhead at midday; southwards the zones are repeated, but it must be noticed that it is "summer" in the North when it is "winter" in the South, and that the "zones" have little extent in longitude, partly because of the smaller area of land, and partly because there is an ocean to the east. The terms "winter" and "zone" are in this case somewhat misleading. The dry area in the south—the Kalahari—does have considerably more rain than the Sahara, and the area which has "winter" rains is only a small region in the extreme south-west. On the east, north of the equator, the influence of the great land mass to eastwards is such that the west-coast zones are continued right across the continent. South of the equator the east coast has rains in summer.

The effect of this distribution of rainfall on the vegetation is very striking. Under the influence of the heavy rains and intense heat, great forests have grown on either side of the equator, occupying a large part of the Congo Basin and the shores of the Gulf of Guinea, and a similar though not so dense forest fringes the coast of the Indian Ocean from Zanzibar southwards; where rain falls so seldom as to be extraordinary, stretches

the great desert of the Sahara; but elsewhere, owing to the lack of rain at some season, there is an extensive grassland, park-like in some parts, tending to desert in others, supplying food for animals which live on grass, especially all kinds of cattle and deer, which at the same time can stand considerable heat. This grassland stretches from the western Sudan right across Africa, and southwards almost to the Cape, filling almost the whole of the continent south of the equatorial forest.

Here, then, are the great geographical factors which have influenced man, civilized, semi-civilized, barbarian and savage. The great equatorial forest is no place where civilization may grow, but it must be remembered that it is like all forest in that it hinders the movement of organized bands of men coming in peace or war. In Egypt, protected by the desert on either side, with a double water-supply from the equatorial region of constant rain and from Abyssinia with summer rain, men might first find how to save energy on a great scale, and we have seen that they did so. On the great flat expanse of grassland men could wander as do the steppe peoples of Euro-Asia, but while there are essential similarities, due to the similarities in the conditions, there are no less essential differences, because the differences in the conditions are great. In Africa it is never cold; no preparations need be made to withstand the cold; clothing, a necessity of the steppe-dweller, is by no means essential, and there is the less necessity to save. The grasslands, except along the borders of the desert, are not so dry as are the steppes of Asia, and even the dry lands are not so compact. The result, on the one hand, is that there is a greater possibility of cultivating the soil and less need for living a

purely pastoral life, and, on the other, the more purely pastoral tribes tend to dominate the agricultural as the wandering Arabs dominate those of the oases, and as the nomads of Central Asia dominated the farmers of the margin lands till a few centuries ago. There is thus less necessity to be hardy, and there is a greater possibility, almost amounting to a certainty, that the more powerful pastoral tribes, being the less civilized, will prevent the growth of any habits of saving among those whom they dominate.

Indeed, the history of Africa south of the Sahara, in so far as it may be said to have a history at all, consists in the story of the comparatively slow movements of the different pastoral tribes over those grasslands, settling for a time in certain areas, undertaking a little agriculture, and establishing a military organization by which they were able either to exact tribute from subject tribes or to exterminate them, but never founding anything resembling a civilized state. Even so, the existence of the ancient civilization to the north, and of peoples in touch with that civilization, especially on either side of the Red Sea, seems always to have had an effect. The slow movements of these pastoral tribes appear to have originated almost invariably somewhere in the north-east, in touch to a greater or less extent with that civilization, and to have taken two main routes, westwards through the Sudan and southwards over the high plateau, driving the earlier peoples, such as Bushmen and Hottentots, still farther southwards to the Cape, or into the forest, and giving their names in more or less mutilated form to the lands in which Europeans found them. Zulu and Matabili, Mashona and Masai, have all moved

southwards within the last thousand years or so into the regions now called after them.

In the Sudan conditions have been somewhat different, for there men have been more directly and continuously stimulated by those living by the southern shores of the Mediterranean, who, both before and after the spread of Islam, found their way in small numbers across the desert, and mixing with the negro population introduced ideas of how to save energy in many ways. Here on the wetter park-like lands cotton is cultivated, and dyed with indigo; here are stone dwellings and walled cities containing thousands of people, and here the half-breed descendants of northern immigrants have founded states which have lasted for centuries at a time. But that is the most that can be said. This type of civilization at its best is less effective than that by which it was stimulated. On the eastern coast, also, Arab influence within historic times has been felt; states have been established; but this influence has not been used for the saving of energy, rather the reverse.

Within the borders of the forest, in places where it is dense enough to form a protection against the inroads of pastoral peoples, but where it is not yet so thick as to crush initiative, it is possible that some tribes, originally stimulated by the northern civilizations, have found refuge, and have been able to work out their own methods of living well, but these are exceptional; in most cases very little advance has been made.

It is thus fairly evident that little may be expected from the natives of Africa; we have yet to notice why it remained so long unknown to civilized peoples. The control was twofold. On the one hand, there were

positive difficulties in the way of exploration and settlement, and, on the other, there was an absence of inducements which would appeal to civilized men. The difficulties are obvious; deserts and forests are met with on the west coasts from Morocco to south of the Congo, except where the Sudan comes to the sea in Senegambia, and here were some of the earliest attempts at settlement. South of the Congo the driest and most desert part of the Kalahari fringes the coast, and on the opposite eastern coast is a forest land. Coming from oversea, explorers travelled in boats and looked for river mouths up which they might sail; but in the deep sea which surrounds Africa tides have little rise and fall, and rivers, where there is enough rainfall to allow water to run off, come to the sea in deltas difficult to traverse. The rivers themselves, except where they pass through regions of constant rain, are mostly unsuited for navigation, being alternately rushing torrents and series of water holes, and even where navigable they reach their deltas after descending by waterfalls and rapids from the high plateaus inland. The lands themselves are hot, and in many places fever-stricken; they are unfamiliar, unlike home, and white men would not settle in them. Nor was there much inducement to explore; in Africa there were no tales of stores of hoarded gold, nor of the wealth and spices of the Indies. Men passed by these inhospitable shores, and continued on their journeys to lands where wealth was known.

And yet the geographical conditions have controlled even the white man's advance. In some places rather than in others settlements were made; in some directions rather than in others these settlements expanded. The reasons for the settlements were partly local; partly

they were related to other facts in other lands. There were early settlements by the Senegal and Gambia, because these were reached early, and because here, between desert and forest, conditions were somewhat more favourable than elsewhere. A similar position to the south on the coast of Angola was early occupied by the Portuguese.

The Cape apparently possessed no advantages; there were neither spices nor treasure nor slaves, and little was to be made of it, so that the Portuguese preferred to occupy the coasts farther north, nearer to India, the goal of the voyager, thus leaving the Cape open for the Dutch.

The control passed to Britain in the beginning of the nineteenth century, when all Europe was under the heel of Napoleon, and it was imperative that outlying areas which might be used as French bases should be seized and held. It was found, on the one hand, that the climate of the district round the Cape was not so greatly different from that of Britain, and, on the other, that it was the most convenient calling place on the way to India, by a route unlike that used by the Portuguese, who hugged the coast. Trusting to the permanence of the westerlies and the trade winds, men accustomed to the sea did not waste time beating against the winds, but used them to the best advantage, and took the course shown on the map (p. 265), which brought them close to land only at the south of Africa.

Thus, as always, history and geography combined to control man's choice of settlements. Farther advance was equally controlled by what was and by what had been. The decline of Portugal from its position as a Great Power helped to prevent the growth of Portuguese

colonies, while the naturally unhealthy coast of Portuguese East Africa, fringed as we have seen by a damp forest, held out little inducement to extensive settlement. From the Senegal the French did advance eastwards, and passing over to the Upper Niger held a region which helped to consolidate their dominion in North Africa. But the most effective advance was naturally made northwards from the Cape over the highest part of the comparatively cool, open plateau, the most suitable part of the continent for men accustomed to such conditions as are found in Europe. At the Cape the Portuguese did not land at all; the Dutch, keen to make money, but not possessed by the colonizing instinct, simply held the Cape as a station on the way to the Indies, where wealth might be obtained; few men could be spared from home, and those who did come always expected to go back. The British did more: from the first, settlements were made and expansion took place; they met the ancient inhabitants, Bushmen and Hottentots; they met the more recent arrivals, Zulus and Matabili, and compelled them to live in peace; and at last they brought under one government the descendants of the original Dutch, who, unaccustomed to centralized rule, had migrated always farther north. With the control of lands more or less suitable for white occupation, there came the dream of British sovereignty stretching from north to south. Once this claim was challenged when it clashed with French claims to rule a territory stretching across the breadth of the continent; but at Fashoda, or rather in the English Channel where lay the superior fleet, it was decided that Nile waters, whether reached from Alexandria or from the east coast, should remain under one control. Once again it was

challenged, and Germany for a time made good a claim to the possession of a territory also reached from the east coast, which, marching with that held by Belgium, divided the British dominion of the south from that of the north, but did not prevent the possibility of a railway over the plateau from the Cape to Cairo; but at last ocean power and the freedom it gave of transporting overseas determined that Eastern Africa should be under the control of Britain.

All along the Guinea coast, castles or forts or fortified stations had been held by various nationalities from the time of the first exploration, but these led to no effective advance, for all along the coast is the barrier of the surf, and the forest lay behind, dense, difficult to penetrate, because of the purely physical obstacles, and made trebly difficult by the presence of fevers and savage men. Only in these latter years has that forest been penetrated, and the land of half-breed Mohammedan negroes to the north been controlled. As we might expect, that land was first reached by the least difficult natural way, the one great river, the Niger; it is now being organized, connected by railway with the coast, and brought into the world system as a region which may supply cotton for European manufacture, while the forest districts of the Niger Delta still remain almost unexplored.

The land south of the equator corresponding to this Sudan region of the Senegal and the Upper and Middle Niger is also acquiring importance. As land farther and farther north from the southern coast of Africa has been organized, it has been increasingly expensive and wasteful to keep up communications only by a lengthy railway to a part in the far south; the open plateau

lies nearer the east than the west, and is separated from the west for some distance by the dry area of the Kalahari, so that ports farther and farther north on the eastern coast have become of importance; but each of these is also successively farther and farther from Europe, and it is now becoming probable that the region of the Upper Zambezi may be more economically reached from that west coast claimed centuries ago by the Portuguese.

Thus Africa, long occupied only by barbarous peoples, unknown and unexplored because of the geographical conditions, has lately naturally and inevitably been partitioned among the peoples that matter, and those who matter most have had most say in the partitioning. But still the native races remain; they are still for the most part pastoral, and their treatment constitutes a problem which is not yet solved.

CHAPTER XVI

THE NEW WORLD : HISTORY BEFORE COLUMBUS : SPANISH AMERICA

So far we have confined our attention almost entirely to the Old World; we have seen how three types of civilization have been evolved on the outer margin of that great central plain which has affected them all. The men of Europe, in their endeavour to acquire and save more energy, made direct contact with the others, and incidentally discovered America. The question now arises, Why was it that Europeans discovered America before the Americans discovered Europe? Or we may put the question in another form, and ask, Why were the natives of America undesirous or incapable of controlling energy outside their own land?

An examination of the geographical facts supplies the answer; we shall see that the conditions were, and are, so different that the course of the history was likely to be quite different also.

What, then, are the geographical facts that have been of importance? One of the most important, if not *the* most important, is just the very obvious one that the New World is smaller than the Old, and specially that there is very little land in the desert belts. The conditions are comparable with those which exist in South Africa: owing to the small amount of land there,

and the absence of land to the east, there is little that can be called desert, and therefore no place where an early civilization might develop. The existence of the desert area in the north of the Old World, within which developed the early civilizations, was due in part to the fact that there was a great compact mass of land,—and the central portion of a vast extent of land is bound to be drier than the margins,—and in part to the existence of a great stretch of land in North Africa lying in the trade-wind zone, and so situated that it had the great heart land of Asia to north-eastwards.

Now in the New World there is not a great compact mass of land at all comparable with that of the Old World; both the areas in the latitudes of the desert belts are of slight extent east and west; that in the north is the narrowest part of the continent, and that in the south is about the breadth of Africa in the same latitude; more important still, there is no land to the eastward of either. Instead of being dry regions, they are, in fact, wet on their eastern sides, where the trade winds strike first. Thus the really desert areas are naturally small in extent. In South America they occupy only a narrow strip along the west coast; in North America the arid regions, though not quite so narrow, are still small. The extent in each case is modified by the relief, which also helps to determine the extent of other types of region.

The configuration of the lands in the New World in its general outline is very simple, though of course subdivision is necessary if we would understand how it has acted as a control. In each continent there are three great highland areas separated by lowland. Along the west coast run the Cordillera, broader in North

America, especially in the middle section, narrower and higher in South America, bordered in each case by ranges of higher mountains; the Rocky Mountains being merely the series of ranges which mark the eastern edge of the broader middle section of the Cordillera of North America. To the east of the Cordillera in each continent are two much older highlands worn down to a lower level—in South America the plateaus of Guiana and Brazil, and in North America the Appalachian Highlands and the great Laurentian “shield,” which is, in fact, so low that Hudson Bay, the central area, is invaded by the sea, and it is only by a stretch of the imagination that we can call it a plateau at all. The Cordillera have, in fact, been ridged up against the hard old rock masses to the east, and where these are absent, in the region of the West Indies, the Cordillera spread out and form more widely separated ranges, which in parts are so low that they are either just above sea-level, as in Central America, or have only their higher parts above water, as in the great curve of the West Indian Islands, or are entirely submerged.

Between these highlands is a lowland which spreads out in each continent in three directions. In North America its greatest extent is in the plain which stretches between the Rocky Mountains and the Appalachians, lowest along the north and south axis where the Mississippi runs, and rising gently to east and west with a slope imperceptible to the eye, and yet so continuous that when it reaches the abruptly rising mountains on the west, the surface is already a mile high. Between the Laurentian shield of hard old rock on the one hand, and the Appalachians and Cordillera on the other, are the narrower lowlands through which the St. Lawrence and the

Mackenzie find their ways to the Atlantic and the Arctic. In South America the great lowland is that which lies on either side of the equator, drained by the Amazon and its tributaries, with a comparatively narrow opening eastwards between the plateaus of Guiana and Brazil. Southwards a plain extends with the Andes and the plateau of Brazil on the west and the east; while northwards, between the north-eastward curve of the Andes and the plateau of Guiana, is a much smaller plain through which the Orinoco flows.

Several results follow from the way in which the extent of the climatic provinces is determined by this configuration. The equatorial forests of the hot, wet Amazon plain cover a vast area, stretching almost across the continent, and running up the eastern slopes of the Andes. On the other hand, the desert of South America, shut in between the Andes and the sea, is of necessity very narrow. The region which may be said to correspond to the Sudan is the savanna land of the Orinoco, comparatively small in extent, and with a climate which differs from that of the African Sudan in several important particulars; the same may be said of the savannas of the interior highlands of Brazil, which are in addition composed of hard old rock from which such water as does fall runs off quickly.

In North America the most arid region is on the highland to the west of the southern portion of the Rocky Mountains. Such streams as flow westwards from these dry heights run in deep narrow channels far below the normal level of the land, and in fact help to make it drier than it otherwise would be. South of this desert the whole land narrows, and the mountain borders approach each other in the great peak of Orizaba. The eastern

mountain edges, drenched by the rains of the trade winds, are wet and densely forested, but the Mexican plateau between the mountains is comparatively dry, receiving in winter very little rain for some months. There is also a dry region, on which grass grows, on the high plains to the east of the Rocky Mountains; this is what corresponds to the steppes of Asia, but obviously it is not comparable in extent, for to north and east the land was covered by forest, coniferous in the north, temperate towards the Atlantic, and almost tropical along the Gulf of Mexico. In South America, the only region which may be said to correspond to the steppes is the land which lies to the east of the Andes, in what is now the Argentine.

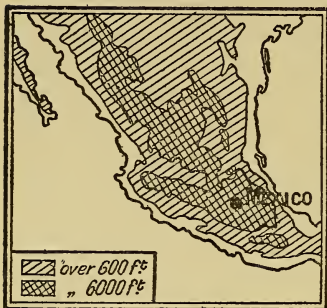
Thus the places corresponding to those on the Old World where under simple conditions men were induced or compelled to make some effort to sustain life are, in the New World, largely lacking in those qualities which would make them nurseries of civilizations. There is no great river crossing a great desert, at one season bringing abundance of water for growth of crops and at another dwindling away so that vegetation becomes parched and dry. There is no land where at once it is warm and life is in consequence comparatively easy, where there is a strong incentive to think ahead and save stores of food and other forms of natural wealth, and where there is a protection against the inroads of those who might seize the wealth which has been stored.

Even the steppelands are of slight extent, and the peoples characteristic of the steppes of the Old World are conspicuous by their absence; this is partly due to another lack which the New World suffers in contrast with the Old; none of the animals which feed on grass

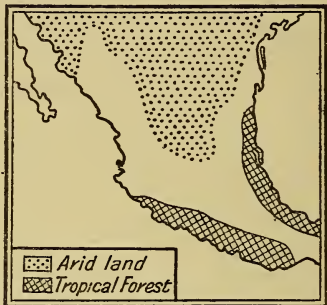
and have been domesticated in Europe, Asia and Africa, are natives of North or of South America. There were no camels, horses, asses, sheep or goats; and, more important than all, cattle, representing one of the earliest forms of saved energy, were entirely absent before they were introduced from Europe. There was no beast of burden to save human energy from being expended in moving things from one place to another, there was no milk nor any of the foods made from milk. This statement perhaps requires a slight, but a very slight qualification. Bison, or buffaloes as they are often wrongly called, roamed the grasslands in countless herds, and there does not seem any very good reason why these might not have been domesticated. It is sometimes said that they are incapable of domestication. Whether this is so or not, the fact remains that they never were domesticated, and that these animals alone could have allowed of the existence of any hardy nomadic pastoral peoples who, while moving to influence inhabitants of widely separated areas on the borders of the steppelands, might yet have the staying power that comes from the possession of saved energy or capital. The nomad of the New World must perforce travel light; this may allow of speed of movement, but gives no great irresistible power. In the New World we need not expect to see great migrations of people sweeping all before them, like those we have already seen in the Old. Further, even the negro type of civilization, as far as it was based on cattle, was quite impossible, for the bison did not exist in South America.

There is, then, an absence of those conditions which just allowed of, and stimulated, the early development of civilizations so quickly as those of the Old World.

In North America, that land which is driest and most nearly desert stretched roughly from the north-west of the Gulf of Mexico, past the head of the Gulf of California. Here it is warm at all seasons, and indeed hot in summer, so that life is comparatively easy where it is possible at all. Though rivers as a rule flow far below the general level of the land, yet here and there they may be used for irrigation by small communities. Farther south the plateau of Mexico is high, compara-



MEXICO : RELIEF.



MEXICO : VEGETATION.

Mexico stands high: there is a dry land to the north and a dense forest to south and south-east.

tively dry, difficult of approach across the dry land from the north, and difficult of approach through the dense forest that clothes the lower slopes to the east and south. Here is a warm land supplied with water by streams from the highlands to supplement a rainfall fairly abundant in summer but scanty in winter, and possessing a measure of protection. In the desert area to the north the water supply could support only a widely scattered population, but on the Mexican plateau there is a possibility that small communities might here

and there come into contact with each other. There is neither the same measure of protection nor the same basis for a dense population as in Egypt, but at any rate it is the region most like Egypt in the New World north of the equator.

That the desert and the forest were by no means effective as barriers may be seen from what we know of Mexican history. Little, indeed, is known, but it seems probable that there has been a succession of waves of warlike peoples from this drier north, each of which first partly destroyed the more advanced form of civilization which they found, and then made themselves the heirs of that civilization. Some may have come merely as nomadic hunters from the dry plains eastward of the Rocky Mountains; others may have brought some knowledge of arts of saving energy learned in the small isolated communities of the arid lands—of house-building with dried mud, “adobe,” or of cultivation of maize for food and cotton for clothing. In any case, what we find in Mexico are small tribal communities living in permanent pueblos, or communal village houses of stone, clothed with cotton, and depending for food on grain stored in special granaries in these pueblos. Alliances of two or three pueblos for a time dominate those within a short distance, levy tribute of grain and cotton, and in turn are compelled to acknowledge the sway of other federations.

Here, on the one hand, there is considerable advance. Only by a settled life can great stores of energy be accumulated in a form other than that of flocks. These people had settled to accumulate food energy of a kind which even now can be kept longer than any other, though it entails most trouble in preparation. The

fruits eaten by the savage can be pulled and consumed at once; an advance has been made when he grubs up roots, for most of these require some treatment before they are eaten; but seeds of cereal grains, selected and improved by generations of farmers so that they become larger and larger, not only require care and attention when growing in order that the most may be made of them, but require much to be done to them after they are ripe before they are in the best form for food; think of the number of processes which wheat has to pass through before it is eaten, and compare them with those necessary to make apples and bananas or turnips and potatoes edible. Wheat the inhabitants of the New World did not know, but maize, the corn of the Indians, *the* cereal of the New World, was known. Requiring less attention than wheat when growing, and less need for preparation, it was in one form or another known all over the continent. It may be grown by a tribe who stay long enough in one place only to clear the ground of forest and plant the seeds, and who return when the crop is ripe to consume what has grown. In this case there is little saving. It may, however, be grown on the drier lands by irrigation, and part of the crop saved; this the early inhabitants of Mexico did. And not only had they enough stored energy from times of plenty to provide for scarcity, they were by this very accumulation of energy able to protect themselves; the pueblos were practically fortresses within which the whole population might withdraw, and living on their accumulated stores might be in a favourable position to withstand attack for a time. Further, their whole time was not taken up with an attempt to preserve life; they had sufficient energy to provide some of the ornaments of

life, for simple sculpture, for the accumulation of pretty things of gold and silver which they had made.

But, on the other hand, this advance in the control of energy was not of a very high order. The geographical conditions and the history of these people, such as it was, placed the emphasis on the small unit. There was nothing to suggest union. The lordship which one group of pueblos exercised over the others was in no sense a kingdom or a government; there was no territorial extension. There was merely an extortion of tribute with threats—blackmail. There was no corresponding defence of the area from which tribute was exacted, so that further energy might be saved; there was no idea of nationality; it was not even a military despotism like that of Assyria; the pueblos dominant for a time held their power merely because the other, weaker pueblos were also disunited; tribute was extorted only because of the fear of utter extinction if it was withheld. The importance of Mexico lay in the fact that here was a more efficient method of saving energy in small communities than elsewhere, for no social or governmental organization of more than an elementary type had been evolved. Not only do we see a continual change in dominant pueblos—the Aztecs being only those whom the Spaniards found dominant, and they had been dominant only for a few generations—but when any outside attack was made there was little or no attempt at union in the face of an enemy, rather was there the reverse. This explains the ease with which the Spaniards were able, with few men, to place themselves in authority so quickly over the whole land.

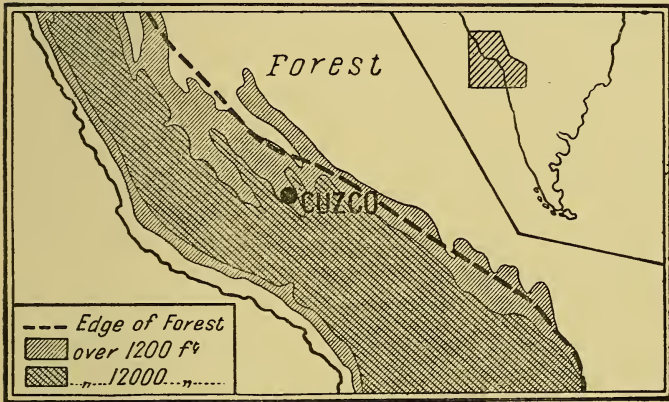
There was one other area in which the Mexican type of civilization was also developed; possibly, indeed,

there is some connection between the two, but at present we know little more than that in the low peninsula of Yucatan to the eastward of Mexico, and separated from it by forest, a people lived who had advanced as far as or farther than any other on the continent. The climate of Yucatan is exceptional on the Gulf coasts, in that it is only for a few months in summer that it receives much rain, while the remaining areas have abundance of rain at all seasons; these are forest-covered, while Yucatan is a grassland, and water is valuable.

In Mexico and Yucatan the conditions are not altogether unlike those where early advance was made in the Old World. In the other region which we must notice, though there is still a curious fundamental similarity, the more obvious conditions are greatly different. In North America the grasslands are small compared with those of Euro-Asia, and the only animal that might have been, though it was not, domesticated was the bison, so that there were no folk who are comparable to the nomad pastoral tribes of the Old World. In South America even a smaller area is a cool grassland, and, though the tropical grassland is of greater extent, we have seen that not even the bison is indigenous; the desert is of small extent, and the great equatorial forest covers almost all the rest. Thus there does not appear any good reason why a great advance might be expected along the lines followed in the Old World.

But in South America a condition of things exists which is found nowhere else on the globe. Rising abruptly on the west of the great forested plain of the Amazon is the Andean plateau, two or three hundred

miles across, and two miles high, its mountain edges rising a mile higher still—that on the east being forest-covered, that on the west overlooking a dry and dusty plain. The lower parts of the central plateau are comparatively dry and warm, the nights being cool. This climate naturally results from the height so near the equator; farther from the equator, land at this height is too cold, even in this latitude higher lands such as



THE BROAD HIGHLAND ON THE WEST OF SOUTH AMERICA.

Cuzco, at a height of just over 11,000 feet, is not so hot as the lowland on either side.

the mountain edges are too cold for primitive people. Nor is the central plateau continuous. The bordering mountains run together and divide the habitable land into basins, which are accessible to one another, but only with difficulty; while even within each basin the land is by no means flat, but mountain and valley alternate.

Here, then, is another area where, if anywhere in South

America, there is the possibility that a higher type of civilization might be evolved, and here the Spaniards found the Incas, as they found the Aztecs in Mexico, a people who had but recently dominated the whole land, and had merely succeeded to a heritage which, no doubt with some setbacks, had been developed under different hands for many centuries. But they had really organized their whole dominion, as the Aztecs had not done, and the organization of their own homeland round Cuzco was probably of a much more ancient date than was the building of the Aztec pueblos. Perhaps, indeed, the development had been proceeding in some form or another for so long a time that in the earlier stages the whole area, which is one known to be liable to unusually rapid changes of level, may have been thousands of feet lower than it is now, and life made easily possible in spots where, for example, it is now too cold for grain to ripen.

In the various basins of the plateau, then, protected to some extent by the vacant spaces of high and cold mountain border and other intervening heights, communities discovered and improved methods of saving energy. With water from the colder mountains they watered fertile lands, and grew and garnered potatoes and maize, the former indigenous, the latter introduced no doubt by invaders from the east, who invigorated, if they first tended to destroy, those they found. But by the employment of the only animal in the New World which was domesticated by non-hunting peoples, they were enabled to use and save energy in many ways possible to no others. The llama, an animal of the camel kind, like its larger relative is a native of dry lands, but unlike the camel its home is on the high plateaus. To

the llama, as a beast of burden though not of draught, as a source of food though not of milk, and as a supplier of the raw material of clothing, was in no small degree due the possibility of the growth of Andean power. Having organized the natural area of which Cuzco is the centre, the Incas dominated, and then, not being merely blackmailers like the Aztecs, systematized in a larger whole, the various social organizations which had been evolved in similar basins to north and south. They did more; they descended on to the western coastal desert, and there also dominated and organized, to form one state, a considerable number of small isolated communities which, each using the waters of a separate river flowing from the heights across the plain, cultivated the irrigated lands around it, and gained control of energy in Egyptian fashion. Even so these communities were far more open to external domination than those in Egypt, and were yet too isolated to make a united defence against men who came with an organized force.

It may seem strange that in the chains of islands which make up the West Indies there should be no people who developed a civilization like that of the Greeks. As we might expect, maritime conditions were not wholly without effect, for the islands were occupied by at least two races, who passed easily from one island to another; the incursions of the later of these, the Caribs, who gave their name to the sea in which the islands are set, were interrupted by the arrival of the Spaniards. But two conditions were lacking which helped to develop Greek civilization. On the one hand, the inhabitants came from a region where civilization was of a low type; they had originally occupied the forest-

covered lands between the Orinoco and the Amazon, or even those farther south, and had only been tempted step by step to occupy the islands, because the first, Trinidad, lies within sight of the Orinoco mouth, and some familiarity with navigation had been obtained on that river. On the other hand, the continental shores of the Caribbean Sea and the islands set within it are rainy, and for the most part forest-covered, with just those conditions which lead to little development. The case of the Greeks was very different; the lands round the end of the Mediterranean were the homes of those who had learned how to live well, and, whatever the origin of the Greeks, they sprang from stocks by which some advance had been made. We have, perhaps, spoken as if the civilization of Egypt developed entirely on the spot, but it must not be forgotten that behind the Egyptians lay long ages of development. The inhabitants of the West Indies came from lands where early development is least to be expected, and even when tempted to cross the sea they had developed little. Further, the islands of the Greeks were not only dry and sunny, with conditions which stimulated development, but the shores of the Eastern Mediterranean were the homes of men who were living well under many different conditions, and to whatever lands they sailed, the Greeks saw men doing things in a different manner from their own; whilst the Caribs and their predecessors, except for their sea environment, which did have an effect, were exposed to conditions little different from those on the continent from which they sprang, and on their voyages, such as they were, saw little that was new. Thus in the West Indian islands there was no advance worth considering.

There were, then, two areas and two only in the New World like those of the Old, where men became something more than savages, in respect of the facts that life was there comparatively easy, that small communities were protected from savage attack, and yet that there was a stimulus to save energy. That is to say, the lands where advance was made in the New World were like those of the Old in being warm and comparatively dry; yet, because the conditions were not quite so favourable, the advance was not so rapid. It was natural that the peoples of the Old World should discover those of the New rather than the reverse, for the races on the high plateau were the only folk who had advanced much beyond the stage of savagery, and they were out of touch with the ocean. They lived in an environment which was less favourable to early development than was found in Egypt, while it seems to be less favourable still for further expansion. High up on the Andean and Mexican plateaus communication is difficult between several adjacent highland regions, and doubly difficult with the lowlands on either hand and the sea beyond. Of trade there was very little, if any; there was no speculation as to the shape of the earth, much less was there any suggestion that the question had a practical bearing, or that there were other lands possessing riches which might be reached across the ocean by any way.

The ocean had hardly reached the stage of being feared, for it was scarcely known; these heights, isolated and difficult of approach even under modern conditions, were the homes of men who had no stimulus to seek ways to other lands, of whose existence they were absolutely ignorant. Though conditions in other parts

of the continent were such that they might have become seats of more advanced civilization, yet the original stimuli which caused the advance in Europe were wanting. Considering the long periods through which human advance has been taking place, and the disadvantages of the New World as compared with the Old, the extraordinary thing is, not that the civilization of the former was behind that of the latter, but that it was so little behind.

The conditions which existed in the New World did not allow of the development of any advanced civilization, yet they were of importance in determining directly and indirectly how the various forms of civilization which had their birth in Europe might develop when transplanted to a new soil; directly, because conditions of relief and climate determined where men who had learned to control energy might settle to control more energy, and how they might move with least expenditure of energy, and also indirectly, for it was easier to act in some ways rather than others because of the past history. We have already noted how the discovery of the New World was made under Spanish auspices, and how it was the West Indies, in the latitude of regions from which spices were known to come and to which the trade winds blew from North Africa, that were discovered rather than the lands to the north. Now there is a difference between the West Indies to which the Spaniards came and the East Indies to which they thought they had come, and to which the Portuguese actually did come. The East Indies, because they were inhabited by men in organized communities, though less advanced than those of Europe, were the source of articles of commerce, of things valuable in themselves

or thought to be valuable, and the Portuguese at once obtained what they sought, and brought these back in their vessels. The West Indies, inhabited by men on a far lower plane of civilization, had little to supply, and Spanish attempts at colonization made slow progress at first. They probably would have continued to make slow progress, if they did not become a total failure, had it not been for the existence of those communities, somewhat more advanced than the rest, of which we have spoken—on the Mexican highland and the lowland of Yucatan, on the Andean plateau and the desert lowland to the west. In each case, discovery of the lowland civilization led to knowledge of that on the plateau, and the Spaniards were able quickly to dominate areas which, if they had been inhabited by savage tribes, would have taken years if not centuries to organize. The essential parts of Spanish dominion in the New World were those lands where civilization had made some progress, and where, though there were no spices, stored gold and silver, the trappings of that civilization, mistakenly by the Spaniards supposed to be wealth, could be obtained. The remaining lands under Spanish dominion in Central America, the North of South America and the West Indies, were just so much as naturally went with the essential parts, but after a hurried search for gold these connecting regions were occupied in a military sense only, and for the most part left for long in their original condition.

With the collapse of the Spanish power these lands slipped from the control of Spain, and broke up into states which still retain a Spanish impress. In the West Indies, devoid of gold and unessential to the control of lands where gold had been stored, the Spaniards

made no attempt to hold more than a few islands, allowing other sea-powers to claim, colonize and organize the rest. The plateaus, peopled still by the descendants of



MEXICO AND PERU.

Mexico and Peru were the important conquests of Spain: the rest of the land was held, but it brought little return.

those whom the Spanish found there, and still difficult of access, still tend to remain in units curiously corresponding to the conditions before the Spaniards came.

Out of touch with modern conditions, with small populations even if they have large areas, there are revolutions which reflect the tendency to break up into smaller units still. Mexico, the plateau between the desert on the north and the forest on the south, together with the dry lowland of Yucatan, is open to the sea on two sides, and is the most Spanish of the Spanish colonies. In Peru, which comprises both the highland round the original Inca seat of power, and the irrigated desert to the west, half the population are still Inca Indians. In Bolivia, brought under the rule of the Incas on their southward advance, and possessing no coast plain, three-quarters of the population are of pure Indian blood. Ecuador, brought under the sway of the Incas on their northern advance, only within half a century of the Discovery, has a majority of its inhabitants still Indian. Colombia, never under Inca rule, but having a civilization of the same type, and more open to the Spanish sea-power in the Caribbean by the Magdalena and Cauca valleys, is more Spanish than the other South American states. Mexico, the town on the lake, strong as a defence for Aztec pueblos, and Cuzco, a strategic centre for Inca conquest, still remain centres of modern states; though Lima, set by the Spanish conqueror in the dry western desert once dominated by Peru, is now by a curious but quite natural reversal the centre from which Peru is governed. Vera Cruz and Callao, ports for lands across the ocean of which the ancient inhabitants never dreamed, owe their position to the needs of the conquering Spaniards.

The small forested states of Central America, really uncolonized, barely organized, and with little real unity, would be of less account than the states on the plateau,

were it not for the fact that they are more in touch with the waters of two oceans, and that across them must pass men more able than natives or half-castes to control energy by the most economic modern methods.

But in the far south, where originally Spanish attempts at control were as half-hearted as in Central America, are growing the most important states which owe their existence to Spanish initiative. Chile and Argentina, essentially the lowlands on either side of the lofty, cold and uninhabited barrier, have areas not unlike those to be found in Western Europe. Here, in regions having a climate to which they are accustomed, men of European stocks, with all the historical advantages which that implies, are colonizing lands where no great advance was possible under primitive conditions. Organized from Buenos Ayres and Santiago, under a rule which retains more than a suggestion of its Spanish origin, lands to north and south are gradually being occupied and utilized for the supply of more energy to the modern world. More easy of access, occupied by men capable of controlling energy more economically, supplying more energy in usable forms, Chile and Argentina, to which may be added Uruguay, should have more importance now than have the Andean states to the north.

Nor must it be forgotten that the Portuguese on their way to the Indies discovered a portion of South America and by the Pope's decree shared with the Spaniards such rights as the Pope could give. They placed here and there on the coastlands of Brazil and on the shores of the great Amazon a few stations, and staked out claims to a large area long thought to be of so little value that their claims were not disputed. Thus the foundations were laid of a modern state, in which,



S. AMERICA : TEMPERATURE.

Chile and the Argentina have a much cooler climate than the remainder of South America.

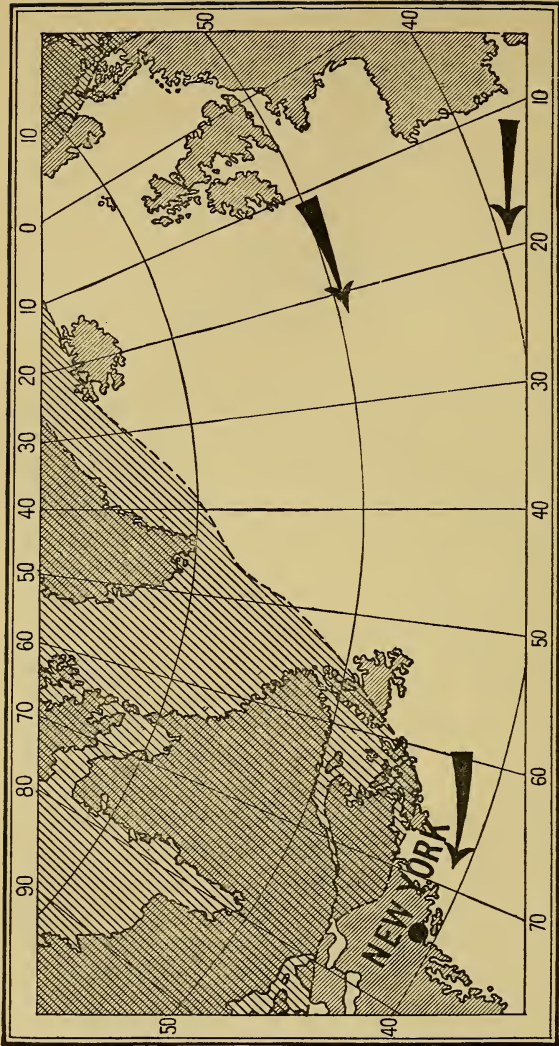
indeed, there are vast possibilities, though its important part is still the steep south-eastern coastlands open to the sea and comparatively cool.


Again we see how the course of history and the production of the modern conditions, the basis for future history, have been controlled by the geography which, on the one hand has stimulated action, and on the other has determined how and where the most effective action shall take place.

CHAPTER XVII

COAL : THE UNITED STATES

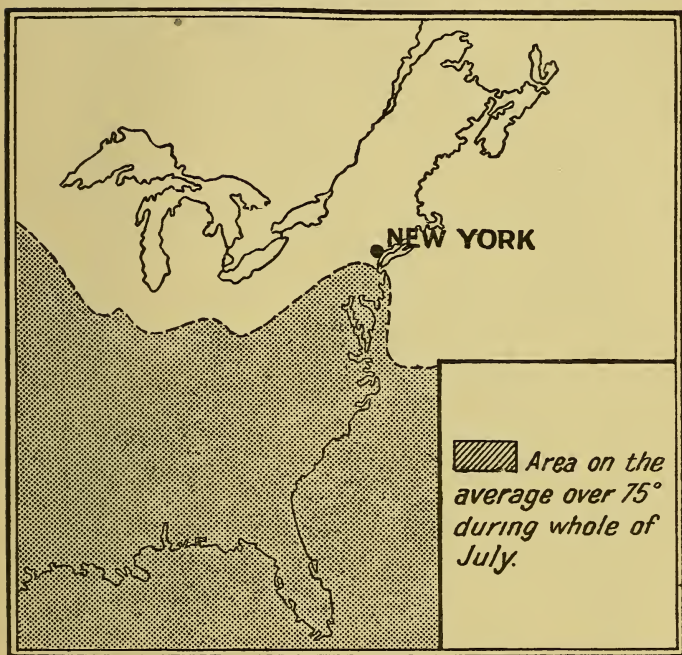
THE New World was not so favourably situated as the Old for the development on the spot of an early civilization, and so there is no land like Egypt. But though the geographical conditions remain unchanged, they may control the course of history differently according as men are able or are not able to use energy in certain ways. The ocean was for long a barrier, now it is an open highway. So on the American lands unsuited for early development we see a growth of one of the great Powers, because here energy could be controlled and saved more economically when men once knew how. The first stages in the history gave little promise of future importance. Not alone did the Spaniards cross the ocean. For reasons depending on the geography of the Old World rather than that of the New, French, Dutch, and English followed closely, but kept in the main to the north, at first still searching for the sea way to the Indies. The French, following the St. Lawrence and Mississippi, penetrated far inland and claimed vast territories in the great lowland reached by these rivers. The English settled on the eastern coastlands both before and after the Dutch were dispossessed, cut from their base by happenings in



 Land where temperature is under 25° on the average during the whole of January.

NEW YORK IS AT THE FIRST ENTRY FROM EUROPE WHICH IS ICE-FREE IN WINTER.

Europe. The forested highlands of the Appalachians and New England, and the plains beyond claimed by the French, formed a double barrier, physical and political, which hemmed in these settlements, and no one would have supposed that they marked the



EASTERN N. AMERICA : SUMMER HEAT.

beginning of what would become, within a century or two, one of the greatest Powers of the world. This growth was due to the geographical conditions, to the geographical factors controlling European history, and to a further discovery of how to use energy to greater advantage.

The settlements were outside the limits of extreme winter cold and of extreme summer heat. There is,



THE HUDSON-MOHAWK GAP.

New York is at the entrance to this gap, the only easy way to the interior.

indeed, no part of the eastern coast of North America which has a climate at all comparable with that of Britain, but the lands actually settled were more like

those of the old country than any to north or south. The climatic conditions go far to explain the situation of the greatest of the American cities and especially that of New York.

The forested highlands formed a barrier, and well it was so; the small communities in New England and Virginia were kept together; the land they claimed was really occupied, and was not like the great stretch from the mouth of the Mississippi to the mouth of the St. Lawrence, a vast expanse with a wandering Frenchman, hunter or missionary, here and there. And yet through this barrier is an easy way open to the ocean tide for the first 150 miles from the sea. On these sheltered waters first sailed Henry Hudson and his Dutchmen seeking the way to the Indies, and by the valley called after its first explorer and by the valley of the tributary Mohawk men might reach the lowlands on the west. When the time came, the English settlers were able to strike through, break the French line from the interior position, and occupy the central lowland effectively.

The defeat of the French was not due only to those facts. Had the Frenchmen on the St. Lawrence been strongly supported by France, there might have been a different result; but, as we have seen, French colonizing policy, influenced by the geographical conditions, was not continuous; these settlers were not energetically supported from France. The stronger strategic position of the British was used effectively and the land became British, though there remains on the northern shores of the St. Lawrence a community where the French language is spoken, where customs and manners betray a French origin, and yet where it is felt that no allegiance is due to France.

On the eastern seaboard of North America, then, just because the land is different, the political units are more stable than are those conquered by Spain. The land was really colonized; men and women, having great powers of initiative, settled and saved energy, which they won from the soil by their own efforts. The stock was pure, there were no half-breeds; those who fixed the type of government and social custom were no soldiers and celibate priests whose watchwords were glory, gold and gospel; they were picked by their very originality. Colonization takes longer than conquest, but it is more effective. Those who came later of different stocks, speaking different languages, were one by one absorbed, and added strength to the whole.

But even those advantages would have had little effect, at any rate quickly, had it not been for a great discovery, one of the great discoveries of the world, one to be reckoned with the discovery of the ocean, of iron or of fire, a discovery which has caused one of the great revolutions, because it was a discovery of a new way of controlling energy.

We have assumed that the fundamental necessities of human life are food and clothing. The energy which gives the ability to do work, possessed by every human being, has been assimilated by means of food. The energy of the individual has been to a large extent saved in these regions by means of clothing. In very early times, or among savage races, food and clothing may have been obtained in other ways, but during all historic times, among all peoples that have ever counted, food and clothing have been obtained under two sets of social conditions: they have been obtained from more or less domesticated animals, or by cultivating the ground.

All the food and all the clothing required was raised by each individual or family, or at most a very small association of people. Each of these communities was practically independent of the rest of the world, except in so far as it was open to interference from outside by others who wished forcibly to seize the stores of food energy or of clothing protection.

In other words, energy was largely saved by individuals; practically all mechanical work was done by individuals or animals, and the limit of the amount of work that could be done was the amount that a few men or a few animals could do. There were one or two exceptions to this almost general rule, but they only emphasize how very general the rule was that agriculture and pastoral pursuits were supreme, and that the individual man's work was the maximum that could be attempted.

Mills for grinding corn for food were in later times either wind or water driven. We see now in country places a mill here and a mill there. We think of them rather as picturesque objects than as instruments of extraordinary value. If we see them turn laboriously, almost the last idea that the rumbling old things suggest is that, just as they stand, they were for many hundreds of years the greatest machines, the machines giving out most energy, known to man. Small as it was, the mill was almost the only instrument where energy of a larger amount than that supplied by one man's body was used. It was the only instrument whereby energy other than food energy could be used for the service of man. There had been a great revolution when the daily domestic labour of grinding at the mill was given up, and the supply ground once for all at the common mill

by power, however feeble, according to our ideas of what power is. The miller was an important personage in those days; the mill was an important centre. Many are the towns and villages that owe their position to the existence of a mill beside a stream, not in Britain only, but all over the Old World and those parts of the New which have been settled for more than a hundred years. The importance of this very feeble way of utilizing power brings home to us clearly how very small were the greatest power schemes that could be attempted. By the mill some small part of the domestic labour necessary to prepare food was done away with, but *all* clothing, every stitch of it, to save the heat-energy of the human body, was hand made. From the curing of the skin, the shearing of the sheep, and the planting of the flax, to the making of the actual garment, all the operations were performed by individuals, and usually by the individual who was going to wear the garment or by a member of his family. A great advance was made when the trade of weaver appeared and the fabric was woven, still by single man-power, it is true, but by the aid of a loom. Herein lay the importance of the weaving guilds of the Middle Ages in North Italy, and the importance of Britain because she could breed sheep.

There was very little commerce. Commerce implies that something can be produced more cheaply, *i. e.* with less expenditure of energy, in one place than another, and can be carried cheaply from the place of production to the place of consumption. Now in all the Middle Ages, in all the time that elapsed up to a hundred years ago, it was only in exceptional circumstances that bulky things could stand carriage. The cost, *i. e.* the expenditure of energy necessary to convey

large heavy things any distance, was so great that, however cheaply they might be produced originally, the amount of energy expended on them to carry them any distance, added to that necessary to produce them, was too great to save anything in the long run. Even after the Portuguese discovered the sea way to the Indies, the whole amount of the spices brought to Europe in a year would go into the fore-hold of a modern coasting tramp, and spices were almost the only things which it paid to carry.

Even this small trade was done only because of the other exception to the general rule that all energy used was that to be obtained from the bodies of single men or animals. Small, clumsy vessels were carried over the ocean by means of wind pushing their sails. Wind or water power on a small scale on land for grinding corn, wind power on a small scale on sea for propelling vessels were the only powers that man could control. There were no roads, as we understand roads, after those of the Romans fell into decay, and few tracks. Such local traffic as did exist was carried on for the most part on rivers, since it is easier to propel a boat on water than to drag a cart on land. Such towns as deserved the name had to do with government, or with the slight commerce that was carried on. Normally there was in any given political area one city and one city only, the capital, the seat of government, where the organizations were perfected which with greater or less success protected the land, and allowed agricultural and pastoral pursuits and occupations to be carried on without interference. A few ports existed, because it paid to construct some kind of harbour accommodation where a number of vessels might come, but for the rest there

were only small villages, which grew neither less nor greater. Liverpool itself remained for many centuries with a population not varying much from 700 persons, and this is an index of the whole set of conditions. They remained year in and year out, century in and century out, with very little change. Through all the centuries men were born and died in a world which was entirely dependent on agriculture and pastoral pursuits, a world in which the physically strong man counted for a great deal, because by the strength of his muscles he could do more than could be done not only by anyone else but by any other means.

Then into this world of agriculture and pasture and little market towns with a few ports and governmental cities there came, a little more than a century ago, the beginnings of the Industrial Revolution. Coal, which up till then had been used here and there merely for domestic purposes, came to be used to drive machines which would *do* far more work than the individual man or animal, or even a number of men or animals could do. Man harnessed energy outside himself to do the things which before then he had to do himself with his own hands. Here was a tremendous new store of energy, not food energy at all, by which things could be done which could not be done before. Man has been able to use energy on a far vaster scale. The materials for his food and clothing are brought from the ends of the earth—not the luxuries merely, like spices and tea—but what forms the great bulk of his meals and dress. Only one-fifth of the wheat we use is grown in Britain. The vegetables a man eats are no longer grown in the field near his home. Fruits our grandfathers never heard of come from other lands. The materials for clothing

are no longer produced hard by, but are brought in bulk from continents overseas. A man's clothing is prepared for him to the last stitch, so that there is very little clothes-making in the home. His food is to a very great extent made ready for his table, with the result that even in his home there is far less preparation of it, and in great cities food preparation on a large scale is such an industry that he may at almost any hour of the day or night obtain such a meal as suits his pocket or his palate.

These entirely new conditions of production and commerce have very greatly changed the whole aspect of social and political life, and will change it still further.

By the discovery thus made Great Britain at once profited. It was natural that the discovery should be made in Britain. Newcastle coal—sea coal—had long been used for purely domestic purposes; there is evidence of its having been brought to London as early as the thirteenth century. Of all the coalfields in the world none are nearer the sea, and nowhere else could coal be shipped in small vessels at so little expense. It came to be used in lime-burning, in smith's forges, in smelting copper and lead, in making pottery, in drying malt, but purely for its direct heating effect. The first apparently trivial steps by which the discovery was made were neither so likely to have been made elsewhere nor so likely to have led to great results, for where the first discoveries were made, there it was more probable that men should make also the later.

By the employment of coal to generate steam, things were moved that it was not possible to move before, and things were moved at rates never before dreamed of. From the long struggle for sea-power which ended

with the defeat of Napoleon, Britain emerged able and willing to profit by the enormously increased ability to control energy thus made possible, while other European states, with organizations of all kinds disturbed, were not yet able to reap the advantages of the discovery. The importance of Britain, as the land where enormous energy was controlled, greatly increased. London, the centre to which all roads converged, was the place to which all railways were made to converge. As a result partly of her acknowledged position, a legacy from past history, partly of a new power won by the control of vast energy, London, the commercial capital of Britain, strengthened her position still further as the banking centre of the world. An advance was made whereby the organization of commerce in articles carried easily over land and sea by the new methods was made far more easy, and energy saved by every state that used the banking facilities in London, but by Britain most of all.

It has been calculated that the coal used in our factories alone, all other uses whatsoever being excluded, gives the equivalent of the energy of 175,000,000 hard-working men, and in such a useful form as men could never supply. The power of Greece, whereby she achieved such great things in all directions of human progress, was largely based in the first instance on the work done by the servile class. On the average each Greek freeman, each Greek family, had five helots whom we think of not at all when we speak of the Greeks, and yet these were the men who supplied a great part of the Greek energy. In Britain, we may say, every family has more than twenty helots to supply energy, requiring no food and feeling nothing of the wear and tear and

hopelessness of a servile life. With a population of 45 million men, women and children, Britain's factories are worked by 175 million man-power. Her railways and steamships use 90 million man-power more. In comparison with the energy supplied to machines in which things are made to move by purely mechanical means, the physical energy supplied by the fewer than 20 million men and women scarcely counts. We have become a nation of engineers, pressing buttons and pulling levers, oiling and packing, so that the great social machine will work smoothly and as easily as possible. The inanimate helots grind our corn, make our clothes, fetch our food from the ends of the earth, carry us hither and thither to work and play, print our news and our books of wisdom, and perform numberless services of which the Greeks never dreamed.

Later, the coal in other lands has gradually come to be used. Through France, Germany, Austria and Russia runs the European coal belt, where ages ago, to be reckoned by hundreds of millions of years, on the hot, swampy, slowly-sinking shore of an ancient continent, great reedy trees grew in rank profusion, whose remains, sealed undecayed between layers of mud and sand brought by river or ocean, are now called on to give up that energy which the chemistry of life stored within their growing tissues. Not everywhere even on this belt was coal formed, and even when formed it has in many places been entirely removed owing to folding and erosion during the long ages which have passed. In other areas, too, coal of a later date is found, but this is for the most part of less importance both in quantity and quality.

According to varying circumstances, then, these

states have in varying degrees been able to utilize the energy thus provided. In France this coal is found only in the north-east, where the coal belt bends round and crosses below the Straits of Dover to connect with the Kent coalfield long known but only lately used. Some coal does indeed exist on the southern highlands, but even so the total amount is not great, and, while reaping the advantages which knowledge of improved methods gives to a people of taste and skill who are able to import coal from other lands, France remains predominantly agricultural.

Germany is somewhat more fortunate. Though there is a disadvantage in the fact that the coal belt holding to the southern edge of the plain is thereby at some distance from the sea, yet areas in which coal remains in profitable quantities are so great that a very great deal of the progress of modern Germany must be ascribed to the supplies of energy found within her borders; while the deliberate centring of railways in Berlin, because it was the governing centre at the time when railways began to be made, tends still further to increase its value as a centre from which Germany may be governed, and gives a certain guarantee of stability, which is, however, set off by the gathering of population on the coalfields away from that centre. The coalfield of the upper Oder is shared with Austria, which, besides, has small and scattered supplies of much inferior quality, and with Russia, which possesses also, north of the Black Sea, coalfields extensive, but, as might be expected from her past history, comparatively little worked.

In the lands of China and India the past history has not been such as to make it possible for the coal they

possess to be utilized quickly. The coal supplies of the other continents, with one exception, need scarcely be considered. That exception is North America. No land has benefited more than this from the discovery of coal power. It has been estimated that the coal resources of the world amount to 7,397,533 million tons. Of this Canada is estimated to have reserves of 1,234,269 million tons, the United States 3,214,174 million tons. Whether this is exactly true or not, it is evident that an extraordinary proportion of the coal of the world is



UNITED STATES : COALFIELDS.

in North America. And, if we examine the position of the coalfields, we see that three-quarters of the states united under the central government at Washington have coal, while the greatest amount lies right in the track of the great natural advance by way of the Hudson and the Mohawk. Thus North America differs from all other lands, in that the greater part of it has been developed from the first by the use of new methods. For every man on the continent north of Mexico at the beginning of the nineteenth century there are a hundred now. Energy has been used on a great scale by people who,



POPULATION.

The population of Britain is greatest on the coalfields.



COALFIELDS.

accustomed to hard work, have already scrapped some old notions, and are ready to adopt new ideas without prejudice. It is not only that men of European races were tempted to lands like their own, neither too hot in summer nor too cold in winter for work, yet hot enough for the growth of plants, cold enough to stimulate thought. Unsited to early conditions, it is exactly such a land as might be developed quickly by men of Northern Europe with all the advantages which the possession of enormous supplies of coal energy gave them.

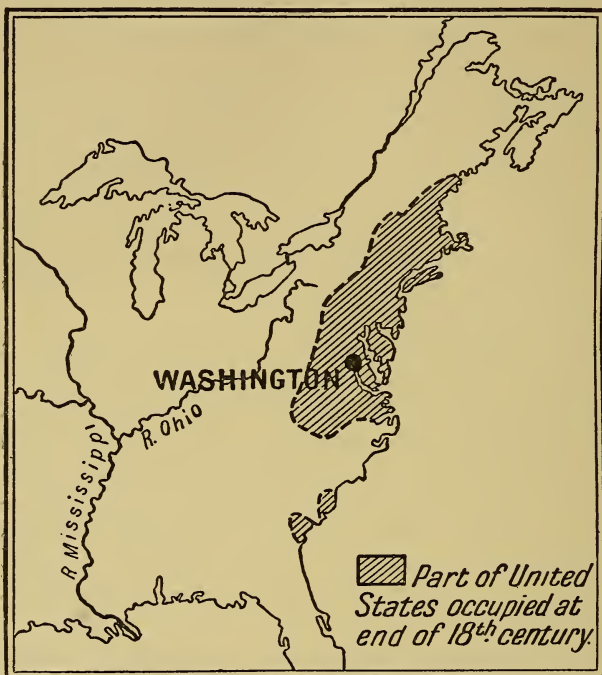
For three centuries there was settlement and consolidation on the eastern coast; the mental and moral type was fixed, the language was fixed, and then, just when the way was being found by the Hudson-Mohawk, and by the more difficult ways to the south, from the eastern coast to the central plain, the possibility of the new discovery began to be realized. It was in 1807, eighteen years before the Erie Canal was opened, that the first steamboat made its way from New York to Albany, 150 miles, in twenty-four hours. It is idle to question what the United States might have become, had there been no industrial revolution, but this we know, that when it did have an effect, the United States leapt to importance. There had been improvements in agriculture, in the introduction of new crops and of new and more efficient instruments, so that more was obtained from the soil than before. Not a little of the stored capital, by the possession of which Britain emerged victorious from the Napoleonic wars, was due to those improvements, and no doubt would have had effect, and indeed did have effect, on the west as on the east of the Atlantic. We may better gauge the import-

ance of the change to America by the actual change in Britain. There had been in America land which for two centuries before the industrial revolution was called New England, but a newer England still rose on either side of the grass-grown Pennine moorlands when coal came to be mined there. Till then the land was empty; people lived on the more fertile land to the southward. Now on the lowland plains of Lancashire and Yorkshire, and even on these grass-grown moors, men crowd each other to aid in directing the coal energy into channels where it will do most work. In the United States the importance of the change is masked by the development of agriculture, but the development of agriculture in its most important forms is indeed only one manifestation of the change. In his canoe the aboriginal Indian had been accustomed to move on river and lake, and by river and lake and then by canal the successors of Fulton's steamboat opened up the country more quickly for agriculture than could possibly have been done in any other way. With the opening of the Erie Canal in 1825, New York was fixed as the commercial gateway of the state. Then the railways were made, first alongside those lakes and rivers and then out into the wilderness, the use of them saving energy and allowing man to use his own bodily energy to greater advantage. Even so there was little evidence in the middle of the nineteenth century of what would happen by the end; the first result of the use of coal in industry for spinning and weaving, for hammering and drilling, had been rather to fix population where it existed. In New England mill-wheels could be, and had been, turned by water power; there the coal was taken, since there was a population, such as existed nowhere else, skilled to use

machinery even of a simple kind; but gradually populations with skill have grown up on the coalfields all along the western edge of the Appalachians, then in the central area south of Lake Michigan, and now extending farther south-westward still. The more recently developed areas are not yet able to compete on quite equal terms with those where skill has been handed down or transmitted or taught, it matters not which, but are beginning to rival those areas where historical momentum helps most. Cotton manufacture can be carried on profitably in Alabama, and at present rates of increase the coalfields round the southern end of the Appalachians will, ere long, turn out as much as that produced in New England.

But advance was made not alone by utilizing the enormous stores of coal energy; the very fact that advance was thus made stimulated advance in other directions. It had been necessary to make new tools to suit altered conditions, so new tools came to be made to utilize such energy as man and his domestic animals possessed more profitably than had been possible previously. Tools had been made more and more efficient all through the ages, from the time man first used a stone or a stick instead of his own hand. After the Industrial Revolution the process was immensely extended in other lands besides those of which we are speaking, but in no land has the process been so marked as in the United States. The lesson that machinery can be employed to use energy more economically has been applied to agriculture. The sickle has given place to the mechanical harvester; the introduction of machinery has reduced the labour cost of sown crops by over £170,000,000 in the last fifty years. Between 1855 and 1894 the time of human

labour required to produce one bushel of Indian corn on an average was reduced from four and a half hours to under three-quarters of an hour. Between 1830 and



THE FIRST ENGLISH SETTLEMENTS IN THE UNITED STATES.
Washington was a suitable centre of government at the time it was chosen as capital.

1896 the time of human labour required to produce a bushel of wheat was reduced from three hours to ten minutes. In 1869 it cost 37 cents to transport a bushel of wheat from Chicago to Liverpool; in 1905 it cost 5 cents, and even now, with a decrease in the value of

money, it costs little more. The corn and the wheat are no less nourishing, but energy has been saved and men are set free to do things more worth doing.

With the construction of railways, too, organization is possible on a yet larger scale than in the Old World. Washington, central between the settlements in New England and Virginia, was naturally chosen as govern-



THE POSITION OF CHICAGO.

ing centre when all the population was on the eastern coasts, and naturally still remains the capital; the possibility of its remaining the capital depends on the ease of access to the states of the centre and west. It was the making of the Canadian Pacific Railway that brought British Columbia into the Dominion of Canada, and it was other transcontinental railways that prevented the growth of independent states on the Pacific

coast. Nor is this all ; this is only what has happened in every state in Europe, only it is on a larger scale. A new feature is that in North America the railways have made the towns. Except on the Atlantic coast, with its old civilization, railways have not been made to towns because they were important ; towns have grown up because railways, following lines of least resistance, have inevitably met at certain points, such as Chicago, and there rather than elsewhere men have found it convenient to live.

In the United States, then, also, we see that the modern helots, slaves of the furnace, are supplying energy, and doing work on a great scale. Organization is on a great scale ; saving is on a great scale. Even to a greater extent than in the Old World is man an engineer. And the energy that is saved is deliberately spent—some of it—in finding out how best to save more, not fortuitously, not accidentally, but by patient search. In no other land is research of all kinds so lavishly endowed, if perchance, directly or indirectly, further advance may be made.

But the lowlands of the South are damp and warm ; they have conditions different from those to which Europeans are accustomed, and in the early days of settlement negroes were brought by force from their African homes to carry on the harder manual labour of the fields, and especially to raise cotton for the Lancashire factories. The negroes are increasing quickly in number ; they form a compact community, ten millions strong, unabsorbed and impossible to absorb. The absence of the desert is still of importance. There is no Sahara to keep white and black apart. Such a problem has not hitherto presented itself to any nation, and the solution is not yet found.

CHAPTER XVIII

THE GREATER LAND DISTRIBUTIONS : THE WORLD AS IT IS

So far we have spoken of "countries" of ever-increasing size : even the Roman Empire is only barely comparable with the United States in area, and not at all in population. Within the last generation or two, however, thanks largely to increased ease of communication, the world has become a single economic system with no part independent of any other part. The world is, indeed, an organic unity, though the organization of this comity is far from complete, even on the material side.

We must then consider the modern world as a whole, rather than its separate parts. The world organism is much too complex to be represented by a simple formula ; but there are one or two ways of looking at it which may at once indicate how organization has taken place --and therefore energy saved--and the lines along which it may proceed. Each conception has its value.

One of the simplest ways of regarding the distribution of land is to think of the land masses as two great islands, the Old World parallelogram and the Americas, set in a greater ocean. The Americas came only late into the story. But in the Old World there developed three ancient settled civilizations ; the European in the belt of lower and partly submerged ground across the

land mass, the Indian and the Chinese on the ocean border.

The Old World parallelogram (p. 97) is divided by the Sahara—and even more effectively than by the water belt—into two unequal portions, the African, without a history, and the Euro-Asian. Within the great land of Euro-Asia lay the plain, steppe to the south, backed by forest and unnavigable ocean, now Russian, but for long the home of pastoral nomads ever emerging into the border lands. Round this plain, and partly separated from it by high plateaus or mountain chains, were the coastlands, organized as the various states whose history we have traced, and to a great extent protected from the black peril by the barrier of the Sahara. The central area, partly plain, partly plateau, organized or unorganized, occupies, from the very fact of its effective centrality and size, a unique position in the world ancient and modern. Not only out of touch with, but independent of, the ocean this land can most easily be unified by the railway; but from the fact that its centre tends to be steppe, if not desert, the unification is most naturally to be effected from an excentric position near its margin, to East or South or West, and, in fact, this heartland has been organized for longer or shorter periods and in different ways, all autocratic, from the Altai in the East, from the Turan in the South, and last, and most effectively of all, from Muscovy in the West.

In the periphery of Euro-Asia are the lands in touch with the sea, the ocean border. The inhabitants of most of these, on the European sector, have at one time or another dominated the seas. Arabs, Phœnicians, Greeks, Italians, ancient and modern, Spaniards,

Portuguese, French, British, Dutch and Norwegians have had sea power or ocean power depending, some almost entirely, others to a less extent, on the ease, cheapness and certainty of water carriage, and on a certain knack of the sea, bred of familiarity and use. On the Asiatic sector only the Japanese have found any part of their destiny on the ocean. India and China remain essentially different from the Western lands: they are open to the influences from the ocean, and yet have never made any attempt to play a part on it.

Since Trafalgar, British sea power has been scarcely questioned. Vessels of the British navy have sailed on every sea, densely grouped where danger was greatest on the Channel and North Sea, and on lonely patrols in the oceans east of Africa where there was no challenge. The evident result of this sea power is the commonwealth of British daughter-nations, dependencies, mandatory states and isolated stations, some marginal to Euro-Asia, some scattered in the circling ocean or beyond the Sahara, but all approached from the sea. Equally vital are the merchant ships on all the seas, and the settlements of British men and the investments of British capital in other lands served by these vessels. In league with Britain are the other sea powers: France, for long a rival; Italy, reorganized round Rome and inheriting Roman traditions; Portugal the ancient, and Japan the newer ally of Britain; sea powers which between them hold practically all the lands girdling Euro-Asia.

With the organization of the heartland and the sea powers a crush zone of small states has gradually come into existence between them. These states are largely survivals from an earlier time when political and economic

organizations were on a smaller scale, and each has characteristics, partly acquired in that earlier time and partly natural. With sufficient individuality to withstand absorptions, but unable or unwilling to unite with others to form any larger whole, they remain in the unsatisfactory position of buffer states, precariously independent politically, and more surely dependent economically. This zone of states, with small populations, has varied in position from time to time with changing conditions, but it has included Finland, Sweden, Norway, Denmark, Holland, Belgium, Luxemburg, Switzerland, Poland, the Balkan States, Persia, Afghanistan, Siam and Korea. Finland is remote, and essentially only a shore belt capable of cultivation, backed by forest and marsh, and inhabited by those who differ in many essentials from all their neighbours. Scandinavia and Denmark have much in common, but are occupied by peoples who differ—and feel strongly that they differ—in history and in habits. The Low Countries again are occupied by peoples, Dutch and Belgian, comparatively few in number, but who value their distinctness from each other; the Dutch seafaring and agricultural, the Belgians commercial and industrial. Together with Luxemburg, Alsace-Lorraine and Switzerland, the Netherlands represent the ancient Lotharingen, the land between the east and the west of Charlemagne's empire. Switzerland is the only land of the Alpine mountaineers to retain independence; it sprang from the league of the four Cantons, which held the great cross-roads within the Alps above Andermatt, and occupied a position more suited for defence than the other Alpine states, in that the dwellers in the mountain valleys could easily meet on the lower ground to the

north and still be behind the wastes of the Jura and the moats of Geneva and Constance. The Balkan States—of mountain shepherds, valley farmers and merchantmen on the sea—are Slav and Greek, Catholic, Greek Church and Mohammedan, as befits their history, and yet have feelings for national groupings which correspond to geographical conditions. Farther north are states sprung from the peoples of the plains, possessing doubtful boundaries, some in favourable situations with independent histories that date back for centuries, others, carved from the forest, never yet able or allowed to stand alone. Eastward is Turkey, Greek or pre-Greek, Roman, Byzantine and Turkish, with doubtful limits, barely tolerated yet fixed in Constantinople, while essentially based on Asia Minor. Armenians on the heights, Persians on the plateau, have remembrance of ancient glories, military, intellectual and spiritual, yet Persia is so devoid of recognized authority that only with difficulty can Persia be given even the semblance of a state. Afghanistan and the other Himalayan states, though less civilized than the smaller states of Europe, have something more of real independence because they are more remote and more difficult of access, but they possess even less power of resistance against organized attack.

In some sense Germany and even China belong to this belt. Central Europe, unorganized and broken into small and antagonistic communities, essentially belongs to the crush zone, but organized and powerful, is in a very different position. In touch with the sea and tempted on to the ocean Germany is one of the sea powers, while her situation on the western and most populous margin of the great heartland makes her, at any rate,

a possible centre from which that heartland might be organized.

China, again, a world in itself, is far too great and homogeneous to be crushed, though parts of China may be exploited by men of other lands. Unwilling, and quite naturally as we have seen, to become seamen in



THE EXTENT OF THE CHINESE EMPIRE.

any numbers, the Chinese are yet in touch with the sea, and reap advantages, which they are ready to take from that position; and again, like Germany, and to an even greater extent than Germany, China is in a position to dominate the heartland with little possibility of interference from others. It must not be forgotten that a very considerable portion of the plateau steppe even as far west as Kashgar and Zungaria has

been under some kind of Chinese rule, and is permeated by Chinese culture. It is significant also that some part of the military power of the Bolsheviki depended on Chinese mercenaries. China, then, though immobile as a state, has yet a situation of peculiar importance.

India is in an even more extraordinary position. Few of her peoples are seamen or even rivermen, and yet, as part of the British Commonwealth, India shares in the advantages of ease and safety of communication on the sea. With no real unity, and composed of numbers of diverse and rather hostile states, India might be expected to belong to the crush zone, and yet under British control is more nearly unified than she has ever been. Nearest of the lands of the ocean border to the margin of the heartland, it would be natural for India to take a foremost place in dominating that heartland, and yet since the dawn of history, while there has been a continuous movement from the interior to India, there has been no reverse process. Only in the very earliest times of man on the earth is there a suggestion that the human stream flowed in any effective way from India to the interior.

The conceptions of the central heartland, the sea powers and the crush zone, do correspond to actual facts. There is order, but it is an order which comes from growth, and with changing conditions the heritage of the past is knit into the present scheme. There is no rigid arrangement.

And this Old World system does not stand alone. The New World takes its place in a larger *Orbis Terrarum*. Here the geographical conditions and the past history provide little that corresponds in any way to the states of the Old World. In the New World heart-

the United States might conceivably be the seat of an ocean power, and play the part on a vaster scale which Britain played in earlier times. Removed, but not far removed by an ocean moat, from the direct effects of Old World strife, with power of all kinds, material and economic and moral, the United States can claim to be arbiter in world disputes.

With the rise of the United States to the position of a great Power a new condition appears in the world, or rather, the condition which Columbus made significant acquires a new significance. The earth is round. It was because the earth was round in the days of Columbus that there was another way from the west of the Old World to the east. The earth is round now, and the United States lies *between* the west and the east of the Old World. The west of the United States is nearer to the east of Asia than is the west of Europe, and yet not so very much nearer. Look at a globe and try to realize the distance across the Pacific Ocean, especially from south-east to north-west. It was this distance across the Pacific that prevented any real use being made of the western route from Europe to the Indies, so that till the rise of the United States the New World has been but a land of no great consequence, lying at some distance to the west of Europe.

The United States is outside the system which has hitherto mattered, compact and coherent, with enormous stores of energy, facing Atlantic and Pacific, having relations with east and west of Euro-Asia, prepared by a fortified Panama Canal to fling her one fleet into either ocean, and attempting to secure the approaches to that Canal by the formulation of a Monroe doctrine which forbids control of any lands of the New World

by Powers of the Old, but is effective at present only in those small and comparatively unimportant states lying round the seas through which vessels using the Panama Canal would pass. Here, unlike the disunited states of Europe, in which men speak many languages and remember that through the long past years they have been at enmity, we have a vast land where people speak one language, with no long history of discord behind them—the *United States*.

But this conception of the arrangement of land masses is not quite complete; we have left out of account some important features of the greater land distributions. Just as in Africa, south of the Sahara, and in Australia, there are indefinite fringes of the Old World largely dominated by the sea powers, so South America may be regarded as a fringe to the United States. Reasons why South America and South Africa are merely fringes have been suggested earlier in the volume, but the position of these lands and of Australia in the present world system may be made clearer by looking at the distribution of land on the globe in another way. It is only one-half of the truth to say that there is an Old World system and a New World system.

With the rise of the United States the distribution of the great masses of land on the round world has come to have further significance. The importance of Russia and that of the marginal lands remain; but there is something more. In what appears to be a disorderly distribution of lands there is yet some order. Round the South Pole there is a great continent, round the North an ocean. Round the southern continent there is an unbroken ring of ocean, while round the Northern Ocean there is an almost unbroken ring of land; from the

ring of land there run southward three tapering land areas, separated by three oceans tapering northward.

Partly owing to the fact that the greater proportion of land is thus in the Northern Hemisphere, it is in the Northern Hemisphere that there are those large areas of desert where the early civilizations began, and following on this that other civilizations have developed between 30° and 60° north latitude, with the most energetic of mankind north of 35° N. The Southern Hemisphere has neither such large desert areas nor such areas of land as have hitherto been suitable for settlement by men who have learned elsewhere how to save energy. We thus see that with the exception of a few isolated communities in the south of South America, in South Africa and in Australia, all those which matter lie on an almost continuous belt round a central area, which is unsuited for settlement because of cold. These communities, being what they are, naturally desire communication with each other, and the rise of English North America—the States and Canada—to importance, thus makes it possible not merely to have a back and forth service across the Atlantic and across Euro-Asia, but to have a continuous circular service, in some parts better, in some parts worse, giving to the inhabitants of every place on this belt better facilities for movement at less expense than they would have if they were not on this belt. There are fewer termini and dead ends; every place is on the way to somewhere else.

Transcontinental lines across North America and Siberia are thus seen to have an importance, not merely because they save an enormous detour by ship, but because they are several parts of a circular route with no final termini, while routes like the proposed Cape to



THE NORTHERN BELT OF SETTLEMENT AND MOVEMENT.

Cairo line are seen not only to be in competition with the sea on either hand, but to lead nowhere at the southern end. Cape Town as a land terminus is a dead end. New York and Montreal, Vancouver and San Francisco, equally with Tokio, Nagasaki, Omsk, Moscow, Shanghai, Colombo, Alexandria, Berlin, Paris and London, are seen to lie on these main routes by sea and land and air.

The final link in the continuous chain was forged in the few years after the middle of the nineteenth century with the inclusion of Japan in the world system. Cold in the north, mountainous throughout, but moist and warm in the south-west, where there is an almost land-locked sea, and where she comes nearest to the land of ancient civilization in China, Japan is another nursery of seamen, whose history has a curious resemblance to that of Britain, though there are no less remarkable differences.

The north was for long given up to barbarous peoples, but the south was organized in some sense very early in the Christian era, and provinces in the south-west were instituted in the second century. The influence of Chinese civilization was continually felt in Japan as the influence of European civilization was felt in Britain. In peace new ideas filtered in, and refugees from Korea spread the knowledge of new arts as did Continental refugees in Britain. Printing was practised in Japan 150 years before it was known in Europe. Art and skill reached a high standard of excellence: in 1545 Japanese artificers at once made copies of the fire-arms the first Portuguese brought.

But this stimulus was not altogether like the stimulus to which Britain has been open. Chinese civilization

was not like European civilization. In Europe one sea power has succeeded another through the centuries, and Britain has been stimulated by each in different ways. On the east of Asia Japan stands alone, and there was little variation in the stimulus. The Mongol attempt of 1281 on the accumulated wealth of Japan was the only serious attack she has ever had to face. There have been civil wars in Japan—of the type of the Wars of the Roses—but for the most part the people have been able individually and collectively to work out their own destiny without interfering on the continent, and without being interfered with.

It was possibly as a result of this aloofness that the Japanese eventually reacted against western civilization of the Discovery period, and the country was for over two centuries closed to foreigners; but it is to be noted on the one hand, that there was a power which made the exclusion effective, Japan was no Mexico, and on the other that this policy of exclusion was merely a phase. For long centuries the sea had been the breath of life to the Japanese. Stories and legends of the earliest times dealt with the sea, as did Greek stories and legends, and the harvest reaped by the fisherman has always been important. Even in the fourteenth century Japan carried on a trade with Siam. When the policy of exclusion was suddenly dropped Japan merely took up the thread of her destiny. The change was due almost entirely to the fact that just then the world became round effectively. With the rise of the west of the United States to importance in the middle of the nineteenth century, and the desire for communication between San Francisco and China, there came the need for a coaling-station on the long six-thousand-

mile voyage. The shortest route goes directly past Japan, and there was the obvious site of a coaling-station. The seclusion of Japan suddenly and dramatically came to an end when there appeared in Yedo Bay a modern squadron from the United States to ask for facilities. At once, as by one of her earthquakes, the ancient organization of Japan was shaken to its foundations, and within twenty years of the time when Japan was found to lie on the northern circular route, she was prepared to take her place as a state of the Modern World. With the defeat of Russia she took her place as a great power, and now Japanese vessels sail on every sea, and Japanese influence is felt far beyond the island rim of eastern Asia.

In the Northern Hemisphere there is, then, a continuous route, because the lands are fairly continuous, and because there are great areas north of 30° N. suitable for modern civilizations. In the Southern Hemisphere there is little land south of even 30° S., and the corresponding communities on the southern fringes are but offshoots of those to the north.

The southern lands themselves are curiously alike in structure, possibly the result of the fact that they are remnants of an ancient plateau continent of which there are remnants in South Africa, in the east of South America and the west of Australia, bordered on the two latter by the fold mountains of the Andes and the Eastern Chain, and separated from each other by sunken lands in the Atlantic and Indian Oceans.

They are also curiously alike in climatic conditions, there being no great variations of climate introduced by the existence of great land masses. The areas where white men may live are largely desert in the west

and have only an eastern coastal belt, this being especially noticeable in Australia. Producing the same commodities they have little opportunity for inter-trade, and are isolated even more from each other than from the northern belt. There is, in fact, no southern circular route. Tristan da Cunha lies directly between Buenos Ayres and Cape Town, Kerguelen directly between Cape Town and Melbourne, yet it is the rarest thing for ships to see either, while the few islands between Australia and South America bear names that are never heard of.

As long as Suez and Panama remained uncut, and world traffic was largely water borne, traffic of considerable importance, though of no great volume, did pass through Magellan Straits and round the Cape; and South America and South Africa, especially the latter, had the advantage of lying on main through routes, but with the building of railways on a continental scale and the opening of the great canals, these have lost in relative importance. Australia never had even the advantages which these lands possessed. Detached from the lands of Asia by broad stretches of sea, so that there was no necessity to round it when the world was circumnavigated, it was undiscovered till late, and lies, and must lie, away from all important trade routes. South America, Australia, and still more, New Zealand, lie literally at the ends of the earth. It is possibly connected with this fact that the aborigines of Australia are few and of a very primitive type. South Africa has lain more open to stimuli, and in addition to the fact that it extends only as far as 35°, it is occupied by native races. Australia, then, left undiscovered till the period of British supremacy on the sea, is entirely British and fervently "white," all the more because

it is largely vacant and more readily accessible from the lands to the north than from the far isles in the Atlantic. Southern Africa, occupied comparatively late, though discovered early, is governed by the sea powers but has a large native population, while South America, occupied in the first flush of the discoveries, is essentially Spanish and Portuguese in culture, and economically related to the northern belt.

It is evident, then, that the important lands of the world, hitherto organized in countries, lie on a northern belt of settlement and movement, and that attached to this belt are relatively unimportant fringes; whether men are organized in states or by occupations, whether the cleavage is horizontal or vertical, national or international, the same fundamental distribution holds.

The world, moreover, northern belt and fringes, is now a single economic system. Within this system all the peoples of the globe have a place, even those of the United States, however removed they may be from threats of military entanglement. When all people depend on the efforts of all the rest, when in a single day an inhabitant of Britain utilizes directly or indirectly the labour of tens of thousands of people, not only in his own land but over the whole world, when even the Eskimo depends on the factories of the industrial lands for his tools, and the negro of Central Africa depends on the same lands for his cloth, it is impossible to consider individual independence as an ideal in itself. The real problem is not how to live separately but how to live together. The aim still is to obtain as much energy as possible, natural or human; not only is energy slowly obtained by individual as well as by collective action, it may be wasted by collective

as well as by individual action. The waste of energy in the world war was beyond belief. Coal, crops, the going concerns of towns and industries, the potential powers of human lives—all wasted. It would take something like one-fiftieth of all the coal in the globe to make good the material losses. Even in peace the waste in friction of all sorts is extraordinarily great. Is it wonderful that some kind of world organization is desired to control the world system? An effective League of Nations would mark another stage in advance in saving energy, by eliminating some of the ways by which energy is wasted.

CHAPTER XIX

THE FUTURE POSSIBILITIES

IN the previous chapters we have traced out the important steps by which the conditions of the modern world have gradually been evolved. These conditions have been viewed as the outcome of the control exercised by geography on man in his attempts to obtain and use more and more energy; we have seen what are the great geographical controls, and have observed that they act in many different ways according to the amount and kind of knowledge and experience which man has accumulated. It remains to make an attempt to discover what are the possibilities of change or further advance.

It is evident from what has already been learned that there are possibilities of advance in two ways, at any rate. The controls which we already know might act differently, or further supplies of energy which have not been used in the past might become available. Regions where movement is difficult might be found to be easily traversed or man might be able to use stores of energy in regions where it has not been possible to use them. Thus changes in the use of energy would be accompanied by changes in the relative importance of areas. The geography would still control the course of history, but it would control it in a different way.

And, further, changes may be brought about by the exhaustion of supplies of energy on which man now draws; some lands might conceivably grow drier, crops might not be grown, food energy would fail; if the process was extensive, history would be greatly affected. Some, indeed, have sought to prove that the interiors of the greater continents are now becoming progressively drier; others say that there are regular rhythms, dry periods of years alternating with wet, but that there is nothing progressive. Whether either theory is true or neither scarcely concerns us; we know that whether dry periods are cyclic or no, they certainly occur, and have affected history in more ways than one. And whether continental areas are becoming drier or not, the change is so slow that other changes must have greater effect.

Another and more important source of supply which must become exhausted lies in those very coalfields of which we have spoken. This change of condition is more serious, for when coal is used it cannot be replenished; there is only a certain definite amount, and when that is consumed there is no more. Of course, it might be that the supply was so enormous that we could go on using it for indefinite ages and yet would make no impression, but this is not so. The survey of the world, though not complete and detailed, is yet so accurately known now, that there cannot be any great undiscovered source of coal. On this basis it has been estimated that, at the present rate of consumption, coal in Britain and Germany may last for 500 or 1000 years, and that in the United States for 6000 years, but if the consumption continues to *increase* at its recent rate, all the coal that can be worked in these lands under existing conditions will be

exhausted in 150 years. This may not be altogether a bad thing; it may merely be a stimulus to further saving, to making further advance. The stimulus to save is indeed already acting to bring about the employment of such engines as will really use the most energy in the coal: a good steam-engine uses only about 12 % of the energy in the fuel. This is about the percentage of his food energy that a man can use in doing work, but a turbine uses 30 %, and a good gas-engine probably a little more. Even this is wasteful compared with the energy which the firefly uses to produce its light, as the luminous efficiency of the firefly is no less than 99.5 per cent. However this may be, and even supposing that all the energy locked up in all the coal of all the world were employed for useful work, it is obvious that there will be a dearth after a period which, however long when judged by ordinary standards, yet, when measured by the time which we call historic, is certainly short. As the coalfields are worked out, the lands containing them must become of less account; those lands which can mine coal longest will, other things being equal, obtain a corresponding importance. The very extensive coalfields in China must thus have a peculiar interest for the future.

Petroleum is an important source of energy, but though less is known of the sources of supply, it is almost certain that these are not being renewed, and it is certain that the total amount available is not to be compared with that of coal, and that it will be exhausted still sooner. In the eastern states of America the supply is diminishing rapidly, and though the output is increasing from the states west of the Mississippi, yet even at the present rate the supply will be exhausted within a

century, and, if the rate continues to increase, within this generation.

What other sources of energy have we? For a thousand years and more the peoples of North-West Europe have used the energy of the tidal rise twice a day to carry shipping far inland against wind and river flow, and the energy saved has been of extraordinary use; it might seem possible to use this energy, which is running to waste, for all kinds of useful purposes, but except in a few favoured spots it cannot compete with coal; even with the exhaustion of coal it does not appear likely that it would be used except as a last resource, and even then there would be little return for great outlay, while storms would be likely to damage the necessary extensive works.

The energy of the wind and of falling water, like that of the tides and unlike coal, is continually being renewed. The energy of the former is, however, also like that of the tides, in that it gives little return for outlay, and the total amount of the latter is probably by no means equal to that necessary to take the place of coal energy if coal should fail. In the United States, for example, the water-power is estimated to be able to produce from 36 to 66 million H.-P. This, even if all utilized, is certainly less than a half of the H.-P. actually to be obtained from coal now mined in the United States, and may be a good deal less. The water-power of the globe can produce approximately 200 million H.-P., which is much less than the H.-P. obtained at the present day from coal, so that, in the absence of coal, water-power cannot supply all our needs, though it may be extremely useful. The energy of falling water has, however, the advantage of being more economical

than either wind or tidal energy, in other words, more may be obtained for a given outlay, and it is probable that we may see high and rainy regions taking a more prominent place in the world system.

It is, of course, possible that some agent may be discovered by which it may be possible to use the energy given out by certain forms of matter, of which radium is the chief example, or that the internal heat of the earth might be tapped; but it is thought to be very improbable that any considerable amount of energy may be obtained from either of these sources.

Thus the changes that appear likely are those depending on the exhaustion of coal and on the more extensive use of water-power, modified by increased ability to use supplies of energy more economically. That is to say, other things being equal, it is likely that regions where coal remains unexhausted longest, and where large supplies of water-power are available, may keep or gain an importance at the expense of others not so fortunate.

But we may take more fundamental distributions into account. Stores of coal and petroleum are of the nature of capital which has been accumulated long ages past, and in using them we are not really accumulating energy at all; they are on a somewhat different footing from the energy which man makes his own, in almost the only way possible till 130 years ago, by eating food which has grown by the sun's energy within a few days or months of its consumption. The use of coal energy is something in the nature of an incident. In the midst of the changes which the Industrial Revolution has brought, we are in danger of forgetting that it is an incident, and that solar radiation is the final source of by far the greatest amount of energy available on the earth's surface, and especially that vegetation now

growing supplies the energy in the most convenient forms; culture of the soil, horticulture and agriculture and arboriculture, whether it be the oldest trade or not, is certainly the most fundamental.

Advance in saving energy is being made by the use of the best machinery and by organization of all kinds, so that there may be as little waste as possible. And further advance is being made by obtaining greater crops as the result of researches on all sorts of problems, the solution of which does not seem at first sight likely to bring about a saving of energy. As the results of studies on heredity, wheats are being bred which will resist disease, which will ripen in a shorter time, which will give a better bread than was possible before. As the results of research on bacteria which live in soils and elsewhere, means have been found of removing from the soil those organisms which prey on the particular bacteria that give energy in a form available for use by plants. As the results of observations of barometric height and rainfall at places so widely separated as South America and the east coast of Africa—observations in themselves purely scientific, and discussed by means of pure mathematics—some indication is given to the farmers in India of the amount of rain that the monsoon is likely to bring them. Advance is being made now in ability to obtain more energy from the soil and in allowing less to be wasted, and those lands accumulate most energy where there are most men either capable of showing how advance may be made, or capable of utilizing the new knowledge. Such areas for the most part are where there is most stored energy, so that some may be set apart to promote those researches; that is to say, in the lands where there is most coal. Thus at present the results

of advance in soil-cultivation are rather masked by the advance due to the use of coal.

Without the export of coal or of the products manufactured by coal, the fields of the important countries would be actually losing fertility. The wheat lands of East Anglia retain their fertility because of the application of chemical or animal manures. The chemical manures are directly paid for by exports of coal or manufactures. The animal manures are just as certainly paid for in the same way, since the cattle have been partly fed on imported foodstuffs. If Britain or Germany or France or even the United States were dependent only on themselves they would become less and less productive; only China retains fertility without external aid.

It must seem probable, then, that the greatest advance would take place when those lands where things grow quickest under the influence of heat energy, made available by the presence of sufficiency of moisture, were brought into the world organization. We have seen that the equatorial forests have hitherto remained outside that organization. It was not possible for an early civilization to develop within them; hitherto the growth of vegetation has been found too rapid for men to control. But with the experience and knowledge gained by controlling great organizations, made possible by the use of coal, men are now capable of utilizing other vast stores of energy. In our northern lands we have but one crop a year, and growth takes place comparatively slowly. In the basins of the Amazon and Congo, and on the islands of the East Indies, continuous growth is taking place, and that quickly. Here, then, is an ever-renewed source of energy; is it possible to use it? A beginning has been made, organiza-

tion is taking place, the world's supply of rubber comes from these forests; but this, though of importance, is a small matter, for rubber is not a source of energy, its use only tends to save energy; what we should expect would be that these regions would supply energy directly; whether that energy will be obtained from fuel for burning, which is not likely, or from alcohol distilled from things grown, or in some other way, scarcely matters; the energy is there and may be utilized.

There are, indeed, two reasons why even the white man, capable of organization, has been prevented from



THE HOT, WET FOREST BELT.

undertaking the organization of those regions. In the first place, the conditions are so very different from those to which white men have been accustomed in the northern lands, that there has been a disinclination to attempt the solution of all the problems, to attempt all the adjustments necessary to live well under them; in other words, it is difficult to get people to change their habits, to change their ways of doing things; the momentum is too great. Africa and South America were known of long before the lands of the United States and Canada were discovered, but in the latter men might live in ways not greatly different from those to which they were accustomed; while in the others everything is strange, life has to be planned on different lines, so that

white men do not go to these lands in any numbers to settle. At the best they wish to go in small numbers for a few years, as they go to India.

Thus it is not surprising that so little progress has been made, especially as, in the second place, not only are the conditions different, but they are dangerous to life. The Greeks and the Romans appear to show a lack of virility in their later as compared with their earlier histories: possibly this may be due in part to the results of malaria introduced from warmer lands which they dominated. Whether or not this be so, it is certainly true that diseases unknown in colder lands bring excessive mortality where the temperature is high, a waste of human life with little corresponding saving. But here there is evidence that progress is being made; these diseases and their cause have been investigated—in ways which at first sight gave no promise of any alleviation of human suffering, of any hope that energy would be saved—and methods of, at any rate partial, prevention worked out. A generation ago no one would have predicted that this knowledge would have been obtained by studying the habits of insects of various kinds, by collecting and examining them under a microscope; yet it is true. Diseases have been proved to be carried from one to another by particular kinds of insects, mostly mosquitoes, and these diseases have been greatly reduced or quite stamped out by exterminating the insects that carry them. In Rio Janeiro in 1898 there were 1078 deaths from yellow fever; in 1908 there were only 4. In Havana, between the years 1853 and 1900, the average annual death rate from yellow fever was 754, in 1907 there was only one death from this disease. In 1887, 21,033 persons died of malaria in Italy; in 1907 the number was 4160. In Ismailia

there were 2000 cases in 1902; there were none in 1905. Port Said has also been cleared of malaria.

There has been a saving of energy even when measured in terms of hard cash; in 1903 malaria cost the Suez Canal 38,200 francs, while in 1908 the cost was less than half that amount. The construction of the Panama Canal itself was rendered possible by the discovery of the measures necessary to keep down disease; plague and yellow fever were stamped out, malaria greatly reduced; the death rate among the employees fell from over 40 per 1000 in 1906 to 10.64 per 1000 in 1909—a lower death rate than is found in most towns of the civilized world—while in the Panama zone the malaria rate fell from 821 per 1000 in 1906 to 13 per 1000 in 1917.

It has indeed been said, "The climate of equatorial lands is not harmful in itself; all it does is to give you sunstroke if you go out in the heat of the day with inadequate headgear, and to make it difficult to keep awake after lunch. Tuberculosis, rheumatic fever and influenza are absent. . . . Avoid the tsetse and you will not get sleeping-sickness, the mosquito and you will not get malaria; do not sleep on mud floors or pitch your tent on old encampments where are ticks and bed bugs; keep rats at a distance, and you will be safe from plague. With care and attention life in the tropics is more free from disease than is that in our temperate but influenza-ridden Palæarctic climate." The advice given may at present be difficult to follow, but it is an advance to know what advice to give; when it is possible for great numbers to follow this advice and to profit by the results of further knowledge, then man will be able to use and save the vast stores of energy in the equatorial forests, and the Congo and Amazon will no longer flow through unoccupied regions.

And there is yet another possibility: in the hot desert of the Sahara, with clear sky and practically no rain for years at a time, there is no vegetation, and man has not been able to live, but if it could be possible to use directly the energy of solar radiation, which continuously from sunrise to sunset batters the land in little less amount than in lower latitudes, another region which is now vacant would be able to support great populations, and would become of extraordinary importance. Here, on to an area comparable with that occupied by Greater London, is yearly directed as much solar energy as could be produced on complete combustion by the total amount of coal annually raised in Britain. Experiments have been made with engines which give a high thermal efficiency, but it is too early to say whether or no the first steps which will lead to a great revolution have been taken. This is certain, that the nearer the equator one goes the greater are the potentialities of saving energy; that there are supplies of energy on which we may draw when coal is exhausted, and that sooner or later these supplies of energy will be used. With their use, if the past is any criterion for the future, there must come an inevitable change in the distribution of mankind—in habits of life, and in all those matters which profoundly influence the course of history. But the effects of this change will be modified by the past history; the things that have been will continue to be, because they have been.

With this peep into the future, then, we leave the story; is it out of place or out of date to suggest that some "increasing purpose runs" through all the wonderful process whereby things are "made to make themselves"; and that though the mills of God grind slowly they grind exceeding small?

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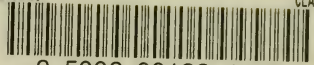
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