

EUROPE

Position and Extent.

Europe is the western part of the great land mass known as Eurasia, and is historically and politically the most important of the five continents. of size, it is next to Australia the smallest, and is less than one-fourth of the area of Asia, the largest of the continents. From a geological and biological point of view the south of Europe and the north of Africa are very closely related; indeed, Morocco, Algeria, and Tunis are European rather than African as regards their structure, animals, and plants. sides Europe is bounded by the sea: on the north by the Arctic Ocean, on the west by the Atlantic Ocean, and on the south by the Mediterranean Sea, the Sea of Marmora, and the Black Sea. The eastern boundary consists of the Ural Mountains, the Ural River, and the Caspian Sea; but of course these do not mark exact lines of division as regards climate, flora, or fauna. With the exception of a small area within the Arctic circle, the greater part of Europe is within the temperate zone; the 10th and 66th meridians of west and east longitude, and the 35th and 70th parallels of north latitude roughly mark the limits of the continent, omitting Iceland. The extreme length is 3400 miles measured from Cape St Vincent in Portugal to the mouth of the Kara River; and the breadth is 2400 miles from North Cape in Norway to Cape Matapan in Greece.

В. 8



118 VII. EUROPE

The area is estimated at 3,900,000 square miles. The word *Europe* is variously derived. It is now assumed that the name is from the word *Erebb*, meaning darkness or the land of sunset, which was probably applied by the Phoenicians to the countries which lay to the west of them.

General Features: the Build of Europe.

The physical features of Europe may be broadly considered in three divisions: (1) the highlands of Scandinavia, (2) the highlands of the southern countries, and (3) the great European plain.

and (3) the great European plain.
(1) The greater part of Scandinavia is a highland region representing the remains of the ancient plateau of north-western Europe. This highland region reappears in the north-west of Scotland, in Ireland, and

in Normandy and Brittany in France.

The highland region of the south is much loftier and far more extensive, occupying as it does the southern countries and extending northwards to about 51° N. The most important of the southern mountain ranges are the Pyrenees in the west, the Alps forming the centre of this highland region, the Karpathians in the east, the Balkans in the south-east, and the Caucasus range in the far east. This great chain, forming the barrier between France, Germany, and Russia and the Mediterranean countries, has the highest peaks in Europe—Mont Blanc (15,775 feet) in the Alps, and Mount Elbruz in the Caucasus (18,256 feet). The Apennines of Italy and the Pindus of the Balkan peninsula are southern offshoots of this great chain of fold mountains. The peninsula of Spain and Portugal has an ancient plateau—the Meseta; central France has the plateau of Auvergne, consisting of old rocks; and Germany has the Schwarz Wald, the Taunus, the Harz Mountains, and the Erzgebirge, all of which are ancient rocks.

(3) The great plain of Europe covers at least twothirds of the continent and extends from England, stretching continuously across Europe, to the Ural



GENERAL FEATURES

119

Mountains. It will be noticed that this great plain forms the separation between the two great mountain systems of Europe. In the east, the Netherlands is, in part, below sea level, while the highest land in this plain is found in the Valdai Hills (1100 feet) in Russia.

Volcanoes.

There are three groups of European volcanoes. (1) The more recent and active are found along the Mediterranean in Vesuvius, Etna, the Lipari islands, and Santorin in the Grecian archipelago. (2) The older volcanoes are those of the Auvergne mountains in France, some craters in north-west Germany, and other extinct volcanoes in south Germany. (3) The oldest volcanoes are those in the north-western highlands of Scotland, more particularly in Mull and Skye. This ancient volcanic system is also represented by the volcanic rocks of Antrim in Ireland

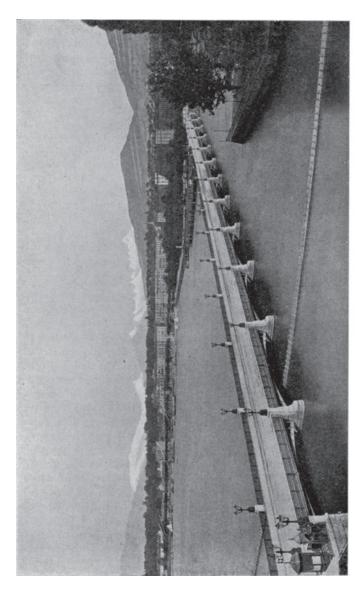
Watershed and Rivers.

The main watershed of Europe runs from southwest to north-east, and from it most of the rivers flow northward or southward. The Russian watershed sends the Dvina to the White Sea, the Duna and Niemen to the Baltic, and the Ural, Don, Dnieper, Dniester, and Pruth to the Caspian or Black Seas. The north Russian rivers are of little value from a commercial point of view, as they are blocked with ice for many months, and the same applies in a lesser degree to the Baltic rivers. The Elbe and the Rhine are of great commercial importance; the former rises 20 miles from the Danube, and the latter near the Rhone, finding its way to the North Sea through a valley. The central plateau of France is the water-shed of the Seine and the Loire, and the Pyrenees give rise to the Garonne and the Adour. The rivers of Spain and Portugal generally work their way across the country through the valleys formed by

8-2

CAMBRIDGE

Cambridge University Press 978-1-316-61287-3 - A Geography of Europe: Excluding the British Isles G. F. Bosworth, F. R. G. S. Excerpt More information



Geneva. (Pont du Mont Blanc.)



GENERAL FEATURES

121

denudation. The Rhone rises in the Alps near the Rhine and enters the Mediterranean in the gap between the Pyrenees and Hyères. The Po has its course within the curve made by the Alps and the Apennines. The Danube runs through southern Germany and cuts through the mountains into Hungary. A second time, at the Iron Gates, it makes its way through a gorge and after passing through Rumania and Bulgaria, empties itself into the Black Sea.

Lakes.

The "ribbon" lakes of Europe are chiefly confined to mountainous regions and are closely connected with the river system. The Alpine lakes are in the river valleys and have probably been formed by subsidence. This is exemplified both in the Scandinavian and Alpine mountain systems, where long, narrow "ribbon" lakes occupy the lowest parts of some of the valleys, and is particularly well seen in Lakes Constance and Geneva. Here it is thought that the expansion of the river valleys may be due to an earth movement which raised the lower part of the valley and converted the upper part into a closed Some lakes, such as Lake Como or Loch Garry in Scotland, have been caused by the damming up of valleys, and an interesting series of lakes in dammed valleys may be seen in the loch and fjord basins of both Norway and Scotland. Some of the European lakes fill depressions in plains, and of this broad, shallow type many are scattered in north Germany. Lake Balaton in Hungary has an area of 230 square miles and is a good example of lakes filling depressions in plains. The most important of European lakes are those on the plains, and these include the largest lakes in Europe. Ladoga (6960 square miles) in Russia is the largest of all European lakes, and Onega, Peipus, and Ilmen are also in the same country. The lakes of southern Sweden-Wener, Wetter, and Mälar-are in the lowlands and are among the largest in Europe.



122 VII. EUROPE

On the German shore of the Baltic there are "haffs" or lakes formed along the coast behind beaches and dunes, and among the largest of these are Kurische Haff, and Frische Haff. The present Zuyder Zee was formerly a lake cut off from the sea by a barrier along the line of the Frisian Islands. The largest lake in the British Isles is Lough Neagh, which was formed by a volcanic subsidence.

Coasts.

Many varying estimates of the length of the coastline of Europe have been made, but the important fact to remember is that it has a greater length of coastline in proportion to its area than any other continent. Owing to the number and size of the inland seas, every part of the continent is brought into easy communication with the ocean. The northern seas including the Baltic, North, and Irish, are shallow, having a depth that rarely exceeds 600 feet. They are indeed a submerged portion of the great central plain of Europe, and while the outer seas have definite tides, the Baltic is tideless and its waters are not so salt as those of the ocean. The flat, sandy coast of the Baltic forms a striking contrast to the rugged coasts of Norway, Scotland, and Ireland. The southern seas include the Mediterranean, Sea of Marmora, Black Sea, Sea of Azov, and the Caspian Sea. They are landlocked and practically tideless, but deep seas. The Caspian, 85 feet below sea-level, is entirely inland, and its waters are very salt.

Islands.

With the exception of Iceland and Spitzbergen, far out in the ocean, the islands cluster round the mainland. To the north of Russia there is the desolate island of Novaya Zemlya. Norway has deep fjords and innumerable small islands forming the Skagaard. The coast of Sweden has a Skagaard of small islands,



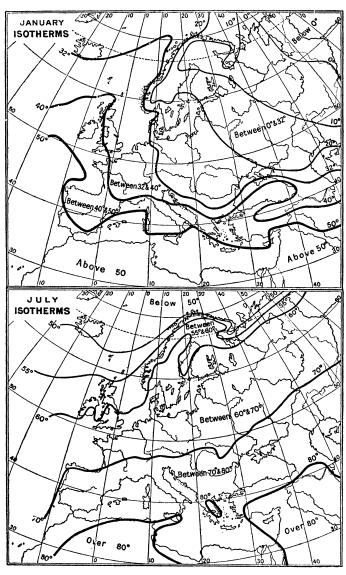
GENERAL FEATURES

123

but the coast is low and has no deep indentations. The Baltic Sea has several large islands—Gothland, Oland, Zealand, and Funen. The British Isles form the most important group of European islands, which were once joined to the mainland. There is some evidence to show that Scotland was severed from Scandinavia since the appearance of man in northwestern Europe. In the Mediterranean Sea there are many islands of interest and importance. Sardinia and Corsica were formerly joined to Italy and are fragments of a land that once occupied the western portion of this great sea. Crete and Cyprus are detached fragments of the Grecian peninsula, and the same is true of the Archipelago of the Ægean Sea.

Climate and Rainfall.

The temperature of Europe increases from north to south, but on reference to a temperature map it will be seen that the isotherms run roughly from north-west to south-east in winter and from southwest to north-east in summer. The south-westerly winds from the Atlantic produce a warm temperature running northward along the coast of Scandinavia: and the influence of these south-westerly winds and the equalizing effect of the Atlantic ocean render the variations between summer and winter temperatures less marked in western than in eastern Europe. Thus the plains of southern Russia have shorter and hotter summers, and colder and longer winters, than places in the same latitude in western Europe. The lands around the Mediterranean have a warmer, sunnier climate than that in the north of the Alps. Dry winds blow across the Mediterranean in the summer towards the Sahara, but at certain seasons the Mediterranean coast is subject to the Sirocco, a hot, sand-laden wind from the same region. The general temperature of Europe and the local temperature in particular districts is influenced by the elevation of the land. To illustrate this fact it may be mentioned that, while the summit



Isotherms of Europe.



GENERAL FEATURES

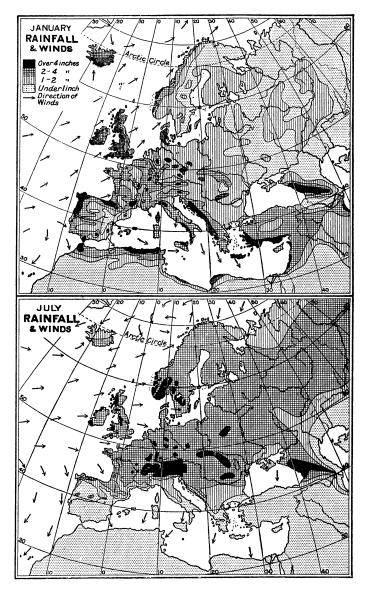
125

of Mont Blanc may have 20° of frost, the valley at its base may, at the same time, have a temperature of 70° F.

As a general rule, the rainfall of western Europe is greater than that of the eastern plains. Of course mountains always produce a considerably higher rainfall locally, and the highest rainfall in Europe generally occurs to the south and west of the mountains and on their western and southern slopes. The distribution of the rainfall is fairly equal throughout the year, but the greatest contrast is that between the eastern plains and the Mediterranean region. In the former district the summer rains are most abundant while the winter rains are scanty. Lisbon has 29 ins. of rain to Madrid's Bordeaux has 33 ins. of rainfall, Berlin 23 ins., and Moscow 21 ins. The rainfall of parts of Ireland, Scotland, and Wales is the heaviest in Europe and in some places reaches 200 ins., while the north and south-east of Russia are among the driest districts of the continent.

Plants.

The climate of a country is the most potent factor in determining the use that can be made of its soil. Hence in considering the plants, it will be well to remember that the rainfall is generally heaviest in the west and gradually decreases eastward to the Russian plain. The temperature of north-western and western Europe, being raised by the proximity of the ocean and the prevailing south-westerly wind, has a marked effect on the plant life. Plants which require a mild winter will not grow in the north, but advance along the western coast under the influence of the maritime climate. Thus the myrtle, not an indigenous plant, grows even in the south of England. Many of the European plants have been introduced from Africa or from the east; this has been the case certainly with the vine, olive, orange, lemon, fig, peach, almond, and apricot, and probably with the



Rainfall and winds of Europe.