

The fact that Central Europe considering its climatic conditions, is the meeting place of the large European climate zones, effects much more decidedly the economic, and especially the agricultural life of this area than the variations in relief and structure and its distance from the seas. This location appears first of all in the great variation of the climatic conditions. In a region, so varied from the point of view of relief, the mingling of the different types of climate results in a much greater variability. The weather is of a capricious character. There are considerable differences in the course of temperature and precipitation from year to year, consequently the averages of several years do not give a true picture of the real and possible conditions. The climate zones have not so clear-cut boundaries as the structural or relief zones. Even the wide transition zones, shift from time to time. Atmospheric pressure, winds, rainfall, sunshine are very vivid, changeable elements, and neither their momentary conditions, nor their annual amount but their almost systemically recurring appearance and the frequency of certain conditions characterise the climate of a region. These frequently recurring climate conditions exercise a great influence on the natural vegetation, the soil zones, and relief-forming factors, on the abundance of water and courses of rivers; these are the factors agriculture has to count with.

Three general types of climate may be distinguished in Europe: the oceanic, the continental, and the Mediterranean climate zone. The continental climate zone is again subdivided into two zones: the southern dry steppe climate and the northern, cool, humid, forest climate. However, the Atlantic and the Mediterranean climate considerably mingle in the southwestern portion of the continent, and another subtype: the South Atlantic climate is formed. This latter means but a transition, whereas the two types of the continental climate differ essentially from each other, they will be therefore treated as special climate types.

The oceanic climate zone includes areas with fairly balanced temperature and with rather equally distributed rainfall at all months. The westerly winds of our continent, in lack of highlands of north-southern direction, carry the moisture and moderating influence of the Atlantic far into the interior of the continent. The focus of that climate zone is around the English Channel. As here, in the northern part of the Ocean the warming effect of the Gulf-stream makes the sea much more apt to balance the extremes, it leads at the same time to the formation of vapour as well. The oceanic climatic influences may be also noticed in the far interior of the Russian table-land, they are but prevalent as far as the Carpathian Basin and the areas extending to the north. In these regions there are mixed deciduous, and in places coniferous forests, while in the drier basins larger clearings and prairies in the higher mountain areas coniferous forests are to be found. The lower highlands and hills are everywhere suited for clearing and agriculture, and the continuous rainfall secures the agricultural production. This climate is also very favourable to the raising of live-stock. In consequence of the constant heavy rainfall there are rich meadows and pastures. Due to the mildness of winter in some places /British Isles/ there is no period of winter-rest either, the fields are green throughout winter and summer. Consequently the climate led to the development of intensive grazing and stock-raising, as well as to a hay and forage-crop production needing a great amount of rainfall.

The continental climate is characterised by extreme fluctuations in temperature from winter to summer and by a small amount of rainfall. Climatic fluctuations are to be found in the cold, boreal forest climate, as well as in the southern steppe climate. There are no great differences even in the amount of rainfall either. However, as the temperature of the southern areas is much higher than that of the northern ones, the same precipitation, which favours fo-

rest vegetation in the north results only in grass-lands in the south. The southern pasture regions formerly were chiefly concerned with the pastoral raising of animals, later on agriculture has developed. In the northern regions agriculture has to meet with great difficulties, consequently a diversified agriculture dominates there. However, this diversity does not approach even here that of the regions being under the climatic influence of the western oceans. A cool, humid forest climate /boreal/ is predominant in the major part of the Scandinavian Peninsula and in the northern half of the Russian table-land. Its effects however, reach as far as Central Europe and actually continue in the pine-forest climate of the high mountains. The continental steppe climate above the Caspian and Black Sea extends in a narrow belt towards Central Europe, and across the Bulgarian table-land and the Roumanian Plain its effects reach the Great Hungarian Plain. To the west it has no considerable influences anywhere.

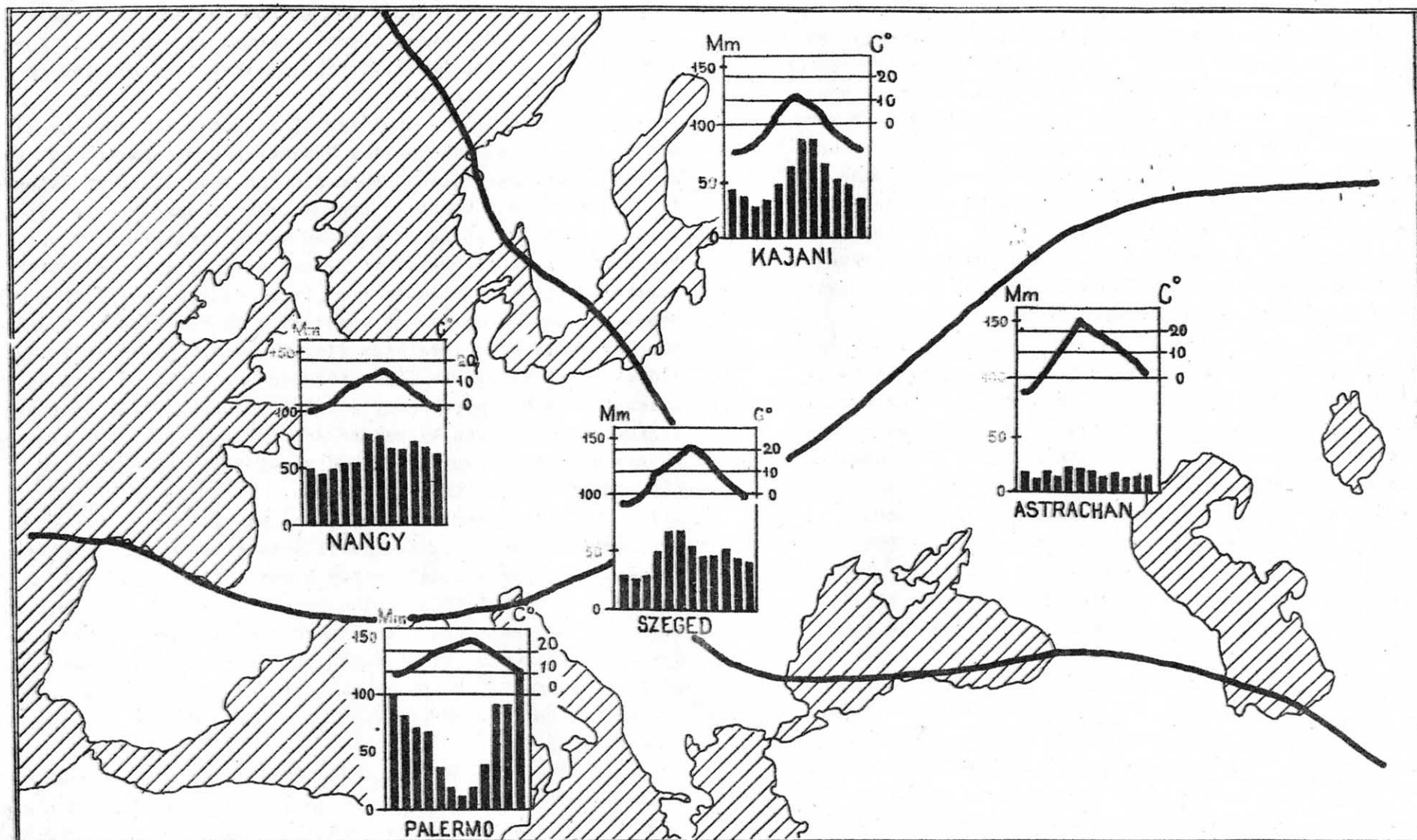
The Mediterranean climate is characterised by hot, dry summers and moderate, wet winters. It essentially differs from the oceanic, as well as from the continental type of climate. With its hot summers it rather resembles the eastern steppe regions and with its mild moderate winters the oceanic shores. In consequence of the long, hot summers there are only drought-resisting shrubs and thickets to be found there; closed forests exist but on the cool and moist hill-sides. The period of agriculture shifts from summer to spring and the period of rest to the middle of summer. Local winds on the shores moderate now and then the great drought and heat, and are favourable to gardening. The economy with water leads the people to a reasonable cultivation and watering of lands, and thus it leads to the development of agriculture of a higher standard. The products characteristic of the Mediterranean area are the grapes and the great amount of fruit. The wood-like plants, namely, bear the heat well. On the other hand, stock-raising is backward, as the barren

pastures are adapted at most to sheep-raising. The phenomena of the Mediterranean climate, together with the South Atlantic, in summer more moist climate type, are to be found everywhere toward the north of the Mediterranean shores as far as the line of the large mountain ranges. Their moderating influence makes itself felt in places beyond the ranges too, thus in the south of France and on the eastern coast of the Adriatic. These influences reach - though in a moderate form - even the Carpathian Basin, in the southwestern portion of which they are noticeable.

The oceanic, continental forest-, and continental steppe climate, as well as the Mediterranean climate meet and mingle in the Carpathian Basin. All the four types of climate find here regions where to prevail, and if one type is not prevailing, it takes at least part in the modification of the others. The great diversity of relief creates a large number of variations in this climate area lying on the border. As a consequence, quite a different vegetation is often to be found on the one slope of a less significant mountain, than on its other slope. We may therefore find different climatic conditions in neighbouring and apparently similar regions. By means of meteorological observations, by values and indices adapted until now we are unable to express that diversity so typical of the climate of this region.

This great diversity and capricious character which are often evidenced by smaller fluctuations and not by extreme values, exercise a considerably great influence upon agriculture. The fact, that this region cannot easily be compared to any other European area, causes continuous difficulties not only in the selection of products, but in the methods and means of agriculture, in the possibilities for developing the averages, as well as in the utilisation of the results achieved in some other places.

Our map has been drawn on the basis of the maps illustrated in the work of Count Paul Teleki and K. Zoltán Nagy: Oceanic, Continental, Mediterranean and Boreal Climatic Influences and Mountain Climate in Europe, /Budapest, Athenaeum, 1930./ based upon the spread of the plants typical of the different climatic zones.



CLIMATE-ZONES IN EUROPE A N.

