

### *Book Review*

Kotlyakov, V.M. (editor-in-chief) and V.I. Kratsova (deputy editor-in-chief) : *World Atlas of Snow and Ice Resources*. Volumes I and II. Russian Academy of Sciences, Moscow, 1997.

The first volume of this Atlas has dimensions of 31 cm×50 cm, 356 pages of maps, 16 pages of photographs and 20 pages of explanations, notes, etc., in Russian, but full English legends and explanations are given in an accompanying 144-page. Therefore, the Atlas can be easily used by scientists around the world. Volume II (372 pages) is a monograph devoted to the overview of the Atlas which consists of a global appraisal of natural ice resources from the viewpoint of their utilization as a source of fresh water ; regional assessment of resources, their nature and variability ; and possible uses of ice and snow processes and phenomena.

Volume I of the Atlas contains about 700 main maps, the overall number being 1,100. The maps are scaled from 1 : 25,000 for the case of individual glaciers to 1 : 90,000,000 for hemispheric distribution. Readers may have the impression that the Atlas has been edited most comprehensively, because of the principles of scientific methodology for presenting studies on snow and ice resources.

For example, in the case of the Garabashi Glacier in Elbrus, such methods were presented in terms of figures of ablation, relief, accumulation temperatures, direct solar radiation and surface albedo, providing for a proper match of a series of large-scale glacier maps. Another interesting contribution of Volume I is a description of the climatic conditions of snow and ice in Chapter 3. In particular, the tables summarize climatic conditions in the perennial-snow-patches zone and in the zone of mountain glaciers outside the

polar latitudes. This chapter concentrates on : seasonal snow cover, snow avalanches, glacier morphology, regimes and fluctuations of glaciers, ground ice and Aufeis, melt runoff, river and lake ice, sea ice, and snow and ice reserves. Further chapters deal with the following topics : the last Pleistocene glaciation, the role of rational utilization and management of snow and ice resources, ice and snow as building materials, snow and ice conditions in areas with economic activities and lastly, glacial indications and forecasting of conditions and the evolution of the environment. There is a 13-page list of references.

The project for publishing the Atlas was a part of the Russian IHP and IGBP. Academician V.M. Kotlyakov, professor at the Institute of Geography of the Russian Academy of Sciences, and many outstanding persons collaborating with him should be congratulated for such a unique, valuable contribution to the sciences of snow and ice in the form of Atlases. Frankly speaking, this writer was astonished when the Atlas arrived by mail. We should not forget the recent economic background for sciences and scientists in Russia. It was said that the preparation of the originals of the maps for the Atlas started at the end of the 1970 s under the Soviet Union. From the standpoint of climatology, it should be kept in mind that the maps of the Atlas reflect the state of snow and ice in the period of the 1960 s and 1970 s, which was relatively cooler than at present affected by in the tendency of global warming.

The libraries of research institutes, universities, governmental offices and companies dealing with snow and ice should be strongly recommended to have a copy on their shelves. To order, one must write to : Prof. V. M. Kotlyakov, Institute of Geography, Russian Academy of Sciences, Staromonetny per. 29, Moscow, 109017 Russia.

Masatoshi Yoshino

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Academia Romana, Institutul de Geografie : Romania. Historical-geographical Atlas. Editura Academiei Romane, Bucuresti, Romania, 1996, 157 pages.

A new edition of the "Atlas of Romaina" is intended to introduce various old and new maps from the standpoint of history and geography. Not only the title of the atlas, but also the captions of maps, the preface and text are written in four languages : Romanian, French, English and German. The first part is "The territory and its administrative organization," an introductory part consisting of four maps for general use. The second part is "Historical landmarks," starting with a map of the 6 th century B. C. to 1 st century A. D., followed those of the 2 nd-3 rd centuries A. D., including the period of the Eastern Roman World. Peoples' migration in the Roman world north of the Danube in the 4 th-10 th centuries is indicated on a map, too. Transylvania, Walachia and Moldavia are presented in 16 th, 17 th, and 18 th century, respectively. The Romanian Principalities are shown in the maps for the 14 th-16 th centuries, the 17 th century to 1848, and 1859-1914. The historical changes are clearly shown. The last three maps are dedicated to recent developments since the end of the 19 th century.

The third part is edited under the name of "Geographical landmarks." The titles of the maps are : Europe-ethnic map (1885), Central and southern Europe-ethnic map (1876-fragment), density and distribution of nationalities in Romania (1910/1912), Romanian-ethnic map (1930), population structure by

nationalities in 1966 and 1992, and religion in 1992. Political options, parliamentary elections (1992), population density (1992), population density of settlements, settlements in the Romanian Carpathians, popular costume, the peasant house (18 th century-early 29 th century), landuse, subsoil resources, tourism, Bucharest and its surroundings, and Bucharest.

The "Atlas of Romania" has succeeded at highlighting the main features of Carpathian, Danubian and Pontic lands, and the consequences of their geographical location at a crossroads between Central, Eastern and Southern Europe. It is a maritime and riverine country, with the Rhine-Danube canal linking Western Europe to the Black Sea and further to other continents. On the maps, it can be understood that Romania has considerable economic potential and has connections worldwide.

Geographical landmarks have been dealt with, particularly the ethnic structure of the population from the 19 th century to the present day and religious denominations. The maps of population and settlement distribution and the regional differences in folk costumes and peasant houses are most important not only for the geography, but also for the architecture, folk lore, and comparative cultural anthropology.

The reviewer congratulates the publishers of this valuable atlas. The only thing which will be taken into consideration on the occasion of publishing the revised edition, in inclusion of more maps on the natural environment and physical geography.

It is recommended that every library dealing with geography of Romania have one shelf copy because of its wide range of utility.

Masatoshi Yoshino