

ELENA TEODOREANU* ON HER 75th BIRTHDAY

Born in the town of Bălți on the 3rd of April 1938, Elena Teodoreanu graduated from the Faculty of Geology and Geography, University of Bucharest (1954–1959), Climatology Department, as head of her series.

From 1959 to 1966, her disfavoured family political background (her father was an imprisoned priest), she held several jobs alien to her geographical training. In 1966, winner of a competition brought her to the Institute of Geography, Topoclimatology Team, the only specialist team in the world at that time. Alongside her colleagues, she would take part in all field works and in pioneering topoclimatological research of the Danube Valley, the Danube Delta and especially at Pătârlagele Research Station. The fruit of this activity were some *individual or collective regional climatology studies* among which: *The climate of the Curvature Carpathians and Subcarpathians between the Teleajen and the Slănic Buzău Valleys*, 1974 (collective volume), original works of *methodology – A harmonic approach to the annual precipitation regime in the Rucăr-Bran Corridor*, 1973; *Insolation in the Rucăr-Bran Corridor* (with a colour map), 1975, etc.

Most of her productions focused on climatology research in order to substantiate the notions of *topoclimate-climatology* (e.g. *Microclimate and topoclimate*, 1971), or to elaborate *topoclimate mapping methods*, an outstanding production being *The Topoclimatic Map of Romania*, scale 1:1 500 000 (a first edition in 1970, a second modified edition in 1977), all new conceptual elements in the Romanian and foreign literature.

In 1976, at the 23rd International Congress of Geography held in Moscow, the work in which principles of topoclimatic mapping were discussed with reference to the Topoclimatic Map of Romania, scale 1:1 500 000 (in colour) was considered a novelty in the world, arousing the interest of Japanese, Chinese, Soviet and other geographers.

Elena Teodoreanu's Ph.D. thesis on the *Rucăr-Bran Corridor. A Climatic and Topoclimatic Study* (1975), supervisor Prof. Vintilă Mihăilescu, was elaborated at the Institute of Geography. The author's original contribution represents *a first climatic and topoclimatic characterisation of an elevated mountain corridor*, and *a complex outline of 2nd-order complex topoclimates by using quantity and quality indexes* (a notion introduced for the first time in the specialist literature), and *a map of elementary climates*. However, her unfavourable political dossier prevented the publication of the Ph.D. thesis.

In 1975, all research institutes ceased to belong to the Romanian Academy, falling under the jurisdiction of the Ministry of Education. This situation made Elena Teodoreanu seek employment with the Institute of Physical Medicine, Balneoclimatology and Medical Rehabilitation, Bucharest, Dept. of Natural Therapeutical Factors Research, Bioclimatology Team. In 1977 she took her Ph.D., and the Publishing House of the Romanian Academy published her doctoral paper in 1980.

It was an easy matter for Elena Teodoreanu to accommodate herself with a new professional environment, rising on the hierarchical scale from scientific researcher to senior researcher, scientific secretary of the Institute and finally, head of department, a position held from 1992 to 2003, when she retired.

Though a climatology geographer, she embarked upon a new career with focus on *Bioclimatology*, being a founder of a *bioclimatology school* at the Institute she worked in and in Romania at large. An illustration in this respect are the over 110 interdisciplinary works as single

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author or in collaboration with other colleagues (physicists, chemists, physicians, biologists, architects and specialists in geology) together with whom she studied various bioclimatology aspects under different geographical conditions little tackled by Romanian research. Some topics of these studies were actual pioneering approaches, as is the case of research methods using *bioclimatic indexes* (thermal comfort, bioclimatic stress, etc.), *weather classes* (a worldwide practice), or spa treatment in Romania (in salt-mines, mofettes, etc.).

Studies of *Medical Geography*, carried out jointly with some physicians, looked at the correlations between the geographical environment and the bioclimatic particularities, the adaptation of the human body to various climate types (of altitude, forest, seashore, saline, etc.), or to certain elements of the climate, as well as several weather-related illnesses (rheumatic diseases, lethal myocardial infarction, the impact of canicular weather, or of total sun eclipses). These were thoroughly original topics in the Romanian literature.

Many of the results obtained were presented at national and international symposia (Japan – Fuji Yoshida; France – Montpellier, Epernay, Caen, Rennes; Italy – Genova, Rovereto; Poland – Warsaw, and Tunisia). The majority were written in Romanian and published mostly in volumes (3 as single author and 5 in collaboration), but also as articles in various journals and reviews: e.g. *The bioclimate of Romania's balneoclimatic resorts* (1984); *Balneoclimatic cures in Romania* (1984); *Spa treatment in Romania* (1985), Edit. Sport-Turism; *Balneoclimatic cure. Indications and counter-indications* (1986); *Physiotherapy, therapeutical massage, bioclimatology* (2002), Edit. Medicală. Single author: *Human Bioclimatology* (2002), *Medical Geography* (2004) (Edit. Academiei Române both) and *Climate and Man, friends or enemies?* (2011), Edit. Paideia, the last one being a scientific bioclimatic information writing. Outstanding among these works are *Human Bioclimatology* and *Medical Geography*.

Human Bioclimatology (2002) depicts the correspondence between biological and cosmic rhythms, the human body being perceived as a microcosmos, part and parcel of the macrocosmos. *The climatic elements* discussed are thermal comfort, bioclimatic stress, wind index, skin stress index, pulmonary stress, or total bioclimatic index within the context of Romania's climate, weather classes, human body caloric changes with the environment, its caloric balances being calculated under distinct topoclimatic conditions.

Other aspects refer to climatology, *climatopathology*, *climatotherapy* and *biometeorology* (depending on weather conditions and season), *climate and man's physical and affective state* (aspects of *psycho-climatology* and *aestheto-climatology*).

Medical Geography (2004) represents another interdisciplinary direction, with highlight on the influence of environmental factors (primarily climatic) on the human body and the distribution of various illnesses in the world and in Romania, related to geographical and economic-social conditions and closely dependent on the quality of life, basically life expectancy and the state of health. The author dwells on *environmental stimuli* (unorganic, organic and social), so very different on the Planet.

Since in the current living conditions some diseases, assumed to be eradicated, may return, or new ones, though not transmissible, could develop (because of alcohol drinking, smoking, drug-addiction, unhealthy eating, etc.), synergic economic, social and cultural measures should be taken at national and international level, so as to raise people's standards of civilisation, culture and sanitation and preserve the quality of the whole ecosystem.

Therefore, the two previously mentioned volumes can be viewed as *truly original specialist treaties*, attracting the interest of many specialists, and their author a *pioneer in these research areas* in Romania.

Noteworthy, the master classes in Medical Climatology (with focus on Human Bioclimatology) and the courses in Medical Geography for 4th-grade students delivered by Elena Teodoreanu at the Bucharest Faculty of Geography (1995–1998), listed for the first time in the curriculum, and

subsequently at the University of Oradea, the Bucharest Ecological University, and the Faculty of Geography of Tourism in Sibiu, where Mrs. Teodoreanu was associate professor, made her a school-founder in these domains. The example was taken over by other faculties as well, her works representing a source of documentation for anyone starting on the same path.

Similarly deserving is her contribution to raising the population's cultural and scientific level either by presenting aspects from her works of *Human Bioclimatology* and *Medical Geography* in the mass-media (various TV channels and the press), or through scientific information volumes such as: *Se schimbă clima? O întrebare la început de mileniu – Is climate changing? A question at the beginning of the Millennium* (2007); *Clima și omul, prieteni sau dușmani – Climate and Man, friends or enemies* (2011), etc., and, last but not least, as member of the Working Team of the United Nations Development Programme between 2008 and 2010.

In 1995, she received the Romanian Academy's "Ștefan Hepites" Award for one of her valuable works of human bioclimatology, namely *Thermal comfort in Romania as a function of solar radiation*.

Elena Teodoreanu's merits won her numerous diplomas of excellence offered on festive occasions by prestigious national institutions: the Institute of Meteorology (1984), the Institute of Physical Medicine, Balneoclimatology and Medical Rehabilitation (1984), the Institute of Geography (1994), the Ministry of Tourism, the Institute of Tourism Research (1996), the National Conference of Balneology (1999), the Geographical Society in Romania (2000), the Faculty of Geography-Geology in Iași (2004).

At the age of 75, Elena Teodoreanu has plenty of working enthusiasm, just as she has had all her life, continuing documentation searches and writing, this time on *historical climatology*, which will certainly open up a new research direction, not yet followed in this country. We wish her good health and further success.

Octavia Bogdan

