chloride; *vegetation:* As, Cd, Cr, Cu, Pb, Ni, Zn, Hg; *water*: pH, conductivity, soluble oxygen, NH^{4+}, NO_2, NO_3, PO_4, Cl, SO_4, Ca, Mg, Na, As, Ba, Cd, Cr, Cu, Co, Pb, Mn, Ni, Fe, Se, Zn, Hg, Te, Tl, Sn, U, V, phenols, BTEX, PAH, policlorurate biphenyl, organic-chloride insecticides. The mono-compound maps for each analyzed category were performed. Looking to the toxic and undesirable categories for each factor, lots of polluted areas have been identified as well as the pollutant sources.

In order to evaluate less expensive solutions and the most relevant/representative mapping, the sampled/analyzed data were gradually reduced. The successive maps were analyzed in order to establish the proper sampling density for each chemical category. The quality of the environmental factors on the studied territory was affected by the lack of protection–prevention measures during the communist economy expansion and the massive post communist abandon of the industrial and agro-industrial units and by various polluting activities. This territory is undergoing an intensive developmental dynamic, the most intense of the entire national territory. Besides, the lack of a preliminary evaluation of the qualitative stage and the geographical extent of the polluting phenomena influences the environmental factors and will affect directly and essentially the quality of human life and socio-economic development. The elaboration of the cartographic image on the environmental pollution/preservation (the main purpose of this paper) supports both the necessary protection/prevention measures and the future socio-urban and cultural development plans for the target area (*Bucharest-Ilfov*). Meanwhile, it validates the geochemical systematic investigation as the main efficient and accurate methodology in assessment of environmental status of an area.

The Eocene-Oligocene geodynamic setting of the Thrace Basin (Turkey, Greece, and Bulgaria)

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The Thrace Basin is an important hydrocarbon province covering an area in excess of 15,000 sq. km in Turkey, Greece, and Bulgaria. The complex historical vicissitudes of the region have made collaboration among the researchers of the three countries difficult. Consequently, a unified and widely accepted geological interpretation of the Thrace Basin is still missing. Nevertheless, a great wealth of outcrop and subsurface data is already available from both academic and industrial sources. Integration of preexisting data (seismic and oil-well stratigraphy, geological-structural field maps) with new field mapping as well as new stratigraphic, sedimentologic, thermochronologic, petrologic, and radiometric data has provided significant constraints on the evolution of the basin.

The Thrace Basin developed during the complex transition between the collisional tectonic regime following the closure of Vardar-İzmir-Ankara oceanic realm and the extensional regime characterizing the Neogene evolution of the Aegean and periAegean regions. It was long interpreted as a forearc basin which developed in a context of northward subduction. This interpretation was challenged by more recent data emphasizing the lack of a coeval magmatic arc. The interpretation of the Thrace Basin as a forearc basin was also based on the occurrence, along its southern margin, of a belt of chaotic deposits interpreted as a tectonic mélange formed in an accretionary prism. However, this tectonic mélange may represent olistoliths in an Eocene sequence. All these elements along with the correspondence between subsidence pulses in the basin and lithospheric stretching in the metamorphic core complexes of southern Bulgaria and the northern Aegean region may indicate instead that the Thrace Basin was the result of either (i) post-orogenic collapse after the continental collision related to the closure of the Vardar ocean, or (ii) upper-plate extension related to slab retreat in front of the Pindos remnant ocean. Preliminary data indicate that initial subsidence (Ypresian-early Rupelian) was localized in small depocenters delimited by a system of strike-slip faults, probably during the late stages of collision. Further subsidence over a wider area occurred during the rest of the Oligocene, in agreement with the timing and areal distribution of crustal stretching phenomena evident during this length of time over the entire northern Aegean region. This hypothetical two-stage evolutionary trend might represent a predictive tool in the tectonostratigraphic interpretation of similar sedimentary basins.

Seismic sections across the central part of the basin and the tectonostratigraphic interpretation of outcrops in the Gelibolu Peninsula and along the Greek-Turkish border show that between the Middle Eocene and the Early Oligocene important east-west-trending transcurrent faults cut the Thrace Basin, generating a series of depocenters and uplifts which deeply influenced sediment dispersal and the areal distribution of paleoenvironments. In addition to the "flower" structures seen on seismic lines, strike-slip tectonism induced also abrupt temporal and areal variations in subsidence rates, as well as dramatic sedimentological facies changes within coeval stratigraphic horizons. Such strike-slip-dominated tectonic scenario during the late- and post-collisional stages related to the closure of the Vardar-İzmir-Ankara ocean is further corroborated by the presence of an important strike-slip shear zone of crustal relevance in the region just south-east of the Marmara Sea. Such shear zone is at least 225 km long, has an horizontal offset of about 100 km, and has a trend similar to the the present-day North Anatolian Fault. A similar shear zone- although poorly studied- occurs in the Kapidaği Peninsula south of Marmara Island. In addition, published thermochronological data demonstrate the existence of a praecursor of the North Anatolian Fault in the area of the present-day southern Thrace Basin active at least from the Oligocene.

The celestite mineralization of the Middle Miocene (Badenian) diamictites, Vrancea district, Romania

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The Middle Miocene (Badenian) celestite (sulphate) diamictites, genetically associated with Salt (Evaporite) Formation, occurs in the external last lineament of the Sub Carpathian Nappe.

The Middle Miocene is the stratigraphic correspondent of the early used term “Tortonian” of Vienna Basin and to present term “Badenian”. It has been firstly separated and described in Muntenia Sub Carpathians and comprises four lithobiostratigraphic horizons: the “Tuff and Globigerina Marls” horizon; salt breccias with salt bodies or “Upper Saliferous” horizon; “Radiolarian Schists” and “Spiratella Marls” horizon. These horizons have been recognized under the same name or under different names all over the Carpathians domain and moreover these “horizons” were recognized, with some exceptions, in the whole extra Carpathian area, Transylvania and Maramures.

In Vrancea area the “Salt Formation” or the “Evaporite Formation” is represented by gravelly-sandy, gipsiferous lithotype respectively the sulphate diamictite, by the halitic-anhydritic lithotype and by the secondary carbonate lithotype, together being genetically related.

The components of gravelly-sandy deposits are bound by a brown-black, clayey matrix having with earthy appearance. The matrix is chiefly impregnated with bituminous organic matter and is considered to be an insoluble residue entrained from dissolving evaporite beds. Usually the matrix is dominating (matrix-supported texture) – ubiquitous feature observed especially in mines. In places the matrix could be absent (claste-supported texture), this being explained by removal due to meteoric leaching. Its high-degree of intercrystalline porosity makes it a potential subsurface reservoir for hydrocarbons or metalliferous solutions.

Referring to celestite-bearing ore on the Valea Sării-Andreiaşu lineament (Vrancea district) the author separated in outcrops and in the mine (along Valea Sării brook) three types of mineralizations – petrologically and mineralogically different, but displaying continuous transitions between them. These are: