

THE HUMAN-ENVIRONMENT PROPORTION ON THE MOUNTAINOUS PRAHOVA VALLEY

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The territory referred to is placed in the curved region of the Romanian Carpathians, at the line of contact between the Southern and the Eastern Carpathians group. The first certain settlement, the Monastery of Sinaia, appears between 1690-1695. Around it there was formed the initial heart of the locality, a hamlet at the junction between the Izvorul Dorului with Prahova, the future Sinaia. Predeal, Bușteni, Azuga were formed towards the end of the XVIIIth century – the beginning of the XIXth century, by means of inns building. An essential moment within the region humanization is represented by the beginnings of the touristic activity, in close connection to the building of the railway Bucharest-Predeal between 1876 and 1879, but also to the building of the Peleş Castle, between 1875-1883. After the Second World War, the traffic increases, the railway being doubled and electrified. After 1990, the real estate market developed and the free intravilan spaces were occupied by numerous villas.

On the mountaneous Prahova valley the human pressure manifests itself at the level of the valley lane, which contains the urban grouping Sinaia-Bușteni-Azuga-Predeal, but it also penetrates the neighbouring mountaneous spaces. The habitat of the urbanized valley lane reaches the maximum limit from the Romanian Carpathians, ± 1000 m. Predeal uses a part of the levelling surface of ± 1000 -1100 m and the cliffs easily bowed towards Prahova. Azuga, initially developed at the confluence Prahova-Azuga, consequently advanced on the terraced glacis from the foot of Clăbucetul Taurului, but it also penetrated up on the Azuga Valley. Bușteni and Sinaia have got settlements in tiers, consisting of the microforms of the lane within the differentiated erosion basin: the high meadow, terraces, glacia, proluvium and the inferior parts of the slopes. The touristic facilities for winter sports within the forest area are scattered on the levels of ± 1000 - ± 1400 m altitude in the Clabucete (the touristic facilities and the facilities for winter sports from Clăbucetul Taurului, the chalets from Clăbucetul Dihamului) and at the foot of the Bucegi (the facilities from Poiana Stânei and the complex ones from Level 1400-1500), being easily accessible by means of a consistent paths network/chain, roads and cable facilities. *The pastoral facilities* are very developed in the Baiu Mountains, but also in the Predeal's Clăbucete, Gurguiatu and Bucegi Mountains. The high development of the farms in the Baiu is connected especially to the levelled lands from ± 1400 m. In the Bucegi, most of the farms are situated in the superior basin of Izvorul Dorului, from 1750 m up to 2000 m. *The habitat of high altitude* includes touristic facilities (chalets, annex buildings) and special facilities (the Coștila relay, the meteorologic station Vf. Omu) from the Bucegi. It comprises the sectors Vârful cu Dor – Furnica, Piatra Arsă, Babele-Coștila, and Vf. Omu, where the meteorologic station and the chalet reach the absolute maximum of inhabitation from the Romanian Carpathians (approximately 2500 m). The habitat has got a permanent character and it is dispersed, being accessible by means of numerous paths, but also by means of the cable transportation. There is also a non-modernised road towards the TV relay from Coștila, at about 2490 m. In only 150 years' time, the

mountaneous valley of Prahova became one of the most anthropic Carpathian regions, the pressure upon the natural environment elements being very intense, leading to the soil cover degradation (especially by means of dislocation and covering), to changes within the structure of natural vegetation etc.

Key words: human impact, Prahova Valley, historical evolution, anthropic factor, touristic activities.

Localization

The study area is situated in the Curvature of the Romanian Carpaths, between Meridional and Oriental groups. The mountain valley of Prahova River flow through some mountain units with particular geographical features: in north, Clăbucetelor Mountains, with tame relief and relative low altitudes (1586 m in Clăbucetul Azuga); in east Baiului Mountains (1923 m in Neamțu Peak), with slopes levelled in declivous steps; in west Bucegi Mountains (2505 m in Omu Peak) with an impressive sandstone-conglomerate steep, continued southward with Gurguiatu Mountains (1339 m in Gurguiatu Peak) which features are similar with Baiului Mountains, but are less elevated (Vâlsan (1940)).

The historical evolution of the geographic landscape

Even if it is centred among very crowded regions which were visited in ancient times, the Carpathian region of Prahova Valley began its humanizing process quite late. In the Subcarpathians the valley has been crowded since the 15th Century (Comarnic has been documentary mentioned since 1510, Breaza since 1431, Câmpina since 1503), in the West of Bucegi and Leaota there was the Transcarpathian road of Bran (Vulcănescu, Simionescu, 1974), known from the roman period as limes cis-alutan (the Bran castle was built between 1377-1378), and in the east, on the Teleajen, the road was functional since roman times, through the Tabla Butii pass (1075m) and then on the valley, through Văleni de Munte (documented since the beginning of the 15th Century)(Cucu, (1984)).

There is no certain information about the constructions from the XVth Century, but tradition reminds them. At the end of the XVIth Century, a monastery was built, probably at the foot of the furnica mountains, confirmed by historic papers, too. The deforestations on the Râșnoavei Valley, Clăbucetul Taurului and Clăbucetul Baiului, which led to the occurrence of some grass lands, prove the existence of some old transhumance roads, which connected the Brașov Depression, the Bucegi Mountains and the Carpathians' Curvature. More than that, documents/papers from the XVIth Century certify/testify/ confirm/prove the lease of some grass lands from the Baiu Mountains to the Herdsmen from Râșnov (*Geografia României*, III, 1987). The years 1690-1695 are related to the forthcoming of the first certain establishment/settlement, the Sinaia Monastery. Around the monastery, at the confluence of the Izvorul Dorului with the Prahova, a hamlet was formed; it was made up of families which did not pay taxes, families brought from the Doftana Valley, across the Baiu Mountains. Predeal was formed by the construction

of some inns (at the springs of the Râşnoava and Polistoaca Rivers), in the XVIIIth Century, and of a small wooden monastery, and Buşteni was formed at the confluence of the Prahova with Valea Cerbului, Valea Albă and Valea Caraimanului, around 1800, by the gathering of some hamlets. During the first decades of the XIXth Century, there is documentary attestation for the localities Poiana Țapului and Între Prahove (at the confluence Prahova-Azuga). The construction of the road on the Prahova Valley, during the period 1843-1849, more and more circulated/used, contributes to the development of the hamlets and to the reduction of the interest for the roads of Bran and Teleajen. More than that, the entrance to this mountainous sector is facilitated by the construction of the railway Bucharest-Predeal (between 1876-1879). Tourism starts developing at the end of the XIXth Century, as well as at the beginning of the XXth Century, many chalets appearing between 1888 and 1940, especially in the Bucegi Mountains, but also in the Clăbucetele Dihamului. From 1874 on, Sinaia has the present name, and from 1880 it was declared a town, when it became the summer residence/domicile of King Carol I. This fact impelled the construction, around the monastery, of the Peleş Castle (whose construction in many stages began from the year 1875) and around the railway station of many buildings (villas, the casino, hotels etc.) Besides the peasants' houses. Sinaia is also industrially dynamic as there were built a lot of factories in the last part of the XXth Century. In the year 1936 Predeal was declared urban locality. The initial nucleus of Buşteni subsequently developed downstream, on the Prahova terraces, around the paper factory (1882), where it came out a workers' district. The development of the industrial activities led to the placing and the modernising of a new road on the right of the Prahova River. The old Între Prahove changes its name in Azuga, in 1881, and industry develops more in the last quarter of the XIXth Century.

After the Second World War, the strong industrialization complicates the region's appearance, especially at the level of the Prahova passage/corridor. Traffic increases, the railway being doubled and electrified, and tourism becomes a mass phenomenon. Predeal (declared a town in 1952) broadens/expands its constructions, especially villas and hotels, and its importance as a climatic and holiday resort, as well as a resort for winter sports, increases. Azuga (declared a town in 1948) advances a lot on the Azuga Valley, due to the increase of the population (blocks of flats districts come out, but also new houses districts, around factories, come out), due to the reprofiling and to the factories' development/enlargement. Buşteni (declared a town in 1946) develops, becoming more and more compact as a result of the coming out of new districts of blocks and houses. Sinaia develops, modernises and the blocks districts develop, detaching at the south of the tourist resort; the Cumpătu District develops more, on the left of the Prahova River. At the same time, Sinaia becomes one of the most important balneary and climatic resort of the country (Câdea (1996)).

On the Bucegi slopes, the human pressure increases, and a new roads network comes out, as well as the touristic complex from Cota 1400 – Furnica, with cable transport installations, ski slopes, chalets and a hotel. On the Bucegi Plateau develops the touristic and sports complex from Piatra Arsă. (*fig. 1a, b*).



a



b

Fig. 1. The impact of touristic activity-gullyng (a) and mass movements (b)

The proportion between the relief levels and the human habitat

In the mountainous basin of the Prahova, the intense human pressure manifests itself at the level of the valley corridor, which concentrates one of the most representative urban groups (dynamic and complex, from the physiognomic and functional points of view) from the Carpathians, but it also spreads to the neighbouring mountain areas, with a complex using of the geographic space (touristic, sylvan and pastoral).

The habitat of the urbanised valley corridor reaches the maximum limit from the Carpathians (besides, Predeal is the town situated at the highest altitude from the country). The level of ± 1000 (which defines the valley corridor) is important from the antropogeographic point of view, too, defining mostly the level of the permanent settlements (*table 1, fig. 2*).

The altitude and habitat energy

Table 1

Settlements	Altitude (m)		Habitat energy (m)
	min	max	
Predeal	1000	1159	159
Azuga	900	1020	120
Bușteni	880	1000	120
Poiana Țapului	840	940	100
Sinaia	760	1000	240
Posada	660	750	90

Sinaia distinguishes itself by the habitat energy of 240 m, which shows the ancientness and dynamism of this settlement but also the morphologic particularities of the valley canion with terraces disposed in amphitheatre. At the opposite pole Posada (locality Component of Comarnic town extended in the Subcarpathians) caused by the morphological particularities of the gorge has a habitat energy of only 90 m, its development in altitude being limited by the narrow slopes.

The habitat of altitude comprises the touristic and winter sports facilities from the forestry area, the pastoral facilities and the touristic and special facilities situated at high altitude. The touristic and winter sports facilities from the forestry area are dispersed on the erosion levels of ± 1000 - ± 1400 m altitude in the Clăbucete (the touristic and winter sports facilities from the Clăbucetul Taurului – ski slopes, cable chair and cable car installations, whose terminus/end point is at 1456 m altitude; the chalets from Clăbucetul Dihamului) and at the foot of the Bucegi – the chalet from Poiana Stânei and the complex touristic settlements from Plaiul Furnica from Cota 1400-1500. In the Bucegi mountains, the previous mentioned touristic settlements use many structural and lithological levels, being easily accessible by a dense network of marked paths, by roads, even modernised (Sinaia – Cota 1400) and by cable installations/transportation. From here one can reach the Prahova steep of the Bucegi, whose landscape distinguishes by the intense touristic inhabitation on the slopes of the mountains Vârful cu Dor-Furnica-Piatra Arsă from above Sinaia, where there also come out roads degradations, paths and ski slopes inappropriately placed and maintained. The Bucegi slope from the north of the Piciorul Pietrei Arse still preserves natural landscapes in dynamic equilibrium (having a high touristic-climbing potential).

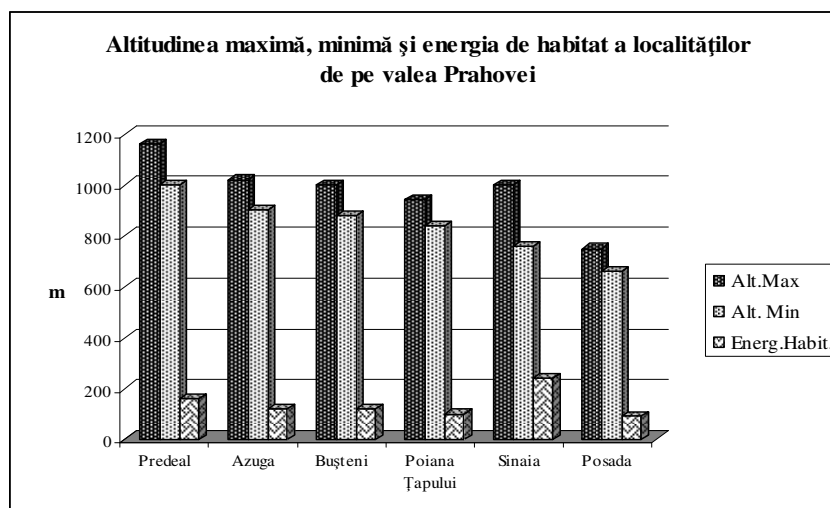


Fig. 2. Altitudinea maximă, minimă și energia de habitat a localităților de pe valea Prahovei

The forest habitat (forest ranges, hunting chalets etc.) is present especially on the Azuga Valley and on some valleys affluent for Prahova, from the Baiu Mountains. The pastoral settlements have a big development between 1300-1500 m, mainly in the Baiu, but also in the Clăbucete, Gurguiatu and Bucegi (the Cerbului Valley). The big development of the sheepfolds in the Baiu is related especially with the mountains levelled at ± 1400 m, where the meadows have a quite good productivity, the nearby forest offers wood for fire, and springs are nearby. Here, the forest limit (and less in the Clăbucete and Gurguiatu) is followed by sheepfolds. A special situation is related to the presence of the inhabitants' shelters from Secaria, related to the hay economy, on the western slope of the Doamnele Mountain from the southern part of the Baiu Mountains, at the altitude of 1000-1100 m. In the Bucegi, most of the sheepfolds are situated in the superior basin of the Izvorul Dorului (14 sheepfolds), from 1750 m (nearby the valley Izvorul Dorului, between the Vânturiș and Vârful cu Dor Mountains) up to 2000 m, nearby the juniper trees from Piatra Arsă (Oprea (2005)) (fig. 3a, b).

The habitat of high altitude includes touristic facilities (chalets, annex buildings) and special facilities (the Coștila relay, the meteorologic station Vf. Omu) from the Bucegi. It comprises the sectors Vârful cu Dor-Furnica, Piatra Arsă, Babele-Coștila, and Vf. Omu, where the meteorologic station and the chalet reach the absolute maximum of inhabitation from the Romanian Carpathians (approximately 2500 m). The first refuge in the Vf. Omu area was built in 1888. The habitat has got a permanent character and it is dispersed, being accessible by

means of numerous paths, but also by means of the cable transportation. There is also a non-modernised road towards the TV relay from Coștila, at about 2490 m.

The habitat of altitude overlaps the erosion witnesses and the structural plateaus from the alpine and sub-alpine level. The landscape of the structural plateaus was mostly affected by the anthropic influence, by tourism and uncontrolled grazing. There are high unbalances where the juniper trees which once covered the whole plateau of the Bucegi at least up to the altitude of 2200 m were destroyed and there were made constructions. The human action, besides the destruction of the natural vegetation, led to the clearance of the soil on the oversized network of roads and paths.



a



b

Fig. 3. (a, b) – Touristing facilities in Bucegi Mountains

Conclusions

In only 150 years' time, the mountainous valley of Prahova became one of the most anthropic Carpathian regions, the pressure upon the natural environment elements being very intense, leading to the soil cover degradation (especially by means of dislocation and covering), to changes within the structure of natural vegetation etc. The all human elements which appear in this time, are revolv around the transcarpatic round fas statement after 1849 year and especially 1879 year. In 1879 was inaugurated railway through Prahova Valley. The intense human pressure appear in the level of valley passage which concentrate the most representative urban area (dynamic and complex physiognomy and functionality) in Carpaths Mountain, but difuses also in mountain neighbouring space, with a complex usage of the geographic space (touristic, forestry and pastoral).

After the year 1990, as the real estate market developed, the free intravilan spaces and the marginal ones (upstream on the Azuga Valley, on the Valea Albă, at the foot of Zamora and Cumpătul, in the sector Izvor-Sinaia) were occupied by numerous villas. In a few decades it is possible to appear/come out a continuous urban microregion on the whole mountain valley of the Prahova, between Predeal and Sinaia (Predeal, Azuga, Bușteni, together with the component locality Poiana Țapului, Sinaia and Posada, a component of the town Comarnic), continued in the SubCarpathians, too. The projects of achieving a highway which should solve the road traffic problem, which is overdimensioned, are blocked also by the present structures of private property. The possible extension of the thoroughfare will have a major impact on the environment and human communities.

BIBLIOGRAPHY

- CÂNDEA, MELINDA (1996), *Carpații Meridionali în sistemul montan românesc*, Edit. Universității, București.
- CUCU, V. (1984), „Valea superioară a Prahovei – Regiune de intensă urbanizare”, *Terra*, nr.3-4.
- MICALEVICH-VELCEA, VALERIA (1961), *Masivul Bucegi – Studiu geomorfologic*, Edit. Academiei, București.
- OPREA, R. (2005), *Bazinul montan al Prahovei. Potențial natural și evaluarea peisajului*, Edit. Universitară, București.
- VÂLSAN, G. (1940), „Morfologia văii superioare a Prahovei și a regiunilor vecine”, *Bul. Soc. Rom. Geogr.*, LXIII.
- VULCĂNESCU, R., SIMIONESCU, P. (1974), *Drumuri și popasuri străvechi*, Edit. Albatros, București.
- *** (1987), *Geografia României*, vol. III, Edit. Academiei, București.