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## TIBLES MOUNTAINS (ROMANIA) TOURIST MAP

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### ***A. Building and reinforcing tourist destination image based on the tourist map***

**Tibles Mountains Tourist Map** is the result of a research project issued in 2003 at Babes-Bolyai University, Cluj-Napoca. It is the first Romanian mountain tourist map using this 3D technique and the first tourist map for Tibles Mountains. The main goal was to realize a map with 3D effect, for a spectacular region without any marked paths, trails and infrastructure. In fact we focused on publishing the analogical version of the map, ortho and illuminated from NW, considering the available versions and the existent technical possibilities. It is printed on 70x50cm, glowing paper of 115gr/m<sup>2</sup>, four colours, at 1000 run.

The project is entitled **Tourism Prospective Research and Planning in Tibles Mountains (Romania)** and it has the following main objectives: building the tourist destination image for Tibles Mountains, tourist mapping of the area and editing the 3D map as tourist map; achievement of a tourism prospective research concerning a mountain area with great potential but insufficiently exploited; including the region in the tourist circuits. Financing came from the Romanian Ministry of Education by the means of the Grant CNCSIS, 1751/2003.

**Tibles Mountains** are part of the **Oriental Carpathians**; in fact they are the eastern extremity of an extinct volcanic chain (**fig.1**). The entire group has a rectangular form, 28km E-W and 36km N-S, typical for a sub-volcano. Maximum altitude is 1839m, in Tibles summit. Some other similar peaks follow the main ridge and a group of monticules about 1000-



1200m with a relative altitude of 800m, in the NE extremity, makes the site spectacular. The position of the higher summits offers a large panorama, maybe the best view point over the North-Western part of Romania. In addition, around Tibles summit there is a natural reserve with geological, landscape and floristic elements.

**Fig.1. Position of Tibles Mountains in Romania and in the Carpathians**

“The tourist destination image is a mental construction developed by a potential tourist based on several impressions selected from the multitude of total impressions” (Fakey and Crompton, 1991). Therefore, in the case of a mountain area with great potential but unexploited, realizing a tourist map with three-dimensional effect was, at the moment, the first logical choice. From that point on, the region was not only a spectacular and wild mountain, but an offer concerning the adventure tourism and other type of travel agencies. The tourism prospective research became interesting for the authorities and investors. Actually, there is another demand for a similar tourist map.

## ***B. Realizing the tourist map with 3D effect***

**Setting the area** of the map was from the beginning a delicate choice. The actual mountain is accessible from three directions (N, E, S) but the closest locality is at 8km from the main ridge. It was obtained a map representing an area of 900km<sup>2</sup>, at a scale of 1:100 000. 17 settlements were set as starting bases.

**Technically**, the process of mapping is founded on an older topographical map at 1:100 000, with equidistance of 40m. Taking in account the final features of the tourist map and the area of the mountains, this scale was considered the most appropriate. The base was completed with data and details from the field, underlining especially the elements needed for a tourist map. Minimum altitude represented was 480m, maximum at 1800, a difference of 1320m, so 33 level-curves (the hypsometric map has 33 layers). Digitizing the curves is followed by rounding and closing them on the edge, depending on the type of relief (negative or positive ones). When all the layers of the hypsometric map were finished, the colour - scale was set. For the highest areas another scale was used (fig.2).

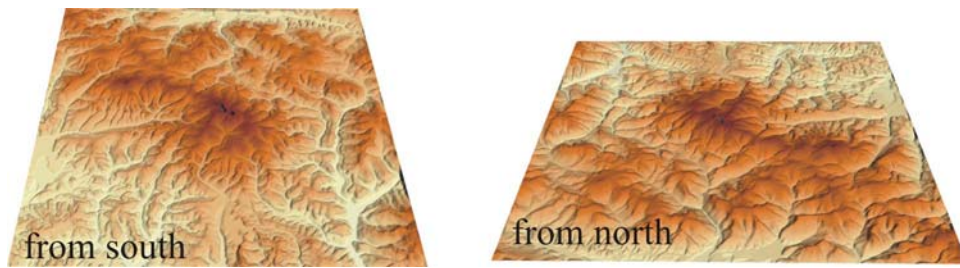


**Fig.2. The altitude colour scale**

**The 3D effect was applied in block.** For surpassing the unwanted effects of the colour difference between the two scales, they were operated separately. The effect was also applied to the river beds in order to improve the graphic quality. Choosing the angle and direction of light was based on the features of the relief, mostly the altitude and fragmentation. The next step consisted in building and overlapping the layers with: hydrographical network, vegetation, communication infrastructure, settlements, tourist attraction and other elements- 11 layers.

**The layout** of the tourist map has besides the mapped mountain area (including position, legend and orientation) a panoramic photo, several representative landscapes and on the back, informative text in three languages.

**The relief** is considered as the most important part of the mapping process, the spinal cord of the whole construction. The better is represented the higher are tourists' chances to orient in site. Main problem solved was linked to the possibility of orienting in a mountain area without marked trails or paths, where the map's scale is essential. Thus, we consider that future representation of the trails may take into account the oblique versions from south and north. (fig.3). Chromatics used on different hypsometrical levels is according to the general tendencies in Romania, even if it revealed another type of general image on the region. The NE part is not perceived by the population as mountainous due to the high forestation level, but it is over 1000m altitude. In the neighborhood it was an ancient route, abandoned today in favor of the railway.



**Fig. 3 Different types of perspective on Tibles Mountains' relief**

Underlining this route has reactivated the communication, on tourist flows level. The southern part includes a hill-side region, lower and fragmented, in the mean time the scene for some small villages, future depart bases for mountain tourism. The main ridge with alpine landscape is about 5km long. The separate colour-scale was intended to highlight this area, but in fact the most important, for this purpose, was the panoramic photo on the bottom of the map. Hydrographical network-rivers and streams, was represented as blue curves with a narrowing end.

**The vegetation**, forests and bushes, has raised some problems concerning the method of representation and overlapping the relief. The mapped area is well forested but the main view points, important for tourism are covered by alpine vegetation. The sub-alpine sector with hard bushes is very difficult to cross in summer and impenetrable in winter. Therefore the access to the main ridge is on the proposed trails and the hard sectors are marked on the map. In order to be convenient for tourists, the forest and the bushes are represented unconventionally.

**Settlements** are figured as hearths with the main communication systems, polygons marked in red. Where it was the case, inside the hearth there are pictograms of the tourist attractions. Infrastructure is formed by two categories of roads (lines of different calibers) railroads (conventionally). Tourist trails have four trajectories (the green line) two of them on the ridge and another two along the valley. Together they form a cross-mountain trail following the 6 main view-points.

**Tourist attractions** were represented as pictograms. Some are concordant with the general tendencies on maps (peaks, paths, gorges), but most of them are newly conceived (view-points, peasant technical devices, workshops, festivals). Existing tourist infrastructure is weak, consisting in several chalets, agrotouristical pensions. For emergencies we also have marked the isolated households and sheep-cradles (**fig. 4**).

LEGENDA									
1	▲ Vârf	8	Cascadă	15	Mănăstire	22	Stupina	29	Localitate
2	Stânci	9	Rezervație	16	Muzeu	23	Mangai	30	Cale ferata
3	Punct de belvedere	10	Stațiune balneară	17	Pensiune agroturistică	24	Atelier meșteșugăresc	31	Drum național
4	Pas	11	Apă minerală	18	Cabană de vânătoare	25	Ceramica	32	Drum secundar
5	Defileu	12	Păstrăvărie	19	Rețea de agroturism	26	Instalații tehnice țărănești	33	Pădure
6	Abrupt	13	Biserica de lemn	20	Manifestări folclorice	27	Tunel feroviar	34	Jnepeniș
7	Râu	14	Biserica de piatră	21	Monument	28	Traseu turistic		

**Legend:**

- 1- peak
- 2- solitary rocks
- 3- view-point
- 4- pass
- 5- gorges
- 6- abrupt
- 7- river or stream
- 8- waterfall
- 9- natural reserve
- 10- ancient resort
- 11- mineral water spring
- 12- trout farm
- 13- wooden church
- 14- stone church
- 15- monastery
- 16- museum
- 17- agrotourist pension
- 18- hunting chalet
- 19- rural tourism network

20- folk-life festival	28- tourist track
21- monument	29- settlement
22- bee-farm	30- railroad
23- wood-coal	31- important road
24- handcraft workshop	32- secondary road
25- pottery	33- forest
26- peasant technical device	34- hard bushes
27- tunnel	

**Fig.4 The legend of the tourist map**

**The cover** is positioned on the top-left corner of the map. We have chosen a yellow background because the entire tourist map series edited at our University College has an identification pattern: central photo, university, faculty and college marks. Presenting the position and access in Romania was necessary because it is a relatively unknown mountain area. The panoramic photo at the bottom of the map and the several landscape photos have the role of completing the image on Tibles Mountain, new, interesting and specific images.

## **Conclusions**

Tibles Mountains Tourist Map is a technique novelty for Romania, the first 3D mountain tourist map with these features and the first tourist map for these mountains. Building, mapping and editing the map we have solved several issues: altitude scale and colors; perspective and shading; forest overlapping; the original signs and pictograms. Also we tried not to take part in the “battle” analogical versus digital as the analogical 3D map was confronted to a digital model and found fitter to our purpose. The graphical scale can be applied successfully and in the future we will try to draw-up other angles, too. The map integrates icons and pictures for easier reading of the map, some of them are already known from the other tourist maps we edited on Maramures. In fact it changes the general image formed about the region and overall we obtained high quality printed material.

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