

PRESENT AND FUTURE OF A COMMON GOOD: THE LANDSCAPE IN A BIOSPHERE RESERVE

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I. PRESENTATION

Considered the conciliatory definition of landscape in the European Landscape Convention, which integrated the scene, system and actor-observer, this third component, is the one which bears much of the weight of its present and its future. This is a conceptual fact, a physical and mental tool in the search for life quality and welfare, in short, a common good. As a physical tool, it has been considered in land planning and management with the implementation of different methodologies for analysis and assessment. Therefore the new technologies of geographic information have become the main instrument of analysis and for obtaining cartographic summary outputs in both diagnostic and territorial prediction.

Meanwhile, landscape has been one of the characteristics that promoted the declaration of the Biosphere Reserve Urdaibai —RBU— (Basque Country). A humanized landscape that occupies 3% of the Basque Autonomous Community (BAC) and classified as: Rural Land —to which affects the Master Plan for Use and Management (PRUG)— and Lands to Order by the Urban Planning. The latter were classified as urban or suitable for urbanizing by the coming into effect of the Law on Protection and Management of RBU or capable of being classified as such. But there is the possibility of increasing these surfaces over the former ones as well as over the infrastructure service or community facilities. Hence we can foresee a change in landscape that modifies the conditions of the common good.

With these conceptual and territorial premises, and based on the consideration of different methodological background, this paper presents the development and implementation of a methodology for characterization and evaluation of landscape. For this, an indirect method of physical, formal, structural and visibility categories have been implemented.

II. METHODOLOGY

Based on the information obtained from digital cartography and field survey, a descriptive file was created which characterized each of the visual catchment partitioning the area of

the Reserve. With the treatment of the Digital Terrain Model a series of visual descriptors were identified and characterized. Those were related to the size of the visual catchments. From the diverse thematic cartographies, territorial descriptors were collected, measured and categorized as land uses and regulations... This mapping also was used to determine the structural characteristics of the basin in terms of fragmentation, dominance or diversity.

The next step was to assess the quality of its landscape. The parameters considered for this were the characteristics of the catchment area that concerned the territorial content referring to vegetation and soil use, geology, slope and exposure. For each of the thematic types, a value has been given. This has been used to determine, in each basin and based on the frequencies of each type, a particular final value. Besides, it has been referred to the classification of all or part of the visual catchment as a Protected Natural Area or may have been listed in the Catalogue Draft of Outstanding and Unique Landscapes in the BAC. In both cases and according to percentage of occupied surface some value categories have also been established. Likewise, it has been estimated as parameter of quality the existence of visual catchment areas in Rural Land and in Common Agricultural Areas of Interest, being contained in the Plan for Use and Management of the RBU, as well as the archaeological and architectural heritage based on the presence of those elements listed in these schedules. Two characteristics have been highlighted in relation to the structural and formal content of the catchment those being the diversity of land uses and the compactness of the area, leading to estimated that the greater the diversity and the visual compactness are the higher quality is. Finally, a positive point has been given to those visual catchments open to the sea.

It was later determined the anthropogenic incidence on the landscape taking into account the different communication and supply infrastructure along with the density of buildings. The 16 main points of visual impact have also been included by assessing the impact thereof on each of the basins based on the number and visible surface.

Finally, in order to determine the vulnerability of the landscape a set of features have been collected and evaluated such as: anthropic presence in terms of housing density, presence of highly attended points and routes, naturalness of patches in the vegetation that conforms the visual catchment, land use fragmentation, relationship between compactness and exposure, diversity of slope, open spaces in the perimeter of the closure of the basin, presence and surfaces occupied by areas with high visual vulnerability, changes between the designation of PRUG and municipal urban legislation programmed uses (pending final approval of the Territorial Partial Plan).

After the final diagnosis all those guidelines that are included in the planning documents that affect the Reserve have been consulted. Depending on the uses of land which concern to each of the visual catchment and the diagnosis of each area, an «ad hoc» listing have been written and whose implementation would maintain or improve the quality of the landscape.

III. RESULTS

The analysis and processing of entry data has enabled to distinguish 81 visual catchments with different formal characteristics, of several physical content, with a large variety of

structures and also with diverse content values and visual ability. Each of these characteristics has been assessed from a visual quality perspective, therefore, each of the visual catchment that RBU contains has obtained a landscape quality value given by different features in each case and collected in a database. The results show that the visual catchments that present a high landscape value accounts for 42.07% with a specific location around the estuary and the eastern margin of the Reserve.

The summary results of anthropogenic incidence is that, the more areas with low impact on anthropogenic elements (46 for 35), the higher the surface with high construction rate is (59,9%), and this fact is because the larger visual catchments are the ones with higher constructive ability. In addition to that, those are located at the centre of the Reserve due to geological and geomorphologic factors.

The assessment of the landscape fragility of each of the basins allowed to diagnose, that given the physiographic features of the area, there are more areas with low and middle rated fragility that occupying a large area of the surface (60,1%) than visual catchments with high rated fragility (39, 9%). The problem resides on the fact that there is a match between the areas with higher landscape quality and the more fragile ones, which in the majority of the cases also show a high anthropogenic impact.

As for the change on land uses, here considered as threat to landscape, the analysis has proved that 28,1% of the Reserve presents a high degree of risk, this focuses on the central core thereof, coinciding also with the range of higher quality. A 13,4% in this respect also presents significant changes, and a 34,3% makes it more diffuse way connected to residential opportunities around existing rural communities. Finally a 23,9% is virtually independent of any landscape modification and represents the forest exclusive catchment.

The work concluded with the creation of a list of guidelines for each of the areas regarding the use, the diagnosis and the legislation relevant to that Reserve. The implementation of this list would result, among others, in the improvement of the landscape quality of the catchment, where congregation, except in activities of various associations within the model of land stewardship, will be reduced.

IV. DISCUSSION

The consideration of the visual as well as the heritage value of rural landscapes for their conservation is not new. Being also drawn attention to the differences between levels of protection and potential conservation. According to the diagnosis of the research here presented, the situation of high quality only corresponds to half of the total area and with highly concentrated location, so that not all existing landscape patterns respond to the perception of a high landscape quality Reserve Biosphere.

To make matters worse, there is a coincidence between the basins with higher landscape quality and the ones rated with higher fragility. This way, values and threats rival each other. Meanwhile, the requirement by the BAC for its urban development is stated, which, under the protection of PRUG, makes a great effort to maintain the its scenic status. It is, therefore, not easy to design a common good with the ultimate goal of creating a sustainable area when there is such pressure on it. Our contribution as part of the investigation does not go

beyond being a proposal of methodological means for diagnosis where territorial projects, old practices and new uses can have a reference.