

## **PROPOSAL OF A DIDACTIC RESOURCE FOR THE INTERPRETATION OF THE LANDSCAPE. THE FIELD TRIPS IN THE OLD VILLEN A LAGOON (ALICANTE)**

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### **1. INTRODUCTION**

One of the classic aims of Geography lies in the analysis of the landscape. In this sense, as stated by Gómez and Riesco (2013), the relations between society and environment, object of study of the geographical science, are specified in the landscape, which has become a constant and essential subject of Geography. The landscape is undergoing an important renovation process, a conceptual and methodological renaissance in which geography plays a fundamental role in promoting the social sensitivity and public interest required by the landscape issue. In addition, the importance of landscapes in the quality of life, the degradation of many of them, as well as the growing demand for specialists in their protection, management and planning, are sufficient reasons for teachers to reach the students the most recent knowledge (Arias, Gómez and Martínez, 2016). However, the classical position has made more impact on the descriptive and visual aspects than on other components, such as sensations and perceptions, public policies regarding finite resources, coexistence with risk and ecological imbalances. This implies overcoming outdated conceptions of natural landscapes and anthropic landscapes in order to assess the elements of cultural transformation of the environment (Souto, 2007).

One of the potentials of Geography is that makes it possible to carry out numerous activities outside the classroom that can be used as learning activators such as

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orientation activities with plans, analysis of urban spaces, research on environmental problems, landscape studies, etc. (Morote and Moltó, 2017). Numerous authors have highlighted the didactic potential of field trips in the teaching of Social Sciences (Brown, 2001, Crespo, 2012, Delgado and Rodrigo, 2012, García de la Vega, 2014, Álvarez, Vásques and Rodríguez, 2017). Since the end of the 19th century, the Free Institution of Education adopted the field trips as a fundamental part of its new pedagogical approach, since it offered the best conditions to achieve the complete and integrating education of the human being (Crespo, 2012). The visit to the territory offers the students a possibility of understanding and relationship of geographical facts that would be difficult to achieve through other resources, easing meaningful learning through field experience (Moreno and Vera, 2017). García Ruiz (1994) considers that with the fieldwork, Geography puts students in contact with spatial reality. Through this training activity, concepts, procedures and attitudes can be approached. Supported by the synthesis work in the classroom, they provide meaningful learning, without its implementation requiring more time than the development of other activities tight to the centre.

The main objective of this research is to propose the experience of the field work that takes place annually in the old Lagoon of Villena (province of Alicante) so that the academic community can apply it to their areas of study and teaching. The old Lagoon of Villena is a space that has registered remarkable territorial and landscape transformations. These transformations that have been associated with the drainage of an old lacustrine area in the early s. XIX and the subsequent changes in land uses.

The specific objectives pursued by this field work are: 1) To recognize the historical and environmental factors that determined the configuration of new agricultural landscapes in the old lagoon areas through their drainage; 2) To highlight the evolution that this landscape has experienced since the middle of s. XX in relation to socio-economic dynamics; 3) To identify the interrelationships between landscape changes and factors that have generated them; 4) To recognize the intensity of the processes of change and their mark in the landscape; 5) To distinguish different landscape units in relation to land uses and elements that define their current dynamics; 6) To recognize the new functions that rural areas play in current societies; 7) To identify the economic, environmental and cultural value of this landscape and the elements associated with each of these values; and 8) To recognize environmental impacts and processes of landscape degradation associated with both functional and inherited uses.

## **2. ANALYSIS AND INTERPRETATION OF THE LANDSCAPE OF THE OLD LAGOON OF VILLENA**

### **2.1. Study area**

The geographical space where the old lagoon of Villena was located in an artesian basin, occupied, in the past, by extensive lacustrine sectors that were prolonged by the terms of Caudete and Sax (province of Albacete and Alicante, respectively). Towards the interior of this basin poured the subterranean flows (aquifer Jumilla-Yecla-Villena) retained by the waterproof lithologies of the Keüper (plasters and clays). The diapirs, known in the area as “cabezos”, serve as a closure to this landscape unit delimited by the isohipsa of 500 m.s.n.m. The existence of a humid zone in a semi-arid environment (400 mm/year), together with the control of the territory, ensured water supply and provided food (fish and game) and construction materials (canes, esparto, etc.). It explains its relevance and value since prehistoric times as evidenced by the existence of numerous archaeological sites in the higher parts of this “cabezos”.

With the drainage of the lagoon, a new irrigated area appears, which was mainly supplied by the spring called Fuente del Chopo. As of the end of the XIX century, this farming landscape begins to register a series of changes. The first one is related to the prospecting of groundwater (artesian wells) that from 1880 are carried out in the Sierra del Zaricejo. The extractions of water are going to suppose a descent of the phreatic mantle and the disappearance of springs (the Font del Chopo dried up definitively in 1910). This entailed changes in agricultural activities since it was necessary to proceed to acquire and elevate the water for its later irrigation, and the disappearance of the traditional irrigation system.

Therefore, water becomes a necessary and burdensome resource for agricultural practice, especially when it was necessary to carry out some irrigation with abundant flow to eliminate the surface salt layer. The development of the footwear industry from the 1950s onwards XX involved an important transfer of assets from the primary to the secondary sector. In this area, physical factors (soil salinity) together with economic factors (high water price) determined the abandonment of a high percentage of agricultural areas (Hernández, 1997).

### **2.2. Methodology, proposed activities and teaching resources**

For the realization of the field work, we propose a walking tour through the old Lagoon of Villena. It has an approximate duration of 3 hours with five representative stops of the different processes and dynamics analyzed and a final one are carried out in the Fuente del Chopo. In the last one, students should synthesize and expose the contents acquired with the realization of this didactic activity.

Beforehand, preferably the day prior to the field trip, in class an exhibition of the elements and processes that characterize the study area is carried out as a presentation of the territory to be analyzed. The dossier with the different teaching resources that they will use during their journey are also presented and comments on to the students. With the introduction made in the classroom prior to the field trip, the dossier of materials and the explanations during the tour of the Villena Lagoon, the students must be able to interpret the study area and complete the date sheet of the activity.

At the end of the day the students and, through a group practice (maximum 3 members) must complete and submit the date sheet of the activity corresponding to this teaching activity. In it, from a series of questions, articulated around the main contents, they must identify elements, processes, dynamics, values, etc., that characterize the visited landscape unit.

The content to take into account to complete the attached sheet are divided into 4 sections: 1. Analysis of the existing landscapes in the area under study. In this section, the students have to: 1) Identify the elements that make up the landscape of the old Lagoon of Villena from the concept of geosystem (abiotic, biotic and anthropic); 2) Recognize the relationships between these elements and how they are reflected in the current landscape, paying special attention to the elements that allowed their drainage; and 3) Recognize the milestones associated with the different elements that make up this cultural landscape.

2. Diachronic analysis. The students must be able to identify the dynamics registered in this landscape unit from its drainage in 1803. Specifically: 1) To identify the dynamics registered by the landscape from its drainage (1803) to the present; 2) To recognize the current dynamics of this landscape, relating it to existing land uses; 3) To indicate the elements and/or milestones that reflect this dynamic with particular attention to the socio-economic factors, land morphology, physical-ecological structure and perceptive-symbolic elements by local population; and 4) To highlight the main environmental and landscape impacts associated with the changes recorded by the physical-ecological and socio-economic dynamics.

3. Landscaping units. In this section, the students have to: 1) Identify the different landscape subunits of the lagoon based on the dynamics that the landscape has registered and that is reflected in the land uses, geomorphological structure (landforms) and lithology; 2) Associate elements and dynamics that identify this landscape (from the contents identified in sections 1 and 2 of contents) with those subunits; and 3) Zoning those subunits in the 2002 aerial photograph.

4. Assessment of the visual quality of the landscape. The students must be able to calculate a visual quality value based on the criteria analyzed in class and applied to this

space. The score will be based on the application of a Likert scale with 4 values (from 1 to 4, concerning them at low, medium, high and very high, respectively).

### **3. DISCUSION AND CONCLUSIONS**

The didactic proposal on the field work of the old Lagoon of Villena exemplifies a didactic resource that can be carried out, not only in endorheic areas, but also in other territories in which the objective is interpretation and analysis of a landscape. For example, Fernández (2017) presents the field trips in Valladolid and Soria showing that, from an early age (Early Childhood Education), children have to start managing spatial notions, so the city, and through the organization of field trips, becomes a key concept that helps students to acquire them. Also in Soria, Gómez, Corrochano and Parra (2017), for the case of the students of the last courses of Primary Education, argue didactic itineraries is an important resource for the interpretation of the landscape (relief, vegetation, etc.). In the case of Alicante (city of San Vicente del Raspeig), Moreno and Vera (2017) present and propose in the university education level (Primary School Teacher's Degree) a field trip whose objective is analyze the geographic facts related to society and human settlements. To do this, they combine the analysis of the territory leaving the classroom with the use of Information and Communication Technologies (ICTs) through the use of smartphones (m-learning and QR codes).

In relation to the landscape, from the educational field, a commitment intervention is also required that allows students to transfer a valuable tool in a future management and planning of the landscapes as professionals, but also their valorization that, as adult citizens, they will transmit to the future generations. This, in turn, becomes a strategy, since it contributes to the integral formation of citizens who transmit experiences (Morote, 2017). The training that students can acquire on the knowledge of their cultural and natural environment, in addition to the professional value, has other personnel that will undoubtedly collaborate in future policies related to the territory and its management (Martínez-Valcárcel, García-Marín, Espejo-Marín and Moreno-Martínez, 2015). Finally, it should be noted that the construction of democratic citizenship is obviously not a matter that only concerns Geography. Therefore, and as indicated by Souto (2007) for this purpose, Geography has a set of concepts and procedures that facilitates the analysis of social and environmental issues and thus facilitates the construction of a curricular alternative.

