

Analyzing transition processes in rural landscapes: The farm systems approach

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Abstract: Rural landscapes are undergoing different processes of transition, affecting as well the land cover, the activities and the actors involved. These changes are related to new paradigms within the agricultural sector, and also to those new demands from society. From a production oriented demand, society has now evolved into a consumption and protection demand of the rural landscape. These landscapes are now expected to support a diversity of non-commodity functions, as nature conservation, environmental quality, recreation and leisure, hunting, quality of life, identity, etc. These trends are important to identify, as production as the main driver of land use is much threatened by the processes of globalization, and also as the rural landscapes still present a high level of diversity and cultural richness, making them much attractive for the non-commodity functions. Questions above are discussed in the frame of an intensive Advanced Course (two weeks course), with students from the Universities of ENITA Clermont-Ferrand (France) and Évora (Portugal). A transdisciplinary and hands-on approach is applied, where mostly agronomy and geography traditions are combined, for the analysis of farmers' practices at a farm scale and the technico-economical or socio-cultural drivers of their decisions, as well as other actors' expectations and practices, at different scales of space and time. This approach aims to identify management mechanisms at the farm level, that make it possible, or not, to proceed in the sense of multifunctionality, and to assess how different management strategies correspond to changes in the landscape that supports these other functions.

Keywords: farm systems, transition, multifunctionality, hands-on approach

Introduction

Currently in Europe, rural landscapes are undergoing different processes of transition, affecting as well the land cover, the activities and the actors involved. These changes are related to new paradigms within the agricultural sector, and also to new demands from society. From a production oriented demand, society has now evolved into a consumption and protection demand of the rural landscape. These landscapes are now expected to support a diversity of non-commodity functions, as nature conservation, environmental quality, recreation and leisure, hunting, quality of life, identity, etc. This leads to new challenges for the farmers, as commodity and non-commodity functions are managed at the farm level, and depend both on existing market mechanisms, new markets to create, and on public policies. From a productivist paradigm, there are processes of change in the direction of post-productivism, even if the different orientations may co-exist both spatially, temporally and structurally (Ilberry, 1999; Wilson, 2007). In Mediterranean regions of Europe, as well as in other marginal areas in relation to production, these trends are particularly important to identify (Oliveira Baptista, 1993). Here, production as the main driver of land use is much threatened by the processes of globalization, and in many areas it is decaying. The paths of the rural space and of the agricultural sector are progressively separated. But, on another side, and due to the maintenance until recently of traditional and specific farm systems, the rural landscapes in place still present a high level of diversity and cultural richness, making them much attractive for the non-commodity functions. There is thus a new demand in place, from different new users, that put new pressures on these areas, but also new opportunities for their preservation as valued places.

In order to fully grasp the diversity of processes going on and the different options of land owners relating to the management of their land, there is a need for new approaches. The full complexity of these processes can hardly be understood when traditional methods are applied, as the analytical tools used so far have not been able to progress in order to follow progress in real world situations, in this field (van der Ploeg, 2009).

One of the main questions in these peripheral rural areas is to identify management mechanisms at the farm level, and their orientation. Further, to identify what makes it possible, or not, to proceed towards multifunctionality. And to assess how different management strategies correspond to changes in the landscape that support these other functions, and thus how the landscape quality can be preserved so that the area keeps attractive also in the future.

In this paper, we deal with the results of an advanced course that aimed at studying these different issues, in a local area located in Southern Portugal, where trends of change in different directions are affecting the rural landscape. The aim of the paper is to present the approach used in the course and how, through the proposed hands-on approach, the students get acquainted with the new processes going on and what are the factors contributing to them.

General background

The landscape dynamics are perceived by the inhabitants at the scale of the daily territory and their expectations can be multidimensional. A French geographer, (Sautter, 1991) spoke about four “paysagismes”, representing four ways to think about the landscape. This author considered the “ordinary landscape” as the daily vision of the surroundings. If the landscape was changing slowly, nobody was able to notice the transformation. The “utilitarian landscape” is the analysis of the landscape through the filter of functional uses. This geographer noticed that people can also consider the landscape in its emotional, aesthetical dimension or as a symbol of a philosophical vision of the world. As a consequence, one can have different opinions of the same place, depending on how he was questioned about his preferences. Thus, if it is important to characterize the landscape in its appearance, it is also necessary to differentiate “surface landscapes”, related to immediate perceptions, from “embedded values”, related to people, space and time experience. In this way, Ingold (2000) proposes to consider the landscape as a dwelling perspective. Moreover, Stefenson (2008) conceived a general model of cultural landscapes that can be used as a basis to define how landscape policies can be categorized. She considers that cultural landscapes have three highly interacting components; forms, processes and experiences. Forms are the visible aspect of the landscape. The landscape architects are used to deal with this type of analysis. When they are perceived, the landscape forms produce an immediate response and represent the surface of the landscape.

These forms are shaped by processes. Some of those processes are biophysical, while some others are related to human activity. In the landscape forms, it is possible to find the influence of past processes. Agronomy contributes to explain how the landscape forms are shaped by farmers practices.

The third part of the landscape is the relation between each person and the landscape forms (that person’s experience) and the relation between each person and the processes that create a connection with time. Crang and Tavlou (2001) speak of “subterranean” landscape, the non-visible part of the landscape hidden in each mind and related to personal experiences.

As a consequence, the discussion in a participatory process for landscape planning must not only focus on concrete landscape elements such as spectacular trees, hedge networks or noticeable buildings. It has to enlarge the purpose to the feelings, meanings and values that people attach to what they perceive. On one hand, it is important to understand how inhabitants or visitors construct their way of thinking about the landscape since that determines their expectations and preferences. On the other hand, the landscape planners have also to understand how farmers conceive their action on the landscape elements, from a technico-economical way but also from a social and

cultural point of view. An old oak along a road, very present in the landscape is not only imposing and venerable for the visitors. It can also be a landmark for the farmer who own it, a playground for children in summer, and the symbol of the permanence of the local society. If road planners forget this “subterranean” tree landscape and don’t take the time to negotiate when they propose to fell this old oak to make the road safer, it may be more difficult than they expected, even if there is a popular demand for the road to be made safer.

At last, the students have to deal with the change of scale. The agricultural landscape is perceived at a territorial scale. Its aspect is the result of practices applied to landscape elements (plots, hedges, rivers, isolated trees...). These practices are integrated in the farming production system from an agronomic point of view and also in a system of thoughts, from an anthropological point of view.

All these aspects constitute the theoretical background of our course.

An advanced hands-on course

The aim of this Advanced Course, “Analyzing Transition Processes in Rural Landscapes: the Farm Systems Approach” is three fold:

- 1) to get the students acquainted with the farm systems approach and how land use systems at the farm level can be assessed through surveys, described and classified consequently;
- 2) to lead the students to understand the multitude of options that influence land owners management strategies, and how the spectrum of productivist to non-productivist management can be present at the same time in local areas;
- 3) to proceed in the sense of assessing landscape drivers at the local level, though their integrated role in farm management.

The advanced course is composed of two weeks: the first week is mainly dedicated to set the scene, know the work area, and *in-situ* work, in the field, in Montemor-o-Novo, in the region of Alentejo, in Southern Portugal. Work is organized in groups, composed by students of the two nationalities and diverse educational backgrounds, so that a maximum of interdisciplinarity is achieved and the understanding of what are the specific contributions of each discipline for the approach undertaken. All groups are composed both by Portuguese and French students, so that translation to the foreign students is secured. When the interviewed speak French or English, they are asked to reply in this other language, so that all students can follow. In the second week, the work is developed in the universities of origin of the students. The aim of that second week is to develop the analysis of the data collected during the field week, and to achieve a typology of holdings, to be presented at the end of the two weeks. In order to share results and to allow for a joint discussion, the final presentation is also shared between students and teachers of the two countries, through a video-conference.

The concepts and methods presented and discussed are applied to the case-study area, the surrounding area to the town of Montemor-o-Novo, where there is both an area of large scale extensive silvo-pastoral systems, and area of small scale farming with no real market oriented production today, but a land use combining intensively residual production with residential, recreation and conservation uses. The study area includes the area of the Municipality of Montemor-o-Novo which is under the classification of Natura 2000, in the site of Monfurado.

Students develop field work both for landscape appraisal and farm survey. Work is based on landscape assessment, at the first step, and then mainly a survey to land owners, through direct enquiries to all types of land owners present in the study area. All groups of students apply inquiries to a similar number of land owners. Due to the limited time of the field work, inquiries are done according to pre-defined appointments with land owners. The results from all groups are gathered, and the analysis approach discussed with all participants. Subsequently the joint data is analyzed and discussed through group work, considering each group a specific dimension of the analysis, each aiming at a classification: external factors, motivations, decisions, farm system, relations with the

landscape, and a general typology of land management strategies. During the second week, the students must analyze the data with more detail, so that the final typology is defined. Mapping of the farm types distribution is also undertaken.

Students are master and PhD students, which come from the Universities of ENITA Clermont-Ferrand (France) and Évora (Portugal), with background educations coming from agronomy, forestry, geography, but also landscape architecture and ecology.

For the course, a transdisciplinary approach is applied, where mostly agronomy and geography traditions are combined, for the analysis of farmers practices at a farm scale, and the technico-economical or socio-cultural drivers of their decisions, as well as other actors expectations and practices, at different scales of space and time. The conceptual background is mostly rooted in the farm system approach, from agronomy, and in transition theory, from geography. The main aim is to identify management mechanisms at the farm level, that make it possible, or not, to proceed towards multifunctionality, and to assess how different management strategies correspond to changes in the landscape that support these other functions. The results should lead to a typology of holdings, from the productivist to post-productivist orientation, with different combinations in-between.

Thus, it is not just the farm production system which is described, through the farm system understanding, but also the mode of occupancy of the rural landscape, at the farm level, as described by Holmes (2006): assessing the drivers (within production, protection or consumption) that are dominant in the shaping and management of that rural space.

The case study area: Montemor-o-Novo

The study area has been chosen for being representative of a combination of patterns and processes occurring today in the landscape of Alentejo: large scale silvo-pastoral areas with extensive farming systems, in the surroundings of the town, small scale mosaic of olive groves with farming uses but also pressures for residential and recreation development, particular nature conservation values along a water course, the presence of a small town with an interesting cultural patrimony and incoming pressures related to its localisation and the globalisation processes going on. For the choice of the study area, also the interest of the local and regional stakeholders is determinant. In the present case, the municipality has strongly supported the course and is very interested in results. Further, the Regional Administration of the Agricultural Ministry and of the Environment Ministry, do also participate in discussion of approaches and results.

The area is located not too far from Lisbon (100 km) and even less far from the newly approved airport of Lisbon, to be built in the next years (about 50 km). Furthermore, it is located along the axis Lisbon-Madrid, connected both by highway but also in the future by speed train trail. Therefore, the rural landscape surrounding Montemor-o-Novo will in the future surely be under a higher development pressure than other areas in the region of Alentejo. Many people could in the future decide to move to the countryside here, keeping their job in Lisbon or with a new job in the airport area (Landscape Ambassador, 2008).

All these aspects make the landscape of this area multifunctional, attractive for different uses and supporting commodity and non-commodity functions, but also highly dynamic and under pressures for change, which demand new approaches for design and management.

Final remarks

The new processes in place in rural areas require new approaches, through a territorial perspective linking agronomy with the landscape, and social processes to ecological characteristics, among others. This is not an easy task, nor for experienced professionals and experts, neither for recently educated graduates, or students. High education is still mainly disciplinary, and even if the need for interdisciplinarity is often mentioned, rare are true contacts of the students with such approaches.

For the rural areas in transition, this is particularly true, as the understanding of the processes in these areas require an analysis of social, economic and ecological spheres, and their inter-linkage, at various scales – thus a vertical and an horizontal integration (Woods, 2005)

With the Landscape Ambassador programme, the authors have already experienced how enriching joint courses between nationalities and disciplines are, especially when there is a direct field application (Michelin et al., 2008). This is also stated in literature. Therefore, the course here presented aims at stepping a little further in the progress towards interdisciplinarity, progressing in the depth of the possible analysis. Limitations are mostly connected with the short time span of the course, but at the same time it is the short duration that make it possible for students from different origins to participate.

Landscape architects, agronomists, and foresters all have to get over a difficult “epistemological obstacle”. The first have to incorporate bio-technical as well as social processes in their analysis, in order to be able to concretize their project applied to places where people are working and living. Academic reconstructions, ideals and images, which can be of great importance, have to be transformed into landscape situations as something living, lived, and utterly contextual. The latter must accept that their landscape conceptions (an assembly of agro-physiognomic units; Deffontaines, 1998) are not necessary unique and shared by everybody, even not by all the farmers who produce these units. With a more urban society the farming services also change and the agronomists have to adapt their systems. Furthermore, other related disciplines have complementary perspectives, but are not able to respond to the actual challenges imposed by the complexity of landscape processes and demands.

This course is conceived as a step in order to bridge this gap, giving new skills to the participants, so that they can be able to understand the processes going on in complex rural areas, and to progress in the sense of shaping visions and related strategies. This is expected to open up for new horizons, that will make it more possible for the students to define their own guidelines for further management of their academic and professional orientation.

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