

Summary: This paper analyses the strategy developed thus far to have Andalusian olive-growing landscapes included as a Cultural Landscape on the World Heritage List (UNESCO). The research method used is descriptive, reflexive and prospective, and seeks to achieve a systematic and holistic overview of a complex reality. In addition to the corresponding bibliographical review, the research has been nourished by qualitative information from land surveys (field visits) and interviews with experts consulted during the preparation of the two technical dossiers of the candidacy produced so far. The results include the rationale for Outstanding Universal Value and the basis of the protection and management plan for the property. Subsequently, the paper discusses the possibilities for rural development that can be derived from this initiative through the virtuous interactions between the property, the region and the food (olive oil) obtained from traditional olive groves.

Keywords: Rural Development, World Heritage List, Olive Groves, Cultural Landscapes, Agricultural Heritage

Resumen: Este trabajo analiza la estrategia desarrollada hasta ahora para tratar de incluir los paisajes olivareros andaluces, como Paisaje Cultural, en la Lista del Patrimonio Mundial (UNESCO). El método empleado es descriptivo, reflexivo y prospectivo, tratando de conseguir una visión sistemática y holística de una realidad compleja. Además de la correspondiente revisión bibliográfica, la investigación se ha nutrido de información cualitativa procedente del reconocimiento territorial (visitas de campo) y la entrevista con expertos consultados durante la elaboración de los dos expedientes técnicos de la candidatura hasta ahora elaborados. Entre los resultados se presentan los fundamentos del Valor Universal Excepcional y las bases del plan de protección y gestión del bien. Con posterioridad se discuten las posibilidades de desarrollo rural que se pueden derivar de esta iniciativa a través de las interacciones virtuosas entre el bien, el territorio y el alimento (aceite de oliva) obtenido en los olivares tradicionales.

Palabras clave: Desarrollo Rural, Lista del Patrimonio Mundial, Olivar, Paisaje Cultural, Patrimonio Agrario

Highlights

- Globalization have reinforced regional specialization and productive intensification.
- The olive groves with cultural values are the most vulnerable in economic terms.
- The recognition of the heritage facilitates renews the harmony between agriculture, society and the environment.
- Olive oil tourism is an interesting option for rural development.

1. Introduction

The evolution of land use and cropping patterns in Spain is a fairly clear reflection of the effects of the adoption of an agro-food model based on industrial methods and globalised supply chains. The observed trend can be summarised as follows: the total cultivated area has been reduced due to the abandonment of less productive plots; the previous ratio between arable and woody crops has shifted drastically in favour of the latter, due to their higher added value and export competitiveness; and irrigated land has become increasingly important (Berbel and Espinosa-Tasón, 2021). In the midst of such transformations, some forms of obtaining quality food products, such as extensive livestock farming, mountain polycultures or dry cereal crops, have disappeared or are experiencing serious difficulties (Plaza Gutiérrez, 2019).

On the whole, olive groves are among the most successful crops in terms of their productivity and cultivated area. Andalusia, with its long history of olive cultivation, has become the world's leading region for olive production and olive oil. (Sánchez Martínez, 2016). Of course, in recent decades, European agricultural policies have been instrumental in consolidating this expansionary dynamic, which can by no means be taken for granted (Rodríguez Cohard *et al.*, 2022).

In a context of olive monoculture spread throughout the region (more than 1.6 million hectares, equivalent to 43% of the agricultural surface area), the reality is nevertheless very diverse. Depending on planting density, a distinction has been drawn between traditional, intensive and super-intensive olive groves (Penco Valenzuela, 2020), each of which has very contrasting landscape expressions and economic potential (Sánchez Martínez and Garrido Almonacid, 2017). Those facing the greatest challenges are the traditional olive groves, so called by pure convention, as there is no universally accepted definition of the concept. This term, in reality, does not only refer to a specific epoch and type of plantation, but also to the fact that they have structural, physical or economic limitations to achieve profitability in most olive oil price situations at source, something that does not occur in the case of the other more productivist models (Junta de Andalucía, 2011; Parras Rosa *et al.*, 2020).

Studying the traditional olive grove means that we enter a rural world dominated by smallholdings, the fragmentation and dispersion of plots of land, marked biennial bearing, slopes that prevent the mechanisation of labour, low yields, greater dependence on agricultural subsidies, municipalities where cooperation is crucial and where the ageing of farm managers, generational change and the demographic challenge are most acute. But it is also in these municipalities that the oldest and most interesting landscapes associated with the culture of the olive grove and olive oil are to be found.

Assessing the heritage value of agricultural landscapes is recent (Castillo Ruiz and Martínez Yáñez, 2014), but the Globally Important Agricultural Heritage Systems (GIAHS) Programme by the Food and Agriculture Organisation (FAO) and the list of World Heritage Cultural Landscapes (UNESCO) are ideal platforms for providing international visibility (Agnoletti and Santoro, 2022). In the case of Andalusian olive groves, the most ambitious precedent in this direction was the approval of the Andalusian Olive Grove Law in 2011 and its subsequent development through the Andalusian Olive Grove Master Plan (Junta de Andalucía, 2014), which establishes the purpose of "conserving and enhancing the landscape and the historical and cultural heritage of the olive grove and its products". In line with the provisions of the Andalusian Landscape Strategy (Junta de Andalucía, 2012), the landscape is now considered as an asset for sustainable development and regional competitiveness.

Shortly afterwards, in January 2017, the Olive Grove Landscapes of Andalusia were included on the World Heritage Tentative List². The intention expressed by those in charge of presenting the candidacy file to UNESCO, for possible inscription on the World Heritage List in the Cultural Landscape category, is that the process can be completed by 2025.

The aim of this paper is contained in the following research questions: How can olive-growing landscapes of exceptional cultural interest be selected? What are the characteristics of those that have been included in the proposal for inclusion on the World Heritage List? To what extent can strategies of qualification and differentiation with landscape attributes be effective in maintaining agricultural activity and population in the Andalusian municipalities that are most specialised in this crop, thereby becoming a key driver of rural sustainability?

2. Theoretical framework

2.1 Rural dilemmas and the development of olive-growing areas

Even though they are no longer the main source of employment and wealth generation, the survival of rural areas is shaped by the types of dominant agricultural activities. Those that are based on a productivist strategy must also fight to compete in global markets. When the goal is to increase harvests

² <https://whc.unesco.org/en/tentativelists/6169/>

and/or significantly reduce costs, the paradigm of rural development, multifunctionality and diversification takes on greater weight. Rural regions are now seen not only as places for the production of public and private goods, but also of consumption for residential, cultural or recreational purposes. This implies a transformation of conventional agriculture, breaking with the mould through three fundamental formulas. First, by processes of deepening, that is, by pursuing the production of differentiated high quality products and, where appropriate, shortening the chain between producer and consumer. A second method is the expansion of the activities carried out on the farm, with different formulas of concentric diversification ranging from energy production to tourism. Finally, obtaining off-farm income or applying mechanisms to reduce production costs would be examples of mobilising new resources (Van der Ploeg and Roep, 2003).

However, within this panoply of possibilities, attention has often ended up being focused on a single activity. This is especially true in the case of rural tourism, which has enormous potential to revitalise the places where it is implemented, but which can also end up reproducing the limitations of other "monocultures" and the most counterproductive logic of the neoliberal vision of economic policy (Wardener, 2020). Moreover, as it has been demonstrated in the case of the interior of Spain, tourism alone is incapable of anchoring the population to the land (Jurado and Pazos-García, 2016).

The multifunctional approach to the new rurality thus sees the transformations induced by globalisation as an opportunity. But functional diversification and the possibility of taking advantage of these opportunities is subject to the "distance penalty" (whether measured in physical, economic or symbolic terms). Therefore, instead of generating a homogeneously dynamic and multifunctional countryside, it has produced a duality, as this new rurality does not reach areas in regression, depopulated, ageing and devoid of services that make the presence of new settlers truly attractive (Alario, Molinero and Morales, 2018).

In all cases, the orientations and resources provided by public policies are critical. Therefore, to overcome the limitations of the sectoral and productivist approaches of the past, it has been recommended that synergies and complementarities be fostered between the two pillars of the CAP (Economic and Social Council of Spain, 2021), thus reaffirming the view of the countryside as an area of new possibilities (OECD, 2020). In this respect, for example, the Strategic Plan presented by the Spanish government for the new programming phase of the European Union encompasses all actions under the same umbrella, "which aims at the sustainable development of agriculture, food and rural areas to ensure food security for society through a competitive sector and a living rural environment," (Ministry of Agriculture, Fisheries and Food, 2021a, 7). This makes sense considering that in the European Union, rural competitiveness and cost-benefit visions are giving way to the concept of rural welfare, proposing a more inclusive development (Dax and Copus, 2022; European Commission, 2021).

For the specific case of Andalusian olive groves, without considering potentially disruptive scenarios, such as those arising from the worsening of climate change or the increase in input prices resulting from the massive use of fossil fuels, a theoretical framework has been established that sets out three main response options in the face of the competitive difficulties of the most vulnerable farms. In this regard, in addition to the options of abandonment due to economic marginality or resignation (in the case of non-professional farmers who maintain the farm regardless of its economic performance), there are several possible responses – not mutually exclusive – ranging from neoproductivism to concentric diversification (olive oil tourism, energy production, etc.) and improving their position in the value chain (Rodríguez-Cohard, Sánchez-Martínez and Gallego-Simón, 2017). In some ways, it seems clear that the identification of those traditional olive groves that harbour exceptional heritage and landscape values, especially if accompanied by international recognition, can be an element that underpins these innovative ways of coping with adversity.

2.2 Cultural landscapes and protection of agricultural heritage

The concept of Cultural Landscape refers to lands with harmonious interactions between the environment and society that, in addition, adds value and heritage attributes of interest, thus becoming areas that

merit protection. They are often historical artefacts conceived simply to satisfy basic needs, but aesthetic and environmental reasons mean that they are considered to be a heritage of great interest (García Ruiz and Lasanta, 2018). The antiquity of these sites is one of the most common reasons for their recognition, but the key is to maintain a balance between economic, environmental and cultural aspects. The contribution to the sustainability of the regions in which they are located (Molinero Hernando, 2017) also adds to their status as a model from which useful lessons can be learned to extend these harmonious practices to other places with similar characteristics. In the case of agricultural landscapes, the generic purpose of recognising cultural landscapes is to reduce the possibility of abrupt changes that could mean their loss or deterioration, while seeking to encourage the continuity of the communities that manage them and the heritage (tangible and intangible) that they contain (ICOMOS-IFLA, 2017).

The heritage and landscape interest of agricultural activities is more recent and much less developed than that aimed at protecting natural areas or monumental assets (Castillo Ruiz and Martínez Yáñez, 2014). However, it has had important milestones in the 21st century, having made its way onto UNESCO's World Heritage List and the Representative List of Intangible Cultural Heritage of Humanity, and also as a result of the development of the Globally Important Agricultural Heritage Systems (GIAHS), initiated by FAO in 2002 to safeguard exceptional landscapes of aesthetic beauty, biodiversity, resilience and outstanding cultural values. Although these pursue different aims, they have become increasingly important and interest in their potential as tourism resources has been high (Jiao *et al.* 2022; Su, 2022; Yotsumoto and Vafadari, 2021). Among the GIAHS recognised so far are the terraced hills covered with olive trees between Assisi and Spoleto, in Umbria (Italy), and the region of La Sènia (Spain), where this tree is also the protagonist of the landscape and its protection³.

With regard to the World Heritage List, although there are agricultural Cultural Landscapes where the olive tree is present, it is never dominant or exclusive. This is the case for Portovenere, Cinque Terre, and the Islands (Italy), Amalfi Coast (Italy), Stari Grad Plain (Croatia), Battir Landscape (Palestine) and Serra de Tramuntana (Spain). On the other hand, there are sites on the list focused on crops such as coffee (Coffee Cultural Landscape of Colombia), tobacco (Viñales Valley, Cuba), sugar cane (Trinidad and Valle de los Ingenios, Cuba), agave (Agave Landscape and Ancient Industrial Facilities of Tequila), rice (Rice Terraces of the Philippine Cordilleras) and, above all, vineyards (Jurisdiction of Saint-Émilion, France; Wachau Cultural landscape, Austria; Alto Douro Wine Region, Portugal; Tokaj Wine Region Historic Cultural Landscape, Hungary; Upper Middle Rhine Valley, Germany, among others)⁴. Additionally, in the case of Europe, the European Landscape Convention can also be seen as a stepping stone for the preservation of traditional agriculture (Arnés García *et al.*, 2020).

Olive groves and olive oil are emblematic of the Mediterranean, and all the countries bordering the Mediterranean have outstanding examples of this culture (El-Kholy, 2012). The longevity, resilience and aesthetic appearance of the tree, as well as its economic and symbolic value, become a source of values and emotions that go beyond the mere satisfaction of dietary needs. The olive tree is present in the emblem of the United Nations and has a world day promoted by UNESCO to remember that it evokes peace, wisdom, immortality, blessing, healing or victory, as well as its importance for the continuity of numerous rural regions throughout the world⁵. In Andalusia, the olive tree has a millennia-old history, one of whose important milestones was the massive planting carried out during the Roman Empire, which played a decisive role in feeding the metropolis and its most unstable frontiers (Martín-Arroyo Sánchez, 2020). Since then, its presence has been continuous and, since the 19th century, its expansion has been unstoppable (Zambrana Pineda, 1987).

The most common way of classifying olive diversity has been by age, plant variety or production class, but in recent years, the characterisation of its landscape has gained interest. First, its study was addressed in

³ <http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/europe-and-central-asia/olive-groves-of-the-slopes-between-assisi-and-spoleto/detailed-information/es/>

<http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/europe-and-central-asia/agricultural-system-ancient-olive-trees-territorio-senia/partners/es/>

⁴ <https://whc.unesco.org/en/list/>

⁵ <https://www.unesco.org/es/days/world-olive-tree>

works covering all Spanish agrarian landscapes (Mata Olmo and Sanz Donaire, 2003; Molinero Hernando, Tort Donada and Ojeda Rivera, 2010; Molinero Hernando, 2013 and 2014). For Andalusia, it is also worth mentioning the landscape-territorial classification of olive groves by Guzmán Álvarez (2004 and 2007), with a methodology later extended to all Spanish olive groves (Guzmán Álvarez *et al.*, 2020). Using a different approach, the olive groves of the province of Jaén have also been characterised from a historical and geographical perspective, establishing four major categories that give an idea of natural resource management options and open up certain possibilities for regional planning (Sánchez Martínez and Garrido Almonacid, 2021). The preparation of the candidacy dossier has also made it possible to develop a specific methodology for the selection of olive-growing landscapes of special heritage significance, to be described later.

2.3 The scope of the study

Andalusia is a Spanish Autonomous Community located in the south of the Iberian Peninsula (Figure 1), a region in which the olive grove has been cultivated uninterruptedly since ancient times, where it has occupied valleys, hills and mountains to form an extensive and diverse productive area, as it has intensified in recent decades. The plant was brought from the confines of the Mediterranean and found in this region a privileged environment in which to develop its great genetic plasticity and socio-economic interest. It has been part of the agricultural strategies of both peasants and large estates oriented towards international trade, as was the case during the Roman Empire (Remesal, 2013). Moreover, from this region, the plant moved to other areas of the world, especially to the American continent in the modern age. And more recently, its progression has been so spectacular that there is talk of a "sea of olive trees" covering a large part of the cultivated area. Its landscape value, beyond the perceptual values derived from this uninterrupted immensity, lies in the accumulation of cultural and heritage attributes resulting from its temporal continuity. These are the real reasons for the selection of the study area, although it should be clear that this is a general context in which the olive groves embodying these values are a minimal representation because, in practice, most olive groves have been planted relatively recently and their appearance is clearly engineered and not derived from the way of planting used by farmers for centuries.



Fig 1. Location map (in green, agricultural area under olive cultivation in Spain). Source: CORINE Land Cover, 2018

3. Material and methods

The method employed in this study is descriptive, reflexive and prospective, and seeks to achieve a systematic and holistic overview of a complex reality. In addition to a review of the relevant literature, specific technical documents and the general and specialised press in the olive sector, the research has also been nourished by qualitative information from land surveys (field visits) and interviews with academic experts; political leaders (regional, provincial and local) in the fields of agriculture, land use planning, environmental protection and culture; members of agricultural organisations and olive-growing co-operatives; technicians; and representatives from regulatory councils of protected designations of origin and local development associations, who were consulted during the preparation of the three technical dossiers of the candidacy so far finalised, presented in January 2018 (initial version), 2021 (revised version) and 2023 (final version), in which the author participated as an advisor and drafter⁶. The process of exchanging scientific and technical knowledge on olive grove landscapes began in 2016 with a seminar that brought together experts from various disciplines. The seminar, which was attended by political decision-makers and ICOMOS experts, focused on the characterisation and value of these landscapes, and explored the possibility of their classification as a cultural landscape by UNESCO (Sánchez Ruiz, 2018). The seminar's findings were subsequently compiled into a monograph on the topic. The final version to be submitted to UNESCO by the Spanish government, is expected to be completed in 2023. To get an idea of the complexity and duration of the process, the Provincial Council of Jaén proposed to the Ministry of Culture of the Andalusian Regional Government to start the work in 2008, although the process was accelerated after the creation of an institutional commission (in 2015), which was the embryo of the subsequent World Heritage Olive Grove Landscape Association of Andalusia, which will be the body in charge of managing the property if its inscription on the list is achieved.

This paper has also drawn on recent and reliable statistical information provided by public bodies to reflect certain aspects such as the surface area and economic importance of olive groves and olive oils in the selected study area.

4. Results

4.1 The olive-growing region of Andalusia: some basic characteristics

The cultivation of olives in Andalusia, which is mostly oriented towards the production of olive oil, is an economic pillar supporting hundreds of rural municipalities, especially in the provinces of Jaén, Córdoba and Granada (Figure 2). Income derives both from the sale of the product and from the significant amount of CAP aid linked to this sector (Rodríguez Cohard, Sánchez Martínez and Garrido Almonacid, 2022). Its social importance is demonstrated by the generation of more than twenty million daily wages in an average season. In some cases, these wages are critical for the labourer to be able to benefit from the aid for temporary workers in the primary sector, an economic subsidy specific to this Spanish region. The importance of the cooperative movement is also notable, as 70% of this vegetable oil is processed in its mills, which are made up of thousands of members, most of whom own a small olive grove (Sánchez Martínez *et al.*, 2020). This type of agriculture is still dominated by smallholdings, often worsened by a high degree of plot fragmentation and dispersion (Colombo and Villanueva-Perujo, 2017).

The degree of regional specialisation observed, beyond the favourable soil and climatic conditions and the absence of comparable or more attractive cultivation alternatives, is explained by the gradual opening up of international markets and the eagerness of global consumers to consume a foodstuff associated with health and gastronomic excellence (Salas-Salvadó and Mena-Sánchez, 2017).

The geographical spread of the olive grove shows clear spatial patterns, which can be summarised from two perspectives: on the one hand, it has progressively colonised the best soils and monopolised water resources; on the other, although its presence is ubiquitous and millennia-old, in the second half of

⁶ A summary of the general approach is available in Sánchez Ruiz and Coronado Sánchez (2022). The full dossier is available at <https://www.paisajesdelolivar.es/>.

the 20th century, it expanded mainly into the eastern interior (especially in the province of Jaén), while at present it thrives particularly in different regions of the provinces of Córdoba and Seville, on very fertile land, where olive groves are being established with very high planting densities (Sánchez Martínez and Gallego Simón, 2019).

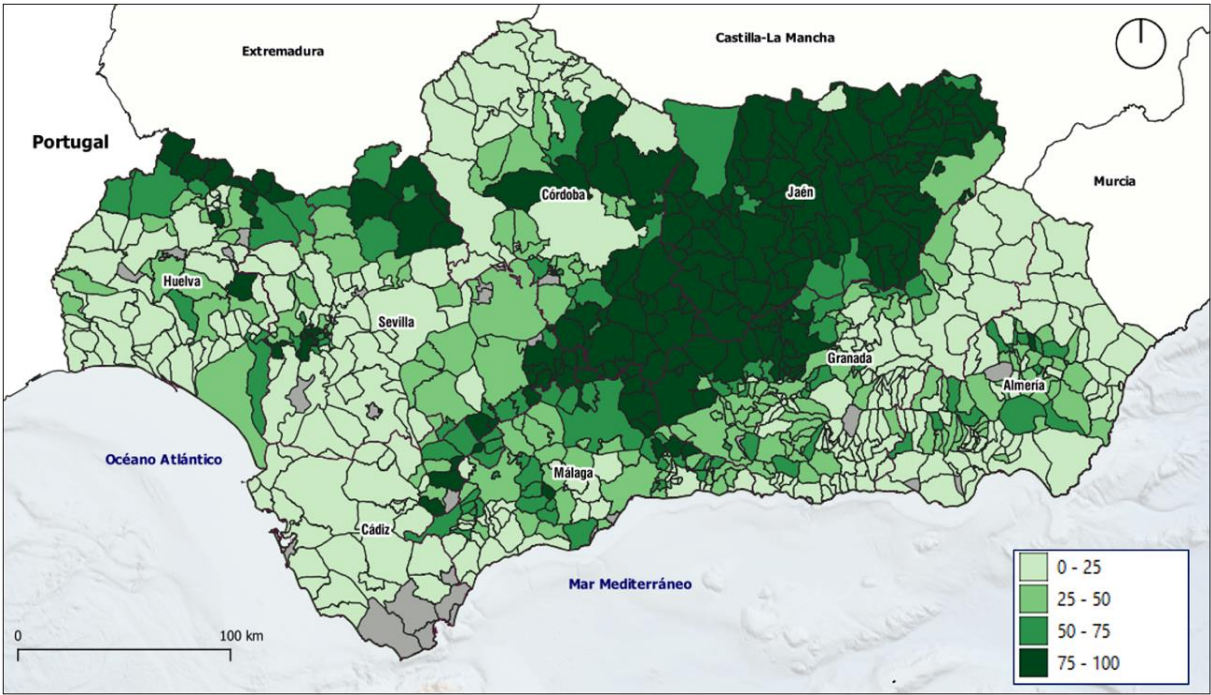


Fig 2. Percentage of the utilised agricultural area occupied by olive groves in the municipalities of Andalusia (2021). Source: Multi-territorial Information System of Andalusia and Geographical Information System of Agricultural Plots

The coexistence of olive groves planted in different geographical conditions and economic-technological contexts gives rise to a wide variety of cultivation patterns, with stark contrasts in production, ranging from marginal olive groves on mountainous ridges that pose a great challenge to cultivation to hedgerow olive groves on flat land (Figure 3).



Fig 3. Visual contrast between marginal olive groves and super-intensive plantations. Source: photographs by the author

Approximately half of the olive groves are at least fifty years old and reflect a traditional planting scheme, while the rest come mainly from the boom resulting from accession to the European Communities (now the European Union), when the so-called intensive planting model was developed. A smaller and more recent portion is associated with high density plantations, a category that is still expanding today both through the replacement of other crops and the restructuring of traditional olive groves (Rodríguez Cohard *et al.*, 2022). The specific details of these age-related and plantation model characteristics are provided in Table 1.

Tab 1. Area occupied by olive groves in Andalusia classified by plantation density and age⁷ in 2019. Source: Ministry of Agriculture, Fisheries and Food (2019)

Plants/ha	Area (ha)	%	Age	Area (ha)	%
< 140	801,394	50.39	0–4 years	109,158	6.85
141–400	708,589	44.56	5–11 years	77,818	4.89
401–1000	31,594	1.99	12–49 years	589,738	37.03
> 1001	48,792	3.07	50 and over	815,737	51.23
Total	1,590,369	100.00	Total	1,592,451	100.00

Whether it is a question of centuries-old, thick, multi-trunked olive trees or hedgerows of small bushes; of smallholdings or investment fund agribusinesses; of hardcore dryland farmers or non-deficit irrigators, the reality is that all olive producers must compete in the same market. And although production costs are very different in each case⁸, the setting of olive oil prices and their movement determine the prospects of the most modest or limited farms to compete in terms of the quantity of product obtained. The observation of price movements in the medium term shows the existence of significant fluctuations, together with the shorter duration of the upturns (above €3/kg of oil) and, conversely, the persistence of the downturns (around €2/kg). Prices often go through critical periods, falling below production costs in the least productive periods, which means that the maintenance of the most vulnerable farms depends to a large extent on the subsidy from the first pillar of the CAP, the contribution of unpaid family labour and the fact that it is part-time farming, with a strong attachment to the land on the part of the owners. With regard to the olive oil value chain, the margins of farmers and oil millers may be temporarily negative, but this is not the case for bottlers and distributors.⁹ This fact is constantly recalled by those who defend the need for oil producers to play a greater role in the end market in order to be competitive (Parras Rosa *et al.*, 2021).

For this to be possible, the first step is to improve the quality of the product. In this regard, much progress has been made in the capacity to obtain a greater proportion of the best organoleptic and physico-chemical qualities¹⁰, especially as a result of earlier harvesting. For the time being, conventional cultivation is in the majority compared to organic and integrated production (Table 2). Moreover, a characteristic feature of olive oils is that they are still mostly oriented towards the production of a barely differentiated commodity sold in bulk. This is the case even for olive oils certified with a designation of origin (Ministry of Agriculture, Fisheries and Food, 2021b). Eleven of the twenty-nine currently existing designations are found in Andalusia.

Tab 2. Area of olive groves with alternative cultivation methods to conventional in Andalusia (2020).

Total olive groves	Organic production		Integrated production		Conventional cultivation	
Area (ha)	(ha)	%	(ha)	%	(ha)	%
1,542,880	88,691	5.75	393,183	25.48	1,061,006	68.77

Sources: Multi-territorial Information System of Andalusia and Regional Ministry of Agriculture, Livestock, Fisheries and Sustainable Development:

https://www.juntadeandalucia.es/export/drupaljda/E.v3_2021_02_11_abr.pdf

https://www.juntadeandalucia.es/institutodeestadisticaycartografia/badea/informe/anual?CodOper=b3_151&idNode=2240

https://www.juntadeandalucia.es/export/drupaljda/PI_2020_SUP_2.pdf

⁷ The total figure provided by this survey is an olive grove area of 1,652,489 ha. The differences in the totals classified by plantation density and age are due to the fact that some olive groves could not be categorised according to these parameters.

⁸ In a recent study, focused on the province of Jaén, oscillations ranging from 1.73 to 4.00 €/kg have been found, with an average reference price of 2.89 €/kg (Parras Rosa *et al.*, 2020).

⁹ The most recent study of the extra virgin olive oil value chain concluded that the producer generates 70% of the value, but only receives 59%. <https://www.olimerca.com/noticiadet/ya-se-conoce-la-cadena-de-valor-del-aceite-de-oliva-virgen-extra/0351a1f671b6f4e2f1d78f742ea3180d>

¹⁰ Depending on their characteristics, oils are classified into three different categories: lampante, extra or extra virgin.

4.2 Olive groves in Andalusia of landscape and heritage significance: from the whole to the part

One of the most challenging matters to resolve, given the vast temporal and spatial scope of these olive grove landscapes in Andalusia and their cultural significance, is to determine which specific elements should be considered part of the property to be submitted for inclusion on the World Heritage List. Accordingly, in order to understand the cultural landscape of the olive grove, we must interpret and value the land on the basis of the multiple heritage features it has accumulated over time. On this conceptual basis, the selection of the areas that make up the study is the result of prior extensive work to characterise the Andalusian olive grove as a whole, which began with the documentation of several key issues, such as the historical evolution of the crop; the inventory of the archaeological and architectural heritage linked to olive-growing activity; the identification of historic olive groves and centenary olive trees; and the description of the traditional management, the intangible heritage, the perception and visibility of the olive grove, and a series of other complementary aspects, such as the varietal diversity, the environmental impacts of the crop, the qualities of the products obtained, the museums and interpretation centres devoted to the olive heritage, and the olive oil tourism products developed to promote knowledge and enjoyment of this culture. A second phase consisted of the identification of recognisable olive groves under different typological patterns, according to their geographical distribution, landscape scale, morphology and functionality of the plantation, historical period of implantation, material and immaterial culture and the heritage recognition achieved.

The superimposition on matrices and cartography of all this information allowed for the identification, on the basis of the accumulation of heritage attributes, of what were called *Olive Grove Landscapes of Cultural Interest*. In a first approximation, 63 areas of interest were identified, which were progressively reduced until they became more specific in terms of Outstanding Universal Value.

In the third version, the surface area of the 14 components of the nominated property covers 15,475 ha, this is 0.92% of Andalusian olive grove (Figure 4). Moreover, this set of components is surrounded by a buffer zone of 129,034 ha. These components are of very different extension, ranging from specific elements to landscapes of a territorial dimension. In all cases, the selected olive groves are traditional and historical (see a sample in Figure 5), with examples ranging from ancient times to medieval, modern and contemporary (always prior to the 20th century).

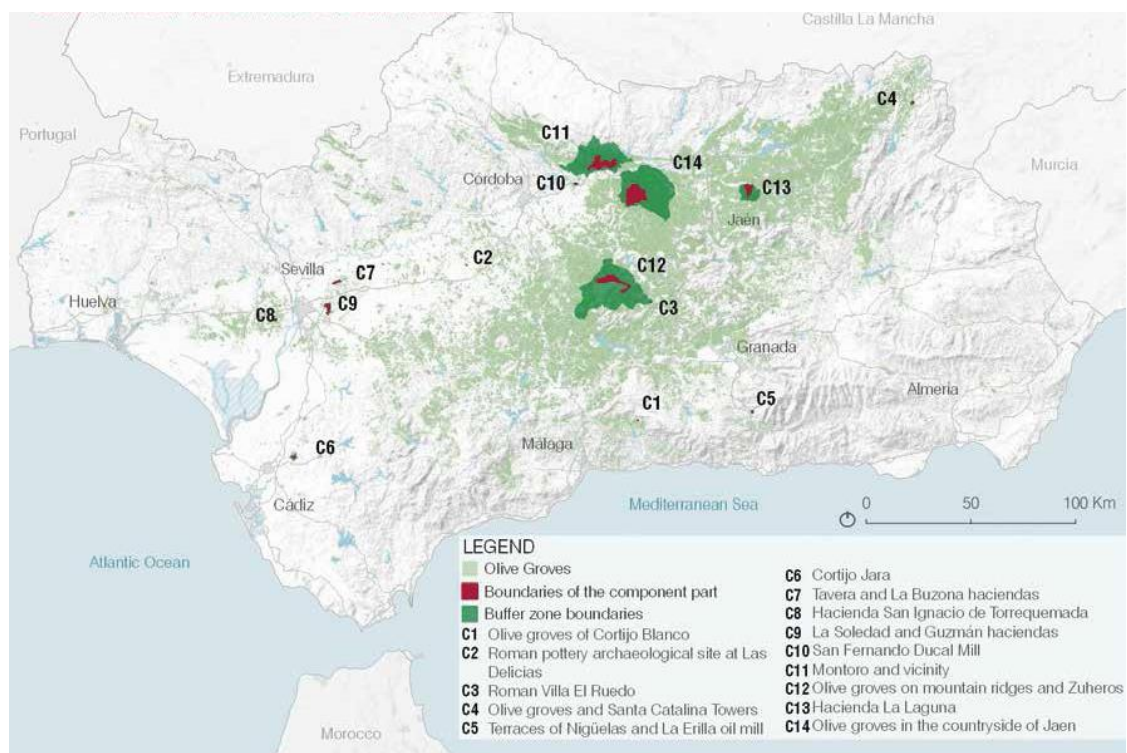


Fig 4. Component parts of the olive landscapes of Andalusia. Source: Fernández Ruiz et al. (2023a)



Fig 5. Olive grove at Hacienda La Laguna (Baeza, Jaén) and Casería La Roza Alta (Montoro, Córdoba) in 2021. Source: Provincial Council of Jaén

4.3 Outstanding universal value, authenticity and integrity of the cultural landscape in the components of the property: the global view

Following the adoption of the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage, the category of cultural landscapes was added in 1992, defined as the result of the combined works of nature and of man, that are "illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal," (UNESCO, 2021, p. 22). The Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage considers the property to be of Outstanding Universal Value when at least one of the ten criteria listed in the guidelines facilitating the preparation of technical files is met.

The cultural landscape of The Olive Grove Landscapes of Andalusia is presented as a serial property that aims to illustrate the millennia-old history of an evolving and living cultural landscape, as a well-preserved, diverse and representative sample of the traditional olive grove in the Mediterranean region. The landscape diversity derives from different physiographic contexts in which the crop is grown, while the historical continuity is reflected in an exceptional archaeological and architectural heritage, which includes the remains of Roman pottery, olive mills of Nasrid heritage, historical hydraulic systems, mills, homesteads, farmhouses and estates from different historical periods.

All of these demonstrate the existence of an Outstanding Universal Value based on the fulfilment of three criteria: to provide a unique testimony of a living cultural tradition (criterion iii); to show a traditional culture of land use with specific adaptations to environmental conditions (criterion v); and to represent the universal significance of the olive tree and the oil, manifested in symbolic, spiritual and artistic terms (criterion vi). The different components selected must be understood as parts of a whole and are considered to be the best manifestations of the set of values and attributes of the property.

They have also been verified as meeting the necessary requirements of integrity and authenticity. In terms of integrity, the nominated property includes all the areas necessary to illustrate the variety of both the landscape manifestations of the olive grove and the historical, built and ethnological heritage associated with its culture. The authenticity has been attested by historical documentary sources and reinforced by the presence of the productive mills that help to understand and contextualise the cultural landscape. The location and interpretation of historical cartography on land use, dating back to the last third of the 19th century, has been of great help in confirming the presence of cultivation at that time (Fernández Ruiz *et al*, 2023a).

4.4 The management plan as a basis for the generation of a virtuous circle

The candidacy dossier establishes a system of multiple protections that requires the drafting of regulations of a heritage, environmental, agricultural, territorial and urban planning nature (Fernández Ruiz *et al.*, 2023b). While some of the components already have specific protection as Assets of Cultural Interest (the highest level of protection at the regional level), the entire system has been included in the General Catalogue of Andalusian Historical Heritage.

The Association of Olive Grove Landscapes in Andalusia is responsible for the unified management of the entire system, as a participatory body that represents all stakeholders. This association will also be in charge of implementing the master plan. This instrument becomes a reference point for achieving the intended goals. The established objectives, thematic areas of intervention, action points and priority actions allow for a qualitative assessment of their capacity to function as an effective tool for rural development. The key issue is to make a decisive contribution to the preservation of the traditional olive grove and the sustainable management of all its components. Six action points have been established:

- Heritage conservation
- Interpretation and management
- Crop sustainability
- Economic and regional development
- Research, innovation and training
- Communication and participation

Although all of these are interrelated, some may have a more direct impact on the reasonable development expectations of the areas included and their surroundings. While other action points also include measures that have a direct impact on these expectations, the most direct ones are set out in the fourth point. It proposes the strengthening of the duality between heritage and local economic development. And as was to be expected, the promotion of olive oil tourism specifically designed for this cultural landscape becomes one of the most elementary actions. We must not forget that agricultural assets produce products that enable us to experience the landscape, especially if they are essential components of the Mediterranean diet, which is included on the Representative List of the Intangible Cultural Heritage of Humanity¹¹. In any case, tourism activities are oriented towards supplementing incomes, creating new opportunities for micro-enterprises, and developing non-overcrowded tourist destinations. Tourism is not considered an end in itself, but rather as an opportunity for localised regional development (Ruiz Fernández, 2021). In addition, as can be seen in table 3, development options go beyond tourism.

Tab 3. *Proposals and priority actions of the Management Plan for the Andalusian Olive Landscapes in the Territorial Economic Development Line of Action. Source: Ruiz Fernández et al. (2023b)*

Proposals	Priorities
<ol style="list-style-type: none">1. To support the income of olive growers and generate employment opportunities2. Encouraging olive oil tourism3. Promote traditional olive products and handicrafts4. Promotion of local commerce, local and traditional olive products.5. Developing marketing plans for the olive oils of the proposed areas.	<ol style="list-style-type: none">1. Agreement with the Regional Ministry of Agriculture for the areas to be considered a priority for receiving public aid.2. Specific tourism initiative for the nominated property.3. Development of a territorial brand4. Support for traditional products and crafts in the area of the property.5. Include the Andalusian Olive Landscapes and the management of the property as prominent lines of action in the Andalusian rural development instruments.

¹¹ <https://ich.unesco.org/en/RL/mediterranean-diet-00884>

5. Discussion of results

While institutional recognition is important, agricultural cultural landscapes will only maintain their harmony if they remain functional, and that means adapting to a changing socio-environmental context. Management is the key to responding to such challenges. In the dossier, the strategy outlined involves the coordination of the human and economic resources that are already available, but also calls for the incorporation of others that will be necessary to achieve the established objectives. In that sense, it can be understood as a combination of reality and desire. In any case, institutional coordination is a critical element in order to achieve a confluence between agricultural heritage protection, land management and rural development (García Álvarez-Coque and Bigné, 2020).

One of the risks is the possibility of imposing an unsustainable mass tourism model, the negative effects of which have already been observed in other agrarian cultural landscapes inscribed on the World Heritage List (Millán Vázquez de la Torre, Amador Hidalgo and Arjona Fuentes, 2016). Most importantly, this initiative understands the olive grove as a motif for the culture, education and science that surrounds the landscape and heritage of this Mediterranean crop. However, as has been rightly written, "there would undoubtedly be no culture if there were no capacity or time to enjoy it, no leisure and no recreation. But excessive or unfocused consumption of heritage sites or landscapes can lead to their destruction. Many tourist activities have led to the exploitation of heritage as an amusement park and to certain cities being turned into theme parks. All too often, globalisation and commodification lead to trivialisation," (Gómez Mendoza, 2013, 17).

Indeed, at least in the case of mass tourism, the pretensions of exoticism, democratisation, sustainability and prosperity end up being transformed into superficiality, the depredation of natural resources and the increase of socio-economic inequalities between the different agents involved (Duterme, 2019). It is true that the number, diversity, complementarity and dispersion of the components of this proposed cultural landscape are a very favourable starting point to prevent these risks from manifesting themselves. It is also true that many of the activities organised around the culture of the olive grove and olive oil have an excursionist character and a focus on the tasting and direct purchase of the product – known as gastronomic tourism – which in turn is an incentive for local companies that organise this type of activity to increase their commitment to social innovation (Parrilla-González and Ortega-Alonso, 2021). Given that experiences based on the exploration of the landscape and cultural richness of wine have long preceded those of olive oil, delving into the former can serve as an interesting starting point for discovering best practices in the latter. (Correia and Brito, 2016; Darnay, 2016; Cañizares Ruiz and Ruiz Pulpón, 2020; Fernández Portela and Vidal Domínguez, 2020; Zanotelli *et al.*, 2020). In short, it is an opportunity to strengthen the positive relationship between the landscape, the region and the product, where the local development approach and post-productivism can find common ground (Sánchez Escolano and Ruiz Moya, 2020b), although not entirely immune to the drawbacks of excessive tourism (Boháč and Drápela, 2022).

Tourism based on olive oil culture, as a typical and symbolic product of the Mediterranean, is seen as an asset for the rural development of European territories where its presence is part of the local memory and identity (Campón-Cerro *et al.*, 2014), so it can be considered as a territorial heritage (De Salvo and Manella, 2022). In this sense, it should be noted that Andalusia already has a long and promising olive oil tourism experience, which includes a set of diverse and complementary activities, including scenic itineraries, visits to interpretation centers or unique buildings linked to olive growing (farms or *cortijos*), tastings to appreciate the quality and diversity of the oils, as well as a gastronomic offer based on the use of this appreciated vegetable fat. Of special interest is the fact that many olive mills have ceased to be exclusively industrial to offer services that extend their period of activity throughout the year, increasing employment and promoting the direct sale of bottled oil to visitors who receive information on the entire production and transformation process that allows the consumption of this food product (Parrilla-González, Murgado-Armenteros and Torres-Ruiz, 2020).

Another point in favour is that consumption habits are changing. This is perhaps easiest to identify if we look at the extraordinary growth in olive oil exports to countries outside the Mediterranean culture, where this product has come to be identified with healthy habits and as a sign of social distinction. But it

is also an opportunity for consumers to reconnect with products linked to the *terroir*, which is losing the importance it once had, especially due to the declining interest shown by younger generations (Rodríguez-Cohard, Sánchez Martínez and Garrido-Almonacid, 2019).

All this may help to reduce the appeal of more intensive or speculative agricultural practices that can lead to abrupt changes in land use, loss of biodiversity or the trivialisation of the landscape. On the other hand, the adoption of a cultural landscape approach that recognises and values ancestral practices of a sustainable nature can be a factor in expanding the distinctive ecological methods of traditional agriculture (Agnoletti and Santoro, 2021).

Based on European experience, the "World Heritage brand", in the case of agricultural cultural landscapes, can be beneficial for rural lands when positive synergies are established with regional brands such as Protected Designations of Origin, and when it promotes the active participation and integration of the interests and needs of surrounding communities in the management of the protected property (European Committee of the Regions, 2022). This last issue is particularly complex and once again highlights the need for adequate management planning (Gullino, Loris Beccaro and Larcher, 2015).

While the methodology used in this study is important, the large physical size of the region studied and the complexity and depth of the subject matter may make it difficult to fully cover all aspects of the issue. It could be argued that some duplication may have crept in or that some elements complementary to those selected have been left out of the final selection. Additionally, factors outside of the technical realm, such as the varying levels of interest and support from public and private stakeholders, could be seen as limitations to the consistency and coherence of the initiative. For example, olive groves adapted to extreme environments, such as those in the semi-desert of Almeria (Sánchez Escolano, 2020a), or groves that maintain historic olive trees with varieties imported from other parts of the Mediterranean, could both be considered as potential candidates for a Globally Important Agricultural Heritage System¹², and this would by no means exhaust the potential list. In other cases, Andalusian Landscapes of Cultural Interest that prominently feature the olive grove¹³, such as Sierra Mágina or Los Pedroches, do not align with the guidelines established in the UNESCO candidacy. While these issues may be contentious and extend to other properties already on the World Heritage List, they do not diminish the interest and coherence of the proposal, but rather reflect its complexity and originality in detecting an Outstanding Universal Value that is not currently found on the list.

6. Conclusions

Intensified monoculture farming is devastating for cultural and natural diversity, for the local, the traditional and the small. In short, it confronts us with a profound contradiction that makes the unsustainable (temporarily) profitable and the sustainable unviable. In a context of systemic crises (environmental, food, social and health) and with a food production model that has become one of the main factors of environmental degradation (Halpern, Frazier, Verstaen, *et al.*, 2022), it seems reasonable to support an agroecological transition that integrates basic principles that were part of traditional agricultural systems: diversifying land use; recycling in situ to minimise dependence on external inputs, which are very costly and polluting; and integrating livestock farming into cultivation (Delcourt, 2022).

Traditional farming cultures, aware of the constraints they were confronted with, and alien to the use of inputs based on fossil fuels, opted for a multiple use of their lands, for an integration of agricultural uses in time and space (Roa Llamazares, 2017). The olive groves of the past were, in this sense, very different from those of today, and the most traditional ones are at risk of being razed to the ground, which is why initiatives aimed at maintaining and revaluing their land-based values are so necessary.

¹² <https://romanainsolentia.com/2020/03/13/de-tunez-a-granada-la-historia-del-olivo-lucio/>

¹³ <https://www.juntadeandalucia.es/cultura/blog/registro-de-paisajes-de-interes-cultural-de-andalucia-una-seleccion-de-paisajes-para-su-conocimiento-y-valorizacion-como-patrimonio-cultural/>

In the face of globalisation and the environmental challenges posed by industrial agriculture, regions that specialise in olive oil production are at a critical juncture. The fact that olive oil is considered a health food, and its positive correlation with regional, cultural, environmental, and landscape aspects, present a great opportunity for these regions to activate social innovation. There are already some outstanding examples of this process in action (Parrilla-González and Ortega-Alonso, 2021).

The objective of achieving a place on the World Heritage List raises the questions of why and for whose benefit it is sought. Those promoting the candidature assume important commitments and responsibilities in terms of leadership and the provision of sufficient human and financial resources to succeed. For UNESCO, what is crucial is that the property perfectly exhibits Outstanding Universal Value, integrity, authenticity, history and a pre-existing and current commitment to the protection and management of the property. Recognition through inscription on the list makes it possible to connect with the goals of rural development (Cejudo García, Cañete Pérez and Castillo Ruiz, 2019; Cañizares Ruiz and Ruiz Pulpón, 2022) and shift the understanding of its complexities from a sectoral to a land-based perspective, from productivism to post-productivism, and from unsustainability to sustainability.

The potential virtuous circle resulting from the heritage recognition of the cultural landscape of the olive grove in Andalusia can be summarised in the following aspects:

- The deepening of concentric diversification through olive oil tourism and hiking-related activities in the olive-dominated countryside.
- Increased production of graded and differentiated oils, largely destined for direct and local sales.
- Increased awareness among producers of the importance of proper management of the natural and cultural resources involved in agricultural activity.
- An increase in new job opportunities, an incentive for generational change and the maintenance of rural populations.
- New social recognition for farmers, which translates into increased self-esteem, as they move from being mere producers of a product to becoming crucial actors in providing the environmental services of agrosystems, as well as improving the food supply and health of urban populations.

Taken together, this may represent a qualitative leap towards rural sustainability, but the obstacles and challenges involved necessitate further research, especially to strategise about how to overcome them. In any case, the pursuit for greater knowledge can be seen as a positive outcome of the political impetus and technical work carried out to try to include olive-growing landscapes on the World Heritage List. Therefore, it has the potential to promote new areas of research in an interdisciplinary field that has already yielded significant findings, but also holds great potential for future development (Min, 2021). Furthermore, this research can be linked to other relevant issues, such as the objectives of the 2030 Strategy, the European Green Pact and the latest version of the Common Agricultural Policy, which propose that agrosystems should play a significant role in achieving a sustainable future for the planet (Gkoltsiou, Athanasiadou and Paraskevopoulou, 2021). Immediate research priorities include a critical analysis, in the light of rural development theory, of the system and management plan drafted for the proposed property, all this considering, moreover, that the regional government has approved the realisation of the First Strategy for the Olive Sector of Andalusia¹⁴, in which, together with a value chain approach to the products of this crop, a territorial vision is also put forward which should take into account specific support for the traditional olive groves present in different components of the property.

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¹⁴ <https://www.juntadeandalucia.es/boja/2023/43/3#:~:text=La%20Estrategia%20tiene%20como%20objetivo,poblaci%C3%B3n%20en%20el%20mundo%20rural>

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