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SOCIAL CONSTRUCTION OF MYCOLOGICAL CULINARY HERITAGE AS A TOURIST RESOURCE AND ITS DIMENSIONS OF SUSTAINABILITY

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Abstract

Purpose. To identify contributions to the sustainability of the territory from the tourist uses of mycological culinary heritage, within the context of late capitalism

Method. Multiple case studies with a qualitative and exploratory approach. No probabilistic sampling by snowball technique and validation by saturation criterion, to develop multiple perspectives through triangulation strategy. Semi-structured interviews (N = 24) applied to key informants around the practice of mycological tourism.

Findings. The cases studied showed evidence of the contributions that mycological tourism can generate in the economic, environmental and social dimensions of sustainable development. However, the capacity of these very specific initiatives for their incorporation into major development strategies is not clear. There is the ambivalence between the preservation of heritage and its economic use, related to the hedonistic and experiential logic of late capitalism.


Research and conclusions limitations. This is a case study only recovering the internal perspective of some communities in central Mexico that participate in mycological tourism strategies.

Practical implications. Qualitative studies that provide a deep vision regarding tourism experience of rural communities are a useful source of information for the design of public policies that meet the real needs of their users and to propose development strategies, based on the characteristics of each context.

Originality. The articulation between tourism based on wild foods and sustainability, from a critical and qualitative perspective.

Type of paper. Research article.

Keywords: mycological tourism, Integrated Rural Tourism, rural development, central Mexico.

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Introduction

Gathering, commercialisation and consumption of wild edible mushrooms have been an essential part of the culture and economic sustenance of forest communities around the world [Boa 2004]. In central Mexico, edible mushrooms are focal foods, which can be found in traditional cuisine of different rural areas [Libin 1991]

From an alimentary point of view, edible mushrooms are resources difficult to define given that their biological nature relative to the fungi kingdom (they are not part of the animal or vegetable kingdom) makes it difficult to understand and categorise them within the socio-cultural structures of food. On the other hand, their wild nature, linked to the forest and being unpredictable, gives them a “non-human” dimension that implies rethinking the relationship between human beings and nature.

Wild edible mushrooms can be considered local foods, which express a territorial anchorage with the places where they are harvested, consumed and marketed. These are seasonal products, which imply a high level of specialisation in their harvesting process and which acquire added value on their final markets due to the scarcity principle. Likewise, they can be identified as typical, land-based products, traditional, specific and authentic or of differentiated quality.

The above connotations refer to social constructions, through which mushrooms are re-valourised; within the context of contemporary agro-food markets, growing in complexity and sophistication. However, only a small percentage of its final retail price reaches the hands of mushroom pickers, who are social actors living in conditions of marginalisation and poverty.

Recently, as a way to add value to mushroom harvesting, various activities related to tourism and recreation have been incorporated, through a moderately structured offer of products and services, conceived as mycological tourism [De Frutos, Martínez, Esteban 2012]. The interconnection between these foods, space and identity [Everett, Aitchison 2008], linked to tourism, provides a comparative advantage through differentiation criterion, from which development proposals, centred on the territory and in some food resources, may be generated.

Mycological tourism is a type of recreational leisure activity that is located halfway between nature and culture [Lázaro 2008] and involves the enjoyment of forest food landscapes, from the perspectives of aesthetic contemplation, nature tourism, recreational harvesting and traditional cuisine. The tourism dimension of wild edible mushrooms supposes a complementary economic activity for the harvesting communities through added-value strategies in the territory [Thomé-Ortiz 2015].

Despite the broad scientific productivity of wild edible mushrooms in Mexico, it has been oriented from a biological or ethnic mycological per-

spective and has been of highly descriptive nature regarding the number of known species, their phenology, anthropocentric uses and economic importance indices. That is why there are important gaps that must be filled to understand mushroom use from a sociocultural perspective, as this implies the understanding of difficult aspects to objectify such as memory, tradition, identity, knowledge transmission and social behaviour around the harvesting, distribution and consumption of mushrooms. In another sense, the use of mycological resources as a tourist attraction allows us to understand the new dynamics around which food heritage and processes of elitisation of local foods are focused.

The lack of deep knowledge about the social and cultural dimensions of mycological culinary heritage generates important difficulties in managing their “heritagisation” process through tourism initiatives. The touristification of mycological resources implies their transformation and redefinition, with an ambivalent sense that is torn between their heritage recovery and their economic use. From these processes of productive restructuring of the forest, among communities, some dichotomous positions arise, including: i) opportunities and threats, ii) benefits and impact, iii) economic development and new processes of exclusion, iv) recovery of gastronomic heritage and trivialisation of traditional cuisine. Hence, the need to explore the possible contributions to sustainability that may or may not derive from the articulation between mycological culinary heritage and tourism.

In this paper, the author aimed to identify contributions to territorial sustainability, based on the tourist uses of mycological culinary heritage within the context of late capitalism. For this, an attempt was made to answer the following fundamental question: How are environmental, social and economic benefits generated from the tourist appropriation of wild edible mushrooms? And can this contribute to the development and maintenance of mycophagy culture and the regeneration of rural spaces?

The text is composed of six parts that are structured as follows: after this introductory section, a literature review is presented. The methodological design of the research is explained below, followed by a presentation of results, and subsequently, discussion. Finally, the conclusions are developed.

1. Theoretical considerations and practical implications

In studies on the productive restructuring of the countryside, authors have based their understanding of the transformation of rurality in the traditions of rural economics and rural sociology [Cloke, Marsden, Mooney 2006], focusing on the multifunctionality of the territory and the pluriactivity of social actors, providing the economic, social and cultural foundation for the emergence of new activities, products, and services in rural areas.

Mycological tourism can be framed within this set of structural changes, designated a “new rural paradigm” [OECD 2006], in which the logic of productive diversification is the precept that guides rural development policies [Wilson 2008]. However, this paradigm presents problems regarding harmonisation between environmental protection and tourism activities, which is why these processes of change reveal a series of opportunities to expand the social capacities of territorial governance [Hjalager, Johansen 2013] and their sustainability perspectives.

The role that local foods can play in the configuration of a sustainable tourism destination is fundamental since the use of an iconic food as a tourist attraction has various impact such as increasing tourist consumption, generating a multiplier effect, positively impacting the local economy, generating tourist reflexivity [Urry 1995] as a mechanism of differentiation, in this case, from an iconic food that captures the nature of a particular place [Bessière 1998]. But, equally, it is assumed that tourism activities carry the risk of generating negative effects for the host community [Long 2004].

Certainly, the touristification of agro-food products is a way of patrimonialising them. The designation of these resources as cultural heritage is a social construction in which the interests of different groups come into play, depending on specific objectives. When the social construction of agro-food heritage intersects with tourism activity, it is important to consider the contributions that this unique relationship generates both for agro-food resources and for the social groups reproducing them [Medina 2017].

The debate on the benefits and impact of tourism activities has been developed within the framework of Integrated Rural Tourism [Clark, Chabrel 2007], which implies the simultaneous development of environmental, economic and social benefits, based on tourism activity. It is an approach according to which the best tourism model is one allowing to generate benefits at all levels and for all groups, without the benefits generated for one area implying detrimental effects on another.

The specific case of tourism in forest areas involves bias towards contemplative, sports and nature activities, anchored to protection policies of natural areas. However, there are global trends to incorporate the cultural and food dimension of these spaces as a tourist attraction [Hjalager, Johansen 2013]. An example of this is the harvesting of wild edible mushrooms, one of the most emblematic activities related to local foods in forest areas [Thomé-Ortiz 2019]. Traditional mycological cuisine is a culinary specialty that has the potential to develop tourism and recreational activities. However, as already mentioned, this is of controversial nature when considering its dimensions of sustainability.

The harvesting, commercialisation and consumption of mushrooms constitute a three-dimensional system of food heritage with the corpus (knowledge), cosmos (beliefs) and praxis (practices), that is reproduced from

generation to generation, being part of the collective heritage of specific social groups. However, the development of mycological tourism activities implies new social practices regarding the conventional use of wild edible mushrooms. Therefore, it is necessary to develop new conceptual connectivity and institutional frameworks [Hjalager, Johansen 2013] that would allow the articulation and normalisation of new productive activities in rural areas.

The possibility of developing tourism products from food, strongly attached to a territory, can be attributed to local gastronomic patterns becoming a source of cultural identity within the context of late capitalism [Richards 2002], which is expressed through logics of consumption covered by an “alternative hedonism”, reflecting social concerns about the inauthentic nature of modern societies [Soper 2007].

In this sense, wild edible mushrooms play an important role as markers of territorial identity, given their nature as localised cultural artefacts [Cook, Crang 1996]. These localisation processes are a characteristic feature of culinary tourism, which is often based on a dialectical relationship between material geographies (location of products and services anchored to the territory) and cultural flows (new mobility with cultural and consumer motivations). This implies rethinking the limits restricting ethnic mycology to the explanation of human consumption of mushrooms through dualism between mycophilia and mycophobia [Hawksworth 1996]), to situate this renewed and multifaceted interest in wild edible mushrooms within the most complex scenario of cross-cultural consumption [Howes 1996]. The reason why the impact of external influences the evolution of food identities is a fundamental dimension of analysis in mycological tourism.

2. Methodology

During the 2016-2018 mushroom seasons (June-September), multiple case studies were conducted [Stake 2000] to compare similarities and differences regarding the contributions of mycological tourism to the sustainability of a territory. Three forest communities were selected that are considered illustrative of the process of mycological resource touristification and share the following criteria: i) they are rural communities with an ancestral mycophagy culture, ii) they share the cultural identity of the forest peoples of the Mexican Central Highlands. and iii) they are in the process of implementing a strategy of productive diversification through mycological tourism.

Exploratory research was carried out, collecting information in the field and from secondary sources. The research assumed a qualitative approach with the intention of making a crosslink between the information obtained from empirical evidence and those reported in other research. It

is considered that qualitative case studies provide a privileged perspective to investigate in-depth, emerging phenomena about which there is no clarity, in this case, concerns regarding the sustainable nature of mycological tourism. On the other hand, this methodological perspective allows the construction of a theoretical corpus based on formulations derived from systematic analysis of reality [Eisenhardt, Graebner 2007], which has had special relevance for the consolidation of culinary tourism studies [Hjalager, Richards 2002].

2.1. Three case studies in Central México

Forest communities in central Mexico are part of the Mesoamerican food pattern, based on corn, chili and beans as the main ingredients [Staller, Carrasco 2010]. However, these territories have some differentiated products that shape their particular food identities, such as the use of wild mushrooms. This indicates the presence of mycophagous peoples, which is explained by the millenarian co-evolution between humans and their forest environments.

2.1.1. San Francisco Oxtotilpan

Located in the municipality of Temascaltepec, the State of Mexico at a height of 2,634 metres above sea level. It has a population of 1,435 inhabitants (INEGI 2010), who are the last descendants of the Matlatzinca ethnic group [García 2004]. The main ecosystem is the *abies religiosa* forest, which is

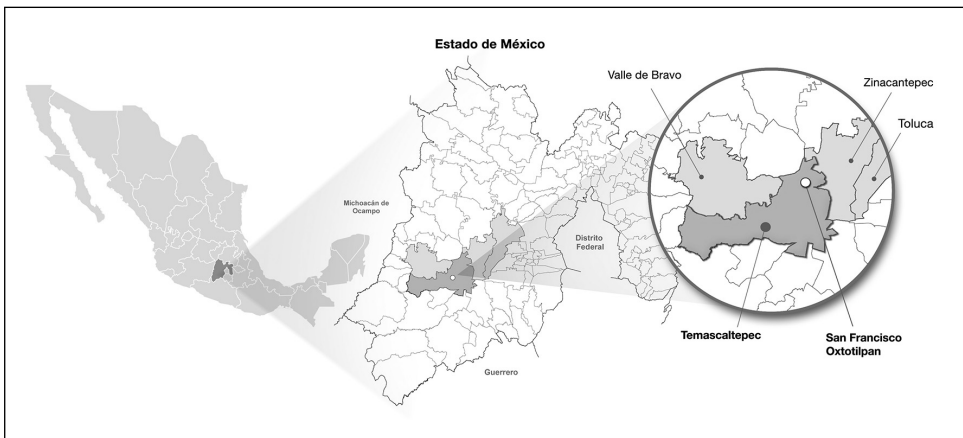


Fig. 1. Location map of San Francisco Oxtotilpan, Temascaltepec, the State of Mexico

Source: Own elaboration.

a type of vegetation with the highest productivity and concentration of wild edible mushrooms in central Mexico [Burrola et al. 2013]. The continuous occupation of the territory since the 12th century has resulted in the establishment of a strong mycological culture in the area [García 2004]. The consumption of 25 species of wild edible mushrooms in the community has been documented [Thomé-Ortiz 2019]. In 2014, to counteract poverty, the Mexican government promoted tourist development of the territory [Thomé-Ortiz 2016; González, Thomé-Ortiz, Osorio 2018]. One of the proposed activities was mycological tourism, which has been promoted since 2016 by the joint action between the academy and some local actors.

2.1.2. Ejido Venta Morales (La laguna)

Located in the municipality of Texcaltitlán, the State of Mexico at an altitude of 2,680 metres above sea level. It is a small community of 373 inhabitants that barely have the basic services of electricity and potable water, its average duration of schooling 6.88 years, thus it can be considered in conditions of marginalisation [INEGI 2017]. The valley, where the village is located, is surrounded by *pinus spp* and *abies religiosa* forests, where 36 species of wild edible mushrooms have been identified [Thomé-Ortiz 2018]. It is a territory with a reputation for mushroom gatherers and traders, who sell their acquisitions roadside or in nearby markets. This village has also been incorporated into tourism activities through an initiative of the Mexican government. In 2016, from the impulse of the academic sector in conjunction with the local population, mycological tourism tours started to be offered.

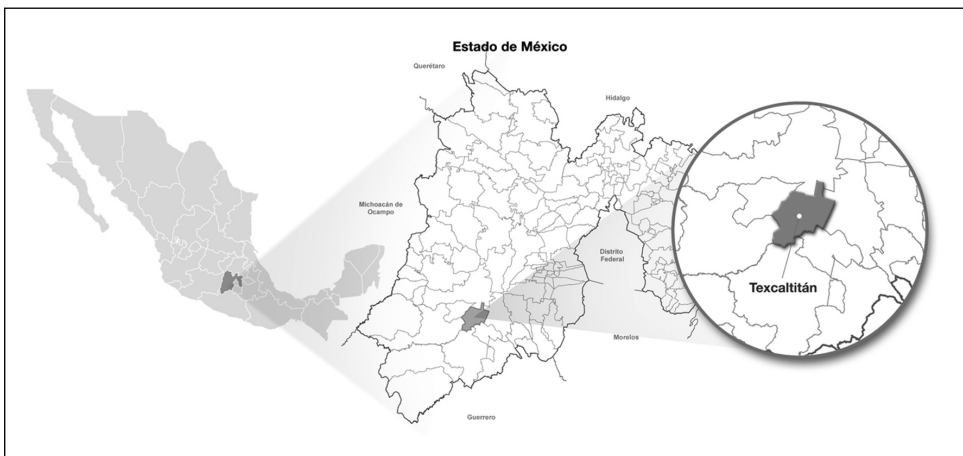


Fig. 2. Location of Ejido Venta Morales, Texcaltitlán, the State of Mexico

Source: Own elaboration.

2.1.3. San Juan Atzingo

Located in the municipality of Ocuilan, in the State of Mexico, at an altitude of 2,597 metres above sea level, having a population of 949 inhabitants [Pérez, Zizumbo 2014]. In this village lives the Tlahuica ethnic group who call themselves *Pjiekakjoo*, meaning “what I am” or “what I speak”. The main ecosystem of the territory is composed of *pinus spp*, *abies religiosa* and *quercus* forests, which stimulates the high productivity of mushrooms. This makes the Tlahuica the ethnic group consumers of the largest number of wild edible mushrooms in Central Mexico, having detected a total of 84 species [Aldasoro et al. 2016]. Since 2017, they have begun to offer mycological tours as a strategy of economic diversification.

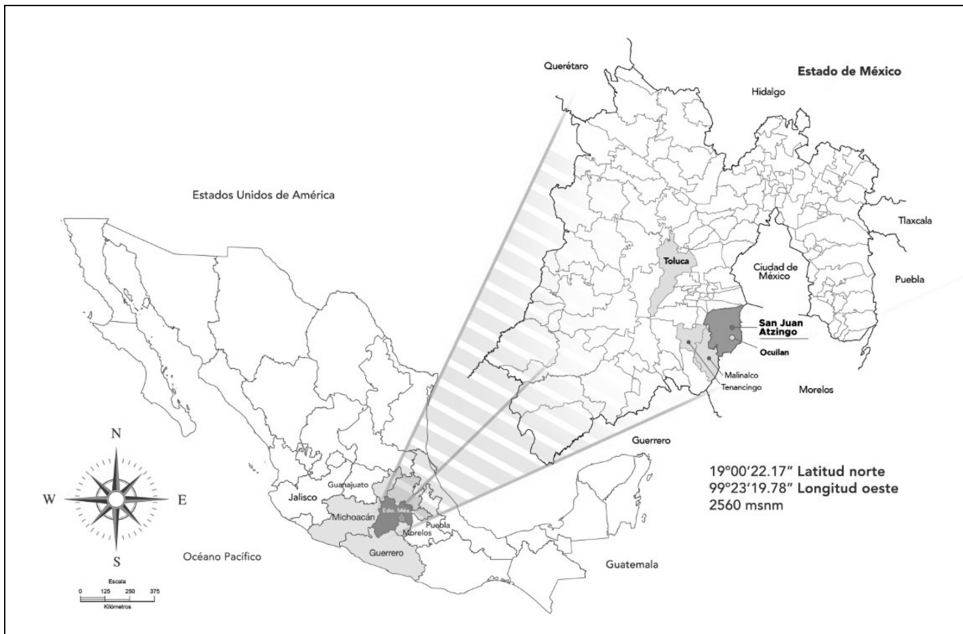


Fig. 3. Location of San Juan Atzingo, Ocuilan, the State of Mexico

Source: Own elaboration.

2.2. Interviews

A number of 24 semi-structured interviews were applied regarding aspects such as identity, personal experience, daily practices and the role of mycological culinary heritage in the territory. The selection of informants was carried out via non-probabilistic snowball sampling [Noy 2008] through which the main actors involved in this type of tourism were identified.

Table 1. Characteristics and profiles of the interviewees

Number	Community	Sector	Occupation	Sex
1	San Francisco Oxtitilpan	Tourism	Traditional cook	Female
2	San Francisco Oxtitilpan	Local population	Traditional cook	Female
3	San Francisco Oxtitilpan	Tourism	Mushroom picker	Female
4	San Francisco Oxtitilpan	Local population	Mushroom picker	Male
5	San Francisco Oxtitilpan	Tourism	Tourism service provider	Female
6	San Francisco Oxtitilpan	Government	Local authority	Male
7	San Francisco Oxtitilpan	Local population	Inhabitant	Male
8	San Francisco Oxtitilpan	Local population	Inhabitant	Female
9	Ejido Venta Morales	Tourism	Traditional cook	Female
10	Ejido Venta Morales	Local population	Traditional cook	Female
11	Ejido Venta Morales	Tourism	Mushroom picker	Male
12	Ejido Venta Morales	Local population	Mushroom picker	Male
13	Ejido Venta Morales	Tourism	Tourism service provider	Male
14	Ejido Venta Morales	Government	Local authority	Male
15	Ejido Venta Morales	Local Population	Inhabitant	Female
16	Ejido Venta Morales	Local Population	Inhabitant	Male
17	San Juan Atzingo	Tourism	Traditional cook	Female
18	San Juan Atzingo	Local population	Traditional cook	Female
19	San Juan Atzingo	Tourism	Mushroom picker	Female
20	San Juan Atzingo	Local population	Mushroom picker	Female
21	San Juan Atzingo	Tourism	Tourism service provider	Female
22	San Juan Atzingo	Government	Local authority	Male
23	San Juan Atzingo	Local population	Inhabitant	Female
24	San Juan Atzingo	Local population	Inhabitant	Male

Source: Own elaboration.

Those interviewed included people who had a direct relationship with the mycological culinary heritage, tourism and the public sector. In this way, it can be seen that traditional cooks who had a direct connection with tourism projects were interviewed, but also those who only perform this activity

in the domestic or ritual spheres. The same applies in the case of mushroom pickers, some of which are part of the tourism projects and others only develop the activity for self-consumption or sale at local markets.

This distinction was important because the exploratory visits showed that both traditional cooks and mushroom pickers are the main guardians of the mycological culinary heritage, but their perspectives regarding the use of these resources greatly differed depending on their relationship with tourism activity.

2.3. Participant observation

As a complement to the interviews, participant observation was carried out [Markwell 2001] during the accompaniment of 12 mushroom collections in the 3 studied communities (4 in each community). An observation guide was designed based on the following key aspects: i) harvesting dynamics, ii) knowledge associated with mushroom collection, iii) the roles played by different social subjects involved in the activity, iv) recreational and aesthetic nature of the activity, v) compatibility of traditional mushroom collection with other activities.

The observations were written in a field notebook and were complemented by a photographic archive. Nonverbal behaviours and attitudes of the participants were recorded, which allowed understanding aspects of the mushroom collection that were not clear in the interviews. Participant observation was conducted after the interviews because accessing the collection practices required developing a high level of trust with the mushroom pickers and also depended on the mushroom outbreak during the rainy season. The process of organising mushroom harvesting consisted of requesting authorisation from mushroom pickers to accompany them in the 'hunt' for mushrooms. Once they accepted and provided the necessary equipment, the activity began before sunrise to search for some specific species in places related to specific trees. The mushroom pickers with whom the collections were undertaken were the same pickers as those interviewed, but some members of their families also participated, as well as other collectors (mainly elderly) not interested in tourism-related activities.

2.4. Analysis

Since the data obtained only reflect the internal perspective of the studied communities, the author sought to triangulate [Decrop 1999] the obtained information through multiple perspectives derived from the perspective of the actors involved in mycological tourism; local authorities, the inhabit-

ants of the communities and those derived from the participant observation. On the other hand, although the view of this phenomenon is partial, it is the host communities that suffer the most from the impact of tourism activities [Andereck, Valentine, Knopf, Vogt 2005].

Categories for analysis were determined *a posteriori* using content cluster analysis. For this purpose, the semi-structured interviews were carefully read, determining which themes were repetitive from frequency analysis. These themes were coded to interpret the similarities and differences they expressed among the interviewees. The categories of analysis were: i) heritage dimension of mushrooms, ii) tourist reinterpretation of local resources, iii) social perceptions of mycological tourism, and iv) conflicts around local resources concerning productive restructuring of the territory. From these categories, thematic analysis was carried out [Myles, Huberman 1994], exclusive based on the dimensions of sustainability (economic, socio-cultural and environmental) as an analytical framework. Observational data were integrated into the analysis of the interviews to confirm the findings and sharpen the interpretations.

3. Results

Although this paper was written with the intention to understand interactions between tourism, mycological culinary heritage and transformation of the territory, the analytical framework from which these economic, social and cultural transformations are interpreted, is sustainability. For this reason, the results were structured from the three dimensions of sustainability on which a theoretical and methodological consensus has been achieved: the environmental, economic and socio-cultural dimensions.

3.1. The environmental dimension

Mycological tourism allows generating a unique perspective from which integration between food, nature and recreation is possible. The traditional mycological cuisine offers the opportunity to link the actors involved in tourism activity with the natural environment, through enjoyment of the landscape and the narrative associated with each species of mushrooms. The fact that the centre of activity is a food resource (mushrooms), implies that harvesting is a fundamental aspect in the development of significant experiences for tourists [Lund et al. 2008]. This experience is related to the process of immersion in the forest that is sensory, ludic and cognitive, as well as the process of obtaining food with one's own hands.

“The people who visit us are amazed to realise that mushrooms sprout from the earth, in the middle of the forest, that some are next to the trees, others below the ground and others in the plains, they have much fun looking but find almost nothing, they get very excited but the mushrooms they find are bad [inedible]” (mushroom picker).

According to the perception of these informants, one of the attributes of this tourist modality is that it serves as a vehicle for reconnection of urban tourists with nature. A convergent expectation was detected that contact with the forest, in the harvesting process, is a mechanism that allows tourists to develop awareness of the importance of nature. Certainly, this is related to the fact that the design process of the mycological harvesting tours has been conceived from an interpretative perspective that lies between “institutionalised” mycological (scientific) and local ethnic mycological knowledge. The discourse, with which the process of immersion of the tourist in the forest is conducted, is aimed at generating environmental awareness and a sustainable conscience. This allows analysis of the multidimensionality of this tourist modality, with environmental education being one of its main successes.

“What is learned during a mycological tours allows people to change their perspective on the importance of fungi and understand that in the forest, all the present elements are interconnected. Without a doubt, people leave with a different idea of the importance that nature has and with greater respect for it” (mushroom picker).

Some informants, especially those who are outside mycological tourism, have expressed serious concerns about this activity, including: the possibility that tourists monopolise mushrooms, the effects that the arrival of visitors can cause to other species of flora and fauna, and the general damage that tourist activity can cause to the forest. It is observed that a key aspect that the community conceives for the development of the activity is organisation, in the sense of having planned paths that do not cause disturbances, control over the visitors and respect to carrying capacity.

No antagonisms or clear opposition towards mycological tourism have been detected, however, some caution was noted regarding the environmental effects that the activity can cause, even by those directly participating in it. An aspect that coincides with that expressed by Wearing and Neil [2009] regarding sustainability in tourism is the constant negotiation process, not a consolidated fact.

“Fortunately, now they bring small groups of 10 to 15 people and they do not let them loose there in the forest. They are taken by a guide who explains the importance of the mushrooms, they do not let them pick up everything they

find, they can only collect the mushrooms that come in the guide and each team has the right to put a copy of each species in their basket. We must be watching to keep things being done right” (inhabitant).

The links between recreational leisure, food and nature in mycological tourism allow us to think that part of the analysis of traditional cuisine sustainability can be inserted into the broader discourse of contemporary tourism sustainability. Hence, the need to develop trans-disciplinary and complex perspectives, to address the temporal, spatial and symbolic dimensions of an object (mushrooms) that is torn between the limits of that human and the nonhuman, in a biocultural interface.

3.2. The economic dimension

As with other expressions of rural tourism, the incorporation of the tourist dimension into mushroom harvesting can be motivated by 3 fundamental aspects: i) a reaction to the conditions of marginality and poverty faced by harvesters, ii) a way of creating additional income from underutilised resources and iii) an opportunity to interact with tourists [McGehee, Kim 2004].

“Our main motivation to join the mycological tourism project was to generate extra money with which our family could live better” (traditional cook).

While mushroom harvesting and their sale at local markets are considered a marginal economic activity, the development of mycological tourism broadens the possibilities of generating economic income, adding value to resources and retaining significance in the territory.

“The people who come to the tours want to taste the mushroom dishes that we prepare here and try all the possible types of mushrooms. That’s good for the community because this generates profits for everyone, the gatherers who take the people to the forest win, the ladies who cook win, and we who shelter the people in the cabins win” (local authority).

The previous testimony shows that mycological tourism is a way to increase tourist spending in destinations that were traditionally oriented towards a visitor of a day hiking trip and carrying their food. This activity not only incites tourists to stay overnight in the community, to get up early for mushroom harvesting, but also stimulates the on-site sale of mushrooms, handicrafts and culinary preparations made with mushrooms.

One of the most questioned aspects regarding the contribution of mycological tourism to the economic sustainability of a territory is the seasonal

nature of this activity. However, it is the seasonality that gives it a unique character and an indissoluble link with the *terroir* [Fusté-Forné 2019]. Following the above, it is possible to define mycological tourism as a seasonal specialty that responds to very diverse tourist motivations, coming from the need to question global food patterns, experience new things, build a meaningful experience and/or have a moment of recreation, all within a broad spectrum ranging from nostalgic family meals to gastronomic experience and interest in ethnic cuisine [Cohen 1979; Mitchell, Hall 2003]. Based on the observations made in this field, as well as the testimonies recovered through interviews, it is possible to infer that the mycological tourists, who come to the studied communities, are usually a middle-class adults, travelling as couples or with friends, without children, having an average cultural level and whose main reason for travelling is to experience nature and wild foods. Up to this point, it was possible to infer that the existence of a tourist market interested in local mycophilic cultures is a source for generating complementary resources for these rural communities, which can be considered an economic contribution to the local population. However, studies that correlate specific typologies of tourists and their role in the sustainable development of the territories are minimal [Everett, Aitchison 2008].

“The mushroom season has always been important for us. Since we were kids, we used to gather mushrooms in the rainy season and then our moms would sell or exchange them at the market, with that we had more food. Now with tourism, it is better because tourists pay us well for tours and meals, they stay to sleep in the cabins and buy some things” (mushroom picker).

Although local actors can develop a critical perspective about some possible negative effects of mycological tourism, in general terms, there is an enthusiastic attitude towards these initiatives in the process of their implementation. However, one of the main problems that could be detected both from the observations made in the field and the testimonies gathered during the interviews was that beyond the specific activity performed by each actor (cooking, guiding tourists, cleaning cabins, etc.), there is no complete vision of the strategy in terms of the collective capacity of tourist use regarding mycological resources, of the relevance that a specific task has for the construction of a complete tourist experience and concerning the opportunity to develop new business. Certainly, not being an activity the initiative of which was developed within the communities, but is still part of the intervention process of the academy in rural areas, the global understanding of the strategy, often requiring a process of social appropriation that can occur in the medium or long-run, but on which its economic viability depends [Macbeth, Carson, Northcote 2007].

3.3. The sociocultural dimension

Opposition between local and global food and the intermediation of tourist activity, products, ingredients and dishes, are raised to a status of heritage that is valued through different discourses presented to a tourist.

“The people of the city who come to the mycological path cannot conceive that we look for our food in the forest and widely recognise our efforts and knowledge” (traditional cook).

Having monetary incentives for an activity that is increasingly less valued, socially and economically, tourism is a way to promote the preservation and development of the mycophilic identity that is at a risk of disappearing. In this sense, in addition to the new economic incentive provided by tourism, the new emotional bonds that are created in the process of reconstructing the food identity of the communities are very important. Every time the activities of harvesting, transformation and consumption of mushrooms are performed through tourism, they are elevated to the rank of food heritage; there occur processes of self-affirmation and increases in self-esteem, given the material and symbolic recognition that tourists provide to the local inhabitants.

“It is very nice to take tourists to collect mushrooms and see the respect and admiration for our work. Many of them have only tasted wild mushrooms from the markets, some only at expensive restaurants, not being able to imagine the effort and the risks involved in gathering mushrooms. Now, even our children want to get involved in the tours and for that, they have to improve their mushroom collecting knowledge and abilities” (mushroom picker).

The previous speaks for the fact that tourism can contribute to conservation of ethnic mycological heritage, the harvesting, preparation and distribution of mushrooms and, in general, to the restitution of the ways of life of a mushroom picker. However, there is also the perception that tourism can be a risk trivialising traditional cuisine [Cohen, Avieli 2004], causing it to lose its authenticity as has happened in other gastronomic corridors in the region where mushrooms are offered, indistinctly cultivated and wild. Nonetheless, there is nothing more dynamic than different expressions of culture, among which traditional cuisine has a special place, thus it is impossible to fossilise local culinary traditions while recognising the importance of diversifying them to help in their material and symbolic reproduction.

“The restaurants that sell soups and stews roadside often deceive the tourist and offer poorly prepared dishes, using cultivated mushrooms sold at supermarkets instead of natural wild mushrooms, causing the flavour to be completely different. They take advantage of the fact that people do not know what they are eating” (traditional cook).

One of the aspects that stand out in the testimonies collected from the interviews is the centrality that has been assumed by “the local” as an argument of differentiation against global standardisation. In the case of wild edible mushrooms, they must be considered as foods with a historical depth, which are related to a specific culture and place. For this reason, the sense of belonging expressed through food identities is intensified by the exposure that tourism makes of communities to external cultural patterns. This is how mechanisms of resistance to external influences and any eventual modification of traditional cuisine are generated. However, there is also an awareness that tourism is a way to revitalise the regional mycological culture, from its influence on the development of new activities, the maintenance of ethnic mycological knowledge and the reintroduction of wild foods into daily diets.

4. Discussion

Discussion on the tourist use of wild edible mushrooms and their relationship with sustainability incorporates environmental, economic and socio-cultural dimensions. One of the main challenges in analysing these dimensions is to create a balanced and comprehensive perspective of them, understanding how each dimension is associated with the other and how the behaviour of one determines the trajectories of those remaining. Certainly, the link between mycological tourism and rural development creates bias oriented towards the economic potential of the activity, running the risk of losing sight of environmental and socio-cultural dimensions.

Nevertheless, one of the aspects that have generated most concern about the tourist use of wild edible mushrooms is related to the possible environmental impact of the activity [Mortimer et al. 2012]. Although there is no scientific evidence showing that mushroom harvesting causes damage to mycological resources in the short run, there are no data derived from statistical monitoring to assess the long-term influence of commercial harvesting [Egli et al. 2006; Pilz, Molina 2002]. In addition to this, it should be considered that the development of tourism activities implies new anthropic pressure that must be added to those of mushroom harvesting.

Regarding the reinterpretation of mycological resources as a product for cultural consumption, it has been observed that the growing interest of tourists to consume local and authentic products, as well as their willingness to pay more for them [Andersson, Mossberg, Therkelsen 2017], is the basis for thinking about the possible contribution that mycological tourism could make to sustainability economics of mushroom gathering communities. In other words, the conversion of a wild raw product into a cultural object, oriented towards the tourism market, makes the economic and cultural continuity of this agro-food heritage possible.

In addition to the above, it is important to consider that there is a dialectical relationship between the new ways of using rural spaces as tourist resources [Saxena et al. 2007] and the new forms of tourist consumption based on more specialised offers. This means that the possibility of generating wealth in the new expressions of post-Fordism tourism [Shaw, Williams 2004], is based on the need to economically stimulate rural spaces, generally those depressed, and the ability of these spaces to respond to the needs of bucolic imaginary about the countryside, linked to a middle-class tourist profile [Munt 1994]. Therefore, we observe that the economic viability of these foods is connected with new ways of producing and consuming endogenous resources within the context of cultural and food globalisation.

According to Jacinthe Bessière [2001], the forms of rural tourism anchored in a food resource, as a starting point, may assume the paradoxical fact that food homogenisation generates resistance that can be expressed through the resurgence and the vindication of rural cuisine, being the rural space, a space of reconciliation, preservation and affirmation of culinary heritage. In this sense, rural tourism based on food, such as mycological tourism, is an opportunity to demand alternative forms of food from the large global agro-food industry.

Food-related tourism offers the opportunity to strengthen social relationships, having an emotional dimension, allowing to learn and develop a sense of belonging [Di Domenico, Miller 2012]. Therefore, it represents an economic and socio-cultural practice that allows resistance to food homogenisation and its negative effects. However, given the centrality of local food in tourism, it should be noted that large tourism companies developing conventional practices could copy these initiatives.

The 3 studies cases show evidence of the role that tourism can play in the regeneration of mycological heritage, particularly concerning the contribution this may have to local economic activities, to the reinterpretation and revitalisation of mycological culture and as a tool of reconnection between social actors and nature. It is thought that mycological tourism has been an important motivation for the preservation and reintroduction of mushroom picking skills, as well as allowing the development of new productive activities (related to tourism) to expand options for generating wealth in the communities

From an economic point of view, the use of wild edible mushrooms as tourist resources, since they are highly iconic foods, serves as a territorial marker for the differentiation and specialisation of a destination [Urry 1995]. Creating a destination image, based on local landscapes and traditional harvesting methods, could be the basis for attracting new visitors and increasing the economic sustainability of a territory. It has been observed that a certain type of mycological tourism (organised) may contribute to an increase in tourist spending and extent of their stay, but there are serious

doubts that this does not, at the same time, imply environmental and cultural risks for the region.

From an environmental perspective, it is essential to think about the need to plan mycological tourism activity through the careful designation of trails, articulation of guided tours, appropriate interpretation of resources [Pröbstl, Wirth, Elands, Dell 2010] and good harvesting practices for mushrooms. However, there are serious doubts within the community regarding the risks that this activity implies for forests while, on the other hand, there is not enough evidence regarding the effects of long-term, commercial and intensive mushroom gathering.

Regarding the socio-cultural aspects, it is important to highlight the fundamental role of tourism initiatives in the process of revalorisation of traditional mycological cuisine as a culinary heritage, an aspect that has had positive impact on the processes of self-affirmation, strengthening identities and increasing self-esteem of mushroom pickers and cooks. However, it is also perceived that tourist dynamics and overexposure to external cultures are factors that threaten the authenticity of traditional mycological cuisine and that enable its trivialisation and commoditisation as a tourist resource.

Conclusions

This paper provides initial elements needed to understand the relationship between the social construction of traditional mycological cuisine, tourism and sustainability. In this sense, the conducted research may constitute a reference for the initial approach to tourism based on wild foods. However, it is important to highlight the necessity to conduct broader studies that would incorporate other areas with mycological tourism proposals in order to contribute to larger theoretical debates.

This study provides evidence regarding the role of mycological tourism on the triple objective of sustainability: economic, environmental and social. However, there are still doubts regarding the capacity of such specific initiatives, such as including them in larger sustainable development strategies. This is due to the persistence of ambivalence between heritage preservation and economic exploitation, as fundamental tension that can be extrapolated to different productive fields, immersed in the hedonistic and experiential logic of late capitalism [Boltansky, Chiapello 2005; Lipovetsky, Serroy 2013]. The challenge related to such strategies as this one is to increase the sustainability of traditional activities, landscapes and communities, with the fundamental objective of encouraging development within the sustainable domestic tourism industry [Sims 2009]. A limitation of this study is that it only provides an endogenous perspective from the community; thus, fu-

ture research requires the integration of more comprehensive analysis that would include the perspectives of tourists, the market and experts in environmental, economic and social areas.

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