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*To my little Aurora,
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0. Introduction

In Sardinia, ‘identity’ and the discourses connected to it represent one of the most overwhelming aspects of living on the island, so much to have become an obsession for Sardinians. The question of ‘identity’ appears a constant element of discussion in political debates and the socio-cultural domain. One may argue that one cannot even buy a watermelon in Sardinia without falling into identity claims. Even doing grocery ‘identity’ is hard to escape. In fact, the claim “Sardinian like you” often appears on foodstuff and sale assistants’ t-shirts. Yet, rather than being a mere marketing strategy, the identity of food, people, and places represent a crucial concern of Sardinians. Local actors constantly shape and reshape ‘identity’ in different ways, claiming that present-day Sardinia is the heir of a ‘glorious past.’ Most contemporary narratives depict Sardinia as a mythical island at the center of the Mediterranean Sea. The process of identity construction is so robust that identity is the primary tool used by policymakers at any level of the public space.

The pivotal role of identity in the everyday life of Sardinians is well known in anthropological scholarship (Satta 2001; Angioni et al. 2007; Heatherington 2010; Marrocu, Bachis, and Deplano 2015; Sorge 2015). Anthropologist Francesco Bachis affirmed that, by the nineteenth century, several discussions about the alleged cultural diversity of Sardinians entered the public debate. Still, it was around the 1970s that ‘identity’ acquired centrality to think, discuss, and narrate ‘Sardinianness’¹ (Bachis 2015a). In the discourses about Sardinian identity, the notion of ‘resistance’ takes on a pivotal role. Anthropologist Tracey Heatherington has pointed out that Sardinian ‘resistance’ can be analyzed in the context of the tendency to primitivize, exoticize, and even undermine local rights on landscape and territory, underpinning global discourses on environmentalism (Heatherington 2010, xiv). Traces of identity-related themes emerge through the various official documents on territorial and biodiversity management. Autochthony vs allochthony, ‘authentic’ in contrast to diversity, are all notions that repeatedly appear in the projects aimed at biodiversity safeguarding. I argue that these

¹ In this dissertation I will use this term to refer to the notion of Sardinian identity linked to concept of purity and wilderness that take on a hegemonic role in the public dimension.

policies seem to promote and irremediably impose a vision of Sardinia as a wildland that seeks to return to a ‘virginal’ status. The Sardinian identity is often used to refer to animals and plants that testify the uniqueness of human and non-human beings in Sardinia. Questions of ‘identity’ also initiate animated discussions in the field of beekeeping which, even if it maintains a certain degree of autonomy, forms part of more expansive fields such as agriculture and environmental management. Specific issues linked to beehive management intertwine with discourses on the ‘authenticity’ of insects, plants, ‘traditional’ beekeeping, honey, and the landscape (Meloni 2018d). Additionally, the narrative about the ‘resistance’ of insects to Italian genetics mirrors the storyline boasting of the Sardinians’ ability to keep their genetic and cultural traits pure against the Italian domination (Cfr. 24). My attempt with this study is to highlight how a particular notion of Sardinianness intertwines with global discourses about biodiversity protection and management. As I will show, these discourses appear to neglect beekeepers’ local ecological knowledge and deny their claims of belonging to a given territory (Meloni 2018d).

Fieldwork has shown that, despite how central honey is in the online and offline discussions of beekeepers, the most complex critical tensions are at the level of identity construction. As Sardinians, beekeepers appear to create their identities by the very fact that they keep bees in a given place. The insects emerge as the primary concern of the beekeepers involved in this investigation. Bees are not merely conceived as ‘workers’ and producers of honey. Instead, they are prized for their ability to make honey *despite* the environmental challenges they have to face. The Sardinianness of bees is almost unanimously considered as the essential requirement to survive in a ‘Sardinian’ environment. The identity of bees and their connection to the territory is one crucial aspect that needs to be seriously addressed when dealing with beekeeping in Sardinia.

The Sardinianness of bees is a key point in the beekeepers’ narratives. The latter are imbued with a sense of nostalgia for the loss of authenticity resulting from not resisting to the Italian ‘seduction’ of importing ‘pure’ *Apis mellifera ligustica*². As I will show, according to this narrative, Sardinian bees lived in the island and were kept by Sardinian beekeepers, who were able to tame this undomesticated animal. The morphological and behavioral characteristics of these bees made them clearly distinguishable from the Italian honeybee (*A. m. ligustica*). The former are smaller, hairy, black, with a marked tendency to aggressiveness and resisting domestication; the latter, by contrast, are elongated, almost

² The *Apis mellifera ligustica* (Spinola 1806) is the scientific name of the Italian honeybee.

hairless, blond, and tame. Almost unanimously, beekeepers and scientists affirm that the ‘wild’ Sardinian honeybee ceased to exist sometime during the 1980s, when the *Varroa destructor* mite³ was accidentally imported to the island. At that time, parcels of Italian honeybees coming to Sardinia helped to spread the mite all over the island. The mite also attacked colonies that were not tended to by humans. According to Sardinian beekeepers and scientists, these colonies represented the ‘biological patrimony’ of Sardinian biodiversity. Beekeepers used them to reinvigorate the blood of their colonies. Sardinian beekeepers believe that the loss of honeybee biodiversity results from two human-driven factors: first, the introduction of the Varroa mite, which directly killed most wild nests in the environment, and decimated the colonies tended to by humans. Second, beekeepers blame the delegates from the *Regional Authority for Development and Technical Support in Agriculture*, then called E.R.S.A.T., because they used to encourage people to replace local honeybees with *A. m. ligustica*, which were considered to be more suitable for establishing a good beekeeping business (Cfr. 173). Inquiries conducted by the University of Sassari’s entomologists provide scientific evidence to support the sense of ‘loss’ of the ‘authentic’ and ‘truly Sardinian’ honeybee (Floris et al. 2007).

It is not the aim of the ethnographic research to establish whether this particular narrative has any truth in its roots. Yet, it is interesting to notice that the academic community is often interested in fostering scientific authority for theories that depict Sardinia as a ‘continent’ in its right, where *everything*, from the environment to the human and non-human beings that inhabit it, used to be *Sardinian* in essence. First person to describe Sardinia as a ‘continent’ was documentarist Marcello Serra (1958; 1961). He intended Sardinia as an emerging country, ready to participate in industrial development. This expression took on a somewhat different meaning in the contemporary understanding of the Sardinian identity. To the supporters of this view, Sardinia is a continent because it embeds various qualities that make it different from the rest of the countries in the world. Sardinian history, geology, geography, environment, culture, society, and ‘traditions’ are peculiar to the island. They are Sardinians’ heritage and the latter should know about this heritage to preserve it. When possible, Sardinians should do their best to restore the authentic Sardinian age. Some academic inquiries have so far

³ *Varroa destructor* is an arthropod mite native to Southeast Asia that in the mid-twentieth century has spread throughout the world and represents the main concern for contemporary beekeeping worldwide. The females enter brood cells and affect the developing pupa. The mites are carriers of various diseases, thus a medium infestation can lead to the collapse of a colony, while a large infestation will certainly kill a honeybee’s family (See Wilson-Rich 2014; Contessi 2016).

appeared to fuel the nostalgia for a golden age of Sardinian purity and independence when the island (intended as a ‘whole of beings’) used to resist attempts of external domination. This narrative is linked to an ongoing process of identity construction that brings together different understandings of what Sardinian identity is. Sardinians appear obsessed with demonstrating their diversity to the rest of the world. This also applies to animals, plants, and landscapes on the island. The debates about the autochthony of plants and animals exemplify this obsession. Beekeeping in Sardinia inserts in this context. Beekeepers appear to seek to demonstrate their right to belong and to be concerned with the Sardinianness of *their* insects. Honeybees are hardly the only animals searching for *Sardinianness*. In the past few years, various newspaper articles enthusiastically declared the interest of Sardinian and not Sardinian scientists in tracing the genes that ‘certify’ the autochthony of different animals. To put it as the journalist Luciano Piras, “Horses, sheep, goats, cows, dogs, chickens, and even honeybees are ‘Nuragic’. All these rather diverse animals have something in common: autochthonous genetic patrimony.”⁴ (L. Piras 2017). In 2017, the Sardinian newspaper *L’unione Sarda* congratulated Dr. Mario Barbato for his research on genomics and bioinformatics, which ‘certified’ that the mouflon is a “symbol of an ancient and deeply-rooted Sardinianness” similarly to the Nuraghi (*L’unione Sarda* 2017). Articles such as these represent but one example of how popular the topic of DNA research applied to human and non-human beings has proved to be. I must point out that both articles refer to the Nuragic age as a pivotal element in the discourses on Sardinian identity. I will show that the Nuragic age is one of the ages that Sardinians consider to have determined present-day Sardinianness.

To examine in detail how environmental issues and beekeeping are imbued with identity questions, it is necessary to explore the hegemonic⁵ notion of Sardinianness, which has been used as an implied framework for all discussions on Sardinia advanced by journalists, researchers, policymakers, as well as Sardinians in general and, in particular, beekeepers.

With this research, I aim to analyze how ‘identity’ is negotiated, constructed, and deconstructed in the beekeeping field in Sardinia. My goal is to fill the gap in the anthropological knowledge about identity in Sardinia, offering a new approach to the

⁴ My translation from the Italian article titled *Dal cavallo alle pecore, dalle capre alle vacche, dai cani alle galline e persino alle api “nuragiche”. Animali molto diversi tra loro ma uniti da un filo comune: il patrimonio genetico autoctono.*

⁵ On the notion of hegemony see Pietro Clemente and Giulio Angioni (2008) *I concetti gramsciani di egemonia e dominio in antropologia: Dialogo a due voci* (1979). See also Gramsci’s *Common Sense: Inequality and Its Narratives* by Kate Crehan (2016).

study of a classic topic of inquiry: animal husbandry and the construction of identity. Hence, I use a multispecies approach to investigate beekeepers' relationships with bees and the environment. Bees appear to take on the role of gatekeepers to the multispecies dimension of the environment. By working with bees, I will show that beekeepers perceive the environment as a place co-created and co-inhabited by human and non-human beings entangled by history and toil. This concept, I argue, leads beekeepers to elaborate alternative answers to what it means 'to be Sardinian.'

As I will show in the following chapter, the activity of the Sardinian archaeologist Giovanni Lilliu was unprecedented in its contribution to the creation of the present-day notion of Sardinia. This was mainly achieved by offering 'scientific' and authoritative proofs of the continuity between past and present in the island. Thanks to Lilliu, Sardinians modified their perception of the numerous Nuraghi that shape the Sardinian landscape (Angioni 2018) and ultimately of the environment itself. Nuraghi had been formerly regarded as little more than stone towers or lookout posts. Lilliu made them into an utter symbol of the glorious cultural patrimony of Sardinians. Although not without some contradictions (Cossu 2007, 120), the Nuraghe culture became the basis upon which contemporary Sardinianness is established. Lilliu's importance lies in his ability to 'pinpoint' the Nuragic era as the beginning of the 'constant resistance' of Sardinians, which is to say the beginning of the concept of Sardinia as an entity in its own right. As Lilliu himself wrote in Sardinian, *cun is nuraxis si format sa prima natzioni sarda*, which roughly translated as "the first Sardinian nation was formed with the Nuraghi" (Lilliu 2004). Linguist Giulio Paulis pointed out that prior to Lilliu, and specifically in the nineteenth-century, Sardinians considered the era of the Judges and particularly of Eleonora d'Arborea⁶ as the 'golden age' of Sardinian freedom and self-determination. After Lilliu, the Nuragic culture became a foundational figure within the collective understandings of contemporary Sardinians. In other words, the Nuragic age became part

⁶ In 534, after the reconquest by the emperor Justinian I, Sardinia becomes a province of the Byzantine. Later, around the eight Century, the Arabs raids on the Mediterranean Sea, and their attempt to conquered Sardinia made difficult for the Byzantine government to defend the island, and thus they abandon it to its destiny. Historians consider this event one of the reasons that led the development of an autonomous administration connected to the emergence of independent States in Sardinia. These states took the name of Giudicati (Judgedoms) and ruled the island from the 9th to the 15th Centuries. There were four Judges that ruled as many Judgedoms that divided Sardinia into four areas, corresponded roughly to the four administrative provinces into which the island was organized until 2001. The Giudicato di Calari, on the South, the Giudicato di Gallura, on the North-East, the Giudicato di Logudoro, North-west, and the Giudicato di Arborea focused on the Central-West regions around Oristano. Each of these Judgedome was further divided into territorial regions, the so-called historical regions of Sardinia. (Ortu 2005; Schena and Tognetti 2011).

of a collective identity which works as “contra-present memory” (Assmann 2011, 62-66, 112) in the movements for the autonomy and independence of Sardinia (Cossu 2007, 122).

Despite the effort to stress the uniqueness of Sardinia and its inhabitants, the images presented above evoke a familiar imaginary of authenticity and wilderness, which Sardinia shares with other Mediterranean islands too. In a general sense, islands in Western thought tend to be depicted as paradise-like places and endangered environments that must be protected with the finest scholarly ecological thinking (Nimführ and Meloni 2021). As, among others, scholars on islands Godfrey Baldacchino and Adam Grydehøj have pointed out, the utopian idea of islands as dream-places often works as the cornerstone in the relationship between islands and mainlands (Baldacchino 2005; 2008; Grydehøj 2018; see also Royle 2001; 2014; Fischer, Müller-Wusterwitz, and Schmidt-Lauber 2007; Lee, Huang, and Grydehøj 2017). From this critical perspective, islands and islanders are not passive subjects of ‘islandness,’ but produce their own discourses about themselves which may be similar to ‘external’ exotic views (Baldacchino 2016). If we apply this to the case of Sardinia, it appears that the construction of Sardinianness by Sardinians themselves takes place by condensing a wide range of wealth-creating stereotypes that are no different to comparable cases in other Mediterranean regions. I refer here, for instance, to the processes of selection of cultural and natural aspects of the Cyprus heritage in the context of its Europeanization, as analysed by Gisela Welz (2006; 2013; 2017). Similarly, the fact that the ‘real’ Sardinian is likened to the ‘highlands people’ resonates with some of the processes of identity construction that Michael Herzfeld has studied in Crete (Herzfeld 1988; 1997). Furthermore, the narrative that sees national identity being based on an alterity comprising heterogeneous elements of the past and presence of Sardinia and its inhabitants is similar to that of Mediterranean regions where local communities have staked a claim on their identity (Schwandner-Sievers 2001; Herzfeld 2004; Todorova 2004; 2009; Pusceddu 2008; 2013; Hemming 2011; Byrne 2021). Finally, the use of archaeological heritage to claim national uniqueness is similar across the world, with some striking similarities in the European context (Palumbo 2006; González and Álvarez 2013; Smith and Waterton 2013; Meskell 2015; González, Álvarez, and Suárez 2016; González 2016; 2017; 2018).

The processes of construction of collective identities and reinvented traditions (Halbwachs 1992; Hobsbawm and Ranger 1993) have already been studied in Sardinia from several perspectives (Angioni, Giulio 2000; Angioni et al. 2007; Rost 2000; Satta

2001; Wagner 2008; Frongia 2012; Bachis 2015a; Sorge 2015; A. Floris and Girina 2016). While these works offer crucial insight into theory and epistemology, an aspect that deserves critical inquiry, and on which I will now turn, is that of how ‘identity’ influences the ways public affairs are managed. Public policies as much as the shared knowledge of the Sardinian population are imbued with a common sense based on a specific on the historical and cultural diversity of Sardinia. This point is crucial in this thesis, as it provides the elements to build a notion of the relationship between humans that affects beekeeping practices and, by extension, the lives of bees. More precisely, I will focus on how the vision of an unspoiled and impenetrable island, an allegedly authentic Eden inhabited by feral men who have been able to tame wilderness and by the aforementioned *Janas*, the fairies of the *Domus de Janas*, became the basis for the contemporary interpretation of what being autochthonous means in plants and other non-human species. I will be thus examining how a specific notion of Sardinianness which became hegemonic is practically affecting the policies for environmental management and biodiversity safeguard and, by extension, the field of beekeeping (Meloni 2021). The idea of an ontological interpenetration and continuity between landscape and people’s temper is thus a key element of this dissertation. If we agree with Arturo Escobar on considering the notion of ‘biodiversity’ as a ‘hegemonic construct’ (Escobar 1998, 61), the perspective of beekeepers on autochthonous and allochthonous species represents a form of resistance to hegemonic power.

Identity construction, policies for environmental management, and the notion of the ‘endless island’ discussed above seem to be embedded in the ‘issue of the eucalyptus.’ Among the numerous species more or less recently imported/arrived, the eucalyptus tree is probably one of the most contested one in terms of its ‘right’ to be in the Sardinian soil. Sardinians’ common sense reckon that eucalyptus trees are responsible for draining the soil, destroying the native *Sardinian* ecosystems, and deface the island native landscape (Meloni 2021, 69). Apart from the frictions linked to ecological concerns over biodiversity protection, the negative notions Sardinians attribute to eucalyptus trees also seem connected to the role of the plant in the history of the agricultural and industrial development of the island. More precisely, eucalyptus is now generally regarded as having played a significantly negative role in the project of ‘modernization’ of the island by the then-reigning House of Savoy, during Fascist times to get rid of malaria, in the 1960s in the paper industry, and nowadays for ecological transition purposes.

From the beekeeping perspective, eucalyptus trees represent a significant source of income. It is estimated that in ideal conditions, the eucalyptus tree can theoretically produce approximately 200 kilograms of honey per hectare, which means 16,000 hundred kilograms per year, for an income of €5.6 million each year (Assessorato della difesa dell'Ambiente et al. 2012, 7).

Despite its importance in the beekeeping sector and in the timber industry, eucalyptus remains a highly controversial plant in Sardinia, its exploitation seemingly being connected to discourses about the Sardinianness of landscape. The construction of the notion of allochthony around the eucalyptus, I will argue in chapter nine of the dissertation, acquires a special value for the construction of the Sardinian identity based on a continuity between humans and environment. Thus, the analysis of the 'issue of the eucalyptus' offers the opportunity to examine the process of construction and deconstruction of Sardinianness as outlined in this chapter.

Finally, the research contributes to analyzing the conflicting relationship between policymakers and local stakeholders by highlighting the mechanisms of power triggered by environmental management policies. Hence, I will explore the conflicts between beekeepers, policymakers, and other regional institutions engaged in the beekeeping field in Sardinia.

In chapter one, I focus on the mechanisms of construction of a model of Sardinian identity based on what the anthropologist Alberto Mario Cirese has called 'suggestive imaginations.' In doing so, I will highlight the common elements between literature and visual arts that, through history, have contributed to shaping the present-day notion of 'Sardinian endless island.'

In chapter two, I focus on the emergence of bees in the socio-cultural dimension and discuss how a multispecies approach can effectively contribute to highlighting the role of the human-bee-environment relationship, as I define it, in the de-construction of the hegemonic notion of the Sardinian identity.

In chapter three, I discuss the problems and the critical aspects arising from my lifetime apprenticeship as a beekeeper in a family of Sardinian beekeepers and undertaking research as an anthropologist in the field of beekeeping in Sardinia. Furthermore, I will present the methodological aspects that characterize the study, particularly regarding the experimental collaborative practices that emerged during fieldwork.

In chapter four, I will offer insight into the historical context and present-day dynamics of beekeeping in Sardinia.

In chapter five, I will discuss the process of self-representation as ‘beekeepers’ by focusing on the public dimension of the associations of Sardinian beekeepers.

In chapter six, I focus on the mechanisms of construction of the bee’ that belongs to the wild category and the domestic environment in Italy and beekeeping in Sardinia.

In chapter seven, I investigate beekeepers’ relationship with the bees and the environment. By building on a multispecies perspective, I will claim that grasping the meaning of doing beekeeping in Sardinia is crucial to consider the ‘human-bee-environment relationship’. I will contend that this relationship enables beekeepers to develop their specific understanding of how different species interact. This, I will also argue, reveals how beekeepers conceive the Sardinianness of human and non-human beings.

Chapter eight investigates the tensions between notions of the nature/culture dichotomy about Sardinian identity in the management and exploitation of eucalyptus plantations. In this regard, the chapter highlights how the binary idea of nature and culture as the basis of public policies for environmental management is connected to the concept of continuity between landscape and humans, which informs the present-day notion of Sardinianness.

Finally, chapter nine takes stock of the insight discussed in the previous chapters and offers some insight on possible further paths of inquiry that may arise from the results of my research work.

The dissertation concludes with a series of draws that I made to learn more about some of the plant species that I met during this survey. The draws are somewhat different from traditional botanical depictions. I did not linger on realistically defining the morphological and sexual traits of the species. Instead, the draws are more like fast portraits of the plants. Drawing helped me to learn to distinguish the species, to *notice* them in the environment, and to pay attention to how they build networks with other species. The plant-portraits should help the reader to visualize some of the species that are mentioned in this dissertation.

In what follows, I analyze the contemporary notion of the Sardinian identity by tracing the various ‘visual imaginations’ that helped to carve it out.

1. From Cultural Diversity to Environmental Uniqueness: The construction of Sardinian identity

‘Identity’ represents a sort of obsession for Sardinians (Bachis 2015a), so much so that regional laws explicitly and implicitly refer to the Sardinian identity of the Sardinian community⁷. Still, the notion of Sardinianness is by no means monolithic. It appears to have been carved out of a mixture of historical and philosophical positions and on several visual elements. I suggest this results from a long history of exchanging gazes between the islanders and the travelers who visited the island.

In 1963, anthropologist Alberto Mario Cirese argued that the ‘suggestive images’ of Sardinia intended as a timeless world that somehow manages to keep an ‘archaic’ appearance may have led people to confuse centuries with millennia. According to Cirese this had the effect of denying Sardinia its role in European history (Cirese 2006, 17). Cirese’s analysis drew on the works on Sardinia of Matteo Madao (Madao 1792), Antonio Bresciani (Bresciani 1861), and Alberto La Marmora (Della Marmora 1926). Madao, Bresciani, and La Marmora described Sardinia between the end of the eighteenth century and the first half of the nineteenth century. Cirese argued that the island’s conservative features directly resulted from a ‘Sardinian way’ of taking part in the history of the Mediterranean (Cirese 2006, 23). This, for Cirese, in spite of the fact that some Sardinian features may appear ancient, and despite the actual backwardness in industrial development due to its geographical conditions.

In what follows, I will build on Cirese’s argument to focus on those ‘suggestive images’ as far as they contribute to shaping present-day notions of Sardinianness. In doing so, I will try to trace the construction processes of Sardinian identity by examining some of the events that I consider pivotal. This is not meant as a comprehensive explanation; instead, I have selected some elements which I believe are exemplary in that they highlight the oft-subtle connections and levels of understanding that animate the ongoing process of identity-making. The analysis critically reflects on how the anthropological scholarly

⁷ See for instance: Regional Law n.15 of 1997, aimed at enhancing the culture and language of Sardinia, states in its first article states that: “The Autonomous Region of Sardinia understands the cultural identity of the Sardinian community as a paramount value that needs to be enhanced [...]” (L.R. 15/1997, art. 1).

literature on Sardinia written between the 1950s and the 1990s — particularly those belonging to the so-called *Scuola antropologica cagliaritana* (Cagliari Anthropology School; Grottanelli 1977, 600; Angioni 2015) — contributed to nurturing, albeit unintentionally, the ‘archaic’ suggestions to the question of what the Sardinianness is.

1.1 Welcome to the ‘Endless Island:’

In 1828, the British official Willian Henry Smyth wrote that:

The Sards are of a middle stature and well shaped, with dark eyes and coarse black hair; except in the mountains, where fresh complexions and blue eyes are also met with. In the Campidano they are more swarthy than in the Capo di Sopra, whilst a large mouth and thick lips give them a more Celtic appearance. They have strong intellectual faculties, though uncultivated, and an enthusiastic attachment to their country: indeed, no where can the love of the “natale solum” be stronger, —hence they are not liable to that dispersion of families, and consequent relaxation of domestic affections, so general, either from choice or necessity, in more populous dominions. They are kind and hospitable, with a pleasing frankness of address, but, though active with excited, are extremely indolent in general. Their good qualities are counterbalanced by cunning, dissimulation, and an insatiable thirst for revenge, — vices that tend to foster implacable animosities in families, and occasion those numerous murders which disgrace the island. [...] The proneness to revenge, which is thus incited, is the cause of hordes of banditti who infest the mountainous parts of the island, and who were until lately so numerous, that it was admitted as a matter of course, that there must be “malviventì” wherever woods, hills, grottoes prevail (Smyth 1828, 143,144).

Smyth was appointed to write a map of Sardinia for the British army (Boscolo 1973). When he came back to England, he wrote a *Sketch of present state of the island of Sardinia (1828)*. At that time, Smyth could not have known that the characteristics he saw in Sardinians would later become the basis of a long-lasting narrative on Sardinian identity - what we have been calling, for short, *Sardinianness*.

Nowadays, by typing ‘Sardinia’ in a search engine, depending on the location of the search, the first web pages that show up are linked to tourism.⁸ Switching to the ‘Images’ section, the pictures portray picturesque coastlines, cliffs teeming with ‘wild nature’ overlooking crystal-clear waters of at least ten different shades of blue, a few pictures of colourful hamlets, several stone towers called *Nuraghi*, masked people riding horses, and more pictures still of ‘uncontaminated nature.’

When landing at a Sardinian airport, one is surrounded by images of stunning shorelines combined with announcements of local brands of supermarkets or food sellers

⁸ Interestingly, my search engine informs me that people also ask, “What race are Sardinians?”, “Is Sardinian DNA rare?”, “Is Sardinian the same as Italian?”.

such as *Nonna Isa* or *S'atra Sardinia*. The former is a chain supermarket whose logo refers to the grandmother of its founder 'Isa' dressed in traditional clothes; the latter a consortium that, since 1982, has distributed organic food by affiliated producers abroad, particularly in Germany, via foreign food chains. While waiting for luggage, the screens above the baggage carousel display looped videos showing crystal-clear blue waters, wild nature, abandoned old mines, and 'untouched' nature. The same videos accompany travellers in the departures area, along with several shops of 'traditional' products, from food to arts and crafts.

It is not unusual to find small expositions at the Cagliari Airport displaying goods of archaeological relevance that are considered the most representative of Sardinian cultural uniqueness. These images, I argue, convey a precise idea of the island, which the Autonomous Region of Sardinia (henceforth ARS) exploits in two major ways: the images speak to Sardinians to affirm their 'uniqueness.' In addition, the virtual landscapes produced in the images represent a way to claim Sardinian's alterity and authenticity in contrast to 'the others.'



Figure 1. Cagliari airport (Credits: Greca N. Meloni)



Figure 2. Installation at the departure zone of Cagliari's airport. (Credits: Greca N. Meloni 2021)

Interestingly, such images hearken back to the overarching concept in the design of the institutional logo *Sardegna isola senza fine - Sardinia endless island*, which was created to promote the ‘visual identity’ of Sardinia for the Expo in Milan in 2015. The handbook realized by the joints Departments of architecture and design of the University of Sassari and the University of Cagliari, explicitly refer to iconic Sardinia-related works of art produced over the last few centuries (Regione Autonoma della Sardegna, DADU - Dipartimento di Architettura, Design, Urbanistica Università di Sassari, and DICAAR - Dipartimento di Ingegneria Civile, Ambientale e Architettura Università di Cagliari 2015).

Among the many traces of ‘suggestive imaginations’ in the institutional claim, a trained eye easily detects echoes of the works of foreign painters/travelers between the middle of the nineteenth century and the beginning of the twentieth century. The ‘Sardinia endless island’ concept is marked by a visual culture based on the image of a wild, unspoiled island for centuries depicted in literature and arts. I argue that this concept is imbued in an ontological framework that conceives a fundamental conflict between ‘nature’ and ‘humans,’ common to western societies (Ingold 2000, 104). This notion conceives anything non-human as external to the human self. From a visual point of view, the artists of the Renaissance masterfully translated into their paintings the notion of the

dichotomy between ‘nature’ and ‘culture.’ For its ontological implication, the Renaissance perspective is crucial in this discourse. I argue that the ‘invention’ of the perspective in paintings of the Renaissance clearly manifests the distance between humans and non-humans. Piero Adorno pointed out that the Renaissance perspective ‘is a tool that allows us to comprehend reality because it explores it under rational and universal laws’ (Adorno 2003, 1:19). It is not the place to explore the meaning of the paintings of the Renaissance⁹. I limit myself to pointing out that the paintings by Masaccio, Piero della Francesca, and Sandro Botticelli show how ‘nature’ was conceived to be rationally controlled by humans. The paintings suggest that their authors positioned themselves from a specific point of view. This position is by no means merely physical. Instead, it is based on the notion that humans dominated ‘nature’ with their ‘culture.’ Somehow, the Renaissance influenced how people from the societies that experienced the Renaissance looked at what was before their eyes. The visual peak of this notion is reached with the Italian *Vedutisti*. It is helpful to think about the ‘optical chamber’ or dark room that the 1700s artist Giovanni Antonio Canal used to paint his views of Venice (see Adorno 2004, 1:108–12). The paintings do not merely testify where humans position themselves as to ‘nature.’ They convey a specific ontology that I argue survives in the contemporary concept of the dichotomy between ‘nature’ and ‘culture.’

Returning to the subject of this inquiry, I argue that the photographic representations of the seem carved out on the same binocular vision that guided the paintings of the above-mentioned artists. This is not the only connection with western art history. The above-mentioned institutional claim knowingly embeds the colors and concepts used by the Spanish paintings of Eduardo Chicharro Agüera and Antonio Ortiz Echagüe to paint the proud people of Sardinia (Frongia 1995). Additionally, it is imbued with the bitter feelings of violence and vendetta carved in the famous sculpture *Madre dell’ucciso* by Francesco Ciusa (1905) showed at the Biennale di Venezia in 1907. The notion of Sardinianness sketched through paintings and sculptures becomes more ‘realistic’ in the literature about Sardinia. Literary works add cultural and environmental contexts to these images. For instance the accounts by William H. Smyth (1828), Antoine Claude P. Valery (1837), Heinrich von Maltzan (1869), Max Leopold Wagner (1928; 2001), D. H. Lawrence (1976), Antonio Della Marmora (1926), describe Sardinian’s landscapes and people as ‘wild’ and ‘uninhabited.’ Certainly, not all Sardinians know the paintings or read the books in question. Still, a thin strand in the visual culture of Sardinia seems to connect the artistic

⁹ For a comprehensive analysis on the images of the art in the Renaissance see Gombrich 1975, Saxl 2005.

and literary production of the past centuries to the Sardinian identity. The elements represented in these different forms of art and literature become the mold for the contemporary notion of the Sardinianness which Sardinians apply to humans and non-humans¹⁰

I contend that as we moved forward to the middle of the twenty century, cinematic productions took over the role of painters and writers in describing Sardinia for the benefit of the general public. Despite the film adaptations of novels about Sardinia is a field in itself (Floris and Girina 2016, 143–45), it is with documentary productions that the image of a wild, ‘endless,’ and resistant island has been reinforced. Similar to the art and literary works from the previous decades, the cinematic production of authors from the 1950s to the 1960s depict the ‘typical’ traits of Sardinian culture: the ‘wilderness’ of the Sardinian landscape, the pride and honour of its inhabitants, its traditions. However, there is a difference of meaning in the use of these elements between Sardinian and non-Sardinia authors. The former appears to consider these elements characteristic of the past. Thus, they are intended to disappear because of the economic and industrial development of the island. For instance, in *Sardegna quasi un continente* (lit. Sardinia almost a continent) by Marcello Serra (1958), the soothing tone of the voiceover actor that accompanies the viewer in a visual journey on a wide range of Sardinia’s everyday life aspects seems to suggest that they will soon disappear for good. From the director ‘insider’ perspective as a Sardinian himself, are all meant to being displaced by ‘modernity’. Likewise, the documentaries by Fiorenzo Serra (1958; 1962; 1964; 1965; see also Pilleri and Ugo 2014) seem to attempt at capturing traditions before they vanish, drowned out by the *necessary* industrial innovation. The documentaries do not appear to be imbued with nostalgia. Instead, they convey their excitement about the years to come, in which Sardinia and Sardinians would have finally shaken off their backwardness and find their place in the modern world. The documentaries are evidently a product of their times. Indeed, the firsts industrial plans in Sardinia were designed between the 1950s and the 1960s. For instance, the creation of the Consortium for the Area of Industrial Development of Cagliari (CASIC) — which dates to 1961 — thanks to law n. 634 of 1957 for the development of Italian Mezzogiorno¹¹ (Presidenza della Repubblica 1962), represented a symbol of the development of Sardinian society and the future of Sardinians.

¹⁰ On how iconography informs current perception of nature see Cristina Grasseni (2004, 2009).

¹¹ See: <https://cacip.it/cacip-chi-siamo/cacip-la-nostra-storia/> Accessed 12.04.2019

In contrast, the cinematic production of non-Sardinian authors is marked by an ‘outside gaze’ which turns the same elements depicted by Marcello Serra and Fiorenzo Serra into *tópoi* of Sardinianness. For instance, I refer to the Disney documentary on Sardinia (Sharpsteen 1956) that is part of the *People & Places* series. In the first shot, a caption reads that “All scenes are authentic, and the stories are factual.” One may easily notice the connection between the Disney documentary and the work of Spanish artists Chicharro and Ortiz, who had come to Sardinia to collect visual evidence of a disappearing world (Frongia 1995). Yet, despite the initial claim of wanting to present “interesting PEOPLE and the PLACES in which they live”¹², the Sardinia depicted by director Ben Sharpsteen in the Disney documentary is of an island that is lost in time, a ‘neverland’ of sorts inhabited by extraordinary characters. This Sardinia became a space brimming with unique traditions – in short, a ‘disneyfied’ island.

In the same period, Sardinia sparked the interest of directors of fiction movies resulting in narratives that focus on the male perspective, particularly on the alleged ‘pride’ and ‘stubbornness’ of Sardinian men. Films such as *Banditi a Orgosolo* (De Seta 1960), *Una questione d'onore* (Zampa 1965), *Padre Padrone* (Taviani and Taviani 1977), contributed to creating a representation of Sardinians based on the same stereotypes of ‘honour and shame’ that are widespread in other Mediterranean regions. In these movies, with some differences, animal rustling, gory conflicts between families, and a blind male chauvinism become ‘natural’ traits of a culture that, the story went, differs significantly from the Italian one. The Sardinianness is seen from a negative perspective and takes the role of a marker of otherness between Sardinians and Italians (A. Floris 2019, 48–55; see also Olla 2008). Notably, these works soon transcended their status as representations of an ‘outside’ gaze on Sardinia, and were crucial to shape the way in which Sardinians currently see themselves.

The role of Antonio Pigliaru and Giovanni Lilliu should be mentioned to understand how art, literature, and cinema merge altogether and contribute to creating a powerful image that influences the processes of self-representation of Sardinians. In the same period when the aforementioned movies were released, the Sardinian jurist and philosopher Antonio Pigliaru published his famous book *La vendetta barbaricina come ordinamento giuridico* (Pigliaru 2007). The book has extensively circulated (and still does) in the bookshelves of Sardinians. Pigliaru systematically examines the set of unwritten, mostly implicit, rules to analyze the violence and brutality that seemed to characterize the

¹² The emphasis is part of the original version.

social environment in which he grew up.¹³ A few years later, the archaeologist Giovanni Lilliu published his masterpiece on Sardinianness: the book *La civiltà dei Sardi dal Neolitico all'età dei Nuraghi* (Lilliu 1963). Lilliu claimed that the archaeological evidence clearly shows the existence of a “Sardinian civilization,” a people that are culturally inconsistent with Italian ancestors. Not only is Giovanni Lilliu *the archaeologist* who coined the notion of ‘Sardinian constant resistance’ discussed below (Lilliu 2002). He is also the first archaeologist who systematically studied the Nuraghe culture, who discovered the site of the ‘Su Nuraxi,’ the Nuraghe in Barumini,¹⁴ and he founded the School of Specialization in Sardinian Studies and the Regional Ethnographic Institute (also known as ISRE). A politician and an intellectual, Lilliu was also a beloved popularizer who took on a pivotal role in shaping the contemporary notion of Sardinianness.

Lilliu believed that the Sardinian landscape, with its Nuraghi and its impenetrable appearance, embedded the entangled relationship in force between humans and their territory (Lilliu 2002, 426, 427). According to Lilliu:

The Nuragic phenomena represents the highest evidence of the presence of Man and of its domination and transformation over the natural landscape. [During this time] it is built a strong cultural ecosystem and of total anthropic widespread. Man moves all over the place-environment, from the shorelines to the hard core of the mountain, on the different soils and beneath diverse climates, everything is inhabited and showed off through unforgettable signs. The territory is entirely shaped through the specific settlements, and the design is conceived and made at large, *für ewig*. A perfect consistency between natural and cultural ecosystems is clearly visible (My translation). (Lilliu 2002, 428)

Lilliu believed that the ‘overwhelming’ endurance of the Nuraghi in the contemporary landscape testifies to how deeply Sardinians are rooted in Sardinia, and how this connection forms a crucial part of the Sardinian identity. Thus, Lilliu suggests, there is continuity between Sardinia — intended as a space that comprises different types of ecosystems — and its inhabitants. This interpretation between people and places for the archaeologist determines the identity of Sardinians. Moreover, the ‘natural’ innate mistrust typical of Sardinians depends on their strong relationship with *their* environment. Indeed, Lilliu explains:

¹³ For an extensive analysis of Pigliaru’s code see the Introduction by Benedetto Meloni in Pigliaru (2007).

¹⁴ The archaeological complex of *Su Nuraxi* in Barumini is located roughly in the centre of Sardinia, and it is the largest Nuragic site known today. It was revealed around the 1950s through important dig campaigns thanks to the work of Giovanni Lilliu, the archaeologist originates from the same village. Since 1997, *Su Nuraxi* is enlisted in the World List of Cultural Heritage of the UNESCO. See: <http://www.fondazionebarumini.it/en/area-archeologica-nuraxi/>

Sardinians' natural tendency to mistrust everything that comes from outside [the island] depends on the mountain's space or to what is mistakenly considered the "subculture of violence," of a hurt soul that claims its own distinctive culture that ancient and recent colonisers forced to an "Indian Reserve." (My translation) (Lilliu 2002, 294).

The intricate connection between the alleged wilderness of Sardinia and the 'suspicious behavior' of Sardinians constitutes the ground upon which Lilliu couches his theory of a 'Sardinian constant resistance.' According to this, Sardinians have resisted the cultural corruption of the 'outsiders' in a manner akin to how the old Nuraghi stone towers endured to the harshness of time, climate, and history. The association of the Sardinian identity to the Nuraghe culture took on a hegemonic position, and soon other notions became less popular but coexisted (Cossu 2007).

Despite Lilliu considering 'true Sardinians' only the inhabitants of the central regions of the island, his theories became very popular and contributed to strengthening the imaginary of Sardinia and Sardinians that was subtly depicted in much of the fiction and non-fiction works on Sardinia. In short, Lilliu's theory of an interpenetration of landscape and people has played a central role in the processes of self-representation of Sardinians.

The reason for Lilliu's popularity is manifold. He was a prominent intellectual who took part in some of the most important cultural gatherings in Sardinia and beyond, where the movies mentioned above, paintings, and literature works would often be discussed. His theories found fertile ground. Notions of continuity between the 'golden age' of Sardinians and present-day Sardinia were imbued with a fascination for history and archaeology,¹⁵ and this contributed to creating 'suggestive images' of a primitive island (Cirese 2006). In addition, the anthropological school of Cagliari to which Lilliu was connected also played a key role (Grottanelli 1977; Angioni 2015; Clemente 2017). During the 1960s, many Italian intellectuals were based at the University of Cagliari, such as, poet and philosopher Aldo Capitini, philosopher Nicola Abbagnano, historian Paolo Spriano, and literary critic Mario Baratto, and many others that contributed to giving vitality to the Sardinian cultural environment (Clemente 2017). The arrival of anthropologist Ernesto de Martino and, later, Alberto Mario Cirese at the University of Cagliari coincided with a moment of decisive social and cultural changes on the island. The cultural milieu in the city of Cagliari was thus crucial for cultural processes in Sardinia and, in a broader sense, in Italy. The presence of intellectuals in Cagliari went hand in hand with the prolific scientific output of the anthropological school of Cagliari on

¹⁵ An archaeological perspective on the effects of Lilliu's theories on the public sphere is offered in D'Oriano 2018.

folklore and the pastoral world in Sardinia. This fueled existing debates on the identity construction processes and sometimes started new ones afresh. It is important to remark that this occurred somewhat despite the thinkers' intentions. Books such as *Sa laureria* (Angioni 1976), *Pani tradizionali. Arte effimera in Sardegna* (Cirese et al. 1977), *I pascoli erranti. Antropologia del pastore in Sardegna* (Angioni 1989), *Animali perduti* (Caltagirone 1989), *La casa e i campi* (Da Re 1990), *Pane e formaggio* (Angioni 2000), *Bella s'idea mellus s'opera. Sguardi incrociati sul lavoro artigiano* (Caoci 2005) were famous amongst academics but circulated beyond the academy. These books, in a certain way, became producers of identity even if their authors had not meant to do so, to the point that people used (and still do) the insights from these books to claim authority on the question of how processes of identity construction unfold in the public space.

Yet, more so than anthropology, it is archaeology that has offered intriguing cues for unveiling continuities between ancient and present-day Sardinians (Cossu 2007; Frongia 2012; Angioni 2016, 12–15). The events connected to the recent emergence of 'NurNet: La rete dei nuraghi' (the Nuraghi's network), a foundation created in 2013 "to modify the widespread image of Sardinian by focusing on the Nuragic cultural heritage"¹⁶ is an example of the crucial role of archaeology in conveying a specific idea of Sardinian identity¹⁷.

As a thinker deeply involved in these debates, Giovanni Lilliu was instrumental in engendering a notion of Sardinian identity that embedded concepts that were rather scattered. In 2007, Lilliu received the honour of *Sardus Pater* (Sardinian father). The title was meant to acknowledge people, regardless of whether they are Sardinians, Italians or foreigners, that have given a relevant contribution for the prestige of Sardinia. It was created during the administration of the businessman Renato Soru, who played a crucial role in institutionalizing the Sardinianness as sketched hitherto.

The role of Renato Soru will be explored in the following chapter.

1.2 Toward the institutionalization of the 'Civilization of Sardinians:' The role of businessman Renato Soru

In order to complete our discussion on the construction of the hegemonic notion of the Sardinian identity and see how it connects to environmental management policies, it

¹⁶ See: <https://www.nurnet.net/missione/>

¹⁷ For an accurate analysis on the processes connected to NurNet please see Frongia 2012 and D'Oriano 2018.

is necessary to understand the role played by Renato Soru, the former Governor of Sardinia. Soru, I argue, is responsible for ‘translating into practice’ a notion that otherwise would have remained on a discursive level. More specifically, I argue that Soru was crucial in turning an ideal, collective imaginary, into a set of policies within the whole administrative structure of the region.

Renato Soru is a businessman engaged in internet services, high-level technology, and digitalization in Europe. In 2004, he took to the field of politics and successfully ran as head of the Sardinian regional government. Soru’s business ideas are crucial to understanding how he developed a political framework that aimed to reshape the role of Sardinia in the world. A 2013’s TEDx interview to Soru reveals interesting insights on how he conceives the Sardinian identity and how his notion influenced the regional policies for environmental management. He started introducing himself and his ‘adventures’ as a businessman and politician:

“In 1994 I set up internet in Prague, Czech Republic. I wanted to face what was happening beyond the Italian borders. And with this new network technology —which for those born in an island, it seemed incredible for the first time to be connected to the other ones. I happened to engage in a beautiful adventure (also from a human perspective), to bring the very first internet offer in the Czech Republic, a country where it took ages to get a phone line. And where the people who had it, used a duplex. It’s hard to get an internet connection with a duplex. Anyway, that adventure developed lasted for three years. In 1998 I sold that company. [...] I did it because I wanted to go back home. I was excited about doing that amazing and intelligent job — I felt like I was amidst the things happening in the world.

Furthermore, I felt also that because we grew up on an island, we could better understand the meaning of staying at home while working for the world, to stay at home and yet not being isolated. To stay at home and be able to live with others, providing the possibility of creating good jobs with others far away from you. Hence, I wanted to bring that job to Italy, in Sardinia. We gave it a Sardinian name: Tiscali, the name of a cave where, according to our myth, Sardinians found silent refuge from the Phoenician invasions. [...] A company was created not with the idea of making money but rather with creating the best industry in Sardinia. We had the idea of showing that we could create jobs without others bringing it from outside. And that we would defend our jobs, and that to create job opportunities, there was no need to consume the territory or destroy it, polluting it. That there was no need for temporary contracts or treating people wrong. In fact, we were treating them better [...]”¹⁸. “

As we can infer from this brief statement, Soru’s notion of Sardinianness is linked to a concept of insularity, which, in turn, is invested with a proud sense of belonging.

Soru chose the name of an obscure archaeological site in Sardinia to name one of the first internet services in Europe that connected people all over the world. Indeed, Soru

¹⁸ Renato Soru, public speech for TEDx Lecce, available at <https://www.youtube.com/watch?v=3nMGmVxM51Q&t=250s> (Accessed 19.11.2020).

took on ‘Tiscali’ as the name of his company before 1999, that is, before its first (and so far, only) archaeological excavation. At that time, the Nuragic village of Tiscali was not famous to the general public. Its only brief mention appeared in a tourist handbook of archaeological sites in Dorgali, which is where the Tiscali site is located (Moravetti 1998). The reference to Sardinian ancient history is not accidental. The name ‘Tiscali’ is that of a prehistoric village situated on an arduous-to-reach peak, considered an ‘isolated shelter’¹⁹ to protect indigenous Sardinians from Roman colonization. This seeming paradox works as an effective marketing strategy, one which Soru would then incorporate into the government of Sardinia.

As anthropologist Bachisio Bandinu and sociologist Salvatore Cubeddu have pointed out:

Within the globality of communication services, in the neutrality of the technical discourse, and in the complex multiplicity of worldwide relationships an apparent extraneous element emerges. That is identity, which is not meant merely in its psychological and existential aspects, but, rather, as a political element. It’s almost as if the ‘global’ requires local needs made up of feelings and reasons²⁰.

The relationship between Soru and the Sardinian identity is crucial to understand the development of the policies both during and after his mandate. For Soru, identity is the most precious commodity of Sardinians, a resource that they can use to find their place in a globalized world. He affirmed that “The world wants Sardinia’s diversity: traditions and knowledge must be rediscovered and renewed” (Bandinu and Cubeddu 2007, 24). The ‘identity’ to which Soru refers appears carved on the collective imagination I traced above: the island of bandits, the island of Nuraghi, a wild place, a place of punishment, and of Sardinians like *pocos, locos, y male unidos*²¹. Yet, Soru turned these often-negative *topoi* into resources that could be used to renew the island’s society and territory. The latter takes on a fundamental role in his vision.

To Soru, Sardinian’s shorelines and luxuriant forests of Mediterranean shrubs represent a wealth to safeguard from exploitation insofar they are elements that take part in the Sardinian identity. From this standpoint, the environment, with its Nuraghi, the

¹⁹ Recent studies suggest a rich cultural intercourse between the inhabitants of Tiscali and the Romans.

²⁰ My translation from the Italian: “Nella globalità delle comunicazioni, nella neutralità del discorso tecnico e nella complessa molteplicità delle relazioni mondiali interviene un fattore che sembrerebbe a tutto ciò estraneo: l’identità, non solo come aspetto psicologico, esistenziale, ma come fattore più precisamente politico. Quasi che il globale richieda una esigenza locale di sentimenti e ragioni?”. (Bandinu and Cubeddu 2007, 21).

²¹ A famous definition allegedly attributed to Charles V.

‘wilderness,’ the ‘authentic’ animals and peculiar landscape are a fundamental element that constitute the Sardinian identity. In a nutshell, the landscape is what makes Sardinians ‘really’ Sardinians. Nevertheless, Soru remains a businessman, and thus he considers the Sardinian art, history, culture, creativity, and even diversity resources that could produce wealth and working places (Bandinu and Cubeddu 2007, 23). The ‘identity issue’ for Soru, it is not a matter of ‘moral’ question, but he conceives ‘identity’ within the global context, as a form of economic capital to be exploited for a ‘sustainable’ development of the island (Soru 2004, 7). Thus, ‘identity’ in Soru’s program became a sort of brand to promote the island worldwide and to make Sardinia’s resources flourish, a mean of designing the new role of the island. No longer a submissive colony of Italian culture, but a self-sufficient region that masterfully takes advantages from its own capitals. Alongside with ‘identity,’ the know-how or ‘*conoscenza*,’ and the ‘*ambiente*’ (environment), represent the three pillars of Soru’s development project (Soru 2004, 14–15). As he put it “[t]he development project must begin from our know-how, from agriculture, shepherding, artisanal works, and protecting the environment” (Bandinu and Cubeddu 2007, 25). And so Soru does when he won the elections for the presidency of Sardinia in 2004. Within the first two years of government, Soru substantially changed the functioning (infra)structure of the ARS. The businessman took on a development project that began with redesigning Sardinia’s image and the institutional websites (Ufficio di Gabinetto della Presidenza 2006).

By 2006 the ‘visual’ identity of Sardinia became central in this project. The former institutional logo was completely redesigned²² (Giunta Regionale della Sardegna 2007; Asili 2015, 186–89). Alongside the logo, the institutional website was redesigned from scratch and implemented with a new layout divided into special sections: Culture, Tourism, Forest, Environment, Health, Research, Knowing (Ufficio di Gabinetto della Presidenza 2006, 17, 99). With this project, Soru also undertook the all-important work of collecting and digitizing the tangible and intangible heritage of Sardinia. He aimed to create “the biggest archive of our history [...] of extraordinary importance for understanding our notion of identity” (Ufficio di Gabinetto della Presidenza 2006, 27). Called ‘Sardinia Digital Library’ (<https://www.sardegna-digitallibrary.it/>). In 2007, this

²² The new logo was commissioned to the Berlin based Pentagram’s partner Justus Oehler through an allegedly unclear process (Asili 2015, 186–89). See also: <https://fontsinuse.com/uses/17265/sardegna-identity> Despite some critics, the logo is still in use and it was recently integrated with the subtitle “Endless island” (Regione Autonoma della Sardegna, DADU - Dipartimento di Architettura, Design, Urbanistica Università di Sassari, and DICAAR - Dipartimento di Ingegneria Civile, Ambientale e Architettura Università di Cagliari 2015).

digital archive already included over 50.000 entries divided into videos, texts, and audios. Thanks to the Digital Library, a comprehensive collection of classics about the Sardinian identity published by publishers *Il Maestrale* and *Ilisso* became available worldwide and free of charge.

Alongside, Soru funded the *Sardinian Film Commission Foundation* to promote the development of cinema production in and on the island. In 2007, the Soru-led regional council distributed to employees of public institutions pen drives containing a sort of virtual museum of the most prominent archaeological and historical monuments of Sardinia. The virtual museum was the outcome of a project called ‘Sardegna - Virtual Archaeology’, aimed at enhancing Sardinian cultural heritage. He involved in the project, among others, several prominent professors of the University of Cagliari²³. The project is now online and exploring the web pages helps us to appreciate what Soru meant when he said that “identity is knowing, knowing is an economic value” (Soru 2004).

In the next section, I will analyze how Soru’s notion of Sardinian identity influenced the current policies of territorial management.

1.3 Soru and the management of the territory

The various actions Soru’s team took concerning the management of the territory and its safeguarding are particularly interesting. Within the first two years, Soru entirely reformed the various agricultural institutions by removing fifty governing bodies (Ufficio di Gabinetto della Presidenza 2006, 14). The old ‘Regional Authority for Development and Technical Support in Agriculture’ (E.R.S.A.T) was then divided into two bodies: *Laore* and *Agris*. The first meant to offer technical assistance to the various sectors of agro-pastoral economy. The latter connected to scientific research in agriculture. It is worth noticing that the name *Laore* was intentionally chosen because it means ‘cereals’ in Sardinian, and thus the reference to the ‘traditional’ land uses is made clear to Sardinians. Afterwards, Soru undertook the difficult endeavor of conducting the census of the forestry ‘heritage.’ His administration also approved the Regional Forestry Plan with the aim of protecting and safeguarding the Sardinian environmental heritage.

However, the most significant endeavor for which Soru is remembered is the ‘Regional Landscape Plan’ (henceforth RLP). Soru’s administration was the first in Italy

²³ Today the Project is available without the use of an external pen drive at the link: <http://virtualarchaeology.sardegnaicultura.it/index.php/it/>

to develop a regional law designed to be consistent with the new national law for Cultural Heritage and Landscape approved in 2004 (Il Presidente della Repubblica 2004). The law also incorporated the principles of the Europe Landscape Convention (2004). During this period, the new regional Forestry Agency worked on collecting and study the entire Sardinian landscape ‘heritage’ in order to create an extensive and detailed catalogue of the places of interests to be protected and promoted through the RLP. The result was the production of abundant material on ‘typical’ places such as tour guides, leaflets, and other promotional material. From an analytical perspective, the catalogue appears to be animated by two inter-connected ideas: that of safeguarding the environment and that of underlining the economic/touristic values attributed to those places. Remarkable in this regard are the hiking maps of the Sardinian Forestry Agency created to “foster the island’s cultural and tourist development to protect natural resources and habitats and boost employment” (Ente Foreste Sardegna 2008, 4).

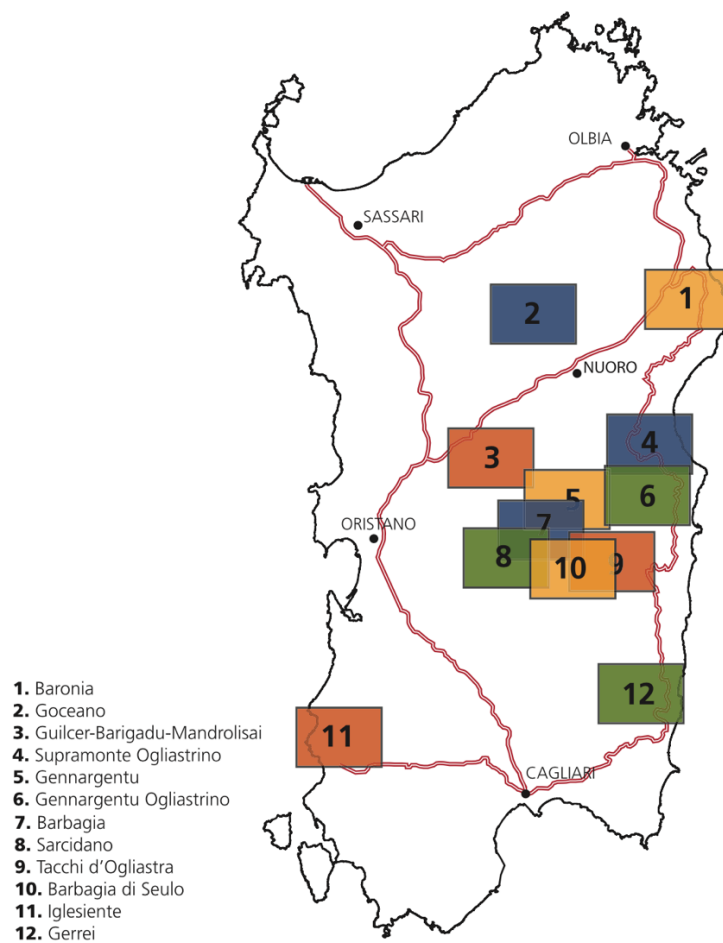


Figure 3. Map of the 12 regions of landscape interest. (In: 76 biking trails in Sardinia, p. 35).

The content of the various laws issued during Soru's government are crucial to analyzing how a specific notion of the Sardinian identity influenced the management of the territory. The texts of the laws reveal a consistent vision of Sardinia, whose 'authentic' landscapes are categorized according to an ideal division of the island into several microregions, the so-called Sardinian historical regions (Cfr. Figure 4). Soru did not invent the microregions. The territorial division of Sardinia into microregions dates back at least to the ninth century, to the period between the Byzantine rule and the emergence of the *Judicati* (Dyson and Rowland 2007; Orrù 2021). During this time, Sardinia was divided into *curatorías*, administrative units overseen by a curator that took care of fiscal and judicial duties (Metcalf, Fernández-Aceves, and Muresu 2021, 6). Although the events that established the *curatorías* system are still discussed in historical and archaeological scholarship, the system of territorial division and use of space legally lasted at least since the eighteenth century. It terminated officially when the Savoy rulers attempted to remove collective land usage on the island (Angioni 1986, 135–37; Meloni 2018d). The historical sub-regions of Sardinia thus resonate with the memory and space used in the ancient *curatorías*. Hence, although nowadays they do not have any administrative value, these historical sub-regions are familiar to Sardinians.

A sense of what this memory means is offered by some of the laws issued during the 1980s for organizing the so-called 'mountain communities in which they to these places by their old names (e.g., Giunta Regionale della Sardegna 1981).

What is striking in Soru's endeavor to catalogue the entire island is the assumption that the peculiarity of Sardinia (and its identity) resides in the variety of places it offers. Like the 'continent' theorized by Marcello Serra (Cfr. 22), Soru's Sardinia is a rich island that boasts a wide range of landscapes, history, people, and places. This richness is precisely what Soru considers to be the economic capital of Sardinia. At the same time, the 'diversity' of Sardinia and Sardinians in contrast to the 'Other' marks the authenticity of Sardinian identity. These, as mentioned, were the concrete elements to build a project for developing Sardinia. Hence, the entire structure of laws and rules issued during Soru's mandate built on Sardinia's aforementioned assumptions and visions. A comparative analysis of the various administrative actions of Soru's mandate — e.g. Sardinian Regional Landscape Plan (RLP), the law to reorganize the territorial settings of mountain communities and the unions of municipalities, the hiking maps of Sardinia, the reform of the touristic agencies, the restructuring of the regional agricultural agencies, and the dynamics of promotion of Sardinian landscape — shows how a specific notion of

Sardinian identity became a mean of governing the island’s environment (Giunta Regionale della Sardegna 2004; 2005; “Piano Forestale Regionale” 2007; Regione Autonoma della Sardegna, Assessorato Difesa dell’Ambiente 2007; Ente Foreste Sardegna 2008).

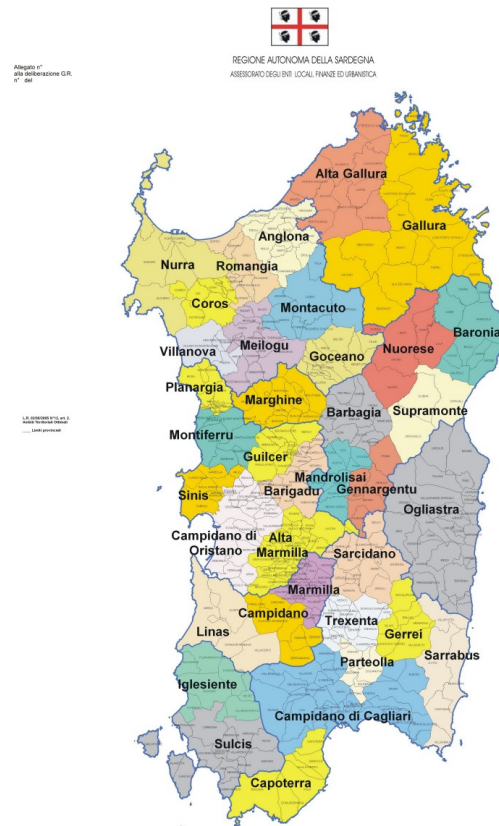


Figure 4. Map of the historical regions of Sardinia defined in the L.R. 02/08/2005, n.12

I argue that Soru’s merit was to turn an ideal vision of Sardinia into ‘reality.’ In short, on the one hand, the various policies for governing the island appear imbued with a specific vision of the Sardinian identity. On the other hand, insofar as the policies are meant to have a real effect on the territory, this notion of Sardinian identity acquires the power of shaping the island according to it. As Soru himself puts it:

“There is a tight consistency between identity, conceived as an element of cultural integration, and the natural environment. Not merely because the environment embeds the signs of the communities that inhabit it (that is, the environment somehow narrates their history). Rather, the landscape is what create a sense of belonging through the generations that follow one another.” (Soru 2004, 14)

Soru seems to ground his position on Lilliu’s concept of a profound consistency between the ‘wilderness’ of Sardinian places and the temper of Sardinian people. From a

critical perspective, for Soru and Lilliu (but also in the collective imagination of Sardinians) the *nature* of Sardinians is wild as the *Nature* of the Sardinian landscape. From this standpoint, Sardinians are fearless, untamed, and wild, and so is the territory they live in, and it is precisely this consistency between ‘Nature’ and temper that enables Sardinians to dominate and tame the environment. This consistency between people and environment is how one may classify the ‘authentic’ human and non-human Sardinians (Meloni 2021). In other words, this concept of Sardinianness is predicated on the idea that Sardinians are the landscape they have domesticated, insofar as that landscape is what makes Sardinians ‘wild.’

In regional policies, notions such as ‘authenticity,’ ‘autochthony,’ and ‘purity’ become constant elements to define the ‘Sardinianness’ of landscapes, people, places, animals, and plants. These notions appear ever more frequently in all the laws not merely aimed at managing the environment and/or agricultural production but also in the context of tourism and social programs, and so forth.

I argue that Soru not merely turned ‘identity’ into practice; he also contributed to creating a comprehensive notion of Sardinian identity that included all the aspects of everyday life and, more generally, one that applies to the various levels that link humans and ‘nature’ in their day-to-day interaction.

The entire infrastructure of laws and web resources built up during Soru’s mandate endured in the following years. Soru’s imprint on Sardinian laws and the regional identity vision sparked a renewed interest in identity issues in Sardinia. Despite the efforts to dismantle Soru’s contributions to the regional system, a significant part of these remained in force and were even reinforced over the following years. This is the case, for instance, of the regional website subsections on ‘culture,’ ‘tourism,’ ‘agriculture,’ ‘forests,’ ‘jobs,’ ‘territory,’ ‘landscape,’ ‘environment,’ that have been implemented with new content. For instance, extensive cartography with GIS data and historical aerial pictures is now available through the *Sardegna geoportale* website.²⁴ His successors used the vicissitudes connected to the campaign ‘Sardegna fatti bella’²⁵ and the restrictions imposed through the RLP to build a sort of *damnatio memoriae* around Soru. These aspects are analyzed in the following section.

²⁴ See: <https://www.sardegnageoportale.it/index.html>

²⁵ This campaign resulted in Soru and other officers having to face a lengthy trial for irregularities in the call for bids won by the design company Saatchi&Saatchi. (Commissione d’inchiesta sull’affidamento della campagna pubblicitaria istituzionale della Regione 2007).

1.4 From Soru's 'beautiful Sardinia' to the 'endless island'

Despite several legal controversies connected to the touristic promotion of Sardinia, Soru's successors built on the institutional 'visual identity' of the island he had created by keeping the logo designed by Justus Oehler in 2006 (Asili 2015, 186–89). One of the major revisions of the logo appeared during the World Expo hosted in Milan in 2015. The original logotype, which was based on the Eurostyle font and colored with the palette reminiscent of the colors of the traditional dress of Desulo, a Sardinian town, was combined with the new tagline 'endless island' (Regione Autonoma della Sardegna, DADU - Dipartimento di Architettura, Design, Urbanistica Università di Sassari, and DICAAR - Dipartimento di Ingegneria Civile, Ambientale e Architettura Università di Cagliari 2015). This apparently irrelevant fact hides a crucial change in the understanding of the collective imagination of Sardinian identity. Soru's various public speeches had suggested that his notion of Sardinian visual identity, although charged with symbolic representations of the past, was projected onto the future, and was ideally meant to carve a space into global markets. Soru's vision may be said to have been similar to that of Marcello Serra, who, in the 1950s, had shown Sardinian's traditions within the framework of the imminent industrial development which, Serra believed, would have contributed to changing the Sardinian's societies for good.

However, in the tagline used to this day by the ARS, it seems possible to detect the traces of a different narration of Sardinian identity. The new tagline 'endless island' refers to an ideal past lost in time and yet present to these days. A sort of past presencing to use Sharon Macdonald's words (Macdonald 2013). Suppose we return to analyze Lilliu's words about the relationship between Sardinians and landscape. In that case, we can find hints that help us understand the mechanisms of functioning of the present-day notion of Sardinian identity. Lilliu affirmed that there was 'a perfect consistency between natural and cultural ecosystems' and that the numerous stone towers that sprinkle 'like stars' in the Sardinian territory show the persistence of history in the present (Lilliu 2002, 424–38). The Nuraghe symbolize the past in the present. They embed the authenticity of the landscape and the resistance of Sardinians. Lilliu argued, the Nuraghi 'monumentalized' the Sardinian landscape (Lilliu 2002, 427).

Lilliu was one of the first to talk about Sardinia as an 'open-air museum.' I argue that without Soru's interventions in the structure of regional laws, particularly with his efforts and political power to safeguard the environment in its 'natural' and 'cultural' features, the association between heritage and safeguarding policies would be missing. The

construction of the sense of belonging to a ‘monumental place’ bases on the association between Nuraghe culture and present-day Sardinian identity.

Interestingly, for a long time, the strong connection to the stone towers — the Nuraghi — did not necessarily implied safeguarding the Sardinian archaeological sites. The general lack of knowledge on just how the Nuragic ‘heritage’ was relevant in Sardinia lasted until the early nineties and was accompanied by a widespread tendency to focus political and economic resources on one single monument: the Barumini Nuragic complex. The Soru government tried to counter this limited identity narrative by stimulating a process of ‘heritagization’ of Sardinia that would include other places, landscapes, and even genetics,²⁶ and that overlaps various fields of cultural production. Reflecting on how the presence of Nuraghi is conceptualized in the present-day Sardinia to advocate ‘its righteous place in the world,’ (Soru 2004) the notion of past presencing enables us to highlight the indeterminacy of temporality in this process (Macdonald 2013, 13–16). The temporality of the ‘endless island’ casts Sardinia into an undefined space, making it a place lost in time, one that might as well have never existed, like a sort of Neverland. Yet the material presence of the Nuraghi stone towers, which endured over the millennia, makes the Sardinia myth ‘real.’ This sort of oxymora contributes to creating tensions in Sardinian society. The emergence of spontaneous movement of ‘enthusiasts of archaeology’ all over the island is remarkably connected to these tensions.

One, in particular, has created a network of self-defined archaeologists by hobby engaged with the problematic endeavor of mapping the entire collection of Nuraghi stone towers and other monuments in Sardinia. The network became a foundation in 2013, taking the name of *NurNet – La rete dei Nuraghi* (The Nuraghe network). Both the NurNet name and logo explicitly refer to the widespread online activity on Facebook, where several pages were created with the aim of disseminating knowledge on the Nuraghe culture in the various municipalities. It is not the place here to expand on the political and economic implications behind the activities of NurNet and on the conflicts with the so-called ‘academic archaeology’ or ‘institutional archaeology’ (Frongia 2012; D’Oriano

²⁶ It is worth to mention that in 2000, Soru funded SharDNA S. P. A. to conduct a project aimed at studying the genomics of people in Ogliastra, a shoreline region in Eastern Sardinia (see: <http://web.tiscali.it/shardna/storia.html>). Beyond the conflicting vicissitudes connected to the development of the project (La Nuova Sardegna 2017), the name of the project offers food for thought on the intertwined connection between archaeological discoveries and the creation of a Sardinian identity. SharDNA’s name mirrors that of Shardana, the allegedly glorious Sardinian soldiers and master sailors of the Mediterranean in the second Millenium B.C. (see Frau and Amadasi 2002; for a critical review see Frongia 2012).

2018). Rather, we will now turn to an analysis of the geoportale they developed and made available on their website²⁷.

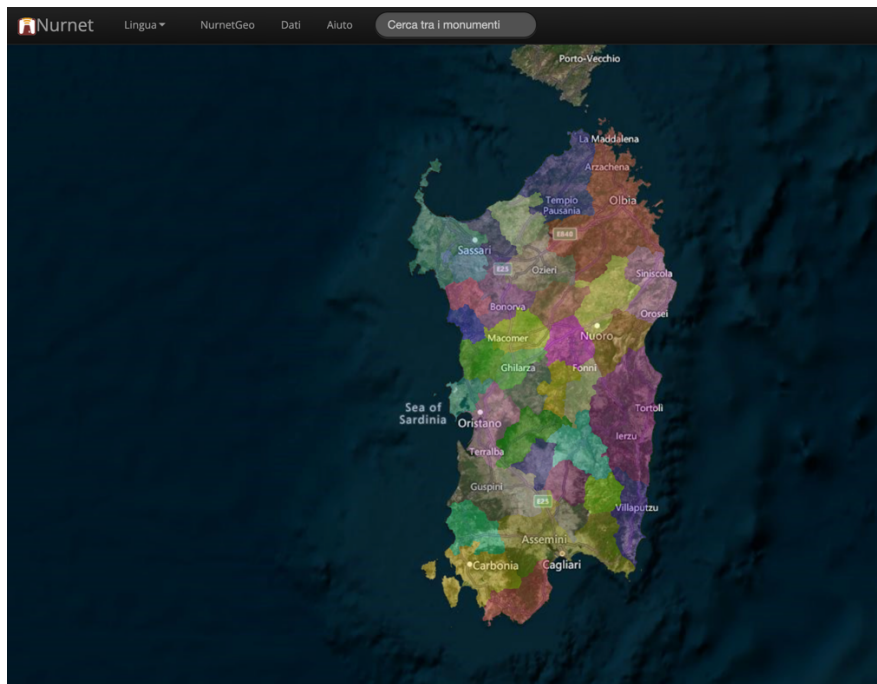


Figure 5. The “Geoportale” of NurNet (See: <http://nurnet.crs4.it/nurnetgeo/pages/it/homepage/>)

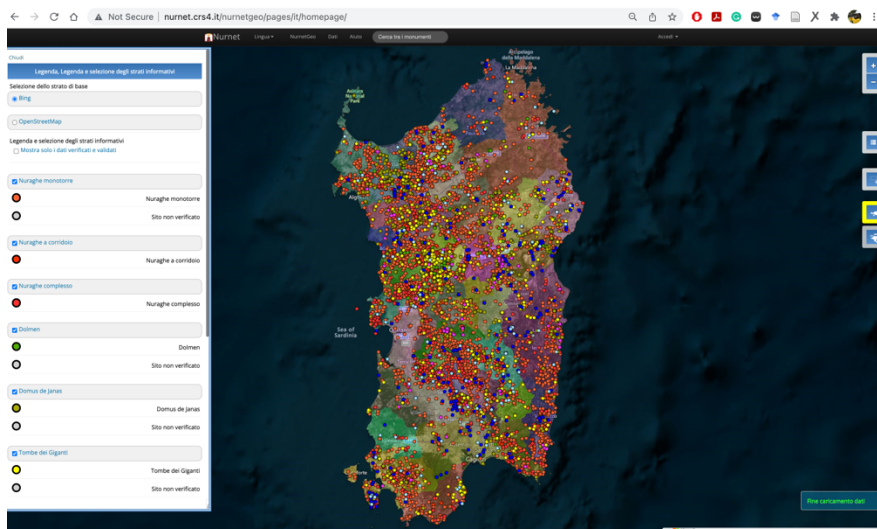


Figure 6. The colored dots on the map represent all the Nuragic archaeological sites localized by NurNet affiliated groups.

As it may be inferred from comparing the two screenshots from NurNet’s geoportal above, two elements command our attention. Figure 5 shows a map of Sardinia divided into sub-regions. These are not explicitly labelled but to the eyes of a Sardinian they

²⁷ See: <http://nurnet.crs4.it/nurnetgeo/pages/it/homepage/>

clearly refer to the historical regions of the island. The second screenshot (Figure 6) is even more interesting as it shows the distribution of various Nuragic monuments on the island. The map key on the left of figure 6, reveals the difference between single-tower Nuraghi, Nuragic complexes, 'hallway' Nuraghi, Dolmen, *Domus de Janas*,²⁸ and Graves of the Giants²⁹. The map is interesting for it gives a measure of the material impact of Nuraghi on the Sardinian's landscape.

Sardinians link the widespread presence of Nuraghi in Sardinia, with the belief that Sardinians are 'heirs' of the glorious "sea people" that ruled the Mediterranean Sea at the times of the Pharaohs. The recent proposal to add a network of thirty-one Nuragic sites to the UNESCO World Heritage List³⁰ results from this process of ambient heritage-making.

It is striking that despite the overwhelming distribution of Nuraghi, clearly pointing to extensive human activity over the Sardinian territory, and the public attention on the stone towers, which are broadly considered as the highest symbols of Sardinian identity, Sardinia tends to be described as a 'wild' space. According to the regional tourist advertisements, Sardinia encapsulates breathtaking landscapes, mysterious forests populated only by fairies (*Janas*), turtles, wild Sardinian horses galloping across empty valleys, and deserted, crystal-clear shorelines, impenetrable peaks and thousand-year-old oaks (Figure 1). The image of Sardinia evoked in these advertising campaigns is that of an a seemingly uninhabited island except for beautiful women in traditional dresses carrying jugs on their heads, shy bewhiskered shepherds clad in black from head to foot, masked skillful jockeys riding impetuous horses with one hand, and black-dressed centenarian women. These advertisements are the visual representations of the concept of the 'endless island.'

This type of image that depicts Sardinia as an 'endless island' works as a token of Sardinian identity. It does so by being a 'marker' of diversity, one which divides the 'real' Sardinians from the 'Other.' This 'marker' works in both ways: On the one hand, Sardinians recognize themselves and feel to belong to this community. On the other hand, the marker makes 'unmistakable' the diversity of Sardinians from 'non-Sardinians.' Recently, director Paolo Zucca has offered a outstanding audiovisual example of the

²⁸ The *Domus de Janas* (Fairies' houses) are a type of chamber tomb built in Sardinia between 4400 and 2000 B.C.

²⁹ Graves of the Giants is the local name used for megalithic graves distributed in galleries. The name is used by archaeologists too and indicates the different collective tombs built in the Bronze age by Nuragic societies.

³⁰ See: <https://whc.unesco.org/en/tentativelists/6557/>

mechanisms by which this identity is constructed — and how Sardinians themselves can play with this monolithic vision. In his movie *L'uomo che comprò la luna* (The man who sold the moon, 2018), Kevin, the main character, undergoes a long training to embed the Sardinian habitus. As he disembarks onto the island, Kevin realizes that:

The anthropological and geographical coordinates of the place are inconsistent with those I possess [...] there is nothing of what you've told me about, there are no holy oaks, reeds in the wind, bearded shepherds or women holding jugs on their heads!

For it is surely ironic, the movie's stinging irony is incisive for the director's ability to blur the lines between stereotypes and self-identification of and on Sardinians. That is, Sardinian viewers tend to recognize themselves in the movie, whereas non-Sardinian viewers have the feeling of watching an 'authentic' Sardinian story. In both cases, viewers are fully aware that the movie is just offering a hilarious comedic take on Sardinian stereotypes.

In public discourses about Sardinian identity a strong tension emerges between the concept of a domesticated place and that of a wild, unspoiled island. From a multispecies perspective, this tension is worth considering. As I explained above, according to the mainstream interpretation of Sardinian identity, insofar as the inner nature of Sardinians is wild, so is the landscape of Sardinia. Because Sardinians are indomitable and wild, they can domesticate the landscape. Following this interpretation, this continuity between territorial features and human temper makes not only human-Sardinians but all other non-human inhabitants, autochthonous to the island.

The notion of interpenetration of wild landscape and untamed people in Sardinia invites some reflections on the materiality of Nuraghi. On the one hand, the Nuraghi towers are made of stones. They are a lifeless 'object' made up of what in western ontology would fall under the class of minerals and, at a deeper level, belong to the category of 'nature.' On the other hand, following Lilliu's interpretations, stones are 'culturally' arranged into towers, villages, and tombs whose appearance seems to find its place in the Sardinian landscape in a harmonious way. Furthermore, over the millennia, the forces of 'nature' acted on the stones, reappropriating the inert material of the Nuraghi by covering them with moss or capturing them under the branches of wild olive trees and thick lentiscus bushes. Additionally, stones have provided humans the material for building the dry-stone walling techniques that are now globally acknowledged as a

material example of intangible cultural heritage³¹, and this is connected to shepherding which, for better or worse, is one of the symbols of Sardinianness (Sorge 2015). In the current narratives of Sardinian past a tension emerges between the domestic and the wild – that is, between a landscape that, however wild, is nevertheless shaped by the actions of humans who are ‘naturally’ wild. These elements contribute to building a notion of identity that problematically fits on the nature/culture Western dichotomy. For Sardinians, environment and human are two sides of the same coin. By fueling the collective imagination of Sardinians, these powerful narratives help create a strong sense of belonging to the Sardinian territory.

I argue that this notion of Sardinianness becomes the mold for various policies that affect the environment. It also works as an implied image that guides policymakers to make their decisions, which tend to be characterized by an effort to turn back Sardinia to its ‘original’ status. Biodiversity in Sardinia is not merely ‘invented’ (Escobar 1998), but also imbued with ‘ethnic’ and ‘racial’ notions (Hartigan 2017) which have been used to determine which species have the right to ‘stay there’ (Meloni 2021). In light of the fact that questions of ‘identity’ in Sardinia are pervasive at various levels of everyday life (Bachis 2015a, 696), and beyond the EU policies for the biodiversity protection of endangered islands, the notion of autochthony may be understood as being charged with questions of identity. Autochthony becomes a way to differentiate species that are ‘truly’ Sardinian from those that are ‘exotic’ and which, in the common sense as much as at the level of policies, are believed to ‘defile’ the integrity of the ‘harmonic’ appearance of Sardinian landscape (Meloni 2021). Later in this dissertation I will show how this notion of Sardinianness takes on a hegemonic role and is imposed on beekeepers through the policies for environmental management and agricultural development that have been adopted in Sardinia. In doing so, I will offer insights on how the daily multispecies engagement of beekeepers in the territory enables them to produce alternative visions of Sardinianness and, from a wider angle, of the autochthony of human and non-human beings.

In the following chapter I analyze the multispecies ethnography’s theories and I state how they guided my fieldwork.

³¹ See: <https://ich.unesco.org/en/RL/art-of-dry-stone-walling-knowledge-and-techniques-01393>

2. Theoretical dimension

The idea of researching beekeeping in Sardinia came by accident during my Master's studies at the University of Cagliari, Italy, in 2013. At that time, visual anthropologist Felice Tiragallo, head of the University of Cagliari Visual Ethnography Lab (LEV), invited anthropologist and filmmaker Rossella Ragazzi from the University of Tromsø to hold a workshop on visual ethnography. The workshop alternated small fieldwork assignments with meetings in which we discussed our results from a methodological and conceptual angle. At that time, my knowledge in visual ethnography stemmed from a previous experience recording an interview with a former deportee with audio-visual support for my bachelor thesis. The opportunity of learning more about researching with a camera was too tempting for the curious student that I was (and still am), so I enrolled in the workshop. After lengthy meetings where Ragazzi introduced us to her way of doing research with a camcorder, she prodded us into doing some homework. One of these required us to film "some work with a beginning, a central flow, and an end." Ragazzi asked us to film a maximum of three minutes of footage and edit it in-camera³². This (apparent) simple task triggered a lot of methodological questions: How can I edit in-camera something that I do not know well? How do I foresee the events of a process and follow them with a camera? Moreover, as we were supposed to do only one shot, how could I learn something in such a short time to have it ready in a couple of days?

I eventually decided to film my father, who has been working in the beekeeping sector for over forty years. He was busy preparing honey for a customer. I felt that, since I knew what I was going to film, I could foresee the gestures and have the frame composition under control. Besides, I could do it relatively fast because I knew the informant that I was filming. However, my father did not share my enthusiasm, and I had to go through a very annoying discussion before convincing him to let me film. Eventually, I managed to film him assembling the honey jars and organizing the commission for a customer.

³² In-camera editing is a technique where the filmmaker films in a specific order to create sequences instead of editing the footage after filming.

The result of the exercise was decent enough, and Ragazzi, once she was shown the recording, invited me to do more in-depth research on my father practicing beekeeping. Three years later, and just a month after discussing my Master thesis, I was writing the first pages of the research project that was to become the current four-year doctoral research project on beekeeping in Sardinia.

I started collecting some preliminary material, both visual and written and reviewing literature in January 2016³³. This coincided with the beginning of the beekeeping season when beekeepers start to evaluate the state of the colonies, determine which ones survived or are likely to survive winter and which are most in need of help. In the case of queen rearing, beekeepers start to prepare the apiaries and determine which honeybee families are most suited to afford this process. In the beginning, I was mostly interested in beekeeping practices, the material culture, and the hand skills and gestures of beekeepers. At this stage, the fieldwork trips were mostly at my father's apiaries. He was not happy with my research project and attempted to discourage me to engage in this endeavor. I must point out that my father's reluctance to allow me to visit his apiaries was connected to a traumatic event we experienced together when my body suffered an extreme reaction to bee venom (Cfr. 67, 68).

To convince him to participate in the survey, I involved anthropologist Francesco Bachis, from the University of Cagliari. Initially, Bachis filmed most scenes using the camcorder I borrowed from the LEV. We chose the steady frames and what to film together, but, on the set, he filmed while I asked questions to my father, who appeared to be amused by this bizarre situation and seemed to take advantage of it to teach Bachis his way of doing beekeeping. During these first fieldwork trips, Bachis and I followed my father as he ran his seasonal check at the bee colonies. In addition, with Bachis, we did some video interviews with my father and his brother — who also works as a professional beekeeper with his own company — at my father's laboratory. These were semi-structured interviews aiming to know how they started their beekeeping entrepreneur, how they conceived it, and what problems affect their job in their opinion.

The analysis of this material integrated the literature review that I had been working on since the beginning. This was not merely meant to know the state of the art of anthropology applied to beekeeping. Rather, at this point, most of the work aimed at finding the precise words connected to keeping bees. Indeed, despite my acquaintance

³³ I must remark here that at that time, I was already based in Vienna; thus, my fieldwork trips were organized according to the working schedule and thus coincided with my holidays to visit my family.

with beekeeping (Cfr. 64), I found myself lacking in the specific scientific vocabulary on bee biology and, more generally, beekeeping in Sardinia. I must point out that the possibility of enrolling in a beekeeping course was not an option for two reasons. First, I was based in Vienna, and a beekeeping course in Austria would have given me information in the German language and on how to keep the *A. m. carnica*, which differs from the local types of *A. m. ligustica* bees kept in Sardinia. Second, I did not meet the requirements to access the beekeeping courses organized by Laore³⁴, the regional agency for agriculture. Besides, these courses might have been misleading in their ways of teaching beekeeping since, as I will show later in the dissertation, beekeepers who came up with the job all by themselves in the 1970s — like my father and my grandmother did (Cfr. 63) — tend to despise regional courses for the alleged lack of expertise of the teachers. Thus, I believed that combining scholarly readings with direct experience in the field represented an excellent way to delve into the ‘skilled hands’ of beekeepers.

In the meantime, I started following various Facebook groups on Italian beekeeping, where members debated relevant topics. In these groups, beekeepers often shared amatorial videos to show how to handle pests and diseases or the “best” technique to produce more honey. There were many groups, and at that time, many active members belonged to the most prominent National associations of beekeepers in Italy.³⁵ At this stage, my activity in these groups was primarily observational, with little or no interaction with group members. I needed to trace networks of beekeepers and associations, ways of beekeeping, alliances and internal tensions among members.

The first year and half of the preliminary investigation served to design the research project and formulate a proper research question. After officially enrolling at the University of Vienna in 2017, the project was funded by the Austrian Academy of Sciences (ÖAW) in 2018. This allowed for more in-depth research for the following three years.

The fieldwork — in the strict sense of its meaning — was not carried out in one go; instead, the trips to visit Sardinian beekeepers mainly were made during spring and

³⁴ Laore is the regional agency appointed to deal with the various sections of agriculture and animal husbandry in Sardinia. The agency organises workshops and offers technical support locally through various ‘technicians’ experts in different fields.

³⁵ During my research, many formal spokespersons of the national associations of beekeepers have quit their social media activity in such groups due to the interaction with other members often resulting in heated arguments that had legal (and economical) consequences for some people. The aggressiveness of the language might be one of the reasons for this, but it appears that some Facebook groups mirror the offline beekeeping controversies connected to the management of resources from a practical and political perspective.

summer breaks, which coincide with the crucial months for beekeeping in Sardinia. The more than thirty beekeepers I interviewed come from different parts of the island. This allowed me to examine how beekeepers combine a strong sense of belonging to a specific territory with the broader sense of being Sardinian. In addition to interviews with beekeepers, my research is also made up of interviews with the entomologists of the University of Sassari and with some of the spokespersons from the regional administration. I also had meetings with entrepreneurs in environmental design and private conversations with farmers and agricultural day laborer. On this note, I should add that, despite the interviews being mainly in Italian, the language often switched to Sardinian, when the conversation turned informal³⁶.

In addition to the fieldwork in Sardinia, staying in Vienna allowed me to contact local professional and hobbyist beekeepers, participate in some of the events organized by the Viennese beekeeping associations, by the *Landesverband für Bienenzucht in Wien*, and to know more about beekeeping in Austria. Moreover, between 2018 and 2019, sound engineer and filmmaker Max Leimstättner and I organized a short fieldwork trip to film an Austrian beekeeper who works in the Styria region, a French beekeeper who works in the Pyrenees area between the French and Spanish border, and beekeepers from Valtellina (Italy). These trips, which made up the bulk of the movie *Transhumanz – Die Wanderung der Bienen* (Meloni and Leimstättner 2022), provided me with additional elements to analyze beekeeping in Sardinia. In the following section, I focus on multispecies ethnography as a theoretical frame of this dissertation.

2.1 The development of multispecies ethnography

Along with analyzing specialistic and grey literature on beekeeping, I started to review cultural anthropological theories on humans and animals. A few years back, most of the classic works on this topic focused on how humans relate, conceived, and lived with a specific category of animals: mammals. It appeared that very few scholars researched insects/human relationships. I became interested in the works about the so-called ‘ontological turn’ and multispecies theories. The adjective ‘multispecies’ is borrowed from biological and ecological scholarship focusing on the functioning of sets of fellow species that mutually interact with each other (e.g. Leigh Van Valen 1976; Huisman and Weissing

³⁶ There are different varieties of Sardinians spoken on the island. I am the mother tongue in Campidanese, the variant spoken by most Sardinians, but I understand Logudorese reasonably.

2001; Simard et al. 2012; Filotas et al. 2014; Nepi, Grasso, and Mancuso 2018). In cultural anthropology, the beginning of a ‘multispecies ethnography’ (henceforth ME) is connected to the article by S. Eben Kirksey and Stefan Helmreich (2010) and the Multispecies Salon, a series of panels and events held at the Annual Meetings of the American Anthropological Association between 2006 and 2010. During these events, anthropologists, artists, and others questioned the nature-culture dichotomy, thus opening up discussions on the position of humans and their ‘respons-ability’ to the critters they share the world with (see Haraway 2008). I must point out that ME came along with the emergence of the debate about the impact of humans on the planet and the Anthropocene. In this context, anthropologists started questioning their role in times of crisis (Eriksen 2016; Moore 2016; Latour et al. 2018). According to Kirksey and Helmreich, “multispecies ethnography involves writing culture in the Anthropocene” (2010, 549). That is, ME writes about humans *becoming with* (Haraway 2003) other beings in a rapidly changing world (see Eriksen 2016). In cultural anthropology, the relationship between humans and animals represents a classic repository for the study of totemic power, hunting, husbandry, ethno-ecological knowledge, and sexual innuendo (e.g. Radcliffe-Brown 1952; Leach 1989; Geertz 1972; Inglis 1993; Ingold 2004; De Martino 2015a; 2015c; 2015b). However, anthropology (amongst other disciplines) has only recently begun to reconceptualize the meaning of being human in an entangled world of living beings. In this regard, Kirksey and Helmreich pointed out that feminist scholars were among the first to suggest that anthropologists should turn their gazes on the (re)making of biological knowledge in connection to relatedness (Kirksey and Helmreich 2010, 550; see also Stolcke 1988; Strathern 1992a; 1992b). In the meantime, a new interest in identities narrated through genetic and genomic studies, what Paul Rabinow defined as ‘biosocialities’ (Rabinow 2005), opened up new fields of inquiry for the anthropologist (Descola and Palsson 1996; Rose 2007; Ingold and Palsson 2013; Pálsson 2016; Abel and Pálsson 2020). More broadly speaking, the neat distinction between ‘Nature’ and ‘Culture,’ a classic theme in the anthropology (Lévi-Strauss 1966), has been recently revisited thanks to new research inputs. The contributions written by Eduardo Viveiros de Castro have been crucial to examining the study of human and non-human relations in new ways. Based on his extended ethnography of Amerindian cosmologies in the Amazons, de Castro advances the possibility of redefining the categories of ‘nature’, ‘culture’, and ‘supernature’ by focusing on what he calls the ‘perspectival multiculturalism’ (de Castro 1992; 1998; 2004). De Castro’s work dialogues with Philippe Descola’s

argument for a ‘new’ animism and naturalism (Descola 2005) and Bruno Latour’s ‘modes of existence’ (Latour 2013). These authors have contributed to the so-called ontological turn in cultural anthropology, an approach that some anthropologists criticize for being highly structuralist, overly concerned with alterity, and not paying attention to the connections between ontologies and politics (see Fischer 2014; Kohn 2015; Mancuso 2016). According to Fischer, Latour, De Castro, and Descola knowingly neglect differences in human societies (e.g., class, gender), accepting the risk of reducing the discussion to a mere ‘language game’ (Fischer 2014). Despite this blame, the ontological turn in anthropology is symptomatic of broader issues in the discipline in that it points to the need for a “diverse and growing community of ontologically attuned ethnographic thinkers” (Kohn 2015, 323).

Within this framework, it is not surprising to see the emergence of a kind of ethnography that aims to reconsider the relationship between nature and society by engaging in several philosophical endeavors in the attempt to decenter the human in ethics and theories (Ogden, Hall, and Tanita 2013, 6). Latour’s powerful reflections on humans and nature represent a reference point for many multispecies scholars. Despite Latour’s self-critique (Latour 1996), several works have drawn upon Latour’s Actor-Network Theory (henceforth ANT). For instance, Diane Rocheleau (2016) builds on ANT to investigate the complex network of local knowledge, scientific knowledge, political power, plants, animals, people, landscape, and technologies that co-create forest and agricultural ecologies in Zambrana. Cori Hayden (2003) explores the asymmetrical relationship emerging between neoliberal institutions, plants, and the indigenous knowledge related to them, in the attempt to safeguard local biodiversity.

Along with Latour, many scholars have built their theories on Donna Haraway’s insights on relationality and companionship. Haraway represents one of the most critical voices in multispecies ethnography. She advocates for “tentacular thinking” and spurred anthropologists to move beyond human exceptionalism and look at what humans share with other species and how these shared features may be embodied (Haraway 2003; 2008; 2016b). According to Haraway, humans and other critters are:

[C]onstitutively, companion species. We make each other up in the flesh. Significantly other to each other, in specific difference, we signify in the flesh a nasty developmental infection called love. This love is a historical aberration and a naturalcultural legacy. (Haraway 2008, 16).

Haraway calls for awareness and “respons-ability” towards other critters to build a new world of kin that she calls the “Chtulucene” (Haraway 2015; 2016b; 2018). Her theories have influenced the conversation on both human ontology and how humans position themselves with respect to other species, not only in anthropology but in many other fields of inquiry (e.g. Celermajer et al. 2020; Francisco Salazar et al. 2020).

Besides Latour’s ANT and Haraway’s ‘tentacular thinking,’ multispecies ethnography is also indebted to the notion of ‘rhizome,’ as by Giles Deleuze and Felix Guattari formulated (1987). This approach offers the opportunity to give visibility to those formerly unseen/muted ‘beings’ that characterize multispecies assemblages. The works of Anna Tsing exemplify the interactions and the ‘assemblages’ created around the familiar places for the expensive Matzutake mushrooms (Tsing 2015). Tsing moves the gaze towards the ‘contact zone’ to pay attention to the different ways ‘disturbance’ is either provoked or perceived (Tsing 2015, 160). Tsing and the colleagues that form part of the Matzutake Worlds Research Group³⁷ highlight the rich variety of ecological lifeways that emerge within the mushroom’s paths³⁸. Tsing’s interests lie in the “interactions across many acts of ecosystems engineering, patterns emerge, organizing assemblages: unintentional design.” (Tsing 2015, 162).

Likewise, ethnographers are turning to a multitude of different species and critters whose ‘small agency’ (Bennett 2010) was previously unacknowledged for various reasons, partly connected to what Tsing defines as ‘dematerialized aestheticism’ and ‘deaestheticized materialism’³⁹ (Tsing 2003, 27). Hence, microbes (Dunn 2007; Paxson 2008; Raffaetà 2020; 2021), soil (Francisco Salazar et al. 2020; Krzywoszynska 2019), insects (Raffles 2001; 2011), and trees and seeds (Chao 2018a; 2018b; 2021a; 2021b) have all become social agents of the contemporary ‘biopolitical’ discourses.

The recent work by John Hartigan Jr. on the studies of species genomics in Mexico and plant biodiversity in Spain (Hartigan 2017) is worth noting. In his book, Hartigan delves into the meaning of *raza* in the discourses on biodiversity protection and climate crisis made by the scientists of the LANGEBIO and the INMAGEN research centers. He questions whether the use of race to address nonhumans entailed a displacement of racial thinking for people, Hartigan affirms that the study of maize showcases nine

³⁷ See <http://www.matsutakeworlds.org/>

³⁸ See <https://people.ucsc.edu/~atsing/migrated/matsutake/group.html>

³⁹ Anna Tsing defines ‘dematerialized aestheticism as the tendency to contrast ‘modern’ people to forest-living people, that is, to idealise the second in contrast to everything connected to urban development. Tsing uses the notion of ‘deaestheticized materialism’ to define an approach to conceiving forest landscapes as repositories of non culturally defined places that should be managed ‘rationally.’

thousand years of companionship between humans and corn that ‘make each other’ (Hartigan 2017). Hartigan’s multispecies perspective shifted on the sensorial dimensions when ‘interviewing’ plants, with his research expanding to the study of Spanish botanical gardens. This ethnography shows how botanists understand ‘care’ when managing species.

The richness of perspectives offered by multispecies theories challenges us to rethink the notions of *wild*, *domesticated*, *tame*, *native*, *autochthonous*, *biodiversity*, *pure*, *network*, and, ultimately, to reflect on rhizomatic forms of relationship which contribute to co-creating the World. To put it with Kirksey and Helmreich, “[w]ith animals, invasive plants, and microbes on the move, anthropological accounts ramify across places and spaces, entangling bodies, politics, and ecologies” (Kirksey and Helmreich 2010, 555). In addition, multispecies ethnography poses a problem of representation, precisely the issue of ‘speaking to’ and ‘speaking for’ (Appadurai 1988, 17), and whether anthropologists should or should not speak with and for other species, or even if they are capable of doing so. This question represents a central concern in the recent debate on environmental justice. To which extent may the right of justice be extended to non-human beings (Schlosberg 2007; Gearty 2010; Holifield, Chakraborty, and Walker 2017; Celermajer et al. 2020; Meloni 2021)?

Finally, the question of ‘how’ to speak *for* other species seems to be a central one in multispecies theories. Multispecies theories reflect on the changes and challenges human and non-human beings are facing together nowadays – a time variously defined as *Anthropocene*, *Capitalocene*, *Chtulucene*, *Plantatiocene*, *Homogeneocene* (Crutzen 2000; Samways 2005; Haraway 2015; 2016b; Moore 2016). All notions are criticized in the ongoing debate on the possible futures (see Latour et al. 2018). In spite of the divergent opinions, the compelling discussion facilitates scholars in turning their gazes on small critters; thus, bees have started to find their place in cultural anthropological thinking. In the following chapter, how do bees fit into this theoretical framework. In doing so, I will explore how bees slowly became visible in our everyday life in the past years and how they became animals ‘good to think.’

2.2 The emergence of bees in socio-cultural analysis

When I first started to approach the beekeeping field in Sardinia, beekeeping was considered a fascinating job in the European public sphere. This is true for the academic

environment (except, of course, for entomological and forestry faculties). “Are there people living from beekeeping? Can you make a living from bees?” were the most frequently asked questions, alongside “Are the bees dying in Sardinia?”. In 2016, when I conducted a preliminary survey to design the research project, in common sense, bees were considered ‘flying others’ (Moore and Kosut 2013) rather than ‘tiny hairy friends’ like today. Sociologists Mary Kosut and Jean Moore have pointed out (2013) that the small size of bees, their black-and-yellowish appearance, together with their ability to sting make it very hard to distinguish them from wasps or more general pests that people believe are simply there to annoying us humans during a picnic or a walk in the countryside.

However, during the past five years, the interest in bees rose, and these insects became the symbols of a broader problem, precisely for the ‘eco-political discourse’ connected to climate change and environmental justice (Fenske 2017a; 2017b; Moore and Kosut 2013). The media took on a pivotal role in tailoring the new position of bees in the popular culture (Fenske 2015; 2017b). Since 2006, that is when US beekeepers firstly reported inexplicable bee losses of massive scale in their apiaries, the fear of a world in danger made bees and their importance visible to politicians, environmentalists, vegans, and honey consumers. Before, these people used to ignore the impact of bees in shaping our world and food. When scientists defined bee losses under Colony Collapse Disorder (CCD)⁴⁰, many documentaries appeared in the cinemas. Movies like *Le berger des abeilles* (Moulin 2006), *Vanishing of the Bees* (Langworthy and Henein 2009), *Colony. The Endangered World of Bees* (Gunn and McDonnell 2010), and *More than Honey* (Imhof 2012), offer an inkling of how popular beekeeping has become. The fear of bee losses prods the fantasy of moviemakers and film directors to develop a wide range of story tales on bees and their keepers. Movies such as *Bee Movie* (Smith and Hickner 2007), *The secret life of bees* (Prince-Bythewood 2008), *Il tempo delle api* (Anitori and Di Gregorio 2017), *Tell It to the Bees* (Jankel 2018), *Honeyland* (Kotevska and Stefanov 2019), *The Pollinators* (Nelson 2019), offers simply an inkling on the changing attitude of humans towards bees. In *Voice From the Stone* (Howell 2017), we watch the mysterious butler Alessio (Remo Girone) beekeeping like a sort of obscure and mystic practice. The current role of bees in cinema is surprising if we consider that before 2006, the most famous movie about beekeepers

⁴⁰ The United States of Environmental Protection (EPA) defines the Colony Collapse Disorder as a ‘phenomenon that occurs when the majority of worker bees in a colony disappear and leave behind a queen, plenty of food and a few nurse bees to care for the remaining immature bees and the queen’. See <https://www.epa.gov/pollinator-protection/colony-collapse-disorder> (Accessed the 15.06.2016).

is *The Beekeeper* by Theodoros Angelopoulos (1986). The author narrates the journey of Spyros (Marcello Mastroianni), a nomadic beekeeper, through an unexpected and unusual Greece. Finally, before 2006, most movies on and with bees belonged to the horror genre and show Africanized bees⁴¹ (Fenske 2017b, 138).

Recently, bees ‘colonized’ the field of literary production where stories on the insects bloomed, often used to accompany young women in their journey to discover themselves (Goulson 2015; Lunde 2017; Jukes 2019; Segovia 2015; Lachauer 2020). In some cases, beekeepers themselves decide to stand in a writer’s shoes to write stories on bees and the beekeeping (Caboni 2017; Colafemmina 2017; Gruber, Wessely, and Hummer 2017; Aresu 2020; Gruber 2021). Besides, bees became ‘good for playing’, as since 2019, a videogame developed by the *Varsav Game Studios*, the *Bee Simulator*, helps young and older people to experience the everyday life of honeybees and their threatens by taking on the insect’s perspective thanks to the virtual reality.

There is hardly any other insect that sparks so much interest in narrating its virtues and similarities with human societies. Yet, it is undeniable that the current growing interest in bees takes on a new meaning in the ways humans relate to natural environments through their lifestyles (Fenske 2017b, 133). Indeed, despite bees having always drawn the attention of thinkers from every past Century, today, bees take on a new role in the human imagination. Whether considered as the best example of the monarchic organization, as a perfect paradigm of democracy (Seeley 2010), they are compared to human architects (Marx 1997) or migrants (Horn 2006), in the past Centuries bees have been a double-sided mirror of human societies and organization. In contrast, today, bees are the token for a changing world, of a sick planet threatened by human actions, of a new era elsewhere defined as *Anthropocene*, *Capitalocene*, *Chtulucene*, *Plantationocene*, *Homogeneocene*, and so forth (Crutzen 2000; Samways 2005; Haraway 2016b; Moore 2016).

As the anthropologist Michaela Fenske pointed out, the new stories on bees and beekeeping do not merely serve as entertainment in the popular culture, but through narrative, storytellers create new realities and affect human/more-than-human relationships (Fenske 2017a, 106). In the recent visual production on bees and beekeeping, human keepers often seem to represent the link between the human world and the world of ‘Nature’, the latter threatened by humans but in need of its paternal

⁴¹ The fear for Africanized bees is connected to the ‘invasion’ of so-called killer bees that accidentally escaped from a lab in Brazil were a Brazilian entomologist Warwick Estevam Kerr was carrying on a research on Varroa mite resistance.

help. As Fenske put it, “Nature has become a field of care as it no longer seems to be powerful enough to take care of itself” (Fenske 2017b, 139). Contemporary (bee)movies convey a specific and exact point of view on the relationship between humans and bees and, by extension, humans and the environment (Meloni 2019).

The media’s growing attention reflects on the rising beekeepers and beekeeping practices. Since about 2008, urban beekeeping has become popular in many regions of Europe⁴², and urban beekeeping associations provide technical support for beginners who keep bees in the city. The more bees enter the urban space, the more everywhere flourish projects that, through beekeeping promote social equity and spread awareness on biodiversity loss. Illustrative in this sense is the ‘Social Honey’ project designed by the two German artists Florian Haas and Andreas Wolf at the Museum Angewandte Kunst in Frankfurt and the Kunsthalle in Budapest, to combine social engagement and the contemporary art (Erdödi 2017, 2–11). In Italy, the ‘Cremona Urban Bees’ based in the city of Cremona through bees attempt to promote awareness of ‘common goods’ among citizens⁴³.

The most extensive ethnographic work on beekeeping is Lisa J. Moore’s and Mary Kosut’s research on urban beekeeping condensed in the book *Buzz: Urban beekeeping and the power of the bee* (2013; 2014; 2016). This ethnographic research stems from a three-year study by two sociologists in New York between 2010 and 2013. Moore’s and Kosut’s book is a lively discovery of honeybees as subjects and agents of landscapes and places shared with humans. The authors’ immersive ethnography is particularly relevant in terms of first-hand knowledge in beekeeping, which was acquired through formal courses and by direct practice with other urban beekeepers. This ‘Human/Insect Participant Observation’ (2013, 7) represents the most challenging and vivid example of the complexity of beekeeping when considered alongside issues of how urban spaces may acquire extra layers of meaning when bees interact with them. Kosut and Moore’s attempt

⁴² This is not a new form of beekeeping. Considering that the relationship between urban and rural spaces was different, it is not surprising that various documents and engravings from Middle Ages suggest that beekeeping was a common practice in European cities, probably due to the need for wax and honey. In Sardinia, the *Carta de Logu*, a collection of laws and regulations used on the island between the 9th Century and, with some changes, till the 18th Century, includes a chapter that regulates beekeeping in rural and urban areas. Other official documents from the same period suggest that beekeeping was a common practice in urban centres in Middle Ages Sardinia. Traces of urban beekeeping in other European cities can be found in historical documents from the same period. In Vienna, the first school of beekeeping was funded by Maria Theresa in 1770 and held by the famous Slovenian beekeeper Anton Jansa (see Crane 1999, 245).

⁴³ See the project’s website: https://opac.provincia.brescia.it/library/cda-cremona/apicoltura-urbana-a-cremona/?fbclid=IwAR1tw24b04TMPkz16muc9gYIKSRTTP3IIZY1_OZgbgLM2On2Pdp8yFUdqko (Accessed: 20.01.2021).

to *notice* bees represent their way to engage with the insects, to acknowledge them as subjects of their survey. In this regard, *Buzz* offers a remarkable example of multispecies ethnography in the field. The researchers appear to be aware of the risk of going ‘native’ in the sense of developing an “empathetic stance toward the Africanized honeybee or when we consider the seemingly unavoidable bees’ suffering in exchange for human survival” (2013, 13). The authors affirm to attempt to offer a scholarly effort to describe human/bee relations by focusing on what Donna Haraway defines as “contact zones,” that is, the co-presence and co-mingling of organisms (2013, 30). In their book, Moore and Kosut engage in the rather challenging endeavor of looking at beekeeping from the different perspectives that overlap and entangle keeping bees with diverse levels of world-living. In doing so, they seem to strive to understand what makes bees ‘happy’ and address this aspect from a theoretical perspective. It often seems that the authors became fascinated by a sort of ‘bee friendly’ narrative that sometimes seems to lack a critical gaze on the subject. More than going ‘native’ with bees, Moore and Kosut appear to take the perspective of New York urban beekeepers, conveying a certain vision of beekeeping.

In general terms, the publication of *Buzz*, which occurred amidst a wave of popularity for bees in popular contexts, is far from being a random phenomenon. Bees have only recently come to the fore for scholars interested in human/animals and human/non-human relationships. Before the first cases of bee losses were reported in 2006 (Cfr. 55), only a few contributions had been made to the relationship between humans and bees. Among them, Anna Tsing’s work on honey hunting in the Meratus forests (Tsing 2003) and her analysis of the U.S. fight against Africanized bees (Tsing 1995) offered a rigorous scholarly take on the topic. In the article from 1995, Tsing reconstructs how bees have been understood from the perspective of ‘domesticity’ and highlights the tensions that emerge in the symbolic practices of ‘taming’ bees to human households. As she puts it: “It is this tension between their domestic embodiments and refusals that makes honeybees interesting as creatures of nature; they defy human control even as they exemplify domesticity.” (Tsing 1995, 120). Tsing points out that the independence of bees derives from the possibility of swarming or absconding. Even if bees may accept human-made hives, they still might fly away. The anthropologist highlights that the concern for bees’ swarming is rooted in the European domestic model of keeping bees, where bees take on the role of family members (Ivi, 121). While U.S. beekeeping practices followed national trajectories and the ‘American dream’ of the self-entrepreneurship (see Horn 2006), U.S. beekeeping knowledge and techniques are imbued with issues of

domesticity (Tsing 1995, 123). In this new industrial apiculture system, which is firmly based on migratory practices, bees become a token for cheap labor and migrant workers, each ‘unit’ being replaceable with a fresh one willing to work hard. The association with migrant workers allows Tsing to introduce the issue of Africanized bees in the second part of her article. By pointing out that kinship in the U.S. relies on a contrasting understanding of Otherness, Tsing analyses the construction of the fear for hybridization/colonization of the European-genes-based bees of the United States from Africanized bees that had escaped from a San Paulo laboratory in 1957. Replicating themselves incredibly fast, Africanized bees soon flew up the Northern regions towards the Mexican border, where they arrived in the 1980s (Tsing 1995, 134). At that time, the U.S. Department of Agriculture proposed building a barrier to block alien invaders from crossing borders (and races). As Tsing pointed out, the episodes resemble the vicissitudes linked to managing human migrants at the Mexican border with the United States. Throughout her article, Tsing examines gender and race in the culturally-grounded process of ‘making’ the natural. Interestingly, another ‘alien’ appears without notice in her account of how Africanized bees became widespread in the U.S after being imported from Brazil. When Dr. Warwick Kerr imported queens from Southern and Eastern Africa, he set hives in a eucalyptus forest in Sao Paulo. Tsing mentions the woods, but she does not seem to acknowledge the ‘nature’ of this vegetal Other. Given the crucial connections between eucalyptus and bees in terms of food sources (I. Floris et al. 2020), I believe Kerr’s choice was not haphazard. I argue that the eucalyptus represents a further actor in the narratives on race and hybridization involving bees. In her book-length study *Friction: An Ethnography of Global Connections* (2005, 220), Tsing chooses not to explain whether residents were against re-plantations in general or whether they were explicitly against eucalyptus trees and, if so, why.

Tsing returns to bees and the construction of wild and domestic human/forest relationships in her account of the Meratus mountains (Tsing 2003). In this contribution, Tsing outlines the blurring edges of domesticity and wilderness connected to the practices of honey hunting with the giant *Apis dorsata* bees in the Meratus forest. The author argues that the relationship that Meratus built with honey trees and bees represents an excellent example of an open-ended and semi-autonomous way of living together with the forest for a long time (Tsing 2003, 48). In her analysis of the forest-management activities in Meratus, Tsing argues that Western-trained environmental scientists have difficulties acknowledging these practices because they challenge the domestic/wild dichotomy by

intersecting amidst. Tsing also claims that only by taking seriously other ways of understanding ‘rights’ and ‘forests’ will policymakers and environmentalists be able to effectively address the issue of long-term ‘sustainability’ in relationships between people and forests.

The organizational structure of bees offered fertile ground for speculating on the differences and similarities between humans and animals. Karl Marx’s well-known comparison between the bee and the architect (Marx 1997, 212) represents only one of the many examples of how bees have been considered a mirror of human societies⁴⁴.

Most of the critical works on bees have been drawn from the famous Austrian zoologist Karl von Frish’s long-term research on the bee language and communication system (Frisch 2012). Because the structural organization of bees has constantly stimulated thinkers to compare insect societies to human ones, present-day contributions to bee knowledge seem to insist on language and communication questions to examine human-animal relationships. In this regard, Sean Meighoo’s paper on issue 8 of HUMANIMALIA (2017) builds on the theories of Émile Benveniste, Jacques Lacan, and Martin Heidegger on being and applies them to language, especially Von Frish’s study on honeybees’ dance (Meighoo 2017). Meighoo’s article offers a succinct yet poignant critique of theoretical discourses of antihumanism and structuralism based on the difference between language and communication in humans and animals. The author argues that the structuralist, antihumanist discourse entails a form of human exceptionalism in that it bestows humans with a more varied ability to think, communicate, and speak than animals (Meighoo 2017, 39). According to Meighoo, post-Darwinian humanism conceals a form of violence against non-humans, and given the present-day massive bee losses, he concludes that ‘collapse’ represents the contemporary bee’s primary mode of relation.

Anthropologist Hugh Raffles seems a dissonant voice compared to the theories mentioned above. He criticizes the ‘foolishness’ of judging how insects communicate against implicit standards they cannot meet. As Raffles puts it:

But of course, the failure is human (a specific scientific human, perhaps, but human nonetheless), this failure of being able only to imagine sociality and communication through something language-like and to grant ourselves its apogee. What foolishness to judge insects—so ancient, so diverse, so accomplished, so successful, so beautiful, so astonishing, so mysterious, so

⁴⁴ In this regard, the seventeenth-century literature provides an example of how recent discoveries of male bees in the hive became the token for poor people, while later, swarming offered the analogy for a need to settle on the ‘New World’ to leave space in the overcrowded Great Britain (see Horn 2006).

unknown—by criteria they can never meet and about which they could not care! What silliness to disregard their accomplishments and focus instead on their supposed deficiencies! What pitiful poverty of imagination to see them as resources merely for our self-knowledge! What sad, sad, sad sadness when language fails us. (Raffles 2011, 200).

In the same issue of HUMaNIMALIA where Meighoo's article appears, Matt Barlow discusses the affective relationships between humans and bees. Drawing on Jane Bennett's insights, Barlow uses 'enchantment' as a theoretical and ontological frame to explore the different ways of 'being with bees' (Barlow 2017). After offering a compelling review of multispecies ethnographies, Barlow concludes that anthropology that goes beyond the human requires ethical engagement with other species. That is, whenever humans assume that bees mirror human societies and advocate for the well-being of insects, they are defending themselves. But bees, Barlow argues, are also windows that open to possible futures in which humans and non-humans liaise in new, different ways (Barlow 2017, 163). He notes that it was only after the massive bee loss event known as Colony Collapse Disorder (henceforth CCD) (Sanford 2007; Stankus 2008; van Engelsdorp et al. 2009; see also Portus 2020) that humans started to notice bees: "It was through catastrophe, not discovery, that it became the "insects' turn to come into focus." (Barlow 2017, 154). In this regard, honeybees seem to have become a productive way of thinking about the contemporary 'rift' between humans and 'nature' defined under the rather contested name of *Anthropocene* (Crutzen 2000; Moore 2016; Latour et al. 2018). That is, bees have become part of an 'eco-political' discourse about the consequences of capitalistic ways of exploiting natural resources and reifying non-humans. Bees were conceptualized as cheap labor at a seemingly never-ending point. Human impact on the planet is threatening the lives of beings, and bees became a token for extinction, loss, catastrophe, or, conversely, hope. As anthropologist Michaela Fenske pointed out, 'nature' seems to have lost her unfathomable power over humans, who are no longer 'subjects' that require care and attunement (Fenske 2017b, 139). The CCD — the massive bee losses in agricultural contexts — often described in the media as a 'beepocalypse,' became the evidence of the 'rift' between humans and 'nature'. From a Human-Animal Studies (HAS) perspective, the CCD represents an intriguing subject of inquiry. However, the HAS approach to the study of humans and animals is rather specific, compared to multispecies ethnography which is attuned to plants, microbiotas, viruses, and diverse critters in their rhizomatic intra-actions. HAS scholars investigate the place of animals in human societies (DeMello 2012, 5). That is, the engagement of HAS scholars on animal rights is based on the assumption that humans cannot get away from their *Anthropos* form

when talking, writing, or thinking about animals (Marvin and McHugh 2014, 2). Furthermore, while HAS scholars offered significant contributions to the studies of human and animal relationships, from their perspective, animals seem almost exclusively intended as those belonging to the class of mammals (DeMello 2012).

That said, Richie Nimmo's critical analyses of colony losses due to CCD offer new theoretical frameworks and some helpful insight from a posthumanism perspective and critical animal studies in the context of the industrial farming (Nimmo 2015a; 2015b; 2018). Nimmo proposes that by observing the use of bees in monocultures via the notion of the "animal-industrial-complex" (Noske 1989; Twine 2012), it is possible to highlight what he calls the 'apis-industrial-complex' (Nimmo 2015a, 185). As Nimmo remarks, although it might appear misleading to apply to insects, a concept that was created for animals that can look back at the observer (such as cows, chickens, pigs, etc.), the use of honeybees in pollinating services seems to operate on the same principles of animals in industrial farms: the objectification of animals and standardization of livestock and procedures is done with a view on increasing production and reducing possible losses. According to Nimmo, the animal industrial farming system reifies animal bodies and pushes their biological limits far beyond sustainability. Likewise, pollination services in monocultures and intensive agriculture push the biological limits of bees until the point of collapse. In this sense, Nimmo argues, CCD represents a form of "bio-resistance" of bees to the bio-power that humans exert over the environment in industrial monocultures (Nimmo 2015b, 12; 2015a). As he puts it:

In the factory farm, it is animal bodies that are the object of bio-power and which are progressively removed from the natural environment and into highly regulated artificial enclosures. In industrial monoculture, it is the environment itself that is the object of bio-power, encompassing the complex ecological interrelationships among multiple entities, including plants, animals, insects, the material qualities of soil, and myriad microorganisms. Though the objective is the same — to increase productivity — the technological dimensions are somewhat different (Nimmo 2015b, 14).

Nimmo grounds his discussion on the case study of the massive bee losses connected to using bees in monoculture, particularly in pollinating services in California's orchards of almonds. Here, big trucks filled with thousands of honeybees colonies move across the USA, sometimes arriving from as far as Australia, to pollinate 644 km of orchards for roughly 60 million almonds, a production that covers more than three-quarters of the world's total production (Nimmo 2015a, 183). This case study offers Nimmo the possibility of discussing the long-lasting relationship between humans and bees and the various forms of apian anthropomorphism. Nimmo is very thorough in comparing the

different ontologies behind the different ways to keep bees, from pollination services in industrial monocultures (Nimmo 2015a; 2015b) to smaller-scale beekeeping (Nimmo 2018). Yet, one might argue that Nimmo’s discussion of CCD neglects the specific historical conditions that contributed to establishing the Californian system of almond production. Honeybees have always been inextricably connected to plans for implementing the production of almonds in California, to the point that in the 1950s, almond companies funded researchers to determine the best ratio between the alternation of almonds’ varieties and the number of hives needed to guarantee the most excellent coverage of sexual reproduction between trees⁴⁵ (Horn 2006). Beekeepers took advantage of the new worldwide economic situation and changed their practices to accommodate the needs of the almond industry. While migratory beekeeping is now standard, it was seldom practiced then. Considering these historical contingencies, it is easy to see that bees and beekeeping are as crucial as trees for the almond industry. In this regard, although rigorously unfolded, Nimmo’s notion of apis-industrial-complex fails to grasp the problem from a broader perspective. I agree with Nimmo that CCD cannot be considered as a ‘crisis of bees’, for that only includes Western honeybees, and that the so-called *save the bees* movement implies an attempt to restore the current system of production by only changing one particular ‘weak’ part of it (Nimmo 2015a, 184). Yet, CCD cannot be considered as an ‘apis’ problem per se, nor a generic environmental crisis that encompasses “the complex ecological interrelationships among multiple entities including plants, animals, insects, the material qualities of soil, and myriad micro-organisms” (Nimmo 2015b, 14). Precisely because bees share a mutualistic and coevolutionary relationship with plants (Fishman and Hadany 2010; 2015; Nepi, Grasso, and Mancuso 2018), I argue that CCD is a form of bio-resistance to an unsustainable system that materially affected plant-insects bodies and the survival strategies of species. That is, only by taking the specific sexual relationships between plants and insects seriously are we in a position to address their current crisis. In this sense, a ‘*plant-insects-industrial complex*’ might better address the biopolitics of apiculture, going beyond strictly industrial uses to cover different ways of doing beekeeping.

Nevertheless, Nimmo’s suggestion to consider beekeepers as “interspecies practitioners, sensorially and materially engaged in a liminal world interceding between

⁴⁵ The pollination activity guarantees the sexual reproduction of vegetal species, particularly Angiosperms. In the case of almonds trees, most varieties are self-incompatible; they do not pollinate themselves. Thus, almond growers must plant at least two trees at a certain distance. In addition, almonds trees must alternate two varieties that are compatible and have overlapping bloom times.

the purified categories of ‘nature’ and ‘culture’” (Nimmo 2015a, 195) has represented a stimulating platform for me to explore beekeeping practices in Sardinia (Italy). Despite beekeepers rarely reporting cases of CCD in their apiaries, bee losses have increased over the past decade in Sardinia. This is due to loss of bee pastures, unfavorable climate conditions, and changes in the policies for environmental and agricultural management. Fieldwork showed that fear of CCD, along with ‘save the bees’ narratives, negatively affected bees and beekeepers insofar as these narratives conveyed policies to implement the number of beekeepers and bees to avoid biodiversity loss, resulting in unbalanced plant-insects relationship (see Fishman and Hadany 2010; Nepi, Grasso, and Mancuso 2018). Thus, pursuing a critical multispecies perspective on apiculture, I aim to highlight how the tension between policies and beekeepers in Sardinia reveal different ontologies and understandings of the world. More specifically, by focusing on the human and bees relationships as related to beekeeping, I will show how beekeepers develop a ‘interspecies attunement’ that enable them to rethink their position in the world and question the notions of Sardinian identity that permeate environmental management policies in force. By practicing the ‘art of noticing’ (Tsing 2015) during fieldwork, my aim is to highlight how Sardinian identity is connected to a specific notion of human and ‘nature’ that through environmental policies shapes the landscape. Finally, beekeeping in Sardinia offers the opportunity to reflect on the history of intercontinental connections, colonialism, past and present global connections between humans, little insects, pests, and to do so by focusing on local knowledge and local policies for biodiversity management and identity issues. In this regard, by taking on a multispecies perspective on the issue of identity — a ‘classic’ theme of anthropological inquiry and more specifically on anthropology in Sardinia my goal is to fill a gap in the current literature on multispecies ethnography.

The next chapter aims to analyze the different methodological strategies I developed to conduct the fieldwork.

3. Engaging with the field: Methods, positioning, and experimental practices.

Despite the growing attention on bees and beekeeping in the last few years, beekeepers blame a general lack of knowledge. The complex dynamics that link the hive to the ecosystems it inhabits and contributes to *building* it appears too specialistic to the common sense. Yet, beekeepers took advantage of the new visibility they acquired in popular culture to step out from the darkness and take on an active role in the political dimension. As an example, we may consider the recent activity of the Ngo Bee-Life formed by beekeepers, which is supporting the EU parliament a campaign against pesticides while also proposing solutions to include the role of pollinators in the EU agricultural policies. The blooming of beekeeping courses, events on bees and honey, honey tasting evenings, and initiatives for beekeeping can be considered good examples. The awareness of the importance of bees offered European beekeepers the opportunities to negotiate their role within the economic chain of food production. Since 2008, the European Union has been developing several measures and projects to protect the bees to ensure stability in the current food system's output. The *EU Pollinators Initiative*⁴⁶ represents the last outcome of a long process of monitoring and studying the life conditions of domesticated and wild bees within the member states. A glimpse at the measures of the Common Agricultural Policy (CAP) and the *Farm to Fork Strategy* (European Commission 2020) shows how bees (and, by extension, their keepers) are slowly boosting their agency in the EU environmental and agricultural policies.

However, beekeeping seems to remain a complex job that requires mastering expertise in a wide range of fields connected to the functioning of the 'Superorganism' (Tautz 2008, 34,35; Seeley 2010). Therefore it appears to be a 'niche' job. A study on bee survival across European countries shows that poor beekeeping practices and lack of training in less trained beekeepers lead to higher mortality of bee colonies compared to experienced beekeepers (Jacques et al. 2017). Colony losses are decidedly dependent on beekeeping

⁴⁶ See the official webpage: https://ec.europa.eu/environment/nature/conservation/species/pollinators/index_en.htm

practices, and higher losses on bee colonies are more likely to occur among hobbyist beekeepers than in the apiaries managed by professional beekeepers.

During the four years of research, I observed the Italian beekeeping community. Following the various Facebook groups and conducting semi-formal conversations with the members of the Italian National Associations of beekeepers UNAAPI⁴⁷ and CONAPI⁴⁸ I had access to the intimate struggles and concerns of Italian beekeeping. It seems that experienced⁴⁹ beekeepers complain because of a ‘clear lack’ of expertise in the people supposed to be spokespersons of beekeeping needs before policymakers on national and European levels. According to beekeepers, this lack of expertise and knowledge produces misunderstandings of the real needs of the beekeeping sector and ultimately negatively affects the life of bees in different ways: Directly, by preventing beekeepers from accessing welfare programs like the EU CAP; indirectly, by promoting environmental and energetic plans that reduce the grazing lands of pollinators (Meloni 2021). These factors create a sense of mistrust between beekeepers and the various expertise they must deal with (i.e., technicians from the regional agencies, veterinarians, local council members, and people with academic backgrounds). The two crucial elements of reflection that helped in designing the methodology to conduct the ethnographic research are the conflicting relationship between beekeepers and ‘other-than-beekeepers’⁵⁰ and how the new role of bees in popular culture is influencing beekeeping practices represented.

In this chapter, I will delve into the dynamics of constructing the relationships with the informants. Furthermore, I will reflect on the practices of collaborations between the anthropologist and the subjects by analyzing the development of my position in the field. Finally, I will dwell upon the strategies and different methods used to conduct the survey.

3.1 What do you know about (keeping) bees?

Humans have always been fascinated by bees and their world. A variety of practices for tending bees have been written and passed down from generations since probably the

⁴⁷ The UNAAPI is the National Union Associations of Italian Beekeepers. More information here: <https://unaapi.it/>

⁴⁸ The National Consortium of Beekeepers was founded in 1985 and it is linked to the brand *Mielizija* which distributes honey in the GOD in Italy. More information here: <https://conapi.it/en/>

⁴⁹ In the text, I use the word ‘experienced’ to refer to expert beekeepers regardless the number of beehives they manage.

⁵⁰ I use this term to refer to the people that engage in beekeeping without being a beekeeper.

earliest bee paintings in the caves (Crane 1999). Today, the ability to interact with these stinging animals and to learn how to tend them seem often compared to a sort of warlocks' superpowers that access the non-human dimension. The dual nature of beekeeping, between silviculture and animal husbandry, makes tending bees a highly specialized job connected to the activities that belong to the field of agriculture and, more generally, to the management of the environment. From an ANT perspective, the field of beekeeping pivots various operators that are connected to rather diverse fields of expertise. A researcher must acquire at least a basic knowledge of bee biology and beekeeping language and practices to investigate this field. Sociologists Mary Kosut and Lisa J. Moore enrolled in a six-month class on urban beekeeping to gain access to the world of urban beekeepers and their way of doing beekeeping in the city. They have pointed out that:

Our practice of simultaneously taking notes about bees combined with learning how to become a beekeeper, while also attempting a sociological meta-level analysis of who was in the room and thinking about their concerns and connections to other humans and European honeybees, was a challenge. We wanted to learn the language of bee care, understand the creatures' habits through human translations and mediations (as the bees were absent and not speaking for themselves), and at the same time get a sense of the humans who surrounded us. (L. J. Moore and Kosut 2013, 4)

The sociologists attended supplemental lectures by the prominent entomologist Thomas Seeley to gain more knowledge on the functioning of the Superorganism, as Seeley called a bee colony. This introductory training was fundamental to access to the beekeepers' community, to enter their intimate world, and, ultimately, to make bees less 'other' (ivi, 5).

Knowledge is also fundamental to access to the world of beekeeping in Sardinia. For Sardinian beekeepers (both professional and hobbyists), the knowledge and competencies in beekeeping represent the means to measure the abilities and expertise of another beekeeper and, more importantly, their right to speak about beekeeping. This also applies to any interlocutor who deals with them for different reasons. Like the Italian context, Sardinian professional beekeepers believe that the increasingly higher presence of beekeepers with poor knowledge of colonies' management practices adds further stress to bee health. Indeed, according to experienced beekeepers, keeping bees is a very expert practice that requires a lot of know-how and at least ten years of apprenticeship with an experienced beekeeper. "I have been a beekeeper for 40 years now, and I still understand nothing about bees!" a Sardinian beekeeper once uttered to a colleague who

asked him about his bees. The cartoonist Theresa McCracken visually translates this proverbial sentence that exemplifies the complexity of beekeeping.



Figure 7. Cartoonist: Theresa McCracken.

I shall explore in Chapter XY the details of the expertise of beekeepers. It should be enough at this point to know that, on average, a beekeeper must know: basic notions of bee biology, how to recognize and treat the primary bee diseases, the blooming behavior of flowers and plants of bee interest, how to locate an apiary in the territory considering sun, wind, rain exposition, the pedological characteristics of the area around the apiary, and the types of human activities (e.g. biodynamic agriculture, intensive farming, a factory) in a range of at least five kilometers from where the apiary is located (Meloni 2018c, 71,72). Furthermore, they must possess competencies in the price of honey locally and in the European market, on the rules on beekeeping, and know the laws on honey labeling. They have to hold basic business management knowledge depending on the tax system they are under. In addition to this, older beekeepers appear to have an intimate knowledge of the human network of relationships connected to land exploitation which

was (and in part still is) fundamental for beekeeping in Sardinia. Thus, to engage with the members of the community of beekeepers, it is necessary to share with them knowledge on these aspects to find common ground to start the conversation.

Experienced beekeepers appear reticent to share their expertise with novices. This seems partly due to the concern of sharing their knowledge with possible new competitors in the honey market. Additionally, also for a sort of pride in their competencies in mastering ‘wild’ stinging animals such as the bees seem to fuel this reticence. The research by Michael Herzfeld on artisan work in Rhodes suggests similar dynamics in the relationships that expert artisans establish with their apprentices (Herzfeld 2004, 50). Notably, the practice of ‘learning by doing’ and the silence connected to it seems to be a common point in Sardinian beekeeping. In the field, often, the master beekeeper appears to share only a few sentences with their apprentices or helpers. The relationship of power and hierarchy established between experienced beekeepers and novices or younger beekeepers seem to be reproduced in the network of relationships that link the members of the community of beekeepers. The relationships between beekeepers also depend on the mutual respect that one grants to another depending on the expertise shown by keeping the bees.

In Sardinia, we could say that the community’s most prominent and respected beekeepers have been in the business for many decades. Their prestige appears independent from the ‘how’ and ‘where’ they sell the honey. Instead, it is connected to the number of beehives they can successfully handle and to the number of colonies they lose after winter. The fame of the beekeeping companies is also connected to the family name of the beekeepers. Beekeeping appears to be a ‘family job’ or, more precisely, a kin-based job. To belong to a family of beekeepers may mean that an ancestor handed down the expertise of beekeeping to the actual beekeepers or that beekeeping is the main activity of different people that belong to a specific family group. In addition to measuring the prestige and competencies of another colleague, Sardinian beekeepers appear to use the family lineage as a strategy of self-representation both, in the processes of identity construction (Cfr. 187- 215) and for business purposes.

I should point out that I belong to a known family of Sardinian beekeepers. This means that instead of knowing a few people in the field and being barely acquainted with the place of study (Geertz 2011), when I started, I had more than a vague idea of the field of beekeeping in Sardinia. My grandmother was the first member of my family to become a professional beekeeper. The latter founded her company at the end of the 1970s and

ran her business for about thirty years before to get retired. When she started, traditional beekeeping was the most practiced form of keeping bees in Sardinia (Prota and Floris 1983; I. Floris 2000; I. Floris and Satta 2009). In contrast, her company was one of the first of the modern types. In the 1970s, female entrepreneurship was not very common in Sardinia, and with her roughly 200 beehives, my grandma was the second female professional beekeeper after Maria Aresu (Cfr. 142). According to the interviews, at that time, among the Regional Authority for Development and Technical Support in Agriculture (ERSAT), there was a lack of specialists in beekeeping. The regional technicians often asked Aresu and my grandmother to teach in the regional educational training courses for young beekeepers in South Sardinia. In the 1970s, my father was a young lad who loved to be surrounded by nature. It was then that he started his own beekeeping business with my mother. Later in the 1980s, his brother and his sister-in-law joined the society. Finally, during the 1990s, my grandmother's youngest son took over her company before she retired and built his beekeeping laboratory.

Far from being driven by empty exhibitionism (Marcus and Fischer 1999, 43), this short slice of family history introduces my position in the beekeeping field in Sardinia. It offers the opportunity to explore the pre-knowledge of beekeeping and the intimate relationship I share with bees. These biographic elements played a role in accessing the field and intertwined with anthropological knowledge, helping redefine my initial position.

In what follows, I explore my engagement with bees by offering a sensorial perspective on living with bees.

3.2 A 'buzzing' companion: growing up with bees

I don't remember when I learned to be surrounded by bees, to pay attention to their buzzing rhythm without being afraid of being stung by them. There is an old picture of me at dawn, the day of my first birthday sitting on a dry field, smiling at the camera. Less than 50 meters behind me, in the background, stand six colored beehives, each with supper on it. My mother told me that day that they had moved the beehives from another location to prepare them for the coming winter. Since they could not afford a babysitter, my parents brought me with them. It was September 1987; they were a young couple in their middle twenties with a small child to take care of and about 300 colonies to manage.



Figure 8. September 8th, 1987: my first birthday. (Credits: Greca N. Meloni 2022)

During my childhood, my little brother and I often went with them to migrate the beehives from different locations around the nearby mountains. Conversely to what Mary Kosut and Liza J. Moore have experienced (Moore and Kosut 2013), for me, bees were not ‘flying others’ or ‘hazardous’ insects. They were rather companion animals of my childhood. My first parents’ laboratory of beekeeping was literally in one of the house’s rooms — the living room, to be precise. Bees were constantly flying everywhere. Even when, in 1989, my parents built their laboratory close by the house, the robbing generated during the harvesting brought hungry bees around. Not to mention that my grandma used to have a big apiary just in the backyard of my house. Her laboratory was 150 meters away from our house door. My playground was shared with these buzzing insects. I grew up surrounded by bees, and I can fairly say that I learned how to walk together with the bees. Remembering my earliest encounters with the insects, the first image coming to my mind is that of my fingers rapidly catching the bees by their wings while they were flying frenetically on the glass door of my house, trying to escape.

“Look, daddy! Look what I can do! I can take the bees from their wings while they are flying! Look how good I am!” I uttered excited, snatching the tiny wings between the thumb and the index finger. “Wow, *amore* you are amazing! Now, please leave the bees in peace so that they can return to their home.” I remember my father explaining to me how to interpret the behavior of the bees urging me to observe their way of moving and to be careful about not harming them. A buzzing bee flying in circular movements around a source of sugar indicates a scout bee taking the coordinates of a potential food source. Aggressive bees exhibit defensive behavior due to a wrong or too chaotic way of us moving around them. The bees hitting our door glass were trying to return to their own ‘house.’ I didn’t know it then, but my father was introducing me to the ‘art of noticing’ bees (Tsing 2015), teaching me how to look (see Grasseni 2009, 60) and how to be with the bees, in Donna Haraway’s sense of “becoming with” (2008; 2016b).

Our entire life and schedule pivoted around the bees’ rhythm and the plant’s blossoming pace. During Winter, the school timetable overlapped with the wintering of the colonies after harvesting the Strawberry tree honey, bitter high prize honey that in Sardinia is collected in November. In Summertime, harvesting the Eucalyptus was so overwhelming that there was no time for anything else. I remember that my brother and I used to help my parents uncap the honeycombs before putting them inside the honey extractor. The harvesting season was kind of a ritual that used to make us all very excited to taste the new honey and see ‘how it looks this year.’ In Spring and Autumn, after a storm, we used to go all together to look ‘if it has rained well.’ My mother put me and my brother in the back seat of our car, a small white Seat Marbella, and she drove us on the dirt roads towards the fields. In the passenger seat, my father observed the water on the field, trying to estimate if the water fell was ‘enough for the countryside.’ When the storm was too heavy and filled the ditches, my father took the UAZ, a Russian off-road military vehicle he bought, to reach apiaries in arduous spots hidden behind the thick Mediterranean scrub on the mountain. The rain was so significant to him that the weather forecasts were an obsession so much that he used to record them on the TV when he could not watch them. It felt like our entire existence depended on the amount of water that “the countryside needs.” As a young toddler, I could perceive the constant uncertainty of growing up in a family whose entire subsistence depends on something you cannot foresee. My father’s obsession with the weather conditions and incessant discourses about bees and plants were annoying.

My father and I always spent much time together in the mountain and the countryside. During our long walks or while riding our bikes, he's constantly observing every little detail: the appearance of the flowers, the movement of the bees, and the aspect of buds on the trees. "Come, look here! Look at the flower of this shrub; can you see it? This is heather. Can't you see how it looks like sad, *bitzu* (=lit. gaunt)? Do you observe it? This is because the shrub is suffering from a lack of water. Observe!"

I often got upset for his ten-minute breaks from our walk to show me the three blossoming seasons of the buds of a eucalyptus tree: "the one for next season, the buds of the current season, and the old one from the previous season." It felt frustrating when he urged me to notice the wood sorrel that looked sad, like "a dog with its ears way back" when there was not enough dew during the night and sun during the day. "Come on, dad, we are losing our time!"

The walks with my father represented the cornerstone of a long education process through which he taught me his experience, a way of passing down his knowledge to me. Without knowing it, through this education process, I have embedded some nature knowledge of beekeeping.

This apprenticeship somewhat ceased in 2001. During the summer break, I was helping my father manage the hives and harvest the honey. It was an arid season, and the bees were always very nervous when we were rummaging their hives to pick up the honey supers. We were just at the end, completing the harvesting of the eucalyptus. That day we visited one of the last apiaries, which was also the furthest. When we arrived, the apiary looked the same as all the previous ones we saw: nervous bees, almost empty supers, and everything around us was dry. We needed to avoid raids between the colonies; thus, we were moving fast and remaining silent. I was pleased to finally see the end of the season after almost two months of wearing a beekeeping suit, gloves, and veil under a burning sun. My father carefully opened the hives, and my job was to pick up one or two honey supers, bring them inside the truck, and rapidly close the back door to come back to pick up new ones. That day was scorching, about 40° C. After the first three hives, the beekeeping suit made me feel like in a sauna. We removed the supers from roughly half of the hives when in grabbing two honey supers, a very angry bee managed to enter inside the veil and sting me on the left corner of my lips. My father and I quickly moved some meters away from the flying channel of the bees to remove the stinger from my skin. This procedure is necessary to prevent the venom sack from pumping, something I had done thousands of times. However, this time something was different.

When I took off the veil, my father saw my face horribly changing in front of his eyes. It took less than two minutes before I felt my entire body itching: under the eyelids, inside my ears, under my nails. Something new was happening to me. My father rapidly took all the beekeeping tools with him and forced me to enter the truck. That apiary was roughly 15 kilometers of narrowed bends away from the closest town, Siliqua, and about 25 from our village, Uta. He was not sure to find the doctor-on-call in the nearest town; thus, he decided to head to Uta. “Call your mother! Tell her to drive towards us; her car is faster; you go with her!” The truck was not able to drive faster than 80 kilometers per hour. “I can’t, dad! I can’t feel my legs!”. My father needed to drive faster. In the meantime, my mother went to the first doctor she could find in the town and told him to be prepared for us. When we finally reached the doctor’s studio at the square in the center of the town, I passed out.

Eventually, the doctors from the hospital’s emergency room explained that I had experienced an anaphylactic shock and, therefore, I am allergic to bees. From that moment on, my family kept me away from anything related to bees. My father was so scared that he stopped talking to me about bees for a while. “Go, study, and find a better job than mine, a more certain one!”.

And so, I did. For some years, I stopped doing anything with the bees, and I focused on my studies. My mere involvement with beekeeping was writing official emails or helping my father looking something online, a task that I deeply hated. Every time there was a considerable discussion before he convinced me to help him with some search on Google or to write some document. Despite my wishes, I’ve learned what the bureaucratic dimension that accompanies the activity of beekeeping, from the healthcare rules to the regulations for honey-selling is.

This knowledge in beekeeping proved essential when I decided to build the current PhD project research. I will now explore how I built the relationship with the informants and designed the inquiry’s methodology.

3.3 Setting the field: from participant observation to a collaborative approach.

To access the beekeeping field in Sardinia, the first hard job was finding beekeepers willing to take part in the survey.

Around Spring 2016, I became a member of the Facebook private group *Abieris di Sardegna* (Beekeepers of Sardinia). The group was created by a few Sardinian beekeepers in 2015 to speak ‘freely’ in Sardinian about beekeeping in Sardinia.⁵¹ To be granted access, I was asked to answer a few questions regarding my engagement with beekeeping and particularly about my relation to Sardinia similar to other private groups on Facebook. In the beginning, I took on a participant observation approach, which I implemented through the years by sharing information with the members, participating in discussions, and keeping online and offline connections with some members. Participating in this group was pivotal to learning the main issues of beekeeping in Sardinia, detecting the dynamics at play in the beekeeping networks, and the beekeepers’ relations with policymakers. Finally, it proved very useful to appreciate what beekeeping in Sardinia meant nowadays and how being Sardinian – what we might call the *Sardinianness* quality– factors into the process.

In the *Abieris di Sardegna* group, beekeepers discussed various topics, most of which were connected to practical issues of beekeeping, such as the better period to treat bees against the Varroa mite,⁵² the best solution against it, or which sun exposure is most suitable for setting up an apiary. Discussions often focused on how regional, national or EU policies affected the beekeeper’s job. In some cases, regional experts (also members of the group) explained unclear aspects of the law and how to practice beekeeping according to the rules.

Occasionally, members sent me a friendship request after some discussion in the group. Whenever I needed to become friends with a group member, I had to establish an online connection with them. Through *Abieris di Sardegna* I contacted a few beekeepers and asked whether they were willing to participate in the ethnographic research and be

⁵¹ *Abieris di Sardegna* is a private group created in 2015 by two beekeepers to discuss the aspects that specifically concern beekeeping in Sardinia. As the founder states in the information section of the group, it was created to replace a Whatsapp chat because [I]t became too complicated. Thus, I proposed to create a group, and Andrea Farci offered to be the administrator! :) Here, we can talk more freely about Sardinian beekeeping, that in certain ways is slightly different from beekeeping on the continent! And we could also write in Sardinian without, after a few seconds, someone writing “WHAAAAAAAAAT?????” Good beekeeping to everyone! L. I. (My translation from the original in Italian and Sardinian: *Salude a tottusu! Siccome seguire la chat “apicoltura Sardegna” mi stava diventando troppo complicato, ho proposto nella stessa chat di creare un gruppo, e Andrea Farci si è offerto volontario per seguire questo come amministratore! :) Qui possiamo parlare un pochino più liberamente dell’apicoltura Sarda, che sotto alcuni aspetti risulta differente da quella continentale! E si può pure scrivere in sardo senza che qualcuno dopo pochi secondi ti scriva “COOSAAAAA?????” Buona apicoltura a tutti! L. I.*)

⁵² Varroa mites are external parasites of adult honeybees that can cause the collapse of the colony. The mites are vectors for several diseases. By affecting bees in their primordial status, they interfere with the development of the insects. ‘Albinos’ bees, as well as malformed wings are among the most visible common signs of infection. See: (Wilson-Rich 2014; Contessi 2016).

filmed. I must point out that I did not choose beekeepers according to their operating place or simply because they were keeping bees. I focused on beekeepers that appear to have a public role in the community. Thus I contacted them after observing their role in the online group and their way of interacting with other beekeepers. Following the group activities and analyzing the material they posted helped me to detect the main issues affecting beekeeping in Sardinia and map out the connections between beekeepers in the community.

One of the most animated discussions over several posts regarded the possibility of creating a Protected Denomination of Origin (henceforth P.D.O.) for the Sardinian honey varieties, for which requirements would need to be included. Yet, my interest was not in the process of heritagization of a food product; instead, it was in the discussions about place, identity, and bees that emerged around the P.D.O. issue. Spokespersons of various institutions used this space to share their opinion with fellow beekeepers, in addition to the interviews they already gave to newspapers and TV news. Eventually, the P.D.O. project failed to proceed, officially due to the inconsistencies in the procedural guidelines, which resulted in the impossibility of finding a standardized way of handling the bees for making honey. Furthermore, the project also encountered resistance from a certain number of professional beekeepers who had created their brand and market network over forty years. They felt threatened by the possibility of losing their brand identity.

Through the Facebook group, I come into contact with Efsio Mele⁵³, a passionate beekeeper in his sixties who loves to describe himself as “the successor of a long tradition of beekeepers,” one who lives his life as a “fervent Gramscian.” Efsio introduced me to several members of the association *Ortus de is Abis* (Cfr. 150-155). Later, some of them welcomed me at their apiaries.

I spent a significant part of my research period conversing, discussing, and learning, online and offline, at events organized by the association. Efsio involved me in different activities *for* the association, introducing me as ‘the’ visual anthropologist researching beekeeping in Sardinia. The relationship with Efsio was not a serendipity process; instead, this raised some critical issues. Indeed, I learned that other beekeepers referred to me as ‘Mele’s daughter’ due to my collaboration with *Ortus de is Abis*. I must remark that the association has hundreds of fellows, many of whom were willing to participate

⁵³ All names of people and associations in the dissertation are fictional, except those connected to public material already available online.

in the ethnographic research. This might have led some people to associate my work with *Ortus de is Abis*. The willingness to participate in the study determined which people I would speak with and film. Still, the beekeepers in my research come from different areas of Sardinia, run businesses of different sizes, and have various roles in the beekeepers' community.

Interviews, whether with audio-visual equipment or not, represent only a part of how I collected ethnographic data. Participating at events for beekeeping in Sardinia, such as the annual meeting organized by Laore in the mining town of Montevecchio, in the Southwest of Sardinia, offered me the opportunity to observe the dynamics, and indeed the tensions, within the beekeepers' community and between them and policymakers (or their spokespeople). These events also allowed me to build new relationships with those beekeepers who, for different reasons, had not taken part in the online discussions. The meetings allowed me to interact with members of the regional agencies. Otherwise, I would have had difficulties meeting due to alleged restrictions imposed by internal policies for participating in academic surveys. In only one case did I have the opportunity to interview a technician from the Laore agency. Yet, he chose to talk to me in private respect rather than in his role as regional specialist for beekeeping. Finally, at these events, I met various politicians and employees from their offices and other office workers who, for different reasons, are involved in the beekeeping field. On top of the official events, beekeepers invited me to participate in smaller, more private events, either organized by single beekeepers or groups of them in collaboration with local institutions, such as museums, bookshops or libraries, municipal administrations, and other public institutions.

Finally, in addition to semi-structured interviews, participant observation, and the analysis of the grey literature, in 2018, I created the blog www.fareapicoltura.net, where I undertook a dissemination activity that led to forms of collaboration with beekeepers and experts from various fields connected to beekeeping. Sharing ethnographic materials through the blog and mixed social media (mainly Facebook, Instagram, and Vimeo) appeared to open up new fields of inquiry (Meloni 2018c). It allowed me to establish contacts with beekeepers I was not familiar with.

Later in this chapter, I will analyze how the blog implemented the inquiry. Now I will explore which role my previous beekeeping knowledge had in conducting the fieldwork.

3.4 Knowledge as ‘gatekeeper’

In the beginning, because of my lineage connection to Sardinian professional beekeepers, it was relatively easier to contact other beekeepers and researchers at the University of Sassari. Before meeting me, beekeepers considered me an insider member of the community, and they often accepted to meet me as a way to pay respect to *my* family group. According to the network of relationships typical of Sardinian agropastoral societies (Angioni 1974; 1976), in which beekeeping is included, talking to me was a way to keep a good relationship with another member of the community or to build a new relationship with another fellow beekeeper (Meloni 2018c, 72). It could be said that my family name, in most cases, worked as a sort of gatekeeper to get first access to the field. After the first meetings, a few critical issues emerged in defining my position. Belonging to a family of beekeepers did not necessarily guarantee that *I knew* how to keep bees. Despite believing that I might have had at least a general knowledge of beekeeping, *alas*, being a woman (young on top of that), implied that my knowledge would have been ‘poor’ or, at the very least, merely interested in the ‘romantic’ and ‘nice’ aspects of beekeeping. According to the male’s view, the merit of women beekeepers is to do the ‘nice’ things that men have no time or the ability to do (e.g., bee-wax candles, soaps, queen rearing, etc. Cfr. 138-142). When I started the ethnographic research, I firstly focused mainly on male beekeepers due to the predominancy of their role in the public sphere. It seems that men tend to take on a public function and seek a public stage to affirm their point of view and consequently establish their position in the community. On the contrary, even when running a professional business, female beekeepers tend to avoid public attention; they seem not to intervene in public events and to keep a low profile (Cfr. 138-142).

Male beekeepers ideally link women to forms of beekeeping that many men-beekeepers define as ‘naïve’ and ‘bee-friendly’, the latter with a negative sense. Given that male beekeepers do not see their female counterparts as able to master beekeeping, my gender played a part in defining the relationships with the informants. Sometimes, my gender triggered suspiciousness and jealousy in the beekeepers’ wives, while relating with unmarried men often produced contrasting feelings and anxiety for my safety. A few times, the braggadocio of my informants made me feel very uncomfortable and annoyed by their not-very-subtle comments. On one occasion, my interlocutor repeatedly remarked his alleged womanizer’s fame within the community of beekeepers.

Aside from these unpleasant circumstances, the fieldwork revealed remarkable hints for reflecting on my position and the role of my beekeeping background. At the beginning of the conversations, male beekeepers often offered only a sugared narrative of their job, a narrative they seemed to believe was suitable to my interests. Proving *to know* represented the necessary step for developing any relationship with male beekeepers. On the contrary, female beekeepers appear to expect from me the same level of expertise. The quality of the conversations depended on the possibility of discussing with a person that shared a similar body of knowledge with beekeepers. I needed to show that I knew how practically *do* (Angioni 2004; 2011) beekeeping.

I also needed to show competencies in beekeeping when I interviewed my father. I decided to include him in the ethnographic research because of his direct involvement in some critical issues for the beekeeping sector. However, in this case, the relationship between my father and me required a mediator that helped me to put my beekeeping knowledge in a secondary position compared to my anthropological expertise. It was necessary that my father could recognize me as a researcher in the field rather than his little daughter, who undoubtedly knew the basis of beekeeping. Thus, in the initial phase of the fieldwork, the anthropologist Francesco Bachis took on the role of mediator. Bachis and my father previously knew each other, and, in some ways, they already shared a sort of intimate relationship. My father estimated the field of interest of Bachis. His presence favored the process of taking distances from my father. Given the admiration of my father towards the work of Bachis, his engagement guaranteed the soundness of my research. The presence of an expert anthropologist who is not acquainted with bees prodded my father to take on a didactic attitude toward the new novice; this also allowed him to find his way to communicate with me. The relationship master-apprentice made him feel comfortable bringing me back in the apiary after the lousy episode we experienced several years before (Cfr. 68).

Bachis returned to the field with me again amid the research, when meeting unmarried male beekeepers. Unsurprisingly, the presence in the field of an affirmed male anthropologist often made beekeepers consider him the expert with whom to talk about managing beehives. Nevertheless, his collaboration allowed me to access otherwise too suspicious and/or shy beekeepers to share their knowledge with a (young) woman. This was particularly true for the fieldwork trip of Spring 2019 in the Barbagia region. During the previous summer, at one of the educational activities organized by the association *Ortus de is Abis*, I met Peppe Mereu, a young beekeeper in his mid-20s who was there “to

learn as much as possible of bees and beekeeping to build my own business one day.” Pepe invited me to visit his apiaries in Autumn for the Strawberry tree’s harvest. The academic schedule did not allow me for fieldwork in Autumn; thus, I postponed the visit to the following Spring during the academic break. Considering Pepe’s young age and the general male chauvinism attributed to the Barbagia (see Heatherington 2010; Sorge 2015), I asked Bachis to come and help me do fieldwork in this context. Pepe did not know that Bachis was coming with me. Our gender and age gap seemed to represent a barrier to entertaining usual non-beekeeping-related small talks. The following section from my fieldwork notebook describes the day we arrive in Pepe’s town:

Pepe is a man of few words, and the language furtherly limits our communication: he seems to speak almost exclusively Nuorese Sardinian, and he doesn’t seem to be willing to talk to Italian. I, on the other hand, speak Campidanese. Thus, notwithstanding that we understand each other in most cases, the language is a barrier. (Barbagia, 29 February 2019).

The presence of Bachis helped to reduce the embarrassment linked to a woman who goes *alone* in the countryside with a man to visit an apiary. Pepe’s bashfulness cannot hide his genuine enthusiasm for having people with whom he could exchange information about beekeeping. At the apiary, Bachis took care of the camcorder, and this allowed me to interact with Pepe without a medium that otherwise would be perceived as an instrument of power to coerce the young beekeeper to talk. Pepe kindly explains how to explore his colonies, guiding my gaze and my hands after passing me the frames. Most professional beekeepers do not allow other people to ‘rummage’ their bees. The fact that he allows me to touch his bees with my hands is remarkable. Probably, this is connected to his self-perception of being “the last one of the beekeepers, who lacks ‘real’ expertise like ‘real’ beekeepers.” Pepe’s shyness in talking with me and his submissive behavior relating to Mr. Giovanni resembled David MacDougall’s Pietro in *Tempus de Baristas* (1993). In this regard, rather than showing off a *balente* attitude considered ‘typical’ in young men from this region Field (see Sorge 2015), Pepe looked like he was searching to define his position as a man and a beekeeper.

Pepe introduced us to a local expert beekeeper, Mr. Giovanni Murru, who agreed to bring us to visit his apiary next to his laboratory as a sign of respect for his relationship with Pepe and his family. Indeed, in the beginning, Mr. Giovanni did not appear amused by the presence of two researchers from the University. Obviously, he seemed to consider Bachis, the expert in the room. A brief extract from my fieldwork notebook help here

exemplifies the changing attitude of beekeepers when they find out I am not *only* a researcher.

Initially, Mr. Giovanni was very evasive; he offered me only general remarks about beekeeping, claiming that I already knew the problems if I interviewed other beekeepers. He seems to want to get rid of me as soon as possible. Then, we talked about Sardinian beekeeping during the 1970s. I tell him that my father is a beekeeper, and I see his attitude slightly changing. Eventually, the conversation gets a turning point when he realizes that I knew the names of famous beekeepers who are considered the fathers of modern beekeeping in Sardinia. We have something in common to talk about. Peppe, on the other hand, seems to be excluded from the conversation. He's the first beekeeper in his family and doesn't know anything about old stories. (Barbagia, 28 February 2019).

In this case, it was not showing off how to practice beekeeping; rather, knowing the story of its development in Sardinia from an inside perspective appeared crucial to going beyond our differences in age and gender. The intersection of gazes between us raised a lively discussion in which beekeeping offered the opportunity to delve into the relationship between three people that differed in age, gender, and expertise. It helped to explore beekeepers' perceptions of the world they inhabit. Mr. Giovanni appeared to know the functioning of the global market of honey and bees deeply. He blamed how the prize trend of Chinese honey influences the local market. Strikingly, despite his broad awareness of global and local interconnections, from his description emerged that Barbagia is his entire world (see Heatherington 2010). This is also true for Peppe, whose primary job is to work in the local shop of traditional products, where he also sells his honey to tourists.

I will return to Peppe and Mr. Giovanni's meeting. Now, I focus my attention on how my beekeeping background was crucial to opening a discussion on this trip. The knowledge of beekeeping that I embodied through growing up with the bees (Cfr. 64) enabled me to find common ground with female and male beekeepers and other specialists. Without this background, access to the field would have been limited and probably superficial to beekeeping's most appealing and fascinating aspects. Not only the quality of the information shared differ, but the asymmetry of competencies influences the nature of the relationship established with the informants.

During the research, previous beekeeping knowledge facilitated the investigation by allowing more in-depth analysis of how beekeeping practices and local ecological

knowledge are used to understand their position in the world (Meloni 2018c, 74). My skills in anthropological inquiry allowed me to seek the best practices to negotiate my role in the field. Once I defined my position in the field, it was possible to start building the relationship with the informants and engage in collaboration practices.

In the next chapter, I turn on examining how different forms of knowledge determines power dynamic in relation-building.

3.5 Conflicting expertise

Beekeepers must closely relate with several non-beekeepers specialists⁵⁴ that engage in various ways with the field of beekeeping. These are specialists with expertise in different fields from zoology to chemistry, allowing them to interact in beekeeping. The relationship beekeepers establish with specialists influences the possibility of accessing the community of Sardinian beekeepers as an anthropologist. As a PhD candidate in European Ethnology at the University of Vienna, beekeepers perceived me as a member of the academic environment and, therefore, a person who might threaten their activity. Indeed, the relationship that beekeepers must build with other specialists often raises feelings of mistrust connected to the perception that the experts do not safeguard beekeepers' rights. Beekeepers claim that instead of providing solutions that address critical beekeeping issues, the appointed specialists appear to take on a "repressive behavior," particularly against professional operators. A post on the Facebook private group *Abieris di Sardegna* written by Felice Gallus⁵⁵ president of the Organization of producers (O.P.) *Padenti* exemplifies these sentiments:

During a meeting with the [regional] vet service, we discussed the structure of the new plan against the varroa mite. There were also Efsio Mele [Association *Ortus de is Abis*] and Andrea Loddo. I believe that we beekeepers agree that it is pointless to design a monitoring plan without firstly shedding light on the apiaries that are not registered in the [national] beekeeping registry. Finally, during the discussions, I felt that some spokespersons of the vet service keep understanding their job as "repressive" rather than support [beekeepers]. It is dangerous that a specialist who talks does not understand the difference between a drug that doesn't require a prescription and a drug; more importantly, that s/he cannot distinguish an animal from an insect. I

⁵⁴ In this dissertation, I use the term 'specialist' to indicate the regional employed that offer technical support to beekeepers, and to indicate all the people whom expertise interacts in the field of beekeeping (namely: technician, beekeeping trainers, veterinarians, environmental managers, policies consultants, agronomists, tax consultants, etc.). Do not take part in this category researchers and other affiliated to universities.

⁵⁵ All the names in this dissertation are name of fantasy, except those beekeepers engaged in public activity and the quotations extracted from public material.

see too much arrogance in the specialists that are supposed to offer their support to the [beekeeping] sector. At some moment, the foolishness of the discussion makes us understand the importance of establishing the beekeeping commission as soon as possible. I impel all the delegates of the beekeeping associations to push harder on the [regional] agricultural department. PS: the only bright side is that we are talking about 60.000 beehives; thus, 1308⁵⁶ should have double the funds availability for the beekeeping sector.⁵⁷

The mistrust towards the administrative delegates appears to be a common feeling among Sardinian beekeepers, and probably the recent measures to contain the widespread of the *Aethina tumida*⁵⁸ taken on by the Italian government in Calabria further fueled these fears. Without delving into the details of the healthcare procedures in beekeeping, it is crucial to notice that the fear appears to originate from the contrast between beekeepers and other specialists. The tensions seem connected to the diverse forms of knowledge that beekeepers and non-beekeepers hold. The body of knowledge of Sardinian beekeepers appears to be articulated as a form of locally specialized knowledge that combines handed-down know-how, direct experience in dealing with several critters that interact with bees, and a selection of technical-scientific knowledge on beekeeping and bee biology. I argue that this form of local ecological knowledge represents the cultural capital of Sardinian beekeepers. This cultural capital is tight with beekeepers ways of *knowing*, understanding, and interpreting the world and its humans and non-human inhabitants. I shall explore in Chapter XY how Sardinian beekeepers conceive and relate to the non-human world. I must remark here that beekeepers' ecological knowledge

⁵⁶ Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products. See <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1308> (Accessed: 28.10.2021).

⁵⁷ My translation from the original post in Italian: *Ieri durante l'incontro con il servizio veterinario si è discusso del nuovo piano antivarroa, presenti oltre delegazione organizzatrice anche Efsio Mele e Andrea Loddo. Credo che la visione degli apicoltori sia stata abbastanza comune convenendo sulla sostanziale inutilità del metodo visto che non si capisce che è di fatto inutile fare un piano di controllo se prima non si fa un piano di ricerca di tutte le postazioni non censite dell'anagrafe apistica. In ultima analisi tra le varie discussioni ho avuto l'impressione che alcuni esponenti del servizio sanitario continuino a valutare il loro operato come "repressivo" e non di sostegno. È grave che chi parla non capisca la differenza tra una prescrizione senza ricetta e un farmaco ma soprattutto non sia capace di fare una distinzione tra un animale e un insetto. Vedo ancora troppa sufficienza da parte di chi dovrebbe invece essere un supporto al settore e in alcuni momenti la discussione ha raggiunto apici di irragionevolezza che ci fanno capire quanto sia importante che la commissione apistica venga insediata il prima possibile, esorto tutti i rappresentanti delle associazioni apistiche ad aumentare il pressing nei confronti dell'assessorato all'agricoltura PS unica nota positiva è che si parla di 60.000 alveari quindi la prossima 1308 dovrebbe essere raddoppiata nei fondi messi a disposizione per il settore.*

⁵⁸ Also known as the small hive beetle, the *Aethina tumida* is a destructive beekeeping pest that can cause the collapse of an entire apiary. It originates from the sub-Saharan Africa, and it has spread all over the world, causing serious problems in the beekeeping sector in many regions. In Europe, the first (and for now only) signs of its presence were found in Calabria in 2014. Since then, the Italian government issued the emergency protocol to prevent the spread of the beetle in Europe which implies to burn on the ground all the apiaries that were found positive to the infestation. Further information are available at https://ec.europa.eu/food/animals/live-animals-trade-imports/honey-bees/small-hive-beetle-outbreaks_it (Accessed 29.10.2021).

appears to take on a subaltern position compared to the form of technoscience generated through the formal academic education of specialists. This knowledge seems to dominate the field of beekeeping, where biologists, entomologists, and other specialists have the power to decide which policies and actions must be carried on. This hierarchy of knowledge reflects the relationships between beekeepers and the appointed specialists for its management. Beekeepers claim that specialists don't want to hear their expertise, yet they are unqualified to address the specific needs of beekeeping effectively. In the following interview from March 2018, Fabio Aru, one of the most prominent professional beekeepers in Sardinia, blames the regional specialists for their ignorance in beekeeping peculiarities.

We belong to the territory; we are essential to it. That is, we know that what we produce and our profits with honey are nothing compared to the benefit we provide to the territory. And it is not clear why there are funds to safeguard a peculiar fig tree or something else strange, and you don't give to the bees. Why? I cannot understand why to exclude bees [from funding]. If you tell me that there is no money, ok then, there is no money for anyone. Why exactly bee you refuse to understand its importance? Suitable to protect animals, the Sardinian monkey, o the fig trees from who knows where! What about the bee? Why not think of it? Also, improve the other sectors! They safeguard the bee-eater. Now, that is our enemy, right? They protect that and not the bee? If you look closer, which one provides more benefits to the environment, the bee-eater or the bee? [...] Ignorance is widespread; they don't understand. Why don't they understand? Because they don't talk with us! (Fabio Aru, Sarrabus, March 2018).⁵⁹

Fabio is a forty-year-experienced beekeeper who managed about 1500 bee colonies with the help of his wife and recently two workers. Despite his self-effacing nature, Fabio sat on the regional beekeeping commission⁶⁰ for some time, where he tried to persuade the regional delegates to give credit to beekeepers' expertise to design their policies better. Fabio is not the only member of the community of beekeepers to reckon the specialists'

⁵⁹ My translation from the Italian: Noi facciamo parte del territorio, siamo indispensabili al territorio. Cioè riconosciamo che quello che produciamo, il reddito che facciamo col miele è nulla rispetto al beneficio che stiamo dando al territorio. E non si capisce perché vengono dati contributi per salvaguardare una pianta di fico particolare oppure altre cose strane e poi non lo dai per le api. Perché? Non ho capito perché escludere proprio l'ape. Finché mi dici non ci sono soldi, va bene non ce n'è per nessuno, pazienza. Perché proprio l'ape non vuoi capire che è indispensabile? Bello anche salvaguardare un animale, l'asinello sardo o i fichi di chissà dove, e l'ape? Perché non considerarla? Migliora anche gli altri di settori. Proteggono il gruccione. Adesso quello è un nostro nemico, no? Quello lo proteggono, e l'ape no? Cioè, ma se vogliamo vedere, tra i due cos'è più utile all'ambiente, il gruccione o l'ape? Se proprio vogliamo... Spendono, perché arreca danni, per questo gruccione, e per noi non c'è mai niente. C'è molta ignoranza, non l'hanno capito, però perché non l'hanno capito? perché non parlano con noi (Fabio Aru, Sarrabus, March 2018).

⁶⁰ The regional beekeeping commission is an advisory group that should provide opinions regarding regional policies connected to beekeeping. It comprises various regional delegates, members of the academic environment, beekeeper spokespersons as representatives of regional and national associations, and vets. Since 2015, its functions have been regulated by the Regional Law n. 19. However, since 2015, regional delegates appointed the members of the new beekeeping commission in December 2021. A beekeeping commission was already active for several decades in Sardinia before the 2015's law.

ignorance as to the cause for the subordination of beekeeping to pastoral farming and agriculture. Here, the word ‘ignorance’ is used in the etymological sense to mean that specialists are unacquainted with beekeeping’s complexity. To beekeepers, specialists are unaware of the intricate network that relates bees to the environment. In the beekeeping field in Sardinia, the opposition between knowing and not-knowing is crucial for working with the bees and for building a network of human relationships. I shall return later in Chapter XY on the meaning of knowledge in beekeeping. For now, I want to focus on how knowledge/knowing defines the type of relationships between beekeepers and specialists and how this influenced access in the field. To do so, first, I must dwell upon explaining the Sardinian indigenous meaning of knowing. The Sardinian translation for knowing is *connosci*⁶¹; like in the Italian *conoscere*, the root of *connosci* is the Latin *cognoscere*. From the act of knowing derives what in Sardinian is defined as *su connotu* (lit. ‘what is known, handed down, given similar to the Lat. *cognitus*). Anthropologist Cosimo Zene pointed out that *su connotu* mirrors the linguistic root of ‘tradition’ and incorporates the sphere of what is called ‘cultural heritage’ and the sphere of material goods that can pass down from generation to generation by inheritance (Zene 2007, 295). The notion of *su connotu* is crucial to understanding the Sardinian beekeepers’ perception of the environment and themselves, for it highlights how *knowledge* is indispensable to take part in the territory.

Considering the social importance of *su connotu* in Sardinia, ‘knowing’ represents at the same time a process to build relationships with kin and a way to affirm the sense of belonging to a given territory.

Assuming this analytical interpretation of knowledge helps us to understand its most profound meaning for the Sardinian beekeepers. Beekeepers acquire knowledge of the territory by ‘doing’ beekeeping, that is, by interacting with all the critters that relate to the Superorganism. In this way, beekeepers build an intimate relationship with a given territory to which they feel to belong. Paraphrasing Fabio’s words, beekeepers perceive that beekeeping it’s a way to boost their agency in the environment. From the beekeepers’ standpoint, the environment belongs to the category of what they have *known* from their ancestors as a part of *su connotu*. ‘Environment’ is understood as a complex system that entangles people, landscapes, and non-human beings. Beekeepers’ actions are a way to keep creating the environment together with bees (Meloni 2018c, 74). Efisio Mele,

⁶¹ In this text, I use the Sardinian Campidanese which is the variety that I speak.

beekeeper and member of the association *Ortu de is Abis*, well describes the connection between beekeeping and becoming part of the territory:

[...] I have always thought that you can practice beekeeping in the very place where you were born, where your grandparents were born. My family has been documented in Baumele since 1487. I have always thought it was a good opportunity rather than a form of isolation, an excellent opportunity to keep doing what your ancestors have been doing [...] in the same place where they were born. I really feel part of this territory; I am not just the heir as I said of activity, I am part of the landscape, a human landscape also, right? This is important to me [...]. (Efisio Mele, Marmilla, July 2016) ⁶²

Oscar Melis, a beekeeper from the Lower Campidano, broken by the loss of an entire apiary due to a recent theft, affirmed that the most painful aspect of the event was losing a part of himself. He stated that “these bees have always been here. Thus they are part of my history, I always knew this place with them” (Efisio Mele, Lower Campidano, March 2016). In contrast to beekeepers’ local ecological knowledge, the specialists’ knowledge appears rootless and extraneous from the beekeepers’ understanding of *knowing*. The specialists’ knowledge is indeed based on a form of scholarly ecological thinking (Tsing 2003, 28) that profoundly differs from the local ecological knowledge system that is crucial for beekeepers. Policymakers give more relevance to technoscience and tend to consider less scientific forms of local ecological knowledge. Assuming the perspective of Herzfeld (Herzfeld 2004), we could say that in the global hierarchy of value, the technoscience of specialists represents the only reasonable way to manage the environment and protect biodiversity, two aspects connected to bees’ survival. From the perspective of technoscience, the local ecological knowledge of beekeepers is seen at best as a form of folkloristic knowledge that is nevertheless unappropriated to achieve the goals at play in environmental and agricultural management policies. Hence, these two forms of knowledge raise tensions between beekeepers and the group of specialists and experts because of their inconsistent nature.

The dynamics around the institution of the new law for beekeeping and its related commission in 2015 show how the hierarchy of knowledge works. The committee to write the decree included some spokespersons of the community of beekeepers, like

⁶² My translation from the Italian: [...] io ho sempre pensato che si potesse fare apicoltura nello stesso posto dove tu sei nato, dove sono nati i tuoi nonni. La mia famiglia è attestata dal 1487 a Baumele. Ho sempre pensato che fosse un’ottima opportunità, non una forma di isolamento, una splendida opportunità poter continuare a fare quello che hanno fatto i tuoi antenati – veramente i miei antenati, no? Pensando a Josè Mele 1654, veramente i miei antenati! – nello stesso posto dove loro sono nati. Io mi sento davvero parte integrante di questo territorio, non faccio, non sono solo l’erede e il continuatore, come ho detto prima di un’attività, io faccio parte di questo paesaggio, umano anche, no? Insomma, e questo per me è importante (Efisio Mele, Marmilla, July 2016).

Ef시오 Mele, from the Association *Ortus de is Abis*, and the Gallus family, responsible for the O.P. *Padenti*. The law was generally warmly welcomed by the community of beekeepers primarily because they felt to participate in the process of designing it actively. From the discourses with the beekeepers, they seem to attribute the merits of the success to the local politician, On. Piero Comandini took on a negotiation process with beekeepers, and “unlike the others, he listened to us, to what we had to say” (Fabio Aru, August 2019). The law set up the new beekeeping commission, which includes four beekeepers out of the total ten members, the majority of which belong to the regional departments, plus a member from the University of Sassari⁶³. The commission does not have a legally binding role; instead, it works more as a consultive organ.

Despite beekeepers’ presence, the beekeeping commission’s aims suggest a clear tendency to focus on the technical aspects of beekeeping, mainly on the healthcare of colonies. More relevance is given to the expertise of veterinarians and other scientists. In other words, it appears, predominant the role and importance given to technical-scientific knowledge to manage the beehives. Except for the entomologists of the University of Sassari — that use collaborative methodologies with beekeepers —the approach that non-beekeepers specialists take on seems to neglect to consider the interactions between the bee’s colonies with the environment and its human and non-human inhabitants. Specialists consider beehives as livestock units and leave out the intertwined relationships between bees and the environment and their impact on bees’ health. Beekeepers connect this approach to the ignorance of the specialists and their willful disregard for beekeepers’ expertise. I must remark here that the entire structure of the beekeeping policies provides that technoscience is the only genuinely scientific system of knowledge. This vision sustained by the most dominant institutions puts the local ecological knowledge of beekeepers, with its diverse nature, outside the sphere of science and in a subaltern position compared to the dominance of technoscience. The top-down process of the EU policies empowers the hegemonic notion of beekeeping and appears to neglect

⁶³ Regional law 24 July 2015, n.19 ‘Law for beekeeping’, Art. 11: the beekeeping commission consists of the following members: a) the councilor of the regional agriculture and agri-pastoral reform, or a delegate, as chairman of the commission; b) a beekeeper spokesperson for each of the three most representative agricultural professional organizations on regional level; c) a beekeeper spokesperson appointed by the most representative cooperative at regional level; d) a spokesperson appointed by the organizations of producers; e) a spokesperson appointed by the legally recognized associations of producers; f) a spokesperson of the regional agency AGRIS Sardegna and a spokesperson of the Agency Laore; g) a spokesperson of the Department for plant protection from the faculty of Agriculture of the University of Sassari; h) a spokesperson of the councilor’s office of the regional environmental safeguarding; i) a spokesperson of the councilor’s office of the regional health care and welfare service; j) a spokesperson of the Sardinian Department for animal (istituto zooprofilattico della Sardegna See <https://www.regione.sardegna.it/j/v/80?s=287780&v=2&c=12794&t=1> (Accessed 1.07.2016).

beekeepers' survival strategies and adaptation to problems derived from climate change and globalized market networks. Anthropologist Arturo Escobar pointed out that the relationship between modern science and local knowledge and practices of nature is based on a fundamental asymmetry in which local knowledge merely serves the interests of Western-style modes of managing the 'nature' (Escobar 1998, 61). The beekeeping commission seems a good example. Spokespersons of scholarly ecological knowledge and local ecological knowledge should cooperate to propose solutions to adjust the policies. Instead, the commission recreates new forms of asymmetries and power dynamics between beekeepers and specialists of modern science. These asymmetries are recreated in the relationship between the community of beekeepers and non-beekeepers' specialists. The asymmetric and often conflicting relationship that beekeepers build with different specialists shapes my position in the field. Indeed, my formal affiliation with a prominent foreign institution leads beekeepers to associate my figure with the world of academic knowledge. This meant that in accessing the field of beekeeping in Sardinia, I had to carefully reflect on the strategies of negotiation with the informants to avoid reproducing the same asymmetric dynamics that are characteristic of the relationship between beekeepers and non-beekeepers specialists. That is, my presence triggered beekeepers' fears of the risks of giving me access and allowed me to film the most intimate aspects of their interactions with the bees.

Similar to the practices of negotiations that Garry Marvin took on as a freelancer documentarist in the context of fox hunting (Marvin 2006), before welcoming me into their intimate sphere, beekeepers needed to prove that I was a 'safe' person. I shall return later in this chapter on the mechanisms triggered by introducing a camcorder in the field. For the moment, I want to concentrate on how the beekeepers' perception of suffering the consequences of someone else's expertise led me to rethink my position according to the uncertain status of the informants. This long process lasted for the entire period of the fieldwork, in which I looked for a common language and created a *safety zone* within which I developed the practices of collaboration. I had to clearly define the research goals and their limits to the field of cultural anthropology, which methods of inquiry differ from the natural sciences. It was essential to state that I was not seeking to create an archive on the various ways to contrast the widespread of the Varroa mite. Instead, I aimed to investigate the relationship beekeepers build with bees, the territory, and the Sardinian society (Meloni 2018c, 70). Once I clarified the ways to access the field and my research goals, my previous beekeeping knowledge was fundamental for defining my

position. In the following chapter, I will explore how anthropological knowledge and previous beekeeping knowledge helped me discover bees as co-participants of this inquiry.

3.6 Bees as non-human informants



Figure 9. Fieldwork equipment. (Credits: Greca N. Meloni)

The ethnographic research pivots around two main digital tools that characterized the research and defined my position in the field: the camcorder and the blog *Abieris e Abis*. I shall explore later in this chapter the uses and goals of the blog. Here, I will focus on the role of the camcorder, its limits, and the processes of negotiation it contributed to activating with humans and non-humans.

To explore the beekeeping field in Sardinia, I've decided to take bees as non-human informants of my inquiry. Sarah Abbot suggests that before filming with nonhuman participants, it is vital to take time to get to know the nonhuman informants and their communities, to learn their way of communicating, feel their presence and engage with the sensual dimension of this interspecies relationship. (Abbot 2020, 227).

From a practical perspective, when I introduced the camcorder in the field, my previous beekeeping knowledge allowed me to know where to stay physically and to

negotiate my corporeal presence to avoid aggressions from the non-human informants. Using a camcorder in the fieldwork was crucial to explore the corporeal dimension and the nonverbal communication intrinsic in beekeeping. The camcorder offered the opportunity to focus on the pace of the beekeeper's gestures, the rhythm of their doing and the consequent answer of the bees. The latter were all but minor subjects of the research. Bees were non-human participants that firmly dictated where I could stay and what I could do among them (Abbot 2020). Coming closer to the bees requires a gentle 'corporeal' process of negotiation of what one can do. The tiny insects reacted to my presence in various ways, often alarmed by the furry cover of the microphone and, indeed, they did not appreciate the black color of the equipment⁶⁴. Thus, stepping into an apiary, I simultaneously learn to know the beekeeper and their bees.

There are a few general rules that one must follow when approaching an apiary: never standing in front of the beehives' flyways; better wear bright colors rather than dark ones; do not act confusingly; don't wear perfume; do everything carefully. With these rules in mind, introducing a camera with an external microphone equipped with a hairy windproof cover represents a risk. The audio-visual equipment may prod bees for an aggressive reaction. Indeed, bees do not appreciate fuzzy and dark objects because of their similarity to potential threats to the colony (e.g., a bear seeking honey, see Contessi 2016, 122–24). Thus, I had to be very gentle and pay attention to any buzzing signs of irritation. I must remark that the bees' presence was often overwhelming and sometimes scary.

Tame and aggressive are behavioral characteristics connected to the breeding practices mastered by the beekeeper. This selects the queens that can offer their offspring specific characteristics suitable for their way of beekeeping. Bees are 'buzzing informants/subjects' that, through their behavior, communicate to me what I am allowed to do or not to do in their 'backyard.' Bees are not always the same, and I experienced that there is often a sort of consistency between the nature of the beekeeper and the behavior of the insects they take care of. It is a mutual relationship in which each part changes and is changed by the other.

In the summer of 2018, between the end of the harvesting of the eucalyptus and the beginning of the regular treatments to control the Varroa mite, I went to visit a beekeeper at his apiary in the Upper Campidano. It was a very windy day, and the eucalyptus trees around only slightly cut the wind. When I arrived, the beekeeper was working alone,

⁶⁴ On bees' perception of colors see and their reactions: (Contessi 2016, 97–99)

quickly inspecting the hives and writing with a marker on the top of the aluminum roof. The hives answered his fast movements by sending all the guard bees they could. My feelings permeated through my fieldwork notes:

I immediately felt astonished by his bee: so nervous and aggressive. I try to understand if this boldness was an innate trait of these bees or whether the beekeeper was urging them to be aggressive. Maybe the second option. My grandma used to do that with unwelcomed 'observers.' I think he's moving in a way that makes them nervous. I am afraid. An entire colony is attacking me. I know I am allergic. I try to stay calm, and I stay back. It is very hot; I am wearing the beekeeping suit and the bee veil; I know I am protected, but bees surround me. I have them hitting my head, my hands, around the bee veil, and next to my arms. I am aware that the bee sting can pass through the cloth of the beekeeping suit. I must be careful; I only wear a pair of shorts under the beekeeping suit. The beekeeper keeps moving fast, hastily, and careless, and he does not use the smoker. I don't feel comfortable. I stop the camcorder. I speak with him with the camera off. It seems to be better; thus, I will try to film again. Again, bees are covering me. This is the first time I am petrified. (Upper Campidano, 27 July 2018).

Contrary to what I wrote in the notebook, in examining the footage shot that day, Giuseppe Serra looks pretty relaxed and open to conversing with me. However, his beekeeping manners are indeed relatively rapid. Yet, the sharp noise produced by the buzzing insects constantly hitting the microphone clearly shows the aggressive attitude through which bees 'welcomed' me at the apiary that day. Although I am familiar with aggressive bees because my father's bees are everything but calm, the fear of not knowing these bees led me to move slowly and carefully measure the response of the bees at every move I made.

The audio-visual equipment boosted my senses and made me more aware of little details that would otherwise be lost. Yet, for their insect bodies, bees never give back their gaze, which is very ironic considering how the audio-visual equipment enabled me to 'look closer' to access the intimacy of the hive and bees communicating with each other.

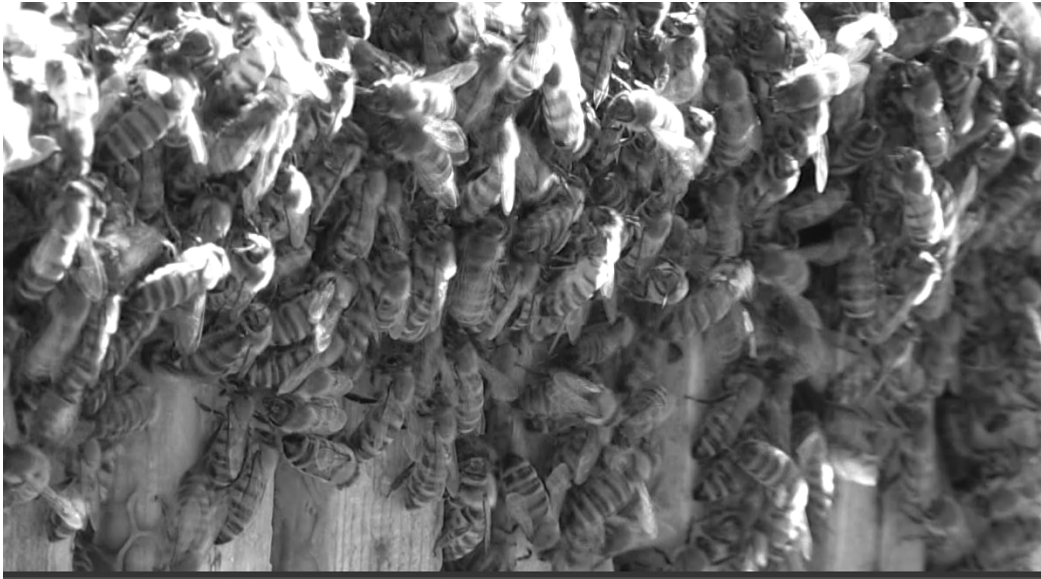


Figure 10. Close-up on bees during the harvesting. A still picture from the footage. (Credits: Greca N. Meloni 2019)

The possibility of zooming in with the camcorder allowed me to look closer at the interaction between bees and their dances at the hive entrance and to explore better the corporeal dynamics activated in the colony by the rummage of the beekeeper. The length of the eye of the camera allowed me to step back to a safer position and still have a close view of the tiny insects. In addition, the audio equipment also facilitated my perception of the different buzzing among the hives, as well as following the beekeeper's breath and murmur during the inspections.

Beekeepers and bees co-constitute each other in their interrelationship (Haraway 2008; Ingold and Palsson 2013). Beekeepers' saying "Bees tell you what to do, and you have to learn to interpret it" is emblematic of their relationship with the insects. To some extent, the beekeeper learns to adjust their corporeal presence to the bees' reaction. Some beekeepers develop specific techniques and practices to address the bees and avoid adverse reactions. As Kosut and Moore have pointed out (L. J. Moore and Kosut 2013), the relationship that beekeepers establish with bees is personal. Despite the standardization of the practices, the interaction between humans and bees is very intimate. It could take on the shape of a dance, resemble an assembly line, or look like a ritual. Interestingly, in most cases, the interaction between bees and their keepers seems to stir the latter into a process of deep meditation that confines them in the sensorial dimension of bees. I shall return in chapter XY on this aspect. I want to remark how filming gave access to the rhythm and pace of this inter-species communication.

During the swarming season of 2018, in Spring, I travelled to the Sarrabus to meet a couple of beekeepers from that area. During this time, I was staying at Giancarlo Bono's house, in his son's old room. This time allowed me to explore his and his wife's notion of beekeeping and the environment. Giancarlo is a 67years old beekeeper who tries to resist to retire. Hence, he often discusses with Maria, his wife, and his daughter Gianna who took over managing the hives. Maria explained that their conflicts come from the incapacity of Giancarlo to understand Gianna's chores and family duties.

It was March, just amid the swarming season and Gianna prepared the truck every day before going to the apiaries. She carefully inspected the colonies seeking swarming signs: "I am looking for queen cells, and when I find them, I cut them off." She explained that during this period, she does the same operation every couple of days on all the roughly two hundred and fifty hives, repeatedly until the swarming fever is over. Two workers assist her in this repetitive job: a young guy and a woman, respectively Mario and Rebecca. Each of them took a specific place at the apiary, well organized before the sunlight. Giovanna kindly directs her collaborators and they all seem to know what to do. I notice that of the four of us, I am the only one wearing gloves on my hands. Hence, I asked Giovanna why they were not wearing gloves:

Dad taught us to do so. He imposed on us not to wear gloves. He says that we are more careful this way because we fear bees could sting us if we move abruptly. Gloves do not protect you; they work as a barrier that prevents you from moving gently. Bees appreciate gentle movements rather than sudden actions. And I believe it's true; bees are friendly too when you work carefully. (Gianna Bono, Sarrabus, March 2018).



Figure 11. Sarrabus a still picture from the video. (Credits: Greca N. Meloni).

Giancarlo explained that he learned this technique at the beginning of his career, over forty years ago, from Orlando, his master beekeeper. The latter used to manage the hives without gloves. Over the years, Giancarlo improved his gentle ‘pat’ and adapted it to the answer of his bees.

I lingered in observing Gianna and her two helpers gently opening the hives, carefully lifting every frame, inspecting them with the sunlight, then removing the queen cells, firmly scrolling the bees at the hive entrance, and smoothly putting back the frame inside the hive. Through the camera’s eye, I watched them working simultaneously at the same pace, harmonically in silence. The melodic buzzing of the bees on my headphone like a metronome seemed to guide the beekeepers’ movements in what looked like a dance performance. Eventually, I realized that I was also following the rhythm of the bees with my camcorder. I felt safe getting closer to these dancing insects. For any dancing performance, it is necessary to know the music and the dance steps and to foresee the rhythmical changes. Likewise, it is not merely detecting how bees react to human gestures but instead embedding the sequence of movements that beekeepers make during a specific phase of their job. My embedded beekeeping background allowed me to anticipate beekeepers’ movements and to calmly linger on them with the camcorder without the anxiety of not losing anything.

In other words, knowing where to stay and what beekeepers were doing allowed me to focus on the aspects of beekeeping that appeared to represent the personal way a beekeeper communicates with bees.



Figure 12. Beekeepers at work, Sarrabus. Still, picture from the footage. (Credits: Greca N. Meloni)

As mentioned above, every beekeeper develops a way of communicating with the hive. To put it in the words of a beekeeper:

Someone says bees recognize me, which is why I am not afraid of them. Instead, I know the bees. Also, you are not scared of them, although you should be due to your allergy. But you know them; I can see that you know bees and are comfortable with them; you don't fear them. (Fabio Aru, Sarrabus, 31st July 2019)

By the same token, bees are not always the same, they somewhat different in appearance, and often their attitude toward my presence depends on the breeding practices of the beekeeper. Consequently, not all bees 'dance' at the same pace. Meeting Betti Fancellu's bees was also very interesting in this regard. Betti is a professional queen breeder who works in the region of Linas, Southwest of Sardinia. I met her in July 2019, at the end of the breeding season. I filmed her and her helper lifting the tiny foldable frames and unfolding them to observe the situation while also seeking the queens to catch. It was scorching, so I immediately sought refuge under the shade of one of the big olive trees that shelter the small colored breeding boxes scattered all over the field. The monotonous buzz of the bees almost made me fall asleep: they seemed to be used to Betti's movement, and they were all but aggressive.



Figure 13. Linas, queen breeder's frames. A still picture from the footage. (Credits: Greca N. Meloni)

Under the trees, I observed the two beekeepers moving without interfering with their job. It's a working chain they are performing, with repetitive work for each box. Bees seemed to collaborate to allow for this umpteenth interevent of a series that started in early Spring by putting the frames inside a normal-size hive.

The thorough movements' sequence, as well as the aesthetics of the apiary of Betty, reminded me of Fabio Aru's way of working.

During the research, I met Fabio several times, and in each one, I was astonished by the orderly care he and his wife give to each aspect of their job. Everything appears tidy from the apiaries to the laboratory and the little selling point in the town, with no space for the chaos that might take over during the Summer's intensive days of work. The first time I visited Fabio's apiary was in Spring 2019, and I was late because I got lost on the way. When I arrived, the two workers prepared the truck and the material for the day. They are two young men about 25 to 30 years old that appear to work relentlessly, with small if any chat. As soon as they finished, I took all my equipment and went in the truck with Fabio while the other two followed us with another van. After roughly an hour of filming, I decided to sit more or less thirty meters from the apiary to observe the beekeepers at work. During this time, I forgot the microphone turned on; thus, I could listen to their speeches almost perfectly despite the distance. I took time to admire the exciting scene before my eyes:

When we arrive at the apiary, the two workers start to work, and I rush to set up my audio-visual equipment to follow their movements. Roughly 80 nuclei, likely fertilised at the end of the previous Summer, compose the apiary. Today, they have to switch the most vital families on regular hives. Some mastic tree twigs indicate which families should not be touched. Looking at the whole apiary, I noticed that the beekeeper used similar symbols to signal the status of the families. While filming, I perceive the calmness of Fabio's bees. Bees cover me; they surround me all over my body. Yet, they don't appear to aim at stinging me. Some bees gently lay on my arms to rest before going. I am amused by their gentle buzz that seems to welcome me. After more or less an hour of relentless work, I seek a nice spot to rest. I find a place under the shade of the trees located about thirty meters in front of the apiary, far enough to avoid the flying channel but still close to observe the beekeepers working. I turn off the camera and observe them rapidly working. The extreme precision and care of their movements spark my attention. Fabio is working in the mid of the apiary while the two workers operate simultaneously, each on one side. These two seem to know perfectly what to do, and they appear to anticipate Fabio's needs. I

realise that no one is talking, except for a few sentences: *su casiddu portau d'asi? Poniddu ingui.* (Have you brought the hive? Put it there.) All of them are working smoothly, with no setbacks. On my headphone, I can hear the worker bees buzzing excitedly, a rhythm that beats time to the thorough movements of the keepers. It is not a dance, however. It looks like an assembly line that nevertheless maintains its poetic elegance in Fabio's way of gently taking off the queen from the frames to mark them with the red marker. (Fieldwork notes, Sarrabus, March 2019)



Figure 14. Sarrabus, beekeeper at work. (Credits: Greca N. Meloni).

Even during the frenetic harvesting period, Fabio keeps his gentle touch with the bees. Likewise, bees appear to share with their keepers a peaceful attitude. Thousands of bees were flying around, and they surrounded me with their buzz. Some of them rested on my beekeeping suit. Yet, I never felt in danger; bees only explored my body, looking for information regarding my presence in their field. Somehow, this was the bee's way of returning its gaze to the camera's eye. They allowed me to come closer and to bodily enter in contact with them. This allowed me to film them from different perspectives and to linger on their response to the keepers' activity. The results of this interspecies dialogue are explored in chapter five.

In the following section, I will focus on the practices of co-production between beekeepers and me activated by the act of filming.

3.7 Filming: Practices of co-production between anthropology and beekeeping

Beekeepers do not always warmly welcome the camcorder in the field. Sometimes the audiovisual equipment was perceived as an instrument to lay bare the beekeeper's intimate secrets of communicating with the bees. This was the case of my mother, who felt robbed of her personal expertise when I included some footage of her selecting the bee larvae from a brood frame for producing new queens in a draft version of the movie *Abieris e Abis. Beyond a Drop of Honey* (2018)⁶⁵. Queen breeding is indeed a practice that requires a highly specialized level of knowledge in managing bees, and not all beekeepers achieve to produce their queens.

When my mother saw the footage, she felt that the pictures were “too explicit” to be shown to other people and that the movie was cheapening her knowledge. The possibility of watching several times something is implied in the process of filming. When filmed, people expect to see themselves again on a big screen, on TV, and nowadays on the phone. This aspect implied in the act of filming someone can represent an element of power that the filmmaker exercise on the person that stays in front of the camera (MacDougall 2020, 3). One should consider that the entire film jargon emulates a warlike event contributing to reproducing an asymmetric relationship between the filmmaker and the filmed person (Gubrium, Harper, and Otanez 2015; Shankar 2020): the first *shoots* the latter⁶⁶. Along with my academic affiliation, the camcorder could work as an instrument of power that produces or reinforces asymmetrical relationships with the subjects. Thus, I tried to turn the camera into a device of negotiation. In introducing the camcorder in the field, beekeepers had the freedom to choose the moments for filming, the places they believed to be important to show, and what not to include in the frame. In this way, the moment of filming became an opportunity to collaborate in producing an artefact that could be further negotiated in the post-production phase. Hence, the filming process represented a form of co-production between the filmmaker and the beekeeper, whether the camcorder is no longer a one-way instrument of knowledge production.

Female and male beekeepers reacted differently to the camcorder. To many male beekeepers, the camcorder offered a stage to perform themselves and speak to the ‘other’ (Meloni 2018c, 78). As we have seen, likewise dancing practices, beekeeping can be

⁶⁵ See: <https://vimeo.com/787868891>

⁶⁶ In Italian, the verb *puntare* a camcorder is the same word that is used to describe the act of aiming a gun against someone.

performed with a certain rhythm and body language, and the presence of a camcorder offers the opportunity to play the role of ‘the’ beekeeper. During the interviews, I noticed the tendency among male beekeepers and non-beekeepers male specialists to use the camcorder to send a message to the people on the other side, that is, to those in the community that don’t share the same opinions. Beekeepers seemed to take advantage of the ethnographic research to boost their voices in the public sphere. They used the camera to affirm their own identity in contrast to the other identities connected to the agropastoral world ideally available in the Sardinian common sense (e.g., the shepherd). Finally, in the conversations with the camera turned off, it appeared that beekeepers took advantage of the presence of a researcher fellow from a foreign university to seek to validate their perspectives scientifically.

Once I defined the role in the fieldwork and, more importantly, the quality of the scientific contribution of the ethnographic research, I was no longer a researcher that sought to take knowledge. I became a ‘producer’ of a form of knowledge that can be useful for beekeeping. In this sense, the ‘knowledge’ produced doing ethnography was used by beekeepers in different ways, according to their needs and the type of media made. Notably, the possibilities offered by visual ethnographic methods led some beekeepers to take advantage of my presence and ask me to film them *or for* them. These forms of co-production can be interpreted as mutual collaboration practices because beekeepers are not passive subjects but authors of the footage. David MacDougall defines “a process of exchange and interdependence between the two sides” as the type of collaboration in filmmaking when the filmmaker and the subject activate (MacDougall 2020, 13). However, in this case, I argue that filming for the beekeepers did not necessarily lead to merging our intentions and consciousnesses. First, beekeepers were not part of the subsequent editing process; second, filming for the beekeepers often created a new form of asymmetry in the relationships between me, the filmmaker, and the different subjects involved in the process.

The most remarkable collaboration experience is the production of the short documentary *S’Acuamebi de Verina Olla*.⁶⁷ The *Acauamebi* means ‘honey water’ and is a by-product of honey. Traditionally, it was made by boiling for several hours the water used for cleaning the pots used in the harvesting process (I. Floris and Satta 2009; Spiggia 1997). The process of production of the *acuamebi* has changed along with the development of modern beekeeping in Sardinia. The old method has been replaced with

⁶⁷ See: <https://vimeo.com/282813963>

a more functional one that follows a similar principle: not waste anything from beekeeping.

In addition, the name itself went under a process of ‘homogenization’ to address non-Sardinian customers: the product is labelled with the Logudorese’s word *Abbamele*, to suggest a strict connection to the more authentic traditional product. The Italianized version *Sapa di miele* is also frequent. Yet, the product struggles to find its place in the market’s taste and is still niche produce. In December 2018, during an event called ‘Abbamele tra tradizione e innovazione’ (The *abbamele* between tradition and innovation), the beekeepers from a Sardinian association informed the auditorium about the process they activated for researching and analyzing the *abbamele* in the island. They aimed at inserting the *abbamele* into the national list of *Prodotti Agroalimentari Tradizionali- PAT* (Traditional Agri-foods Products) (Apiariosos 2018, 12). The association achieved its goal in 2010 when the *abbamele* was finally included in the list of the PAT. From this moment, the association worked to improve the knowledge of the varieties of *abbamele* produced on the island and the methods.

Furthermore, the association delved into historical documents to reconstruct the history of the development of this honey by-product. Within this project, I was involved in shooting the process of making *abbamele* according to *zia Vera*’s methodology. *Zia Vera* is a 95 years-old itsy-bitsy former beekeeper who lives alone in her tiny house in Ales. She initiated her nephew Luigi, a member of a beekeeping association, to beekeeping when the latter was still a teenager.

The project aimed to produce a ‘scientific’ document to add to the research material already collected by the association within the valorization of the *abbamele* coordinated by the association.

The documentary should have been ready before the 4th of August 2018, before the Conference on Sardinian beekeeping organized within the annual festival of Vermentino and Bitter Honey at Monti — a Gallurese village nearby Olbia, in the north of the island.

In July 2018, Luigi, that belongs to the associations and has known me already for some time, ‘hired’ me to make the short documentary according to the old method used by his aunt. At that time, I had already met *zia Vera* the day I met the first time with Luigi.

We agreed to meet at his laboratory on the 27th of July so that I would have had about one week to edit the documentary in time. What follows is a description of the unusual experience of making an ethnographic movie for the informants.

The bell of my smartphone rings. It's 5 AM. I need to be ready for the long day of fieldwork.

Today I am going to film Luigi's old aunt while she is preparing the *abbamele*. In between, I will also meet with another beekeeper at one of his apiaries in the nearby surroundings. I prepared the equipment last night, but I still need to put it into the car and be ready to leave at 6 AM. Ales is about one hour driving from home, but with my twenty-year-old Fiesta, it generally takes longer than what the navigator suggests. At this time of the day, the road should be empty, yet it's very congested with big trucks transporting various materials throughout Sardinia and commuters going to work. I arrive a little earlier than 7.30, and I see Luigi waiting for me outside the house door. I park in front of the entrance, next to his car, I turn off the engine, and I go to greet him. We briefly discuss the current situation; the Annual Conference on Beekeeping in Sardinia organized by the Region was ten days ago, and it was surrounded by solid disagreement within the community of beekeepers for the decision to anticipate the meeting during the harvesting of eucalyptus "just to please the European Union and so that the administrators can go for holidays." On a political level, 2018 is a year of intense turmoil in the beekeeping sector: The Associations put pressure on the policymakers to call the first meeting of the beekeeping commission, which was formally issued in 2015 but never operative until then. Furthermore, beekeepers claimed for policies more aware of the fundamental role of bees and their keepers in the territory and financial support for the loss of production due to drought seasons and other climate-related issues.

Luigi suggests taking his car; thus, I put the equipment inside the vehicle, and we take the road to the town. Later, I will discover that the rather bold presumption that we will finish for lunch because "after all, my father does not take that long to make the *abbamele*" was wrong, and I should have taken the backpack with the bottle of water and the food I left in my car.

As if time never passed from the last time I was here, I see the same blooming courtyard of one year ago while an unmistakable acrid smell pervades my nose, here in the same *pratzza* with its 'lost-in-time' appearance. We pass over the small and blooming courtyard full of plants and flowers that foreruns an old house in a clear traditional *Campidanese* architecture⁶⁸. It is still common in this part of Sardinia to find homes of this

⁶⁸ The Campidanese architecture is a traditional form of popular building mostly widespread in the villages of the Campidano. In the traditional Campidanese houses the relationship between public space and private intimacy is organized according to the following sequence: the street, the courtyard, the forecourt (*pratzza*) in front of the arcade, the house, the courtyard on the back, the street. This structure could vary depending

type surrounded by more modern construction that appear aggressively giant compared to these humbler structures. We moved through the courtyard to arrive at the *pratzza* (the forecourt). In these houses, the *pratzza* divides the living room and the kitchen from the bathroom, generally located on the other side of the forecourt. The *pratzza* is where people used to look for evening refreshments during the hot summer days. This place reminded me of the days I spent at the *pratzza* of my 90-yers-old-plus great-aunt while she rapidly moved her hands to braid the reed blades to make the baskets. Likewise the forecourt of my great aunt, here I can smell the unmistakable sour scent of the containers once filled with wine and fresh tomato sauce.

Vera is inside the house, watching something on the TV, as usual, her white hers tidily gathered in a small chignon on the back of her head, and the golden *arracadas* (earrings) pending from her ears. “Is she expecting us?” I ask Luigi, “Of course not, she doesn’t know anything about this, but it won’t be a problem; after all, she has nothing better to do!” I don’t feel very comfortable showing up to such an elderly woman without notice and expecting her to work hard so we can shoot our documentary. Yet, Vera’s attitude in facing unusual challenges with caustic irony is astonishing. Initially, she pretends to be very annoyed by our request, even claiming that she does not remember where to find the *pianeddas*, and the pottery containers necessary to clean the combs. “Why don’t we use those plastic containers you brought?” she asks. Luigi refuses to use the plastic buckets and tries to explain to Vera that he wants her to make the *abbamele* as in the old times, washing the combs by hand.

Thus we need a big table and the *pianeddas*. Vera grumbles something in Sardinian, but after a tour through various *apposentus* (rooms) of the house, she gets four flared pottery containers and puts them on the wooden table Luigi arranged in the *pratzza*. “What now?” “Now *you* start to prepare the *abbamele* while this young lady will film you doing it!” Replies Luigi to her aunt. “I don’t think so! First of all, we need to clean the *pianeddas*, I don’t use them for centuries now, and I am old enough to tell!”

I observe the nephew and his aunt play roles in this typical intimate comedy while I prepare the equipment and adjust the microphone for the outdoor location. They finally agreed on washing everything before starting. Then, Luigi sat on a bench under the arcade, and I began following Vera’s movement with my camcorder. While carefully cleaning the pottery containers with a cloth, she can’t help making any sort of comments

on the wealth of the families, their social position, their job, and the urban structure of the village. Usually, on the back-courtyard people use to keep small animals like chickens or rabbits, and they built the mudbrick-oven (See: Sanna and Atzeni 2008; Ortu and Sanna 2009, 63).

in the Sardinian language on why she let herself convince in collaborating on such a ‘crazy’ idea. After cleaning everything, she asks Luigi what she should do with the combs and the water he brought. “You make the *abbamele* Zia Vera, as you always did!” “But why don’t you do it?” Vera replies in a way that I can notice that she is just partially annoyed by her nephew’s request. Luigi ironically claims that he’s too tired to help her, and she should do what she has always done to prepare this honey product, implicitly referring to the fact that she should *know* what to do. This tit-for-tat between Luigi and Vera is part of the verbal crossfire practices widespread in Sardinia and that in the area of the *Campidano* take on the nature of a theatrical comedy in which ‘irony’ is the main character (see Wagner 2001).

As Luigi urges her to work, the old woman tries to recollect her thoughts before tackling the task of reenacting the process of making the *abbamele* as in the old times. After emptying the content of the plastic buckets inside two *pianeddas*, Zia Vera takes the ‘honey-water’ that Luigi provided, and she slowly pours the liquid on the wax until they float inside the big pottery container. Gently she begins to wash the wax. She takes the masses of operculum wax and, with her bare hands, smashes them, shelling the masses with her tiny fingers so that the small amount of honey and pollen they contain dissolve into the water. “This water is too cold; we would have needed warmer water to work better and dissolve the honey in it”, Vera states sounding a bit disappointed with her nephew, that should know this already. Indeed, the water was prepared by Luigi some days earlier with the clean water used to wash out the wax and honey from the honey-wax separating stain pool at the laboratory after finishing harvesting the eucalyptus. Thus, he had to put it into the refrigerator to avoid fermentation. However, such cold water makes it very hard for Vera to work; hence, to help his aunt Luigi proposes that he will heat it a bit so that she doesn’t need to do it. Vera immediately replies, talking half-seriously in Sardinian, “*Mi ponit fogu a sa domu!* [He will burn my house to the ground!]”

I should point out that although the communications between aunt and nephew are held mainly in Italian, at the moment she starts to work, the language code-switching in favor of Sardinian becomes more frequent, especially for zia Vera. Luigi, on the contrary, appears to insist on using Italian to reply to the aunt’s pungent comments. The language code-switching is consistent with the tone used by Vera in the ironic verbal crossfire enacted by the two of them since I arrived. Furthermore, although Luigi attentively arranged the *pratzu* of Vera’s house to create the perfect stage for performing the reenactment of a process according to that he probably witnessed thousands of times in

his life, and even though he had not given any notice to his aunt, Vera is anything but a passive actor on this stage. The rhythm of her jokes, the half-serious tone of her complaints, and the ability to prompt answering with great irony recall the comedies of famous theatre in Sardinian Campidanese, like those written by the Oristanese writer Antonio Garau (Bullegas 2001; Bachis 2015b). In this regard, Luigi seems to play the role of the character who pretends to speak only Italian, always present in these comedies as a sort of ideal antagonist to the leading actor, in this case, zia Vera.

On the one hand, the camcorder represents a contributing factor in offering the opportunity to the two beekeepers to perform this sort of game. On the other hand, the audio-visual equipment boosts my senses and enables me to grasp the sensorial dimension of the environment.

The *pratzza* decorated with flowers embraces us with its round shape creating the feeling of a padded place lost in time. The gentle rustle of Vera's fingers shelling the soaked wax perfectly combines with the familiar soundscapes of the *pratzza*: the persistent bird call of a turtle dove, the song of the great tit occasionally accompanied by the sound of a hen maybe brooding somewhere nearby, and from time to time, the engine of a car passing in the street in front of the house distinguishable from mine headphone connected to the microphone. Unfortunately, the plants that bedeck this place offering refreshment on this hot summer day hid an enormous community of mosquitos that make my job quite difficult.

Vera keeps going with her job, and her gaze is attentive to the texture and density of the honey melting into the water. The sounds of the bells of Ales' church indicate the time passing and Luigi, and I notice that Vera appears weary. And yet, she keeps dripping the wax to separate from the water, determined to finish her job in her way. Eventually, she gets too tired, and I have to take over her career, put the audio-video equipment apart and start shelling the wax into the water myself. My hands are less acquainted with the process, as my father uses a somewhat different method, but I carefully observed Vera's movements trying to steal with my eyes her expertise. Aside from water and wax, the liquid also contains a certain number of dead bees that remained trapped on the combs during the harvesting process. The venom of the bees can be active for a while after the insect is destroyed; thus, I move my hand with extreme care because I am afraid of being stung and risking an anaphylactic shock.

It takes me about an hour to finally wash all the wax, and Vera takes over to finish and separate the combs from the honey water. Luigi's sister arrives just in time to help her pour the sweet liquid into a vast cauldron, usually used to prepare sheep stew.

It is 11 AM when we finally turn on the flame to start boiling the liquid to make the *abbamele*.

Luigi excuses himself and leaves for some critical appointment that should take only one hour, leaving zia Vera and me to take care of the cauldron. We sit next to each other on two chairs under the arcade that shelters us from the sun. I left my camera on a table in another room, and I took advantage of the quiet moment to rest and enjoy the time with zia Vera. From this moment on, it begins a long conversation of about three hours in which the gazes of two women from two distant generations merge in the life story of two daughters of beekeepers. Vera and I grew up surrounded by bees, learning beekeeping from our fathers. This odd casualty allows me to find a strong point in common to start a long talk with Vera. Despite the age difference, our discourses seem to turn into an opportunity to discover the similarities of our lives: "You said your father is also a beekeeper, right? My father was also a beekeeper. I took over when he could no longer work with his hands". As the nephew is not here, zia Vera seems to enjoy a conversation in Sardinian, particularly with a peculiar 'stranger.'

This enables me to build a more intimate level of conversation with the old beekeeper. It appears that Vera prefers to address Luigi in Italian, and only when she realises that I could speak a similar Sardinian does she seem to use the chance to converse with me in this language. Our Sardinian is slightly different, as I talk about a variant from the lower Campidano, and she speaks the version used in the upper Campidano. "How did you say you call these recipients? *Sciveddas*, that's right! I heard of that from people from your area, but we rather use *Pianeddas* instead." She appears amused by my pronunciation and strong accent.

Although Vera keeps an ironic tone, the tensions I perceived earlier seem to disappear now. My curiosity about her story and her relationship with bees, together with the ability to have a conversation in Sardinian, seems to free Vera from the burden of telling anecdotes that can be considered part of the history of beekeeping on the island. She tells me about her insatiable curiosity about these insects, which led her to read all the issues of the beekeeping Journal that her father subscribed to. In her narrative, beekeeping is a female story of enchantment for tiny insects. She explains that at some point, when she was a young woman, maybe in her teens, all the bees disappeared from Ales, and she lost

all her colonies. To restore her beekeeping assets, she went to Villa Verde, a village nearby where a shepherd kept some oak cork hives. Vera walked along a dirt road in the countryside that connected the two towns in the company of her sister and a group of friends from secondary school. She paid 1.000 lire for a *casiddu de otigu* (oak cork hive) that the ladies carried on their head on shift rotation until they came back to Ales at night, welcomed by the guys' comments sitting at the local bar.

Occasionally Vera breaks her story to ask me for advice on making the *abbamele*, which she calls *acuamebi* according to the Sardinian she speaks. It is worth noticing that notwithstanding the term *acuamebi/acuameli* is the current name used in whole Campidanese regions to name this product (together with its Italian version *Sapa di Miele*), the Logudorese variant *abbamele* seems to be used as a marker of 'Sardinianess' and authenticity, not only by Luigi and his association but also by other Campidanese's beekeepers and Sardinian associations.

Our lengthy conversation unfolds in a calm and relaxed rhythm, without any sign of tension between us; thus, I decide to keep talking without bringing the camcorder to avoid ruining the intimacy we established.

I finally got the chance to explain to her why I am there, the purposes of my research and that Luigi asked me to edit today's footage into a short documentary to promote the knowledge on the *abbamele* to a broad public. She appears intrigued by my job at the University of Vienna. "I think I have been there once with one of those organized trips, lovely Vienna!". The possibility of showing the short film to a big audience seems to spark her interest:

It's terrific that you are doing this so people can see how it is done! A few days ago, I watched a TV report about these Sardinian beekeepers who claim to do beekeeping for generations. I have seen how they treat the bees; they have thousands of colonies, big trucks, and move up and down [the island]. I have never seen such a thing! Unbelievable how they treat the bees with all of that... the queens... And they claim that they have been doing this for generations! I don't remember any beekeeper from there in my times, I suspect this is just a story they say, but I wouldn't believe it's true. (Vera Olla, 30 July 2019, Sarrabus)

Vera refers to a reportage on beekeeping in Sardinia broadcasted as a special insert of the regional news. Following the international concern about the massive and inexplicable bee losses, the regional media developed an ever-increasing interest in the life of bees and their survival, as well as the attentiveness to beekeeping on the island. In this context, some spokespersons from the Sardinian Associations of beekeeping took advantage of this new curiosity to speak to a broad audience about the sector's problems.

The reportage to which Vera refers inserts within this context and focuses on questioning the relationship between the beekeepers and the bees to show how Sardinia is particularly suitable for doing beekeeping due to the extraordinary biodiversity of its territory and to highlight the ability of Sardinian beekeepers in developing a highly specialized and competitive business of honey. The beekeepers interviewed are two entrepreneurs that established their business during the 1990s. During the last years, they have developed a system of making honey based on an intensive/extensive model of production that relies on managing up to 3.000 colonies. Vera's reaction to this form of beekeeping is remarkable as she believes it is too aggressive for the bees because too focused on producing and less on caring for the bees. Fascinating is that, far from being a passive subject in the activities organized by her nephew, she welcomed the opportunity offered by the (visual) anthropologist to tell her version of the story and her viewpoint on beekeeping in contrast to that promoted by the TV's reportage.

From time to time, I take the camcorder to shoot the development of the boiling process while Vera removes the foam from the surface, wondering how long it will take to finish all of this nuisance. I observe her hands moving the ladle, and I recall the identical image of my father moving his hands precisely in the same way when he's preparing the *sapa*. As my father kept his recipe a secret also within our family, like the Rethemnos' apprentices in Herzfeld (2004), I had to learn by myself, stealing with my eyes most of the knowledge I had on beekeeping, including learning to understand the moment to turn off the heat before the *abbamele* pours outside the container. "I believe we should keep boiling until it is called *beni* [well clotted]," I tell Vera, and she nods, observing the cauldron's content to estimate the liquid's density inside. She looks around with an anxious look as if she was looking for something she lost in the *pratzza*. "I wonder if he's going to tidy up all this chaos or if he will leave this place like this!" It is already twelve-thirty; it seems that the *abbamele* will take long before to finish, there is any sign that might suggest that Luigi is going to come back any time soon, and Vera starts to appear irritated by the uncertain situation. I am thirsty now, the backpack with water and food is inside my car at Luigi's laboratory, and even though I don't drink since this morning and now I am thirsty, it does not seem appropriate to ask for a glass of water. Thus I try not to think about it. We are both tired, and while Vera is concerned that her nephew left us alone to take care of the fire, I am worried that I might not be able to go in time to interview the president of *Ortus de is Abis* and observe his way of doing

beekeeping. Indeed, he seemed reluctant to accept to be interviewed, and I guess he agreed only because he is a good friend of Luigi.

Around 13.30, Luigi arrived with his partner, and eventually, I managed to leave for the interview right after lunch when the *abbamele* was resting. Luigi proposes to turn off the fire and have lunch at his place while the *abbamele* rests before putting it into the jars. Whilst I follow them, Vera decides to stay at her place to keep an eye on the cauldron and to tidy up a bit before I return. During lunch, I have the opportunity to know better Luigi's partner and to have an update on the current situation of beekeeping on the island.

When we return, Vera appears worried about the unpleasant situation created by her nephew's idea: As foreseeable, the sweet liquid attracted a fair number of bees at Vera's *pratzza*. She is annoyed by the mess in her house and disturbed by the fact that she is unaware of Luigi's plans in her foreyard. However, her disappointment doesn't temper her seriocomic attitude nor the pungent irony of her remarks. While removing the foam created on the surface of the *abbamele*, she looks at me and asks rhetorically, "I still don't get why I let myself convinced to do these kinds of things! Do you think Luigi will remove everything today?⁶⁹" Luigi arrives with a slight honey drum where he pours the filtered brown and thick liquid to pot it. Vera is not acquainted with the potting system with this drum; thus, Luigi shows her how to regulate the opening of the tap to control the speed of filling the jar.

Notwithstanding her skepticism, she collaborates with enthusiasm. At the same time, with her usual lashing sarcasm, she complains about looking too shabby and not wearing the proper dress for "appearing on the Austro-Hungarian Emperor's TV." Sitting on a little wooden chair, under the eyes of an intimate and yet unusual public, she pots the *abbamele* holding the jars with her skinny and trembling hands. "Zia Vera, your first appearance won't be in Vienna but at Monti [in Sardinia]", says Luigi with a slightly hilarious voice. "Sheer lunacy!" she cried resolutely. "What do you mean?" asks her nephew ingenuously. Vera replies immediately, coming out with all her sharp humor condensed in a sentence that she pronounces in Sardinian, which is the language that better suites to her half-serious tone: "Why on earth I agreed to all of this nuisance! [*Ita d'apu postu in menti à totu custu trumentu*]."

Uproarious laughter welcomes Vera's caustic comment that indicates the end of the long day of fieldwork in the core of the Marmilla spent with an extraordinary woman and learning about humans and bees. Before going, I promise Luigi that I will edit the

⁶⁹ My translation from the Sardinian: *Deu no cumprendu poita d'apu postu a menti! Nd'bat à retirai totu custu meridi?*

documentary in time for the Conference at Monti in Gallura. Two jars of fresh-made *abbamele* represent my reward for the demanding job I've done today and a sweet encouragement for finishing the editing process as soon as possible.

While driving home, I take time to enjoy the landscape in front of my eyes; the darkness of the night gently falls on the hills, like someone is laying a blue and violet on the golden fields. On the horizon, an enormous luminous ball rises slowly in the sky, and immediately I remember the journalists saying that a giant pink full moon was expected for tonight. I am fatigued, the radio in my car is not working, and I have about one hour to arrive home, and the spectacular and surreal landscape is the only companion on my way back. The silence stimulates me to go over everything that happened today, and to think over my previous contacts with Luigi and other members of the association, their public statements, the interview with the Gallus brothers, and the fieldwork in the Sarrabus last spring. Like virtually assembling the pieces of a machine, I reflect upon the Sardinian beekeepers, following the points in common between single beekeepers, trying to highlight the tensions between different associations and the mechanisms of self-representation they activate. In what follows, I reflect on beekeepers' uses of the filming moments and of the footage.

3.8 How beekeepers use filming, footage, and films

The tendency of using the anthropologist's job to send a message to 'the others' distinctly emerges in the fieldwork on many occasions. In this regard, the anthropologist's camcorder seems to be perceived as a powerful tool able to boost the voice of the beekeeper and as an opportunity to be heard (Meloni 2018c). Here, the 'other' is represented by those beekeepers that don't belong to the same group of kin or are not members of the same association and therefore do not recognize themselves in the vision of beekeeping it promotes.

During the first interview with Luigi, I could observe how his story was only partially directed to me and that the self-representation he developed during his narrative also appeared constructed as a sort of answer in a dialogic relationship with a non-well-defined other-than-me. This aspect became apparent only when I had the opportunity to interview the hidden 'other' in Luigi's narrative. The hidden other revealed his identity when I met the two brothers, Felice and Giulio Gallus of the *O.P. Padenti*. In this case, although Giulio was particularly keen to offer me a tour of their company and show me

with pride the various phases of making their honey, the two beekeepers refused to be filmed or to record their voices during the interview.

Furthermore, though I prepared a semi-structured questionnaire, the answers to my questions appeared much more aimed at replying to the statements claimed in front of the policymakers in the past months. The inner tensions that arise within the community of beekeepers generally do not emerge explicitly before an ‘outsider’ — intended as a person with any or little knowledge of beekeeping, i.e., a novice or a journalist. They form part of the cultural intimacy of Sardinian beekeepers. As I will show later, these tensions link to diverse and, in some cases, conflicting ways of understanding the relationship between humans and bees and the role and agency of beekeepers in the territory. From this standpoint, beekeepers’ mechanism of construction of the relationship with the past function on two levels: on the one hand, it creates a sense of belonging by entangling together the history of the ancestors with the story of a given place. The toil of past and present generations links history, place, and belonging. On the other hand, it serves to claim their own professional identity as expert beekeepers in the community. Notwithstanding that it might often be true, claiming to belong to a long lineage of beekeepers is a way to stress owing to the abilities and expertise in beekeeping in the ‘right way,’ according to *what is known*. This, however, does not mean that beekeepers advocate restoring a form of ‘traditional’ beekeeping where there is no space for innovation rather that they *know how* to treat the bees, they know their needs, and they know how to avoid bees’ losses.

The knowledge and expertise in beekeeping represent a fundamental aspect of the self-representation of the professional identity of Sardinian beekeepers. This is true for Luigi, that arranged this peculiar day to collect ‘anthropological evidence’ of the old process of making the *abbamele*. Still, it is also true for Vera, that agreed to take part in this documentary to hand down her knowledge.

Beekeepers did not simply use the film production in their networks to provide scientific pieces of evidence and, in the case of the Association, as a part of their engagement in the cultural aspects of beekeeping in Sardinia. The documentaries *Abieris e Abis. Beyond a Drop of Honey* (Meloni 2018a) and *S’Acunamebi de Verina Olla* (Meloni 2018b) were both displayed at two regional beekeeping conferences: The first at the annual Beekeeping Conference in Montevecchio and the latter at the beekeeping conference in Monti (Gallura). The reaction of beekeepers that watched the movies is fascinating. *Abieris e Abis* was shown after lunch, during the discussion in the second session of the

conference, and thus many attendees already left the meeting. Due to technical problems, the documentary was played without audio, so I was commenting on the movie to give inklings on the speeches. The lack of audio seemed to facilitate the bystanders to focus on the visual dimension of the film, on the gestures of the beekeepers, the use of specific tools, the pace, the type of hives used, and the bodies of the bees. One gesture in particular stirred up the curiosity of beekeepers: the smoke used in opening the hives. The beekeepers/viewers laughed at the great use of the smoker to calm the bees because they considered it an evident mistake from an expert beekeeper. The smoke may contaminate the honey, and thus beekeepers should make thrift use of the smoke. For his part, the entomologist Ignazio Floris, present in the discussion, remarked that his lab evidence on the bee morphology justifies the beekeeper's use of the smoke. Bees are very aggressive in this case.

Showing the movie became a way to give back the knowledge acquired through ethnographic research. This process of giving back was additionally implemented when the second short documentary on the *abbamele* was shown at the second conference, just a few weeks after the first one. This time, the room was packed, and among the participants, some attendees watched *Abieris e Abis*. The visual and sensorial dimension of the short documentary, with the dialogues reduced to a few sentences, made the movie appealing to the people that expected to watch a Sardinian's old tradition,⁷⁰ and easy to follow.

In both cases, the movies helped to redefine my position in the field and the role of ethnographic research and worked as sort of 'gatekeepers' providing me with access to new fields and beekeepers. After watching the documentaries, the beekeeper Fabio, whom I interviewed the Spring before, welcomed me back to his apiaries. It seems that displaying the movies was necessary to reverse the gaze by offering beekeepers the opportunity to look through the eye of the camera. After watching the movies, some beekeepers appeared enthusiastic about the research, and they invited me to see their ways of beekeeping. During a fieldwork trip, a beekeeper admitted admiring my job and envying me for "what you do." Ironically, what *I do* is follow him doing his job.

⁷⁰ The conference title "Sardinian Beekeeping. Future has an ancient heart" (Apicoltura sarda. Il future ha un cuore antico) and the contributions suggested a focus on old beekeeping traditions concerning present-day beekeeping.

Nevertheless, it is important to remark here that through the documentaries' displays, beekeepers appeared to feel active subjects of the research and that the movies could boost their voice in popular culture and *maybe* also at the political level.

3.9 A blog to engage with the public.

Another tool that characterizes the research is the blog *Abieris e abis. Antropologia dell'apicoltura in Sardegna* (www.fareapicoltura.net). I started to design the blog in the Summer of 2017 after a long reflection on the dynamics of power that my presence could arouse in the field. Since the first meetings with Sardinian beekeepers, I noticed a profound asymmetry in the relationships with other specialists in the field of beekeepers. The latter claimed the need to be heard and often appeared frustrated from the difficulties in sharing their expertise with other specialists. Aside from the relationship with other non-academic specialists that belong to the field of beekeeping that was explored in before, I want to focus on the mechanism of sharing knowledge activated by researchers affiliated with an academic institution. Generally, Sardinian beekeepers appear to maintain a good relationship with the entomologists from the University of Sassari, the local institution responsible for different studies on beekeeping in Sardinia. The entomologist Ignazio Floris appears highly engaged with the problems of the beekeeping sector. He is a usual guest at the many conferences organized by beekeepers' associations and the regional department of agriculture. The several articles published by Floris and the other members of the University's Department of Agriculture represent a point of reference in the community of Sardinian beekeepers. Furthermore, in different cases and particularly in the issue of the eucalyptus (Cfr. 219-246), Floris and other researchers from the University of Sassari provided good support to beekeepers before regional policymakers. However, dissatisfaction toward "the professors" seems to emerge from the discourses of beekeepers. Specifically, it seems widespread among beekeepers the belief that researchers only seek their interests, and therefore "they do nothing for us unless there is something to gain." The tensions between beekeepers and the "academics" seem generated by the divergent times and pace of the research compared to the actual needs of beekeepers. These tensions are not confined to the field of beekeeping, and the discrepancy between the research times and the urgent needs of the people we research cause conflicts in several areas. As Patricia Shenley and Sarah A. Laird — ecologist the first, ethnobotanist the second — pointed out

[...] researchers and research institutions generally regard the scientific process as complete once an article is sent to the press. The result is that most information and scientific understanding generated by researchers remains in the hands of scientists, academics and policy-makers geographically and conceptually distant from the region of study. Rarely are research programs designed to incorporate the resource management needs of local groups, nor are results put in a form that communities can employ when making resource management decisions. (Laird 2002, 102).

In contrast to natural sciences, the problem of the relationship between researchers and the subjects in terms of the availability of the results to the people with whom to research has been. Still, it is a topic of discussion in cultural anthropology. Trained anthropologists are expected to work in somewhat different fields outside academia (Nolan 2017). Additionally, anthropologists have long engaged in public discourses such as healthcare, animal husbandry, climate change, environmentalism, migration, indigenous people's rights, and so forth (Escobar 1998; Marvin 2006; Pink 2006; Estalella and Criado 2018; Eriksen 2021).

Several associations for applied anthropology have been born in the past decades to answer the rapid changes within contemporary human societies. The question of applying anthropological expertise to and in non-academic contexts became even more urgent (Eriksen 2021, 24; see also Ingold 2018). Since 2013, the WNMA (Why the World Needs Anthropologists) has organized annual meetings to question the relevance of anthropological expertise in the contemporary world. This is the principal focus of the Applied Anthropology Network connected to the European Society for Social Anthropology (EASA). In Italy, the two head associations that gather practitioner anthropologists and anthropologists who use their expertise in public contexts are the Italian Society of Applied Anthropology (SIAA) and the Italian National Association of Professional Anthropology (ANPIA). All these associations and networks, as well as the wide range of sound anthropological expertise produced and shared through these networks, show how anthropologists take seriously their ability to make 'sense of the world.' Furthermore, the complexity of the intertwined relationships of human societies and the different approaches used to investigate them show that nowadays, the 'multimodality' (Collins, Durning, and Gill 2017) has become a peculiarity in the contemporary ethnographic mode of inquiry.

The application of anthropological knowledge in the public context is connected to 'Public Anthropology' which Robert Borofsky defines as the activity of seeking to "address broad critical concerns in ways that others beyond the discipline can understand what anthropologists can offer to the re-framing and easing—if not necessarily always

resolving — of present-day dilemmas.” According to Borofsky, the attempt to fill the gap between anthropological expertise and the societies studied by anthropologists in which they also take part is precisely the aim of public anthropology. In this sense, the activity of the blog *Abieris e Abis* may be considered a form of public anthropology. Indeed, the need to disseminate the knowledge produced within the ethnographic research and share it with the subjects without waiting for the pace of a usual publication process led to the choice of designing a blog. However, as Eriksen pointed out, although public and applied anthropology may often overlap, they are not the same (Eriksen 2015, 23).

Furthermore, contrarily to Borofsky’s notion, the blog does not serve to instruct the readers or to teach anthropology outside the academia’s world. It instead simply makes available the meaningful parts of the research that would be otherwise inaccessible to people due to language (mainly English) and style (scientific writing vs popular writing). Additionally, the blog contents do not seek to produce changes in society. However, in some ways, an environmental agenda is implicit in the articles, and they might help policymakers take another perspective.

Two main factors contributed to choosing the online platform: first, I was acquainted with the system that provided me with the freedom of selecting the contents, how to display them in a way that is clear to the audience, and that allowed me to monitor the sharing rates to adjust my language and style to the readers. Second, I needed a platform that the informants could recognize and easily access with their tools, mainly smartphones and, more rarely, PCs. In designing the blog, I had to consider the high level of overall aggressiveness in the beekeeping Facebook groups with most male members, further fueled by internal tensions in the community of Sardinian beekeepers.

I planned to create a virtual space open for discussion and the contributions of the various point of view that offered the opportunity to share knowledge on beekeeping without the typical braggadocio of social networks. The blog seemed to work perfectly to tackle the various problems connected to the field and provide an easy way to disclose the research results and aims.

Articles in the blog cover different aspects connected to beekeeping and anthropology, and they are grouped into three categories: *fare apicoltura* (doing beekeeping), *api e territorio* (bees and territory), and *miele* (honey). These sections are not intended as closed, and one article may belong to the three sections, or two, depending on the topics unfolded.

Fare apicoltura is the wealthiest section of the blog. Articles included in this subdivision question why and how to do research in beekeeping from an anthropological perspective. Furthermore, the essays cover a wide range of issues connected to beekeeping critical aspects such as climate change, biological control through pesticides, the impacts of a green economy on bees and small critters, what is the Anthropocene and why beekeepers are living in it. In addition to these ‘theoretical’ topics, the section contains a few ethnographic descriptions from the fieldwork and of growing up with the bees. Finally, a few articles written by beekeepers participate in this section⁷¹. I must point out that beekeepers who feel comfortable writing generally take on a public role in the community. More generally, beekeepers tend to be shy, and some claim they don’t feel they possess the competencies for writing what they claim during a public event. A further element that hampers beekeepers from writing is the time-consuming characteristic of beekeeping that, in specific periods, does not allow for doing other activities except beekeeping.

Some articles result from formal written interviews with some specialists whose field of expertise affects the field of beekeeping. This is the case, for instance, of *Il cambiamento climatico e l’apicoltura, where* I interviewed the Sardinian meteorologist Matteo Tidili of the TGR Rai Sardegna, that explained from his point of view the meaning of climate change in connection to the extreme phenomena that affected Sardinia in the past years⁷². In another article, I cover the use of pesticides to contrast the widespread of Zika and how they affected other insects. For this article, I created a written dialogue with entomologist and bee activist Paolo Fontana, who explained in simple words why also officially accepted pesticides kill the bees. In this sense, the blog activates what Sarah Pink calls ‘blended practice,’ which is “ways of working that surpass the disciplinary conventions of practice and theory” (Pink 2018).

In the section ‘Il progetto’, there is a description of the project with aims and the expected output, as well as my email address to contact me. Since March 2021, under this section, there is the ‘Mappa sensoriale’ that contains an interactive map realized with the Finnish open-source program *ThingLink* (www.thinglink.com). The map displays the Sardinia region, and a few interactive icons are located in the same areas where I did fieldwork. By clicking on an icon, a window appears showing the different ethnographic materials: photos, fieldwork notes, videos, and descriptions. The camera-shaped icon

⁷¹ See for instance: <https://www.fareapicoltura.net/post/diventare-apicoltore> and <https://www.fareapicoltura.net/post/l-albero-degli-arborea-amico-delle-api>

⁷² See the article here <https://www.fareapicoltura.net/post/il-cambio-climatico-e-l-apicoltura>

opens a window in which a third part link is embedded with a video from my Vimeo channel. Each material aims to show the diversity of doing ethnographic research in beekeeping.

Another section in the menu is 'Video', which contains the documentaries and trailers embedded in the Vimeo channel. Conclude the menu, the section 'About me,' a sort of online CV to make available the information regarding my career, and the section 'Privacy' with the description of the privacy policies.

What is absorbing from the blog experience is the use beekeepers made of its contents. The most interesting case is the one of Germano Olla, a member and former educator of *Ortus de is Abis*. They admitted using the article 'Apicoltura, nonostante tutto' (Beekeeping, despite everything) that describes the challenges of doing beekeeping from an auto-ethnographic perspective.

I show that because it's true. People attend beekeeping courses to learn about this job. We explain to them that it is hard. Beautiful and hard. The regional courses only demonstrate that you can make easy money doing beekeeping. But it's not true; they don't know what it means to rely upon bees. When I read that thing you wrote, I felt it was true. (Germano Olla, December 2019).

From the style of writing to the way to present the visual map, everything in the blog was carefully designed to address the audience and to make anthropology more understandable to non-anthropologists. The possibility to track the readers' reactions to the articles through various tools available on the website enabled me to adjust the contents in length and writing genre to make, for instance, multispecies theories more 'palatable' to nonacademic audience (Eriksen 2015, 724). In this sense, the blog's readers go beyond the Sardinian beekeepers' community. To my great surprise, it provided me with contact with policymakers from other Italian regions, researchers who are approaching the field of beekeeping, and landowners that seek connection with beekeepers to offer them places.

Eventually, the blog tuned out not merely to share knowledge but also to boost the edges of the ordinary fieldwork than can be analyzed. However, I will not discuss the data provided and collected by using this media.

I will now move to explore the contribution of social media and grey literature for the analysis here proposed.

3.10 Social media and the grey literature

The investigation is enriched by analyzing the written material produced by beekeepers and policymakers. In the first case, I am talking of books edited by beekeepers or written by them on the history of beekeeping and their approach to the bees (Caboni 2017; Aresu 2020). These books represent an essential source of information on the mechanism of identity construction of Sardinian beekeepers. The analysis of these books highlights meaningful connections and frictions between the representations of the central notion of the Sardinianness and the beekeepers' understanding of their role and themselves on the island (Cfr. 153-156). Implement this material the analysis of the debates and discussions through the social media Facebook.

Facebook is undoubtedly the most used social media among beekeepers. Several groups of beekeepers are created for novices, women, Italian beekeeping, beekeeping worldwide, private groups connected to beekeepers' associations, groups to share business information, and so on. Intriguingly, the Facebook groups seem to facilitate the connection of beekeepers worldwide. Thanks to the translation tools available on social media or the online translator developed by Google, Sardinian beekeepers can keep in contact with beekeepers from Spain, Hungary, Australia, Slovenia, Germany, Tunisia, and so forth. The linguistic barriers seem to disappear, and the typical thirst for knowledge of beekeeping has become the common point for a worldwide network. Notably, in the male-based Facebook groups, the level of aggressiveness in the interactions is generally very high, and it seems that the posts are frequently aimed at showing off a particular ability in keeping bees.

In contrast, user interactions in the various female groups seem to have a positive attitude toward collaboration. The often-fierce debates on male-based Facebook groups become a topic for offline discussions during beekeeping conferences. It is not rare that the tone employed on Facebook leads to physical fights at public events and takes legal steps.

The braggadocio widespread among male beekeepers seems connected to the effects of the EU policies on the beekeeping sector. The organization of the new CAP, the structure and nature of the funds included in the National Apiculture Program, the management of natural disasters, the EU policies for labelling the honey that contrast with those used to define the so-called 'fake' Chinese honey, and last but not least, the

growth of operators attributed to the beginner courses organized by regional institutions⁷³.

Sardinian beekeepers discuss these aspects in the Italian beekeeping Facebook groups and in the Sardinian group.

Despite the emphasis on the possibility of writing in Sardinian, Italian remains the primary language of interaction among members. The occasional use of Sardinian is generally limited to ironic teasing that doesn't find a consistent translation in Italian.

In the group, I actively participate in the discussions with the members, and I share information that might concern beekeepers and beekeeping, articles from the blog, and other material from the research. The online participant observation approach through Facebook social media allowed me to highlight the different networks of Sardinian beekeepers and to keep in contact with those that tend to remain in the background compared to members that take on a public role in the community of beekeepers. In this sense, some beekeepers prefer to contact me through Facebook private chat or to have conversations in the various posts rather than to be filmed. Furthermore, in many cases, beekeepers added me on Facebook to keep a trace of the research. Only in one case, the interaction with a prominent member of the community of Sardinian beekeepers takes on the shape of an aggressive verbal fight imbued with sexist' content. Thus, in this case, I immediately stopped interacting with this user, who appeared irritable during a few face-to-face meetings. His intolerance may be connected to his understanding of anthropological research as "pointless because culture is handwaving compared to the real problems of this sector."

Another social media that offers exciting information is Instagram, where beekeepers publish pictures of their honey and their activity in the apiaries. Analyzing the written texts with the visual data provided compelling clues for reflecting on how self-representing beekeepers connected to the Sardinian identity.

Finally, the ethnographic inquiry is supplied with the analysis of the laws, regulations, and directives on the EU and national and regional levels. Notably, comparing the documents helps highlight the ways the EU policies translate to the regional territory and

⁷³ I must point out that the EU regulation 1308/2013, the primary source of funds for the beekeeping sector, provides a regular and consistent budget to the regional appointed departments for training new beekeepers. About 32% of the EU funding is aimed at technical assistance. In Italy, about 50% of the budget of the National Apiculture Program 2022, 656.728,00€ goes into measure A, that is, all the educational activities taken on by national delegates on a regional level (see NAP 2021, p.14). This is because the more beekeepers, the better in preventing the massive loss of bees in the European Union's territory.

which dynamics and tensions activate on the local level. Thus, high importance is given to the documents that deal with the management of honey and animal husbandry contained, for instance, in the CAP and rural development programs. Additionally, scrutinizing the various EU initiatives in the field of biodiversity protection and the ecological transition help to detect the intertwined connections of multiple policies and their practical impact on the life and work of Sardinian beekeepers.

As I have shown, the diverse stimuli that came from the field prodded me to take on a multispecies approach that encompasses visual ethnographic methods, online ethnography, and experimental collaborative practices (Collins, Durlington, and Gill 2017; Estalella and Criado 2018).

In the following chapter, I dwell upon examining ‘traditional’ beekeeping in Sardinia to discuss how it influences contemporary self-representations of beekeepers. I will also offer an overview of the beekeeping sector and on the gender division in Italy and Sardinia.

4. Beekeeping in Sardinia: from ‘traditional’⁷⁴ practices to present-day forms of economic resource

4.1 General overview of beekeeping in Italy

After China, the European Union is the second world honey producer with a total number of beehives of about 17.5 million in its territory (“Honey Market Presentation” 2019, 2,11). The EU regulates the beekeeping sector through specific commissions that are responsible for designing special programs for supporting the development of beekeeping within the countries of its community. The EU beekeeping sector is included in the Common Agricultural Policy (CAP). Within the Agriculture and Rural Development Program, each EU member state elaborates a National Apiculture Program that runs for three years starting from the 1st of August each year (“National Apiculture Programmes 2020-2022” 2020, 3). The National Apiculture Programs (NAPs) divide European beekeepers and beekeeping holdings into two macro-categories: a) commercial beekeepers, that is, those who produce honey to sell it in various markets, and b) non-commercial beekeepers, those who produce honey for self-consumption. The EU attributes a high value to small-scale beekeepers that keep bees for non-commercial reasons. It encourages and supports them as their presence widespread in the territories guarantees free-of-charge pollination of agricultural products.

As for commercial beekeeping holdings, the EU policies seem to consider ‘professional’ the beekeepers with more than 150 beehives. That is, 150 units represent the lowest threshold to determine the ‘professionality’ of an operator (“National Apiculture Programmes 2020-2022” 2020, 10). This threshold seems to result from the so-called Standard Output (SO) that determines the productivity of agricultural holdings

⁷⁴ In this chapter I use the noun ‘tradition’ to refer to the beekeeping forms and knowledge of the past that were connected to an agricultural system based on the complementary of herding, harvesting, cultivating, and so forth. As I will show in this chapter, this beekeeping differs from present-day commercial beekeeping. Only where explicit I refer to the critical analysis on invented traditions (Hobsbawm and Ranger 1993; Testa 2016).

by establishing the average monetary value in euros per hectare or per head of livestock.⁷⁵ The SO may change on a national and regional scale. However, it offers single countries a parameter for defining their NAPs and distributing funding.

Italy is the fourth European country for number of beekeepers (9%) and the fifth country for tons of honey production (Ivi, 9-12). The peculiar geographical condition of the peninsula leads Italy to produce more than 60 different types of honey. In 2019, according to the *Osservatorio Nazionale del Miele* Italian beekeepers produced about 15.000 tons of honey, way less comparing the 22.000 tons produced in 2018 (Pappalardo and Naldi 2020, 1:58). The *Osservatorio Nazionale* each year monitors the seasonal trend of production. According to it, the severe effects of climate change caused the yield drop of 2019. In spring, the extreme and sudden phenomena of storms that led to the drop of temperatures after a promising (although earlier than usual) start of the apiculture season affected the blooming season compromising the nectar potential of many melliferous plants. This results in setting to zero the yield of acacia's honey in the North regions, and to considerably reduce the citrus' honey in the South. Broadly speaking, the beekeeping sector in Italy is suffering the effects of climate change and a lack of precise regulation on the use of pesticides in agriculture. According to the reports of the *Osservatorio Nazionale del Miele* (Pappalardo and Naldi 2020; 2021; 2003), during the past 20 years, the uncertain climate conditions interfered with the blooming period of the plants, leading locally to a decrease of up to 100% of the production of a particular variety of honey (see picture 15).

In the regions where farmers practice intensive agriculture, the use of pesticides negatively affects the lives of bees, leading to high depopulation of the hives, if not dead, and consequently preventing bees from producing honey.

Notwithstanding the difficulties, the Italian beekeeping sector praises a high level of specialization with professional holdings that manage a national and international market that goes beyond mere honey production. According to the data from the National Zootechnic Register (NZR), in Italy, there are about 1.579.666 beehives and 59.665 beekeeping holdings, of which the majority are concentrated in the Northern regions.⁷⁶

⁷⁵ According to the Eurostat Glossary: The SO is used since 2010 to classify the type and economic size of agricultural holdings in the EU countries. The SO replaced the Super Gross Margin (SGM) that was used until 2009 for the same purpose. [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Standard_output_\(SO\)](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Standard_output_(SO)) Accessed: 22.04.2020.

⁷⁶ According to the Anagrafe Nazionale Zootechnica. The data refers to the 31.12.20121: https://www.vetinfo.it/j6_statistiche/#/report-pbi/45 Accessed the: 08.04.2022

I will now turn to the history of beekeeping in Sardinia and its connection to contemporary beekeeping.

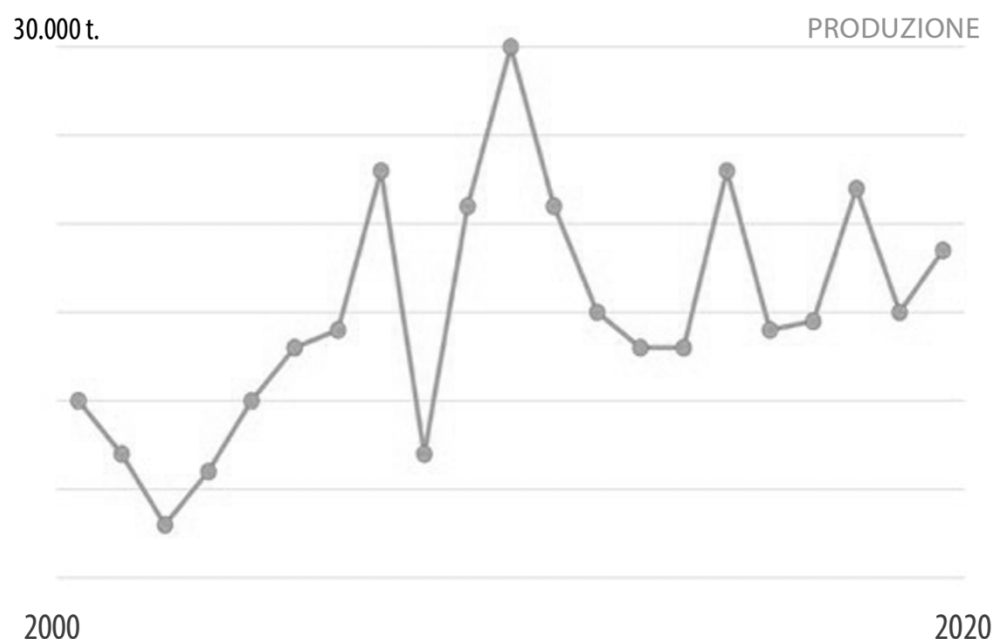


Figure 15. Honey production in Italy from 2000 to 2020. (Source: Report 2020 Osservatorio Nazionale del Miele)

4.2 Historical dimension of Beekeeping in Sardinia

To understand beekeeping in Sardinia today, it is necessary to briefly dwell upon the historical events that led to the development of beekeeping on the island. I consider it impossible to understand the processes of making identity in beekeeping in Sardinia without at least a previous knowledge of the elements that both contributed to shaping the beekeeping sector nowadays and that take part in the collective imagination of the Sardinian beekeepers.

It is not without basis to state that for centuries in Sardinia, the organization of lands, fields, and hives was regulated under the same law. Historical sources suggest that roughly between the Byzantine times (the 6th Century) and the end of the Sardinian Judgedoms' era in the 15th Century emerges in Sardinia the so-called system of *adempriviri*, a collective utilization of the lands widespread in the other regions of the Mediterranean areas (Angioni 1986, 138, 139; Ortu 2017; Orrù 2021). In contrast to the classic feudal model, this system divided the territories of the *biddas* (villages) into two categories: a) the areas aimed for agricultural purposes called *viddazzzone*, and b) the areas intended for pastoral activities called *paberile* (Ortu 2017). Beekeeping formed part of this system. Its economic

value connected to the commercialization of the wax attributed a strategic role to beekeepers and provided a significant source of income in the Sardinian economy. Local historical sources help us infer the prominent role of beekeeping in the Middle age. Notably, in 1392 the then ‘lady judge’ Eleonora, ruler of the Judgedome of Arborea, issued a law (probably formalizing a previous code already in force) that regulated the uses of lands and established the punishments for animal theft. The code, *Carta de Logu*, was written in Sardinian. Formally remained valid until 1827, when King Carlo Felice issued the new *Codice feliciano*. The *Carta de logu* is essential in the history of beekeeping. Chapter 31 explicitly refers to beekeeping, determining the costs of duties for commercializing the wax and establishing the penalties for hives thefts (Casula 1995, 67):

Furthermore, we order that if anyone steals the hives that belong to the royal estate, they must pay ten times the value of the stolen goods within fifteen days from the verdict; if the hives belong to the clergy or privates, the thief must pay five times the value of the stolen goods. Furthermore, [the felon] must pay the Court a penalty of hundred lira, and he must repair the damage [to the hives]. If the thief does not pay, or if anyone pays for him within fifteen days from the verdict, we must cut them an ear.⁷⁷

An attentively reading suggests that the properties concerning hive management were distinctive when the *Carta de logu* was written. The hives in Sardinia could belong to a) the royal estate, b) the clergy, and c) private owners. Furthermore, under notarial deeds from the same period, the *Carta* indicates that the apiaries were called *Ortu de is abis*, ‘garden of bees.’ At the beginning of the 1900s, German linguistic and ethnologist Max Leopold Wagner came to Sardinia to study the language and customs of Sardinians and reported that the denomination *ortu de is abis* was still in use (Wagner 1928, 70,71). In addition, the denomination *ortu de is casiddus* was also used in the region of Sarrabus in the 1950s (Böhne 1950, 129). According to the local ethnologist Serafino Spiggia, the contemporary vernacular toponymy would reveal traces of the memory of where the *Ortus de is abis* used to be located (Spiggia 1997, 90). Concerning the beekeepers, the fourteenth-century documents call *apiariosos* the persons who kept the bees, suggesting that beekeepers represented a specific category of labor connected to professional expertise (Manias 2017a, 52). This name seems to change over the centuries. At the beginning of the 20th

⁷⁷ My translation from the original in Sardinian: *Item ordinamus chi si alcuna persona furarit bortu de abis, et esserit de su Rennu, paghit infra dies bindighi, de chi hat a esser juygada pro s'unu degbi; et si esserit de Ecclesia, over de attera persona, paghit pro s'unu chimbi. E nientideminus paghit de machicia assa Corti soddos centu, ed emendit su dannu, a cui hat a esser. E si non pagat issa, over atter'homini pro see infra diez bindighi, dae chi hat a esser juygada, tangintilli un'origla* (see Casula 1995, p.67).

Century, Wagner and Böhne reported the nouns *apiariu*, *abiargiu*, *moiarzu*, and *moiarèsu* depending on the local variants (Wagner 1928, 71; Böhne 1950, 129).

The organization of the agricultural and pastoral activities essentially did not change after the fall of the Judgedomes era, as neither the Catalan administration nor the Spanish kingdom formerly abolished the *Carta the logu*. Instead, the Spaniards implemented the duties for beekeeping and revised the penalties for animal theft, including the theft of beehives (Floris and Satta 2009, 22; Manias 2017c, 109). The beekeeping sector and the industry of bee wax connected to it remained organized nearly the same through *ortus de abis* roughly until the beginning of the 1800s. However, the first changes to this system began in the 1700s through a significant process that eventually transformed the agropastoral organization of Sardinia. In 1720, after brief domination under the Hapsburgs, the Savoy's House included Sardinia under its family estate, and thus the Kingdom of Sardinia was born. The Piedmontese administration considered the Sardinian agropastoral model backward and inefficient. Right after its installation, the government engaged in a process to 'enhance' Sardinian agriculture. This process culminated in 1820, issuing the Law of Enclosures (Angioni 1974, 81). The law provided legal support to private citizens that were now authorized to enclose the fields and exploit them in an exclusive way. The law was intended to eradicate the concept of common property on the use of the land on the island. For their part, Sardinians welcomed the Law of Enclosures with violent sentiments. It represented a symbolic turning point in the history of Sardinians (Ibid.). Anthropologist Giulio Angioni has pointed out that the law encouraged wealthy landowners to establish their estates to the detriment of small farmers that could not afford to build fences and therefore used hedges or dry-stone walling (Ibid.). Beekeeping seems to gradually lose its strategic role in the Sardinian economy becoming one of the many gathering activities flanked by farming and livestock. This situation emerges in the information provided by Father Vittorio Angius for the section dedicated to Sardinia of the *Dizionario geografico storico statistic commerciale degli Stati di S.M. il Re di Sardegna* edited by Goffredo Casalis between 1833 and 1956. Angius was meant to collect information regarding the geographical characteristics of each Sardinian town and village and the customs, antiquities, and agropastoral practices used by the inhabitants. The *Dizionario* offers a detailed description of the state of beekeeping in Sardinia during the 19th Century (Casalis 2004).

The Piedmontese officers appointed to report the socio-economic situation of the island blamed Sardinian beekeepers for using fixed-comb hives of 'traditional' type and

considered it necessary to modernize of the entire sector. Beginning in the 1800s, and particularly after the unification of the Italian kingdom, the Piedmontese administrators engaged in several attempts to ‘modernize’ beekeeping in Sardinia by promoting the development of modern techniques and advanced management practices according to the model used in the north of the kingdom (See Cano 1871). Yet, except for some unique examples (e.g., the beekeeper Giovanni Antonio Carta (see Manias 2017b, 65–68)), beekeeping in Sardinia remained an additional form of income for rural families and landowners based on the use of oak cork hives. Notwithstanding the efforts of the Italian government in encouraging the development of a modern business, beekeeping in Sardinia seemed to remain linked to rural forms of hive management for a very long time.

In 1928, the statistical data provided by the national census stated that there were circa 2.611 beekeepers that worked with 38.046 hives. The majority of which were upright hives made of cork (Zappi Recordati in Floris 2000, 26). In 1937, the *Prima Inchiesta Apistica Nazionale* presented a similar situation to the previous decade, 96% of beekeepers still used oak cork hives, and only 4% adopted movable comb hives (Floris, Deiana, and Pinna 2017, 38–39).

In the aftermath of WWII, the Sardinian socio-economic system, characterized by the complementarity of livestock and agricultural productions, went through a process of profound transformation. This led to the development of a pastoral system of intensive type (Meloni and Farinella 2015). Shepherds abandoned livestock based on seasonal transhumance to a resident model mainly linked to milk production and only partially connected to meat and wool market (Caltagirone 2005, 267). Through this socio-economical process, livestock in Sardinia became a specialized activity giving shape to the image of the shepherd, as a specialized ‘entrepreneur.’

As for beekeeping, in 1951, the first *Consorzio Apicoltori della Sardegna- CAS* (Consortium of the Beekeepers of Sardinia) was funded (Spiggia 1997, 98) with the aim of boosting the transformation of the sector on the island (Floris 2000, 26). Its activity of negotiation with the regional government led to issuing of the first Regional Law n. 13 of the 16-6-1954 to increase beekeeping and to provide support against the widespread of bee diseases (Floris 2000, 26; Spiggia 1997, 98–99). However, the law disappointed its expectations and no profitable business on the national and international levels developed before the end of the 1970s (Floris 2000, 28–29; Floris, Deiana, and Pinna 2017, 38–39; Curreli 1999, 24–26). The firsts proper beekeeping holdings appeared in the market of honey, suggesting that beekeeping became an autonomous activity, independent from

other forms of livestock and agriculture. Specialistic sources agree in considering the period between the end of the 1970s and the beginning of the 1980s as the turning point of the passage from the ‘traditional’ form of beekeeping to the emergence of modern beekeeping in Sardinia (Prota and Floris 1983; Curreli 1999, 24–25; Crane 1999, 188; I. Floris 2000, 28–29; I. Floris, Deiana, and Pinna 2017, 38–39). The development of beekeeping in Sardinia during the 1970s is consistent with the process of transformation of the ‘traditional’ economic system described, among others, by the sociologists Benedetto Meloni and Domenica Farinella (2015, 453). According to them, between the end of the 1950s and the course of the 1970s, the ‘traditional’ model of land uses suffered an economic and social crisis that gradually led to abandoning the cultivated fields; as a consequence, the pastoral activities gained new lands and implemented their workings (Ivi, 454-455). Beekeeping benefited from the emergence of new professional figures in the Sardinian agropastoral sector that opened the appearance of ‘the beekeeper’ as an experienced operator who exclusively manages hives and bees.

I shall stress here that a significant part of the actual beekeeping holdings that are running their business these days established their business between 1977 and 1994. They benefited from the funds provided by the Regional laws issued between 1977 and 1985 (Curreli 1999, 26; Floris, Deiana, and Pinna 2017, 41). In 1977, the census held by the Regional Agricultural Department revealed that 2.041 beekeepers managed 60.834 hives in total. 87,9% of them consisted of ‘traditional’ oak cork hives, and 12,1% were movable comb hives of the modern type (Prota and Floris 1983, 252).

According to a survey on the development of the honey production sector in Sardinia, before 1969, there was only one beekeeping holding on the island, and the number of activities registered on the list of the Regional Department for Agriculture rapidly increased between 1979 and 1989 (Curreli 1999, 24–25). The development of modern beekeeping in Sardinia seems to link with the growing effort of the ARS to promote policies for the development of the agricultural sector (Floris 2000, 29). During this time, the ARS activated several measures aimed at modernizing beekeeping and transforming it into an autonomous and professional activity (Ibid.) Young farmers or unemployed people were encouraged to buy modern hives and equipment and to take advantage of special public funding free of mortgages. The beekeeping census of 1982 shows the effects of these policies. Modern mobile-comb hives became 51,4% of the total hives (Prota and Floris 1983, 252). The final goal of these measures was to establish a professional form of beekeeping in Sardinia. That is, based on the use of mobile-comb

hives such as Dadant or Langstroth that enable beekeepers to separate the nest from the super and to manage the colonies in a *rational way*.

Beekeepers that built their businesses by capitalizing on those policies of development remember that period as a moment of great excitement. The relationship with the regional institutions was of another nature compared to nowadays. According to Marcellina Pintus

Before, the regional administrators used to help us to listen to what we needed. Ornella Montis often called me to participate in the Regional Authority for Development and Technical Support in Agriculture (E.R.S.A.T) meetings and to contribute with my knowledge in beekeeping for the youngest that was starting at that time. (Marcellina Pintus, Lower Campidano, 19 December 2017).

Marcellina Pintus is a former beekeeper in her late 80s. She benefited from public funding to build her first professional laboratories of beekeeping in 1982⁷⁸. At that time, the law did not require a laboratory to process honey, so Marcellina's laboratory was an exception.

In 1985, the Regional Law n. 30 '*Norme per l'incremento e la tutela dell'apicoltura*' (Law for safeguarding and increasing beekeeping) encouraged 'initiatives aimed at promoting the development of beekeeping as a tool for improving the quality and quantity of agricultural production, and particularly for fruit farming' (Spiggia 1997, 99). Furthermore, the law n. 30/1985 established a regional beekeeping commission, which members stayed in charge for up to three years, to express opinions and offer proposals regarding the activities to safeguarding beekeeping and promoting its rationalization.

Overall, the law seemed to pinpoint beekeeping's strategic role in contributing to agricultural production because of pollination. Further, the law appears to be imbued with a vision of solid interferences between agriculture and beekeeping. As I will show, this concept will change progressively along with regional, national, and EU policies, determining a profound fragmentation of the production chain.

The ARS' massive campaign to replace local queen bees with genetically pure *Apis mellifera ligustica* queens (so-called Italian honeybee) raises another critical aspect of the process of modernization of beekeeping. During the 1970s and the 1980s, officers from the E.R.S.A.T. prodded beekeepers to discard local 'wild-tempered' honeybees, too 'unmanageable' and challenging to tend and to buy tamer and docile packages of *A. m.*

⁷⁸ Marcellina Pintus kept the license documents that the *Unità sanitaria locale* (Department of Local Health) provided to her after inspecting the newly built laboratory.

ligustica from companies in Emilia-Romagna (North Italy). The international community of beekeepers and apicultural scientists considered the *A. m. ligustica* a very productive race compared to others. In this regard, since at least the 1850s, the literature specialized in beekeeping considered the behavioral and genetic characteristics of the Italian honeybees to make them tame and industrious and, therefore, particularly suitable for the honey business making (Zappi Recordati 1980, 34; Horn 2006).

Simultaneously to these policies, a specific measure included in the Regional encouraged the emergence of the first associations of beekeeping in the island. In 1977, the Association of Gallurese Beekeepers was founded in Olbia aiming at promoting the conversion of ‘traditional’ beekeeping to modern beekeeping within the province of Sassari, in the North of the island (Spiggia 1997, 104). Among its founders, there were Serafino Spiggia, the so-called Dott. Porcu, and Tomaso Desole considered in the community as points of reference for the development of professional beekeeping.⁷⁹ In 1979, the Association of Sassarese Beekeepers was founded, followed by the Association of Beekeeping Producers of the Province of Nuoro in 1985, in 1989 the Association of Nuorese Beekeepers, and in 1988 the A.P.A.MIEL for the beekeepers of the province of Cagliari (Spiggia 1997, 104–5). Finally, the 15th May 1987 the Association of Beekeeping Producers of the Province of Oristano was created. This association is the only one that survived and is still politically active under the name of *Apiaresos* (Manias 2017a, 51–54).

The process of ‘rationalization’ of Sardinian beekeeping activated by the regional policies can be considered concluded around the first half of 1990. Modern forms of beekeeping were established. The number of beekeeping companies grew, and many beekeepers built their licensed laboratories. Finally, the number of ‘traditional’ oak cork hives progressively decreased. Officially, they disappeared from the Sardinian landscape at the end of the 1990s. Yet, nowadays, new uses of oak cork hives seem to have widespread on the island. In some cases, they are adapted to the new economic necessities of contemporary beekeeping. In some other cases, the oak cork hives seem to connect to forms of re-enactment of the past.

In what follows, I explore in detail the ergology of ‘traditional’ beekeeping. This is meant to offer a level of analysis to interpret some of the present-day forms of beekeeping specific to Sardinia.

⁷⁹ Interview to Tomaso Desole, Monti (Olbia), 6th August 2018.

4.3 Ergology of ‘traditional’ beekeeping in Sardinia

It is impossible to determine when humans in Sardinia have acquired the competencies and knowledge to abandon the bees’ hunting practices and keep them in human-made hives. The first signs of beekeeping in Sardinia go back to the 8th Century B.C. when Phoenicians transported beeswax from the Sardinian’s harbors (Barreca 1974, 170). It is possible that at this time, the practices for beekeeping were similar to the ways widespread in other regions of the Mediterranean Sea described by the beekeeping expert and researcher Eva Crane (1999). Although the study of beekeeping in Sardinia seems generally confined to the field of entomology, a few ethnological research provide exciting information. I refer here to the works of Max Leopold Wagner, Rudolf Böhne, and, more recently, Serafino Spiggia, that in various ways, addressed this topic. Historical sources used by local writers and scientists suggest that the ‘traditional’ system of beekeeping in Sardinia, until recent times, was established somewhen during the Byzantine domination (Spiggia 1997; I. Floris and Satta 2009; Manias 2017c).

As mentioned in the previous sections, since the Middle Ages, beekeeping in Sardinia was organized into *ortus de is abis* (Gardens of bees) distributed in the territories. The *ortus* may belong to the royal estate, to the clergy, or private owners (Casula 1995, 67). Surely, the notion of the *ortus* was still used until the end of the 19th Century if both Max Leopold Wagner and Vittorio Angius considered worthy of referring to them (Wagner 1928, 70,71; Casalis 2004). Wagner highlighted that the term *ortus de is abis* was used to define a place where a certain number of beehives were located together to form an apiary. Until the development of modern beekeeping in the 1970s, a well-defined system of customs established the ways of becoming a beekeeper and beekeeping on the island. The customary rules prescribed that to create a new apiary a person should have start with three *casiddus* (beehives). This person should have obtained one beehive as a present from another beekeeper — *apiaresu*, *abiargiu*, *mojargiu* (Wagner 1928, 70,71; Böhne 1950, 129) — buy a second beehive, and still a third beehive (Spiggia 1997, 29). According to the custom, the hive ‘thief’ should have symbolically repaid the *casiddu* with a coin put in place of the *sa casiddera*, that is where the beehive was put. This coin served to sign to the victim of the theft that the thief acted according to the code and that the bees’ colony served to fund a new apiary. The victim of the theft should have been a *cumpare de fide*, that Spiggia defines the godfathers/mothers by baptism or confirmation (Ibid.). The ritual element is significant in ‘traditional’ beekeeping, and thus it is worth to reflect. In the southern regions of Sardinia, where the Campidanese is the most widespread variant of Sardinian,

this form of ‘kinship’ is called *Santuanni*, a contracted version of *Santu Juanni*, about St. John the Baptizer. Through the godparenthood of *Santuanni*, people established a bond comparable to a blood kinship (Delitala 1975). The *compares* (logudorese) or the *goppais/gommais* (Campidanese), that is, the contractors, committed themselves to pay respect to the *goppai/gommaï*, to help them, to be loyal, and to share joy and griefs (Rapallo 1971, 32). In her analysis of state of the art on the study of the *comparatico* of St. John in Sardinia, anthropologist Chiarella Rapallo (1971) highlights the discrepancies in the literature sources regarding the consistency between the kinship of *Santuanni* and the spiritual kinship sealed with the religious ritual of baptism and confirmation (Ivi). The first is linked to the ritual of the fire, and the circulation of the *nenniri*⁸⁰ and the latter is a ritual of the Christian religion. In her article about the godparenthood of St. John, Enrica Delitala affirmed that the notion behind the institution of the *comparatico* was still alive in the 1970s (Delitala 1975, 45). Although the archaic rituals with apotropaic functions appeared already obsolete for forty years. However, in approaching the issue, Delitala clearly states that this was a form of bond comparable to blood ties, like the kinship established through the religious ritual of baptism and confirmation (Ibid.). That is, the *comparatico* of *Santuanni* represents a different form of spiritual kinship. It might appear inappropriate here to dwell upon the nature of the *Santuanni*. However, this aspect is far from insignificant. I argue that they entangle with beekeeping because the rituals to celebrate St. John usually coincided with the ritual of honey harvesting on the 24th of June. As I will further explain, friends and relatives often offered their help to the

⁸⁰ The *nenniri* (also called *erme*) was a pot made of cork bark rolled up and filled with earth in which grain was let grow in the dark (Rapallo 1971, 26). A person (female or male) who wanted to seal a bond of *Santuanni* would send the *nenniri* to the selected compare-to-be who, in case s/he agreed, would take a part of this. On the night of St. John, the new compare would have formed the relationship by performing a ritual in the fire. Partially ensuing the accounts by Alberto La Marmora, the German explorer Heinrich von Maltzan describes in the following way the ritual of St. John in Ozieri: *Ein anderer, jetzt gleichfalls aussterbender, uralter, noch dem Heidentum entstammender Gebrauch ist der der Erme (des antiken Hermes), dessen Fest man am Johannistag feiert. An diesem Tage werden die so genannten Johannisgevatterschaften eingegangen - imaginäre gevatterschaftliche Bande, die jedoch die Männer und Frauen, welche sie eingehen wollen, nur für die Dauer eines Monats binden. Vierzehn Tage vorher wird von der künftigen Gevatterin eine Hand voll Getreide in einem mit Erde gefüllten Korbgefäß gesät. Ist dieses Getreide in einem aufgegangen, so nennt man den Büschel Erme, und dieser Erme in dem prachtvoll verzieren Korbgefäß wird dann am Johannistag auf einem mit Teppichen geschmückten Fenster ausgestellt und abends illuminiert. Dem Erme zur Seite soll nicht selten eine gedrechselte Puppe (eine Frau darstellend) die Ehren der Illumination teilen. Früher näherten sich die Bauern sogar noch mehr dem antiken Gebrauch, indem sie kleine Figuren aus Mehlteig formten, die sie statt der Puppe neben den Erme setzen, ganz wie man in Heidentum beim Hermesfest (das dem Johannistag auch in der Jahreszeit entsprach) kleine, aus Teig gemachte Götzenbilder aufstellte. Aber die Geistlichkeit hat den heidnischen Satan sowohl in den Mehlteigfiguren als auch in der Puppe gewittert und eifert gegen beide. Am Festabend zündet man vor dem Ausstellfenster – dem Erme zu Ehren – ein Feuer an, um das Bauern und Bäuerinnen einen feierlichen Rundtanz aufführen, während der Gevatter und die Gevatterin sich auf beide Seiten des Feuers stellen und jeder das Ende eines langen Stocks fasse, den sie über die Flamme halten und vorwärts und rückwärts schieben, wobei ihre rechte Hand dabei mit der Flamme in Berührung kommt, für desto inniger gilt das gevatterliche Band, dessen Besiegelung diese kleine Schmerzprobe bildet* (Maltzan 1869, 62–63).

beekeeper during this important moment that involved all the family members. By taking part in the harvesting process, the operators external to the family were repaid with the *peddes* (the harvested colonies) or with honey and honey-based-sweets. Drawing from the reflections of Clara Gallini on the relationship between vendetta and gift in Sardinia (1973) and taking into consideration the analysis of Benedetto Caltagirone on the animal theft and exchange of goods in Barbagia (1989), we could assume that beekeeping functioned to keep (or create) stable the social relationships within members of the same village. Returning to the hive theft, because it was perpetrated to a *compare de fide* was a morally accepted theft, in contrast with the interpretation of Antonio Pigliaru, who affirms that Sardinians consider an affront exclusively the thefts that are committed by a person close to the household (Pigliaru 2007). It seems that hive theft represented a practice of ‘redistribution of wealth’ (Gallini 1973) and a strategy of creating a network of relationships to strengthen ties of cooperation and solidarity among the village members. The animal thefts represented a way to form relationships outside the village that were used to prevent or achieve further theft (Caltagirone 1989). By the same token, hive thefts were used to build relationships within the village. Anthropologist Cosimo Zene pointed out that theft and sharing were part of same ‘traditional’ system of social life and customary laws, which foresaw both vendetta and gift as a part of the code of life and/or death that took place under the scenario of the village (Zene 2007, 307). Drawing from Zene’s reflections, I argue that the prominent female role in beekeeping may suggest that beekeeping came under the category of gift in complementary opposition to the social practices triggered by other forms of theft that pertain to the male sphere of the vendetta. I must remark that until the 1800s, women used the income provided by beekeeping to buy clothes and footwear (Spiggia 1997; I. Floris and Satta 2009). Women were also responsible for the functioning of the complicated practice of gift-sending (*imbiatu*) described by Zene. Through gift-giving, women sent products of the land like milk, bread, sweets, meat, wine, and similar goods to other families with whom they were on ‘good terms’; that is, they had a good relationship (Zene 2007, 95,96).

Returning to the ways to form a new apiary in customary beekeeping, the person that did not want to steal a hive would have had two options left to obtain hives: to take a swarming family (a *scussura*) in the countryside or get old families by helping a beekeeper during the harvesting process. As already mentioned, in this case, the beekeeper-to-be received the *peddes* as a reward for assisting the beekeeper and his family with harvesting the honey (Spiggia 1997, 29; M. Frau 2005, 57,58). Collecting a *scussura* required expertise

in collecting the swarm and profound knowledge of the territory in the places where bees were more likely to be found. In Sardinia, the swarming fever begins in March, and different beekeepers say that until the 1990s, it was common to find many wild bees swarming. Swarming colonies tend to hang on trees' branches during the swarming phase. The whole colony selects the new home, (Seeley 2010; 2019). Thus, to collect the swarm, the beekeeper puts an empty hive without the top cover under the branch in correspondence with the swarm and either wait for it to fill it spontaneously or firmly shakes the branch off, and the bees fall inside the hive. Another method involves catching a flying swarm directly with the hive, with internal walls duly soaked with lemon juice and other aromatic plants (I. Floris and Satta 2009, 36). It seems that during this picturesque method, beekeepers used to sing a song that was believed to convince the bees to accept the new home⁸¹.

In any case, once obtained the families and put inside the beehives, the new beekeeper located them in the selected apiary. This was carefully chosen depending on specific fundamental characteristics that ensure food to bees and protection from natural adversities. I will now turn to describe the material culture of 'traditional' beekeeping.

4.3.1 *Material culture in 'traditional' beekeeping in Sardinia*

It is widely reported that on the island, people made beehives using oak cork bark (Crane 1999, 188). In the past, forests of oak trees (*Quercus Suber*) were widespread in the whole Sardinian lands, and Sardinians used oak cork as a raw material for various purposes. Even nowadays, oak cork keeps its high commercial value, although its uses are somewhat different from before as the relationship with this material has also changed. The harvesting of cork from oak trees is a relatively simple process that nevertheless requires specific manual skills and the ability to know when the maturation is completed. Generally, it is a process done by two people. Before proceeding with the extraction, the bark gatherers make a horizontal cut along the girth to a certain height above the ground, depending on the size of the tree. Then, the two gatherers make two vertical cuts and carefully extract one side of the bark. To build the 'traditional' oak cork hives or

⁸¹ Eva Crane (1999) reports various rituals in which the beekeeper sings a song while catching a swarm. In Sardinia, old beekeepers stated that they used to sing-song "*Piera, Piera, Piera...*" to attract bees in their hives. Because in Sardinian, the consonant "P" is pronounced "B" when follows another word, the monotonous text might be a simple contraction of the Sardinian word *Abi-* (A)biera (bee). In the movie *Honeyland* by Tamara Kotevska and Liubomir Stefanov (2019), the beekeeper Hatidze Muratova enacts a similar ritual while collecting a swarm in a skep hive.

casiddus de otigu, a bark limb of roughly 60 centimeters of height was put together by stapling the edges with wooden screws (*piros*) or sewing them with other vegetal material to form a cylinder (Böhne 1950; Spiggia 1997; I. Floris and Satta 2009). The bottom and the top were sealed with the same wooden screws used for the side.

Inside the hive, the beekeeper used to put two crosses made with two sticks that had the purpose of holding the bee's combs. In some cases also served to separate the brood from the honey (Spiggia 1997, 33; Floris and Satta 2009). Occasionally, some beekeepers use rub mint leaves or lemon juice to attract the bees inside. Beekeepers report some sort of lullaby used to draw the bees. Finally, once the assemblage of the hive was completed, the beekeeper proceeded to *impiastrai su casiddu*, close the chinks with a mixture of cowpat and clay that protected the hive from rain and help to keep the internal temperature (Böhne 1950). According to Eva Crane (Crane 1999, 188), in contrast to the rest of the Mediterranean islands, Sardinian beekeepers used upright cork hives instead of horizontal ones.

The design of the upright cork hive is consistent with the ways of tending the bees in opportunistic forms of beekeeping. Inside the hive, the bees are free to build the combs in their way, and the beekeeper does not act to modify the bees' architectural structure. With fixed combs in the cork hive, the practices connected to 'traditional' beekeeping were mainly reduced to the harvesting moment. Written and oral sources define beekeeping as a relatively simple activity that could provide high income concerning a minimum economic and working effort (Gemelli 1776, 254). Indeed, aside from some occasional cases of pests and other diseases, the beekeeper's work was basically to build the *casiddu* for the new colonies and, once a year, collect the honey. In some cases, the beekeeper did not even look for new families, and he cut back on simply putting empty hives nearby the places known for hosting wild bees and waiting until a swarm of bees spontaneously settled inside them.

This simplicity of the managing practices of 'traditional' beekeeping is reflected in the types of tools used to operate. Until recently, beekeeping was seldom an exclusive activity, and farmers and shepherds commonly used to keep bees along with other livestock. Thus, knives to cut the combs (*ischeradore*), linen towels, pottery, and other objects commonly used in agropastoral everyday life were also used for harvesting the honey (Spiggia 1997, 35,36; Frau 2005, 60–62). In most cases, harvesting the honey did not require special tools as it was extracted by simply pressing the combs with bare hands on a clay container.

However, in some cases, people could use a particular type of lathe activated by a turning handle.

The following section focuses on ‘traditional’ methods of harvesting honey from oak cork hives.

4.3.2 *Harvesting methods in ‘traditional’ beekeeping*

Despite the simplicity of the tools used to harvest the honey, this phase represented a pivotal moment in ‘traditional’ beekeeping. The harvesting, called *sa spitzadura* or *sa boghera* (Frau 2005, 70), was a particular moment that broke up the routine of the family because it involved all members and relatives in its process. Written sources, as well as oral testimonies, affirm that before the development of modern beekeeping, people used to harvest the honey coinciding with the celebration of the rituals of St. John, every 24th June (Frau 2005, 73). According to Serafino Spiggia (1997, 39), the reasons behind this date are linked to the fact that at this point, the blooming season is already over in most areas below 500 m.a.s.l. and thus, they are longer productive. However, the research carried out by entomologists Ignazio Floris and Alberto Satta suggest that people usually started to harvest the colonies that did not swarm around the end of May and the beginning of June, depending on the full moon. They removed only part of the combs so that bees had the time to rebuild them and thus enabled the beekeepers to proceed with the second extraction in July (Floris and Satta 2009, 37). The entomologists pointed out that an excellent year allowed for the third harvesting of carob and strawberry trees’ honey in autumn (Ibid.).

The moments that immediately preceded the harvesting season triggered a sort of excitement among the family of the beekeeper (Frau 2005, 73). All the members were involved in the process, and thus they got ready for this important event of the year. Some days before starting, the beekeeper used to visit the apiary to evaluate the state of the colonies by weighting the cork hives with their hands and then planning the work accordingly. On the day of the harvesting, the beekeeper used to bring a certain number of empty cork hives depending on the number of colonies they intended to harvest. Once everything was in the right place, the harvesting could begin.

In Sardinia, the harvesting techniques were essentially two: a) the so-called *bogare a mortu* that consisted in removing all the combs after sending away the bees to another hive; b) *iscabitare* (‘beheading’ them), that is, cutting off only the top parts of the combs

that contained honey and leaving the rest for overwintering (Böhne 1950; Spiggia 1997, 39; Floris and Satta 2009, 37).

The first method was used to harvest old colonies called *casiddus vedustos*. The beekeeper dug a hole in the ground, inside which he burned some smoke-producing material like clothes, dry cowpat, ferulae, or prickly pear leaves. Then, he would put stones around the hole to place the selected bottomless cork hive roughly ten centimetres above the combustion so that the smoke would go up and invade the colony. To this point, the beekeeper carefully removed the top of the hive and placed above it an empty cork hive previously rubbed with lemon or herbal essence called *mentha de moju* in logudorese. This procedure imitates a fire in the colony and urges bees to leave the nest, moving inside the new cork hive within ten minutes. In the logudorese regions, people used to call *peddes* the families of bees that were forced to move into the new hive through this process (Spiggia 1997, 39). Once all the bees abandoned the hive, the beekeeper brought the hive to the place where together with the women of the house, they would take off the combs and extract the honey. This method was ruthless because it could lead to the loss of the colony because the bees are forced to move to a new hive without brood or supers (I. Floris and Satta 2009, 43).

In the second method, to *iscabitare* a hive, the beekeeper opens it from the top, using some smoke to calm the bees. Then they took off parts of the combs closed to the top until one of the crosses in the South of the island was used to separate the brood from the honey supers inside the cork hive. This method is more technically elaborated because by removing only part of the combs and leaving the brood untouched, the bees can build new combs, and the beekeeper could harvest two or more times depending on the year (Floris and Satta 2009, 37). According to Spiggia (1997, 39), the method of *bogare a mortu* was more widespread in the northern regions of the island. In contrast, in the Southern areas, beekeepers tended to use the technique of beheading bees to harvest their colonies.

It is worth noticing that the method of *bogare a mortu* seems to be a form of opportunistic honey-hunting (Crane 1999) in which humans take advantage of instinctual bees' fear of smoke to 'steal' the honey. In contrast, the technique of *iscabitare* requires at least some basic knowledge of the internal structure of the nest and how bees manage the ratio of brood supers during the year inside the hive.

Whether the method was used to collect the honeycombs, the following process was to press them to extract the honey. As mentioned above, this phase of the process of harvesting involved the whole family with a gender division in the roles based on the

paradigm open space (apiary) = man; closed space (house/laboratory) = woman. In other words, if men mainly did the works at the apiaries, women were in charge of the honey extraction process⁸².

During this phase, women took care of cutting and separated the combs (*brescas*) that contained only honey from those that also had pollen and brood, and they put them in different containers (Spiggia 1997, 41). The firsts were pressed to extract the honey. The combs containing pollen were used later to make the *abbamele*⁸³. Finally, the combs with brood were used in the production of beeswax. Furthermore, the *brescas* with better appearance were also put aside and either eaten directly, or they were offered as present to certain selected people.⁸⁴

Women squeezed the combs with their hands and using a linen clothe to filter the honey that slowly dripped directly on a pot. According to the beekeeper Mario Lai, women experienced strong pain at their hands and arms for several days after the intense physical work of pressing (Frau 2005). The pressing of larger quantities of honeycombs required instead the use of a special type of lathe to facilitate the work. Although the honey extracted through lathe pressing may contain traces of anatomical parts of bees it has a greater value because it contains higher amounts of pollen, and the microparticles of wax lend a raw texture that seems to enhance the taste (Floris and Satta 2009, 45). Nowadays, an ever-increasing number of customers seek for honey produced in this way, and in central-north Sardinia, some beekeepers keep using this method to produce small quantities of ‘natural’ or ‘artisanal’ honey.

4.3.3 *The abbamele: a ‘traditional’ by-product of honey*

Once women had completed the pressing process, the beeswax left was washed out with warm water inside particular kinds of pots in a way that the temperature of the water facilitated the melting of the drops of honey that remained in the wax. The wax was let in infusion for up to twenty-four hours, after which it was taken out, leaving the container full of a sort of ‘honey water’ from the Sardinian terms *abbamele*, *abbattu*, *abbathu*, *acuamebi*, *acuameli*, depending on the spoken variant. More recently, people also use the term *sapa*

⁸² As I will show later on, the gender division based on the opposition outside/inside=men’ space/women’ space persists in present-day beekeeping in Sardinia.

⁸³ The *abbamele* is a by-product of honey obtained by boiling for several hours the water used to wash the containers and the wax after pressing it.

⁸⁴ See here the social mechanisms of *su craculu* described by Cosimo Zene in his analysis of the system of gift-sending called *s’imbiatu* (Zene 2007).

di miele to distinguish it from the *sapa* made out of the fermentation of wine. This by-product of honey was obtained by boiling for several hours the water (= *abba*) with honey (= *mele*) resulted from the process earlier explained. The honey water was poured into a big pot (*craddaxiu*) and placed on an open fire, and from time to time, the women stirred the liquid to remove the foam produced during boiling. The procedure lasted until the water turned into an amber-coloured sticky liquid, similar to the molasse's density. Usually, during the boiling, women added some citrus skin or quince, or even prickly pears to season the *abbamele*. This is used in 'traditional' sweets, such as filling in the case of the *caschettas* or *tiliccas de saba*, as the main ingredients for the *pistiddus*, the *pabassinas*, the *pani'e saba*, and as a dresser for the salad.

Nowadays, the commercialisation of the *abbamele* finds in the confectionery industry of 'typical' products its main purchaser, and currently, there are several and often successful attempts to reassess it for creating new products like mead of *abbamele*, aromatic vinegar, or panettone for Christmas eve.

Furthermore, recently, after a long process of negotiation between a local association of beekeepers and the governmental officers, the 'typicity' of the *abbamele* was officially acknowledged by national law, and thus it is included in the list of 'traditional agricultural products' (prodotto agricolo tradizionale- PAT) (Cfr. 156).

4.4 Reinvented 'traditions' and adaptations in present-day beekeeping

Alongside agricultural development in Sardinia, 'traditional' forms of beekeeping ceased when beekeeping became an exclusive job, independent from other agro-pastoral practices. The form of 'traditional' beekeeping described above disappeared around the beginning of the 1980s when beekeepers abandoned the use of fixed-comb hives and started to use movable frame hives. Simultaneously, policymakers supported the development of rational beekeeping on the island by activating networks for buying apiculturalist material from the mainland. Eventually, the importation of lively biological material led to importing of the varroa mite in Sardinia, which in turn led to the disappearance of the local population of free-living colonies (Floris 2000; Floris, Deiana, and Pinna 2017).

Yet, nowadays, some beekeepers from the central regions of Sardinia keep using oak cork hives. While many beekeepers dislike these hives because their design doesn't allow for treating the colonies against varroa and other diseases, the use of oak cork hives in

present-day beekeeping seems sometimes connected to forms of reenactment of the past. The shape of the oak cork hive often appears on labels of Sardinian honey and, more recently, is also used to identify informal groups of beekeepers. Indeed, in choosing the ‘traditional’ hive either as a named group or as an image, as happens for some informal groups, associations, and/or beekeeping holdings, the cork hive represents a symbol for affirming the authenticity of Sardinian beekeeping culture and ‘tradition.’ However, we should be cautious in considering the nowadays uses of oak cork hives merely under the category of ‘invented tradition’ (Hobsbawm and Ranger 1993).

Indeed, despite the hives, in this case, are not functional to an agricultural system of circular type, where each form of production is linked to the other as it used to be in Sardinia (Angioni 1976; 1986), in a way their use can be considered handed-down. It is required specialistic know-how to sew the barks and to create the hives as well as to be able to recognize the ideal barks to turn into a hive. The cork hives circulate a lot among beekeepers, yet, only a few have the knowledge to make them. In many cases, these are ‘upgraded’ versions of old models of oak cork hives that are modified to allow internal inspection and to manage pests and diseases.

By assuming a critical perspective on the reflections aimed at deconstructing the ‘tradition’ (Burke 2008, 98; Testa 2016) in a way, these ‘upgraded’ models of oak cork hives represent a form of ‘continuing creation’ or ‘re-employment’ of ‘traditional’ knowledge. Besides, the act of modifying the oak cork hives seems to suggest a way to adapt an old ‘package’ of know-how and tools to the present-day need for beekeeping.

Economic reasons may move beekeepers to use cork hives instead of polystyrene boxes. The latter may cost between 19- € and 30- € per box, and thus it can severely affect the economic balance of a company. The cork is readily available in the countryside under the condition of *knowing how* to make the hives and following Sardinian laws on harvesting cork barks. As explained above, knowing how to make a cork hive requires specific expertise on how (and when) to collect oak barks and how to work them to build an upright oak cork hive.

The beekeeper Giovanni Murru from Barbagia, for instance, affirms finding the cork hives more practical for catching swarms rather than using the standard swarming box made of polystyrene or light wood.

Giovanni is a beekeeper in his sixties who has practiced the job for roughly forty years in Barbagia. He is also a point of reference for his expertise as he is the only other beekeeper in this area besides Peppe Mereu, a 25 years old beekeeper from Barbagia who

introduced me to Giovanni. We talked about the ‘fathers’ of modern beekeeping in Sardinia and the differences in beekeeping today compared to forty years ago.

When I began to keep bees, I was doing it within the forestry cooperative here in Barbagia. Eventually, the cooperative failed, and I decided to keep having bees all on my own. And so I created my job. But those were other times. Beekeeping today is so different. Thirty years ago, everyone potentially had an oak cork hive at home. Beekeepers would give them as a present to neighbors or friends. Then, maybe these people would have lost their families after a year. Yet, they were living close to the bees, and they were not afraid of them. Now it’s different. There are two steps in approaching beekeeping today: first, bees sting. And people are afraid. Second, the varroa mite. There are 10.000 years of history of beekeeping before the varroa mite and only thirty years after it. You need to know what you are doing, and there is no efficient technical support provided by the network of regional experts and veterinarians. (Giovanni Murru, Barbagia, 28th February 2019).

Together with Peppe, my gatekeeper here in the Barbagia, and Francesco Bachis, who accompanied me on this fieldwork trip, we visited the apiary of Giovanni and his laboratory. Nested in a breathtaking landscape of the Supramonte mountain chain, approximately twenty-five nomadic bee’s boxes bask in the sun. The type of the hives suggests that this is not a fixed apiary and that the beekeeper most likely moves the colonies when the blooming season in this area is over.

There are not so many good places like this one. We are 500 meters a.s.l. Here the bees start to collect nectar from the lowlands, down the hills in front of them. Then, like a punctual clock, on the 25th of April of each year, you see the bees returning from their trips from behind. From here, they move up above the pinks you see there, almost 1000 meters. Here we can produce honey of *Asphodelus* every two years, depending on the rain. We used to produce thyme honey, but the widespread of pasturelands ruined this production. And from time to time, we manage to make also *teucrium marum*, but it needs peculiar weather with late rain. (Giovanni Murru, Barbagia, 28th February 2019).

A few meters away from the hives, a small open building shelters working tools of Giovanni. Here, a bunch of oak cork hives partially completed and in part waiting to be sewed lay on the ground.

For some time, the people [who collect cork barks] did not come. Then, last year these Mamoiadini came, and I asked them to put apart for me the better barks, the most beautiful and regular-shaped. I asked them to take out these barks in their entirety so that I could make the hives. Some of them I did not finish sewing because I did not feel like doing it. But I modified some of them. For instance, here, [I’ve changed the top cover] to enable me to use either a boardman feeder or a bee escape. Also, I could use them to switch from one swarm to another. I’ve selected them the most beautiful ones. I might use them for some exposition. Besides, they are useful for catching swarms because they are very light weighted. (Giovanni Murru, Barbagia, 28th February 2019).

By recreating the old oak cork hives and adjusting their design to new purposes (i.g. the need to handle the varroa mite), Giovanni seems to seek to find a compromise between modern methods of bees' colony management and handed down expertise. Indeed, while knowing how to make the hive represents a part of that know-how that Giovanni probably embodied by practicing 'traditional' beekeeping before the 1970s, the 'invention' of new strategies represents a way to adapt to new circumstances.

Besides the hives, he uses a technique that takes advantage of the swarming attitude of bees to contrast the spread of varroa mites and to facilitate the 'natural' development of an immune system. This technique seems linked to some practices typical of hive management in 'traditional' beekeeping.

Giovanni is not the only 60 years old beekeeper who appears to combine modern beekeeping techniques with 'traditional' local knowledge (Menzi 2006). Either using or not a 'mixed-system' of beekeeping (that is, using both cork hives and movable frame hives) or exclusively keeping the bees on rational hives, the fieldwork showed that a lot of Sardinian beekeepers between 55 and 70 years old nowadays practice beekeeping by combining the local knowledge inherited with different forms of expertise, including scientific, academic knowledge in beekeeping and environmental management.

These aspects will be furtherly investigated within the following pages after describing the Sardinian beekeeping sector nowadays to offer an accurate analysis of the ways of doing beekeeping and its related processes of identity construction in present-day Sardinia.

4.5 The beekeeping sector in contemporary Sardinia.

Sardinia holds 4% of the beehives distributed in the Italian territory, which is roughly 72.998. Regrettably, although the beekeeping sector represents an essential source of additional income for the regional agricultural section — with an average production of honey of about 15.000 quintals per year — there seems to be a lack of clear information about the employment situation in this sector. The NZR reports 2.238 holdings active in Sardinia, 905 of which have commercial purposes⁸⁵. The data elaborated by the Regional Agency for Agriculture Laore offer a cross-section of the local organization of the sector and its complexity. The Laore's referent Pasquale Marrosu in his report presented at the

⁸⁵ Data reports the beekeeping situation as for the 31st December 2021. See: https://www.vetinfo.it/j6_statistiche/#/report-pbi/45 Accessed 08.04.2022.

Stati generali dell'agricoltura in 2018, indicates four subcategories of operators, compared to the two outlined in the EU documents: i) professionals, beekeepers with more than 150 beehives; ii) semi-professionals, beekeepers with less than 150 beehives but more than 30; iii) Part-times, between 10 and 30 beehives; and the so-called iv) hobbyists, beekeepers with up to 10 beehives. This further division of the beekeeping operators in Sardinia may be connected to the Italian definition of the 'professional farmer'.

In the Italian context, the adjective 'professional' attributed to beekeepers with more than 150 beehives is controversial. It is inconsistent with the local understanding of the meaning of the word 'professional.' These changes in each Italian region and can vary from 100 to 1000+ according to local interpretation of the condition of the beekeeping sector.

The Italian law further complicates the matter by defining 'professional' as a beekeeper 'who practices beekeeping as 'professional agricultural entrepreneur' (*imprenditore agricolo professionale*,⁸⁶ also called *LAP*).' This differs from the so-called 'apiarian entrepreneur' (*imprenditore apistico*) defined as 'anyone who practices beekeeping according to the forms provided for by the Civil Code,' that is that practices beekeeping on a family-based system that relies exclusively on agricultural and/or forestry activities. The 'professional agricultural entrepreneur,' instead, can have a regular job in a completely different field as long as at least 50% of their annual income derives from agriculture.

In 2018, according to the estimates based on the data collected on the NZR, the number of professional beekeepers/holdings represented merely 8% of the beekeeping sector in Sardinia. This 8% alone manages 62% of the beehives on the island, that is roughly 42.000 beehives (Marrosu 2018, 10). Together with the semi-professionals, which are 16%, these beekeepers managed around 57.800 beehives out of 66.010 total hives recorded in 2018. In a private conversation, a specialist from a regional agency estimated that in 2016 only one beekeeping holding managed over 3.000 hives alone, two holdings managed about 1.000 hives each, eighteen beekeeping holdings took care of a number between 500 and 1.000 hives each, and two hundred companies conducted between 200 and 500 hives each. Thus, according to these data, most professional beekeepers run companies that handle between 200 and 500 hives. This data is contested by many beekeepers because it is considered unrealistic compared to the conditions of the

⁸⁶ Notwithstanding the English translation for the Italian word 'imprenditore' in the agricultural context is 'farmer,' I use here the English word 'entrepreneur' because this seems more appropriate to highlighting the slightly different meaning between the two figures *imprenditore agricolo principale* and the *imprenditore apistico*.

Sardinian beekeeping sector. I will show why it is not possible here to have more accurate information regarding the number of beehives beekeepers own.

From the ethnographic research, it emerges that commercial beekeepers use both retail selling and large-scale organized distribution to sell their products on the regional, national, and international markets, depending on their networks. It appears that there is a high variety of market chains and that each holding selected its own sales channels and partners through decades of work, creating a sort of long-term-fidelity relationship with its clients. I must point out that a consistent part of professional beekeepers founded their holdings between 1977 and 1988. That is, within this group, we found beekeepers who actively took part in the transition from the form of ‘traditional’ beekeeping of cork hives to the ‘modern’ beekeeping mentioned above.

4.5.1 *Associations and other organizations of beekeepers in Sardinia*

On the island operate two associations and one Organization of Producers (OP). Among the associations operating, *Ortus de is Abis* (Garden of bees in vernacular Sardinian) is the oldest and still very active, flanked by the *Federazione Sarda Apicoltori – FESAR.Api* (Sardinian Federation of Beekeepers) was founded in December 2017 to represent professional beekeepers before policymakers. Finally, the *O.P. Padenti*, created in 2010, represents the single Organization of Producers in Sardinia. Each of these associations has representatives in the current beekeeping commission established in 2021, alongside local spokespersons of the national unions’ sectors.

A third association clusters beekeepers from the central regions of Sardinia and the Ogliastra. According to a newspaper article (Martini 2011), this association was funded in 2011 with the name *Associazione apicoltori sardi* (Association of Sardinian beekeepers) to offer technical support to a ‘traditional sector of the Sardinian culture.’ However, this association seems to have a low impact on the political landscape, and the regional delegates never invite it to take part at their negotiating tables. However, during the research activity, I had the opportunity to meet some members of this association, even without knowing its existence or its role. Giovanni Balloi introduced me to other informal groups of mutual support organized by the beekeepers in Ogliastra and the Barbagia based on an informal network of beekeepers that operate within those areas that have recently created their association. According to their members, these groups were created to fulfill the lack of expertise that characterizes the regional delegates of those regions

and provide technical, theoretical, and practical support to better face beekeeping challenges. Finally, these groups tend to be less present on the social network Facebook and instead prefer using Telegram to share technical knowledge and support each other.

In what follows, I dwell upon the gender division in contemporary beekeeping in Sardinia.

4.5.2 *Gender division in beekeeping in Sardinia*

Except for some cases, most professional beekeepers are males between 45 and 60 years old that manage their holdings in individual form rather than associate (Marrosu 2018, 17, 18). Women officially represent 27,4% of the Sardinian beekeeping sector. They are often involved in managing the holdings, but mainly they engage in specific activities.

From the ethnographic research emerges a neat gender division in the management of beekeeping holdings, likewise the Sardinian agricultural world of the ‘traditional’ type described by the anthropologist Maria Gabriella Da Re (Da Re 1990, 47–61). The gender separation reflects on the division of the spaces: man=apiaries vs. woman=laboratory. That is, men are in charge of the open field while women take care of the intimate space of the laboratory.

Sardinian male beekeepers tend to believe that beekeeping is a tough job and physically demanding for women. This belief is by no mean a peculiar notion of beekeeping in Sardinia. In the WWII aftermath, several articles in the *American Bee Journal* promoted the engagement of women in the queen-rearing industry, claiming that the ‘natural gentle attitude’ of women made them suitable for this job (Horn 2006). In Italy, women often report that although they are beekeepers, customers tend to address their male partners because they are believed to be entrepreneurs.

In Sardinia, the representation of gender roles leads many women to take on subaltern positions compared to their male counterparts. The women that engage in beekeeping often have a kinship relationship with the beekeeper ‘entrepreneur’: They can be the wives, sisters, and daughters of the so-called ‘real’ beekeeper. In these cases, their role in the holdings is confined to the highly specialized works that require a strong intellectual engagement but that are less physically demanding. Women are considered the best for jobs in which patience and kindness are fundamental requirements. The ‘jobs for women are linked to the internal space of the laboratories of honey, where women oversee the

cleaning and tidying of the rooms according to the HCCP⁸⁷'s law. Further, particularly in those contexts that involve the generation of beekeepers between 60 and 80 years old, women tend to take care of the sales compartment, including fiscal aspects and the client's management. 'Women cannot do beekeeping because they can't lift the suppers filled with honey because they are too heavy for them! Women need help; no woman can do that by herself' said a beekeeper a second before realised he was surrounded by women: his wife, his daughter, and myself. Particularly, his wife glanced at him with the same irritated look I have seen in the eyes of Rachele Mannu, *wife of* Germano Olla, both beekeepers from Upper Campidano. During our conversation, Germano stated that

It is difficult to find a woman that manages all alone. Usually, behind a woman, there is always a brother, a boyfriend, and a husband. Rarely do you find a woman beekeeper that does all the jobs by herself: That does nomadic beekeeping, that takes out the honey suppers, that harvests, that does all the different activities of beekeeping by herself. Women in beekeeping are generally very good in certain phases of production or on specific product segments. They are excellent in queen rearing because of their gentle touch and producing royal jelly. They are also good at inspecting the hives, but in some cases, it is too heavy to hold suppers that weigh 25 kilograms each; if you take out a hundred or hundred fifty in a single apiary, then it's too hard. Thus, there are no women in professional beekeeping. [...] some women work with more than 150 hives, but they are always helped by their husband or boyfriend, and so on. (Germano Olla, Upper Campidano, 9th August 2019).

Germano and Rachele learned beekeeping by attending a regional course. With time, they acquired knowledge and know-how to become teachers in the courses organized by their beekeeping association.

The gender division of labor in beekeeping in Sardinia seems linked to the gender representation in the rural areas (Da Re 1990). The representation of women's role in beekeeping in Sardinia is defined by the concept that 'men manage the assistants that help them, and women are *assisted* by their helpers.' This assumption is prevalent in Sardinian beekeeping. For instance, in the case of Germano, Rachele seems to agree with her husband without even realizing that a second later, she admits to helping her husband to do the same job she allegedly cannot perform herself. Women beekeepers in Sardinia seem to accept a subaltern position to their male counterparts without showing any tension, at least in public. This is a construction of the gender relationship. A few male beekeepers do the job all by themselves, and the use of helpers is often necessary. Generally, professional and semi-professional beekeepers rely on the labor of helpers —

⁸⁷ The Hazard Analysis Critical Control Point (HCCP) is a system to identify and control food safety hazards.

may they be seasonal or regular. However, in the case of women beekeepers, even when they appear to possess the same expertise as their husbands/brothers/fathers, the use of (male) workers for managing the beehives would show the necessity to seek help due to the alleged impossibility of doing it by herself. For this reason, male beekeepers fail to consider the woman beekeepers ‘professional’, even when they run holdings with more than 150 beehives.

For their part, professional woman beekeepers seem to prefer not to take part in the quarrels that carry away the temper of their male counterparts. During public events or online debates, the female presence is characterized by a profound silence: it seems that women listen and observe, but they never speak. The public arena in which beekeepers face the policymakers and other experts is often hegemonized by men that show off their braggadocio to strengthen their public role. An excellent example in this regard is the composition of the current beekeeping commission: out of twelve members, only one is a woman (Assessorato Agricoltura 2021). During public events, men — either beekeepers or regional technicians — scrutinize each speech or question posed by a woman doubting their expertise, and it is not rare to hear the murmuring of male voices mocking women’s words.

Betti Fancellu explained that ‘[women] don’t like to take part in these events because of the attitude of men that leads to conflicts between people. They don’t talk about beekeeping; they fight on beekeeping!’. She is a professional woman beekeeper from the Linas who runs roughly 500 beehives.

In male-based beekeeping holdings, female labor is appreciated at the laboratories but not at the apiaries. In contrast, women professional beekeepers appear to prefer hiring female workers to help run their beekeeping holdings. Hence, the swashbuckling attitude of men seems to lead some women select females to help them with the work in the colonies.

The physical work required in the apiaries and the laboratories is the same. The tensions raised within conflicting relationships can become dangerous in managing the colonies of bees. This is true in both cases: bees can become aggressive if the beekeepers act chaotically. Also, men seek trustful people with whom they can have a peaceful relationship. Men attribute value to strength and resistance to physical work. In contrast, women emphasize the collaborative attitude and rapidity of the job for hiring their helpers. Along with the beekeeping holdings, women often must manage their families and households. Thus, women need a somewhat different organization of family time

and work time than men. Maria interpreted the tensions between father and daughter beekeepers from a gender perspective:

They fight because he doesn't understand that after the bees, Gianna has to look after her children and husband. He can't know that because I always did it. It is not because she is not enough into the bees, but she has to make sure her children have lunch, that they do their homework, and that she has to bring them to Sunday school classes and sports classes. Her husband helps her, of course, but he also needs help because he cannot do everything at home. Besides, her husband is not a beekeeper; he doesn't know anything about bees; thus, he cannot understand the job and the endeavor she is put through. So, Giancarlo [her father] complains to her because she is not doing things in his way (which is not true), and she reacts with her impetuous temper. And they fight, they fight very severely.

In women's narrative, household management seems to represent the major problem that reflects on the ways of running the entire beekeeping business. Women appear to create forms of mutual help, seeking to build a network of collaboration and avoid any form of braggadocio on the amount of honey produced to prevent possible conflicts. The gender division seems to reflect the ways of managing the business. The gender issue seems to influence the selection of the locations for the apiaries. Beekeeping does not require possessing many hectares of land because beekeepers can ask other landowners to let them put the apiaries on their fields. In this case, the selection of the 'good place' for putting the beehives depends as much on the forage availability as on the type of relationship between the beekeeper with the landowner and with the neighboring landowners. Thus, the choice of where to locate an apiary relies on the network of relationships that the beekeeper intertwines with the people that work in the countryside. In many cases, these relationships are male based, as the male presence in the fields is dominant. Women beekeepers seem to prefer to locate their apiaries on fields owned by the family group they belong. They also let husbands or fathers handle this matter. Betti admitted that since her father died, she struggled to find a good location for her apiaries as this was an aspect that his father took care of.

He knew where to look and what to seek. He had relationships with the people here; he knew them, so he was always looking for a good location for the bees. He could talk to the people and landowners, and I would put the bees there. Now that he's dead, it is difficult for me to do the same. Thus, I try to keep them on the family's lands. (Betti Fancellu, Linas, 19th July 2019).

Another aspect differentiating women in beekeeping is their engagement in producing a wide range of goods such as beeswax candles, basic cosmetics, pollen, jams, and other honey-based products. Men seem less interested in these products, and thus it is less common to find them in medium-small beekeeping holdings run by men. This aspect is

used as a marker of gender diversity in constructing the female role in beekeeping in contrast to the male role. In the narrative of gender division in beekeeping, a men beekeeper that produces pollen and beeswax is a man capable of differentiating his production to earn more profits. On the contrary, a woman that makes different goods out of beekeeping is ‘dedicated to these kinds of *little something*.’

Despite men’s underestimated representation of female labor in beekeeping, there are a few exceptions that have been participated in this ethnography. Betti Fancellu, Gianna Bono, and Maria Aresu are professional beekeepers who run their businesses independently. Nevertheless, Barbara and Gianna (who are also the youngest) carry on the activity founded by their fathers in two different areas of Sardinia. The 80+ years old beekeeper, Maria Aresu began her job between the 1960s and 1970s. She actively took part in the process of ‘modernization’ of beekeeping in Sardinia. Alongside two other female beekeepers from lower Campidano and Marmilla, respectively Giustina Pili and Verina Olla, Maria belonged to the mere 12% of Sardinian beekeepers who used movable frames hives in 1977 (Prota and Floris 1983, 252). Maria manages roughly 800 beehives. Given that most professional beekeepers in Sardinia tend between 150 and 400 colonies, and only a few have more than 1.000 colonies, her company represents one of the most significant Sardinian beekeeping holdings in terms of colonies owned. In her autobiography book, Maria tells the development of her company as well as offers a small piece of the story of beekeeping in Sardinia (Aresu 2020).

Women’s presence is more widespread within the category of part-time/hobbyist beekeepers. In this category, it is possible to find many workers that practice beekeeping either for amusement or to provide supplementary income.

The tendency of women beekeepers to refuse to participate in public conflicts is the main reason that women are less represented in this ethnography of beekeeping in Sardinia. Indeed, as the conflicting relationship between the policies and policymakers is pivotal, their absence in the public sphere reflects in this dissertation.

4.5.3 *Mistrustful relationships: Part-time, hobbyists, and ‘illegal’ beekeepers in Sardinia*

The community of Sardinian beekeepers is composed of a wide variety of people that keep bees for different reasons. Along with professional beekeepers who work with bees for a living, other people keep bees to integrate their annual income. Within the ‘part-time’ and ‘hobbyists’ beekeepers, there are regional employees, managers, retired,

unemployed workers of the food court, farmers, agricultural entrepreneurs, seasonal workers in the tourism business, and many other activities. In this group, beekeepers of both sexes are younger than many commercial beekeepers. Finally, there are also people that keep bees simply for amusement.

The gender division described for professional beekeepers in the group of hobbyists beekeepers takes on its peculiar way. Women who practice beekeeping as a hobby often use this activity to provide additional household income. In contrast, the men seem to use this small-scale beekeeping as the first step in the process aimed at building a more significant business. Hobbyists and part-time beekeepers form part of the macro-category of non-commercial beekeepers. Nevertheless, commonly the beekeepers that belong to these subcategories sell the honey they produce. This is possible due to a law that eases the activity of hobbyist beekeepers on the condition of remaining under a certain gross fiscal income amount which is determined on a regional base. This fact contributes to rising tensions between beekeepers for the honey market and the management of the apiaries. Semi-professional and professional beekeepers appear to blame ‘hobbyists’ for selling honey at lower prices taking advantage of the fiscal advantages they benefit from. They also blame hobbyists for jeopardizing their business by putting their hives close to their apiaries. This latter aspect, may reduce the availability of forage for the honeybees due to a higher presence of pollinators in a certain area (see Fishman and Hadany 2010). It may also represent a risk from a health point of view. The bad relationship between hobbyists and commercial beekeepers is not peculiar to Sardinia. Rather, distrusts and resentments toward hobbyists are common sentiments among professional beekeepers in Italy. An official document made by *Coldiretti*⁸⁸ informs the Agricultural and Agri-food production Commission on the state of ‘amateur beekeeping’ in Italy. The document appears to blame a lack of clear definition of the differences between hobbyist beekeepers with commercial purposes and professional beekeepers and claims for reducing the fiscal benefits granted to hobbyists (Coldiretti 2017).

In Sardinia, professional beekeepers appear to believe that hobbyists don’t possess either enough knowledge and ability nor ‘true interest’ for dealing with pests and diseases. Their apiaries are considered dangerous ‘bacteriological bombs’ ready to infect and kill their healthy and well-cared colonies. Professional and semi-professional beekeepers believe that because ‘hobbyists’ don’t keep bees for a living, they can afford higher risks of losing their bees due to their lack of experience and expertise.

⁸⁸ *Coldiretti* is one of most representative association of agriculture in Italy.

From an analytical perspective, hobbyists represent a possible further threat for professional beekeepers because their alleged lack of ‘professional capital’ does not imply that they are not able to acquire beekeeping expertise by the long process of learning from their own mistakes and stealing with their eyes from experienced beekeepers. This leads professional beekeepers to scrutinize their potential helpers, and to use a body language and ‘silence code’ to avoid novices to ‘steal’ their secrets. The conflicting relationship between professional beekeepers and hobbyists presents similarities with the artisans and apprentices relationship described by Michael Herzfeld in his study in Crete (Herzfeld 2004).

One compelling aspect of the community⁸⁹ of beekeepers in Sardinia is the mistrustful tendency not to tell the truth regarding the number of beehives one owns and their locations. As pointed out by an informant, ‘beekeepers always lie on the numbers of beehives, and you shouldn’t ask how many beehives people have!’ This question is considered inappropriate, especially when the person who poses it doesn’t share enough intimacy with the other. To ask one how many beehives they own is to break the unspoken rule of silence by showing too much curiosity about one’s businesses. The secretiveness is spoiled by the data included in the National Zootenic Registry. However, the information is available only to people acquainted with the system, and this provides a possibility to maintain a certain degree of privacy.

Sharing the number of beehives with an ‘unknown’ may convince the interlocutor to possess a ‘fortune,’ a sort of ‘unjustified’ wealth for owning a lot of healthy colonies. Because the ‘unknown’ interlocutor is such as they have not (yet) shown to deserve to be trusted, to answer truthfully to this question may expose the beekeeper to beehives’ theft from their apiaries. The Sardinian common sense believes that *furat su de in dommu e totu*, that is, only a person of trust close to you can steal from you because they *know* your secrets. Interestingly this contrasts with the other belief that forms part of the Sardinian common sense *furat chi benit dae su mare*, in which the theft is the person that comes from the sea, the *other* than ‘me’ coming from outside the island, in the case of beehives’ theft a thief is a person *like* ‘me.’ Stealing the beehives requires a certain degree of competence in knowing how to close the beehives, when is the right moment for doing so, the ability to do everything as fast as possible, and profound knowledge of the territory, including

⁸⁹ I use here the term ‘community’ to refer to an uneven group of people who nevertheless are united together by the practice of beekeeping through sharing knowledge and market strategies for selling honey and apicultural products.

the type of people that regularly go there and the time shifts of the forest rangers. Undoubtedly when the thief possesses the competencies for stealing the hives, they must be a beekeeper. Further, the person who helps the thief to steal must be local, a 'person of trust' that can provide knowledge on the location of the apiaries and of the people to avoid. The system of hive stealing may be compared to animal thefts in other livestock contexts. Anthropologist Benedetto Caltagirone has shown that animal theft in Sardinia triggered a series of processes of circulation that contributed to strengthening the already existing kinship relationships or creating new ones (Caltagirone 1989). Likewise, the theft of beehives activates a network of relationships that help to define the people of trust in the community of beekeepers and the network of landowners. Thus, the secretiveness in providing the number of beehives also serves to evaluate the people to trust, those who know when to talk and that have learned to keep silent.

Animal theft is not the only reason that urges the secretiveness of beekeepers. Another 'external' factor contributes to mistrust in beekeepers. Beekeepers tend to considerably underestimate the number of beehives they possess to avoid urging interest in their holdings from veterinary or forestry rangers. Although declaring to possess 150 beehives facilitates access to EU funds through specific measures of the Italian NAP, staying under that threshold ensures avoiding the frequent hygienic-health inspections reserved for professional beekeepers.

Beekeepers consider the inspections of health officers of the vet department a nuisance and try to find ways to dodge their presence. Beekeepers describe these strategies to avoid official controls as necessary forms of resistance to escape from the EU's attempt to impose its rules through the willing and too eager local political class. It is not the presence of the vet to annoy beekeepers but rather its implications in terms of regularizing the beehives. By hiding and often not registering a fair number of beehives in the National Register, beekeepers try to keep a certain degree of autonomy in managing the beehives in their ways. The attempt to maintain freedom from the domination of an 'unfair government' by activating strategies of resistance is particularly evident in the relationship that regular beekeepers entertain with so-called black beekeepers. Indeed, in addition to the legal forms of beekeeping outlined above, a significant number of operators 'informally' (or illegally, to be more precise) manage a considerable number of hives that are officially not recorded. This lawlessness component seems to connect to an informal system of relationships and patronages between beekeepers, associations, and regional employees. They seem only partially to fight the 'illegal' beekeepers.

The representation of the conflicting relationship between beekeepers and the State roots in a precise collective imagination that depicts Sardinians as the brave man that took the hills and became outlaws for resisting the domination of the Piedmontese State. This view is widespread in the common sense of Sardinians. It functions as a regulator for some illegal activities that, in this way, become socially and morally tolerable, contributing to creating forms of solidarity. Although by inserting in the honey market an important amount of their not recorded production, these 'illegal' beekeepers trigger instability in the market prices, their presence is more than simply tolerated. It is justified by the inappropriateness of state laws and the lack of expertise of its officers. Hence, by blaming the unfairness of the government legislation, beekeepers absolve themselves of the social responsibility of breaking the law. The moral implications of this behavior are denied by ideally tracing a link to the alleged natural-cultural attitude of Sardinian banditry practices. In many cases, the 'black beekeepers' sell their honey to professional beekeepers, which need to keep stable the offer to their clients' market, especially when the honey production decreases due to climate reasons or other 'natural' disasters. Thus, the 'black beekeepers' represent a sort of resource that ensures to supply of honey during adverse seasons.

The relationships between officials and 'black' beekeepers are not always peaceful. Tensions are relatively common, particularly during adverse seasons. The contradiction links with the competitiveness of beekeepers for natural resources and forage availability. Aside from the problems connected to the health issues of bee colonies, the conflicts between beekeepers to grab the 'good places' are tough, and they may often take on violent shades. Indeed, in general, the apiary emplacements are 'good' (that is, productive) only during specific periods of the year, and it happens that beekeepers need to move the beehives according to the blooming seasons. In practice, assuming that a beekeeper wants to produce honey from asphodels (*Asphodelus microcarpus*), their resident apiaries are located near a forest of eucalyptus trees. Asphodel is a common plant in the Mediterranean areas that grow on fields subjected to intensive pastoral activities that thus benefit from 'human' disturbance. In Sardinia, this plant blossoms between February and May and produces delicate light-colored honey warmly appreciated by consumers. Thus, because the blooming season of the eucalyptus trees starts in July, the beekeeper should temporally move their beehives to asphodels fields and move the colonies back again to the resident location before the blooming season of the eucalyptus starts. In many cases, professional beekeepers tend to keep these 'seasonal' emplacements through the years to

avoid every time to seek of new places (and landowners). The problem arises when other beekeepers come to the same area to produce different qualities of honey. Suddenly, an apiary emplacement that used to provide forage for a limited number of pollinators is exploited by a population of insects three-four times bigger than before. The overpopulation of pollinators may have adverse effects on honey production in those areas where adverse climate conditions have reduced the nectar potential of the plants (Fishman and Hadany 2015; Nepi, Grasso, and Mancuso 2018).

In some cases, the conflicts over the apiary emplacements may lead to proper open conflicts between beekeepers. On the most violent occasions, the apiaries are destroyed by fire, or the work of beehive thieves is facilitated. In other instances, beekeepers use 'legal forms' like a formal complaint to the authorities for the unrecorded existence of beehives to contrast the presence of 'black beekeepers' in the territory.

The words of Giovanni Balloi neatly explain the ambiguous position toward 'black beekeepers':

This is a cultural issue and also a matter of survival. The fear of being robbed by the State is higher than the fear of a possible inspection. This is not exclusive to beekeeping; it happens with pigs. It is over with sheep due to the [establishment of] animal welfare and the funds linked to it. (Giovanni Balloi, Marghine, 21st April 2020).

Giovanni Balloi is a beekeeper in his mid-30s who used to work in the tertiary sector providing administrative assistance to people that work in agriculture and animal husbandry. He learned to keep bees from his grandfather, although both of his grandmothers used to be expert beekeepers. Giovanni is also an active member of one of the beekeeping associations in Sardinia. He is acquainted with the various problems of his fellow members. Within our long conversations, mainly through Facebook's messenger app and Whatsapp, he walked me through the intricate dynamics and tension surrounding the relationship between beekeepers, policies, and their makers.

The only thing that emerges [from the data collected by the regional departments] is that most companies have a low number of hives to manage. Only a few of us have more than 150 hives, and in Region⁹⁰, they are aware of it. Look at how they lowered the requirements for accessing the findings provided by law 19. With the former parameter, only 9 people had the requirements. That is, they spent 1/3 of the funds for 9 companies. 8% of beekeepers hold hostage the entire beekeeping sector, and they put pressure on the Region to fund only medium/large scale beekeeping. Do you think

⁹⁰ The 'Region' is the common word used to refer to the administrative machine of the Autonomous Region of Sardinia.

small-scale beekeepers are represented before the Region? Do you think that in case they will define the beekeeping commission, small-scale beekeepers will be represented? If you don't fund them, how they will develop their business? We have discussed several times this problem in the Association. Unfortunately, small-scale beekeepers don't have class consciousness. They are inhibited by big beekeepers. We were trying to do something in this regard, but the Covid-19 pandemic changed it all. (Giovanni Balloi, Marghine, 21st April 2020).

Giovanni offers a neat image of the struggles of hobbyists and small-scale beekeepers, in contrast to medium-large scale beekeepers who own more than 150 hives. However, rather than being generated within the community of Sardinian beekeepers, tensions seem to rise in the management of economic resources foresaw by the EU and distributed by the regional departments. In this description, the 'State' takes on the role of the oppressor that, through taxes and norms, plunders beekeepers of their wealth and independence. Giovanni's considerations of the conflicts between beekeepers and administrative machines are based on an inside perspective due to his job. Other beekeepers justify the need for 'alternative' forms of resistance to the unruly and unfair state, claiming that the lack of equal management produces tensions.

This brief introduction to Sardinia's beekeeping sector helped to outline the ethnographic inquiry's socio-political context. The lack of homogeneity in the characteristics and lifestyles of the operators that engage with beekeeping in Sardinia mirrors the associative practices of beekeepers. The description of the gender relationship offers insight into the internal dynamics that characterize the construction of the networks of relationships between beekeepers, also on the level of the beekeeping associations.

In the following chapter, I analyze how the Sardinian associations of beekeepers use identity for their claims before the policymakers.

5. The Sardinian identity and the beekeeping associations

The beekeeping associations variously engage with the issue of the Sardinian identity. It is worth dwelling upon the public representation of the Sardinian identity conveyed and produced by the Sardinian beekeeping associations.

Different representations, more or less similar to the hegemonic visions explored in chapter one, characterize the popular representations of beekeeping associations in Sardinia. On the public level, beekeepers appear to self-identify as ‘keepers’ of the ancient island and ‘heirs’ of ancient traditions. These representations connect to the vision of Sardinia as an unspoiled ‘neverland.’ Often with little or any conflict, these popular forms coexist with more intimate notions of the relationship between humans, bees, and the environment (Cfr. 216).

Starting from the names of the associations, it is possible to explore a wide range of ‘suggestive images’ of Sardinianness from the perspective of beekeeping. Public speeches and other activities add relevant pieces of information to the ethnographic inquiry. In many instances, these particular forms of self-identification clearly aim to seek specific niches in the honey market. Yet, a deeper look at how associations perform their self-representations suggests a connection between different understandings of the Sardinian identity and diverging notions of the environment and beekeeping.

As mentioned (Cfr. 137), three associations of beekeepers and one Organization of Producers (OP) regularly operate in the public sphere. A fourth association called *Casiddos*⁹¹ was founded in March 2022 to gather beekeepers, mostly from the center-north areas of Sardinia. The name refers to the ancient hives used in ‘traditional’ beekeeping. The members of *Casiddos* aim to promote the knowledge of beekeeping in schools and during festivals. Hence, they created a ‘mobile museum’ with various objects from the beekeeping material culture of the past and the present day to help in this endeavor. Similarly, to the others that will be presented later in this chapter, *Casiddos* appears to seek to define the role of ‘the beekeeper’ as a component of the Sardinian landscape, like the shepherd.

⁹¹ All the names reported here are anonymized.

Finally, there is the *Associazione apicoltori sardi* (Association of Sardinian beekeepers) which, however, does not appear to operate in the public sphere. Thus, this association won't be considered in this analysis.

5.1 The Association of beekeepers *Ortus de is abis*

The association *Ortus de is abis* is undoubtedly the oldest that is currently active. Founded in the 1980s, nowadays is the most active in terms of political engagement. It regularly organizes training workshops, refresher courses for its members, and cultural events open to the large public. Every occasion represents an opportunity for the spokespersons of *Ortus de is abis* to promote and convey their notion of the Sardinian identity.

To begin with, the name itself aims to create a symbolic connection to Medieval times. Particularly to the Judgdom of Eleonora d'Arborea and the distinctive role of beekeepers during that era. For a long time, the era of the Judges was considered the golden age of Sardinia's independence and the age of the heroes of the Sardinian nation (Paulis 2004, 8). The primary administrative documents written during the Judgesdoms between the 11th and the 15th Century in Sardinia, the *Carta de logu*⁹² and the *Condaghes*⁹³ (see Merci 2001; Viridis 2003), refer to beekeepers. Both sets of official documents, written in vernacular Sardinian, contain pieces of information that define beekeepers' roles in the socio-economical context of that time. The *Carta de logu* establishes the penalties for the hives' theft in the *Hortus de abis* (bees gardens). In addition, the *Carta* states the rights of the gardens of bees according to whom they belonged, whether they were the property of the Church, private properties, or they belonged to the Kingdom (Casula 1995, 67).

The *Condaghes* (particularly the *Condaghe* of Saint Mary from Bonarcado) refers to the *Hortus de abis* as established apiaries. Naming the beekeeper *apiaresu* suggests that beekeeping was a distinct activity from other forms of animal husbandry (Viridis 2003, 176,177).

Far from being an unwitting inspiration, the members decided to call themselves *Ortus de is abis* with the precise intention of tracing an ideal connection between present-day beekeepers and beekeeping from a specific past. The founders made this connection even

⁹² The *Carta de Logu* is law code presumably issued during the Eleonora d'Arborea's Judges Dom (see Casula 1995).

⁹³ The *Condaghes* are administrative documents referred to churches' estates.

more explicit by choosing their logo. Thirteen bees surrounding an uprooted tree form the logo of *Ortus de is abis* evoke the emblem of Arborea's Judgdom. In the 14th Century, the uprooted tree became the crest of the Sardinian kingdom (Fois 1990; Sedda 2007). The thirteen bees symbolized the thirteen *curatorie* that composed the Judgdom of Arborea.

According to the president of *Ortus*, the logo resulted from an attentive 'historical research' aimed at finding 'the roots of beekeeping in Sardinia.' He affirmed that they looked into the first written documents that mention beekeepers because 'people that don't know their own roots cannot build their future.'

The choice of *Ortus* reflects a precise political claim of independency for Sardinians connected to a notion of the Sardinian identity. The linguistic Giulio Paulis, in his introduction to *Sentitu de libertade*⁹⁴ affirms that 'Elionora [was considered] the lady Judge of Arborea who gave to Sardinians the *Carta de Logu* and protected with weapons the freedom of Sardinia against the enemy that came from outside, the Aragon⁹⁵.' The symbolic figure of Eleonora d'Arborea nurtured and still nurtures the claims for otherness and alterity in the cultural memory of Sardinians (Angioni and Da Re 2005). The reference to the Judgdom age can be considered a form of construction of the national identity based on a selection of the past to claim otherness and/or uniqueness (Assmann 2005; Hobsbawm and Ranger 1993). The strategy of *Ortus* is coherent with the ongoing process of identity construction in Sardinia between the 1800s and 1900s (Paulis 2004; T. Cossu 2007).

A further level of analysis adds to this interpretation. The link to the specific chapter of the *Carta de Logu* and the reference to the 'highly specialized operators' seems connected to the attempt to define the category of beekeepers as distinct from other agro-pastoral activities in the present. The era of Eleonora d'Arborea does not merely represent the 'golden age' of autonomy and independence. Instead, for the beekeepers of *Ortus de is abis*, it embodies a time in which beekeepers were considered specialists in bees. In contrast, according to beekeepers' view, the contemporary time which beekeeping seems to take on a subaltern role compared to shepherding and agriculture. The conflicts between beekeeping and shepherding are played on the level of policies and power and

⁹⁴ This is a collection of articles from the journals *Nazione sarda* and *Sartigna antiga* written by the archaeologist Giovanni Lilliu between 1970s and 1980s.

⁹⁵ My translation from the original in Sardinian: [...] Elionora, sa giughissa de Arborea chi deit a sos Sardos sa *Carta de Logu* e defenseit cun sas armas sa libbertade de sa Sardigna contras a s'inimigu de foras, a sos Aragonesos (Paulis 2004, 8)

involve the Sardinian identity. Beekeepers commonly stress how the pastoral sector is better represented before the policymakers. They also claim that vets and regional technicians are often trained to work with mammals. Instead, they lack knowledge of insects. This nurtures the tensions between policymakers and beekeepers, who believe that the former is incapable of acknowledging beekeeping peculiarities.

Sardinian beekeepers tend to complain about the ‘evident’ lack of knowledge of non-beekeepers specialists that should instead provide technical support. For instance, during a conversation with Peppe Mereu and Giovanni Murru, the young beekeeper argued that in his area, vets provide better support to shepherding. Instead, ‘they know nothing about beekeeping.’ Sheep shepherding seems to monopolize the attention of policymakers, who appear to consider this activity vital for the agro-pastoral sector. In common sense, sheep-shepherds are considered the heirs of a millennial tradition (Bandinu 2006). Social scientists Filippo M. Zerilli and Marco Pitzalis have pointed out that

The idea that pastoralism is a century-old culture to safeguard represents a dominant rhetoric that often returns (sometimes unwittingly) in the discourses of intellectuals and the shepherds themselves. Additionally, this rhetoric appears in the classifying dynamics of supranational institutions such as the Unesco (Zerilli and Pitzalis 2015, 104).

Sheep-shepherds embed the quintessential of the Sardinianess (see Angioni et al. 2007). In the meantime, they also represent backwardness and resistance to colonization and development. Sheep-shepherds symbolize the human connection to ‘nature’ and the ‘typical’ *balentia* of ‘real’ Sardinians (Sorge 2015; Pitzalis and Zerilli 2013). Shepherding takes on a crucial role in the policies for environmental and agricultural management. Their centrality in the discourses about environmental and agricultural management is twofold. First, because they represent the tradition of Sardinianess, they contribute to the authenticity of the Sardinian landscape. Because of this, they belong to the territory. Second, economic reasons make shepherds the main actors of the public debate and common sense. The economic monopoly around the *pecorino romano* (Meloni and Farinella 2015) is a fundamental source of income in the agricultural sector of the island.

In this context, *Ortus*’ claims appear more transparent. Historically, sheep farming represented one of the shepherding activities along with cattle, goat, and pig breeding (Ortu 1982; Mientjes and Annis 2008; Meloni and Farinella 2015). The association of sheep shepherding with the Sardinian identity is a recent construction. The business of the *pecorino romano* (see Meloni and Farinella 2015) led to the development of the monoculture of sheep farming in Sardinia. The so-called millennium tradition is a

construction of the present. Beekeepers and shepherds are struggling to resist the processes of standardization and objectification imposed through the national and EU development projects (Pitzalis and Zerilli 2013; Zerilli and Pitzalis 2015). Filippo M. Zerilli and Marco Pitzalis explored the claims of the *Movimento pastori sardi* (Pitzalis and Zerilli 2013, 389). They highlight that shepherds that belong to this group demand to be acknowledged as ‘keepers’ of the territory (Pitzalis and Zerilli 2013, 388; Pitzalis and Zerilli 2013).

Yet, beekeepers appear not to acknowledge that the community of Sardinian shepherds seems afflicted by similar problems that affect the beekeeping sector. Instead, they seem to consider that sheep-shepherds are wealthier and possess a more powerful voice before the policymakers. The members of *Ortus* use historical sources to claim that beekeeping has a long-certified tradition compared to sheep shepherding. They connect their professional identity to the ‘great ancestors’ described in the *Carta* and the *Condaghe*. Interestingly, they never deny the alleged century-old culture of shepherds in Sardinia. Rather, they want to add the beekeeper to this construction. The efforts in tracing a ‘historical heritage’ of beekeepers mirror the various conferences, books, and other cultural projects that form part of the ordinary activity of the association.

A multispecies approach adds another layer of analysis to this interpretation’s frame. Alongside a concept of resistance linked to the activism of *Ortus*, the association appears to convey a notion of the Sardinian identity that conceives the relationship between bees and beekeepers as a long-lasting relationship that roots in the very land where they work. I call this relationship the Human-Bee-Environment relationship (henceforth HBE relationship). In the HBE relationship, the sense of belonging to the territory is based on the perception of an *endless* ongoing co-creation process between bees, humans, and the vegetal and animal species interacting with them. From this perspective, the link to the age of the Judges is not merely an attempt to create great ancestors. Instead, it is a way to find historical evidence of this long process of co-creation and co-habitation that characterizes the HBE relationship. In contrast to the hegemonic representation of Sardinia as an ‘endless island,’ the endless co-work of bees and humans in the environment foresees movement, which is a continuous and ongoing process.

Under this viewpoint, the claims for the management of the environment and the support of beekeeping before the policymakers take on another meaning. The beekeepers from *Ortus* are asking to be acknowledged as a component of the Sardinian identity along with sheep-shepherds. *Ortus*’ members explicitly claim their right to be considered

primary contributors to the agricultural sector, although they provide a 'low economic impact' to the island.

Members of *Ortus* work simultaneously to build class awareness among the community of beekeepers and to claim a precise role before the policymakers. *Ortus* provides expert technical support to its members, and it engages in several cultural activities that aim to disseminate beekeeping culture among beekeepers and non. The technical conferences and workshops they organize are supposed to fill the alleged lack of expertise of the regional specialists. Like other professional beekeepers, Giuseppe complains about a lack of expertise among the regional non-beekeepers-specialists that manage the beekeeping sector, including vets. He argues that rather than promoting the development of professional techniques and companies, the regional agencies only offer essential support and a rudimentary level of expertise. 'When a farmer has a problem, he contacts the agronomist; a shepherd calls the vet. When a beekeeper has a problem, he must cope with it.' This situation urged the association to seek experts from Italy and Europe willing to share their experiences in beekeeping and provide their highly specialized knowledge that is lacking in the non-beekeepers-specialists of regional institutions. *Ortus* is the only association in Sardinia that regularly offers introductory courses for novices.

They are different from the courses offered by the Region. Those courses lack a realistic viewpoint; they encourage people to approach this job without warning them about the problems and difficulties in producing. Doing beekeeping is not a bed of roses, especially now with this unstable weather! (Giuseppe Serra, Upper Campidano, 27th July 2018)

Recently, during the first days of the course, the *Ortus*' trainer Germano Olla reads to the neophytes a piece I wrote for my blog⁹⁶ because 'it says the truth about beekeeping that regional technicians want to hide.' The difficulties and challenges described in the blog's article appear more consistent with the reality of beekeepers' struggles. Conversely, beekeepers blame the regional courses for encouraging neophytes to approach beekeeping without warning them of the actual adversities and the side aspects of the job.

From an analytical perspective, the workshops of *Ortus*, as well as their engagement in the cultural landscape of Sardinia, can be read as a form of resistance to the increasingly

⁹⁶ The article *Apicoltura nonostante tutto* offers a description of the meaning of beekeeping against the problems from a self-perspective using a disseminative style. See <https://www.fareapicoltura.net/post/apicoltura-nonostante-tutto>

more pervasive processes of control and standardization activated by the EU policies. This resistance is not specific to the beekeeping sector in Sardinia. Drawing from Jan Douwe van der Ploeg's analysis of the contemporary new peasantries (Ploeg 2008), Zerilli and Pitzalis argue that the Sardinian agro-pastoral holdings are currently undergoing the tensions generated by processes of 'repeasantization,' 'de-peasantization,' and deactivation to which singulars and associations respond in various ways (Marco Pitzalis and Filippo M. Zerilli 2013; Zerilli and Pitzalis 2015). The activist attitude of *Ortus* and its members is well inserted in this analysis. I argue that it is not by coincidence that Giuseppe appears in the movie *Ab Origine (Biofilm)* by visual anthropologist Ignazio Figus (2015). The movie investigates the attempts of a group of activists that seek to find a different way of living based on the notion of 'coming back to nature to resist contemporary globalization. Giuseppe was a member of this group, and although Figus did not directly interview him, his presence suggests that he shares similar understandings with the activists.

According to the president of *Ortus* Giuseppe Serra, 'the choice of doing culture is not easy, and often beekeepers seem not to appreciate this effort.' Giuseppe considers culture and broad and deep knowledge of beekeeping essential factors in developing the business.

Because culture opens people's minds, and where there is culture, the economy also benefits from cultural welfare. Which is why we insist. Culture is a fundamental aspect of *Ortus*' activities for this reason. In time we have organized workshops about beekeeping permaculture, natural beekeeping, and similar forms of keeping bees. Some people may think we are crazy, but I believe that there is something to learn from everything. (Giuseppe Serra, Upper Campidano, 27th July 2018).

Giuseppe is a beekeeper in his mid-fifties who approached beekeeping in 2000. Before, he migrated to north Italy to study at the Polytechnic University of Torino. At that time, he did 'any kind of job' to finance his studies. The day we met was right at the end of the harvesting season. He was checking an apiary and preparing the families for the treatments of the varroa mites. His apparent rushed manners sparked my attention. They contrasted with his attentiveness in his job, and his role as president of *Ortus de is abis*. During our conversation, he explained that at some point, he left university before graduation and decided to build his career in the beekeeping sector.

I've got fascinated with bees through a friend who used to keep bees as a hobby. He introduced me to them, and I thought beekeeping could represent a possibility [in life]. I applied for a project to what at the time was called

Sviluppo Italia that offered financial support for buying materials. (Giuseppe Serra, Upper Campidano, 27th July 2018).

From that moment on, Giuseppe developed a productive business that nowadays consists of two partners that breed and sell bees, beekeeping material, honey, and various bee products. Giuseppe considers differentiating the production fundamental because ‘nowadays, the sector suffers a multifactorial crisis also connected to climate change, which makes it impossible for the beekeeping companies to rely exclusively on honey production.’ His business concept reflects the care and refinement that he dedicates to creating products of cultivated taste. An example of his refined sense of business is his hydromel from *abbamele*: a mead produced by fermenting the *abbamele* that he developed by collaborating with an expert enologist. For Giuseppe, this hone byproduct embeds the best example of how culture entangles and enhances the economic aspects. As president of *Ortus*, Giuseppe carried on a lengthy bureaucratic process that aimed at valorizing the traditional product *abbamele* by inserting it into the list of the Italian’s PATs, *Prodotti Agricoli Tradizionali*. During this process, the association collected various documents to provide scientific evidence of the actual authenticity of the uses of *abbamele* in the traditional agricultural world of Sardinia. Giuseppe remarked that beekeepers hoped they could increase their incomes by creating a new quality chain of a neglected product. Simultaneously, the valorization project represented the opportunity to protect the memory of a traditional product that would have otherwise disappeared.

These types of projects and conferences explicitly aim to enhance the traditional culture of beekeeping in Sardinia as a base to face the future. Culture is a crucial aspect of the activity of the association *Ortus*. Yet, despite the tendency to focus on the Sardinianness and the activist attitude of *Ortus*, the association does not have an exclusively conflicting relationship with the members of the Italian community of beekeepers or with the ‘Italianness’ in general. Instead, beekeepers from *Ortus* build a network of cooperation and dialogue with national associations, and they participate in the most prominent international beekeeping conferences (e.g., Apimondia).

5.2 The Organization of Sardinian Producers *Antigus padentis*

The Organization of Producers called *Antigus padentis* differs from *Ortus* in size, functioning, and structure. *Ortu* is an association of beekeepers whose members practice beekeeping for different purposes. Along with professional beekeepers, *Ortus* includes

part-time beekeepers, small-scale beekeepers, and neophytes. The majority of professional beekeepers appear to manage less than two hundred hives. Beekeepers of *Ortus* tend to be local and practice short-distance nomadic beekeeping. In contrast, the main *Antigus padentis*' fellows and administrative heads are brothers and sisters of the same family. This aspect influences the narratives of the OP on its Sardinianness and of its products. In *Antigus padentis*, the Sardinian identity works in two ways: To the people external to the community of beekeepers, the Sardinianness represents a promising market tool to acquire more customers. To the members of the beekeeping community, *Antigus padentis* seems to use the Sardinian identity as a device to claim to be the rightful 'heirs' of a long tradition of beekeepers that informs their expertise. *Antigus padentis* appears to use this latter narrative to boost their right to speak before the policymakers.

It is worth reflecting on the difference in the temporality of the Sardinianness in the narrative of *Antigus padentis* compared to *Ortus*. For the latter, the era of the Judgesdoms (the Middle age) represents the most prominent time of the Sardinian identity and Sardinians' independency. *Ortus*' beekeepers appear to consider the relationship between bees and the territory as an ongoing process. In contrast, *Antigus padentis* dates the roots of the authentic Sardinianness in the 'ancient times.' The OP is called after the well-known notion of Sardinia, described as an 'ancient land.' The neverland lost in time, which old traditions date back to a millennium ago, inspired the founders of the OP. During the ethnographic research, *Antigus padentis* adjusted and refined their self-representation by providing new historical evidence. In the past years, the *about us* section on their website⁹⁷ imported new details on their alleged ancestry. Apparently, they have surveyed some 'old archives' to discover that some of their ancestors who lived in the 1870s were a beekeeper. *Antigus padentis* use the new details to claim to belong to a long ancestry of bee 'whisperers' and keepers of biodiversity. This representation seems to contrast with the notion promoted by prominent members of *Ortus de is abis*. I must remark that the two associations are in a constant conflicting relationship, and they only seldom merge in cooperation before the policymakers. The dialectic component of the self-representations of the two entities is a fundamental aspect of the relationship between *Ortus* and *Antigus padentis* and of their public role in the community of beekeepers. On various public occasions, the conflicting relationship between the heads of the two associations took on violent hues. In the newspapers' articles, regional

⁹⁷ The real address of the Organization of Producers is not attached here as the name of the associations are all anonymized.

newscasts, and Facebook posts, the two associations seem to have a constant back-and-forth dialogue. This conflicting dialogue is evident only to members of the beekeeping community.

Despite the changes in self-representation, the central notion of the Sardinian identity that *Antigus padentis* conveys remains immutable. Everywhere, on their websites, on their speeches, on the labels of their products, and in the narratives of their spokespersons, the Sardiniannes of the OP appears to follow the *topoi* of the famous ‘visual imaginations’ that nurture the mainstream representations of the Sardinian identity (Cfr. 18-25). The notion of Sardinianness conveyed by *Antigus padentis* seems to coincide with the hegemonic representations of identity supported by the policymakers.

I argue that the scale of the OP may influence its notion of Sardinian identity. In contrast to most Sardinian beekeepers that tend to practice short-distance migratory beekeeping, the beekeepers from *Antigus padentis* practice nomadic beekeeping overall in the island territory. Most professional beekeepers tend to root their activity in a given territory that often coincides with historical regions (e.g., Fabio, Giancarlo, Lino in the Sarrabus, Efsio in Baumele, Cfr. 187-216). The over 3.000 apiaries of *Antigus padentis* are scattered all over Sardinia. This is due to providing a wide range of honey connected to different and often territorial-defined honey. Instead of selling an ‘anonymous’ multiflower honey, they produce different types of honey from selected pastures. I argue that this market strategy influences how the beekeepers from *Antigus padentis* build their relationship with bees and the environment. In choosing the locations for the apiaries, they seek to sign regular contracts with Sardinian holdings or private owners. The contracts allow them to ‘prepare’ the location to host a hundred hives they usually move for each trip. *Antigus padenti* tend to modify the environment around the location of the apiaries with heavy construction machines. This allows them to work faster with their tracked vehicles during the harvesting season. In a sense, they appear to ‘dominate’ the environment. The need for contracts also suggests that they lack the knowledge of the network of human relationships in a given territory that appear fundamental for many Sardinian beekeepers. By working on the overall Sardinia territory seems to shape their understanding of the environment. The beekeepers from the OP appear less attached to local given areas and to rather conceive the identity of the environment in its institutionalized aspects. By working in different territories, despite working with bees, the beekeepers of *Antigus padentis* do not build the same local-based sense of belonging as other beekeepers. They consider the types of honey they produce authentic products

from unexploited Sardinian pastures. The honey is Sardinian because bees' forage is authentic Sardinian. Hence, 'wild' lavender, French honeysuckle, strawberry trees, and even redgum eucalyptus are 'typical' Sardinian honey.

In contrast with most Sardinian beekeeping holdings, the beekeepers of *Antigus padentis* appear to use techniques that require highly specialized labor and expensive heavy vehicles. Giulio Gallus, the most prominent beekeeper of *Antigus padentis* appears to conceive beekeeping as a practice molded on the example of big-scale beekeeping in Argentina, as he often states. The possibility of accessing the EU funds through the regional calls for bids of the NAPs and CAPs provides economic support to such a big-scale holding. Giulio believes that the Sardinian beekeeping sector is 'too much linked to old traditions,' and thus, it is incapable of designing 'modern' ways of beekeeping.

The summer evening that I met with him and his brother, Giulio showed me the various laboratory rooms of *Antigus padenti*. He proudly presented the big machines they use to mechanically label the honey and exposed the considerable recipients of honey ready to be sold wholesale. The gigantic dimensions of the stainless-steel honey storage tanks gave me only a vague idea of the enormous amount of honey that flows from the apiaries to the commercial chains passing through this laboratory. During the brief tour Giulio offered me, he seemed that he wanted to show me what a 'real' professional beekeeping holding should look like. After the brief tour, we moved to the office, where two fawn-colored pugs were looking for some relief from the hot weather.

Giulio and, later, his brother Felice preferred not to be filmed. I had prepared a four-open question model to follow that I gave to Giulio and Felice. We discussed their role as beekeepers and as spokespersons of this model of beekeeping before the policymakers.

I learned to keep bees when I was 8 years old from an old beekeeper that was living nearby. But my great-grandfather kept bees in the Marghine, roughly in the 1950s. He was a professional beekeeper at that time. Then, my mother took a course in beekeeping. As for myself, by the time I turned 18, I was handling about two hundred fifty colonies of bees. In 1995, together with my father and my brother, we fund a significant beekeeping holding [the beekeeping cooperative]. Because at that time, we could produce tons of honey, and we were thinking about the future. We used to produce an average of 70-80 kg per hive. Now we are between 18 and 8 kg per hive, and in the good years, we never do more than 40 kg. (Giulio Gallus, Lower Campidano, 9th August 2017).

Giulio appears genuinely concerned about the future of the company. It seems that the founders aimed at leading the Sardinian beekeeping sector. Now, the uncertainty produced by climate change and a 'lack' of strict environmental policies to protect bees from hybridization and biodiversity loss is jeopardizing the project. Like many other

beekeepers, Giulio outlines a conflicting relationship with the policymakers and the regional specialists for their inability to address beekeeping problems. Giulio highlights that the past decades of policies in the beekeeping sector had the effect of increasing the number of beekeepers in the territory and the beehives. However, the policymakers failed to design an efficient technical support system for new and often not expert beekeepers. In the meantime, they also showed a lack of knowledge of the honey market. In Giulio's opinion, these two elements led to the current beekeeping crisis. Additionally, Giulio blames Sardinian beekeepers for being 'too narrow-minded' and often 'too much concerned' about the past.

Su connotu binds you. Doing by customs does not allow you to take on a different perspective. Back in the past, we used to learn things by apprenticing to a master beekeeper. Then secrets were secret. You would learn by embodying the knowledge from another master. Today there is Facebook, and information is too much. And therefore, there are no longer authoritative pieces of information. The tradition is essential, but we must distance ourselves if we want to develop professional business. This is what is preventing the beekeeping sector from becoming influential (Giulio Gallus, 9th August 2017).

The topic of *su connotu* came up without notice, almost abruptly, during the interview with Giulio. Apparently, the beekeeper felt the need to refer to this aspect. In the five general questions I gave to Giulio as starting point for our conversation, the term 'tradition' was used to ask about the failure of creating a D.P.O. of Sardinian honey (Cfr. 163). Nevertheless, Giulio appeared to consider the topic important to describe his notion of professional beekeeping. Evidently, Giulio conceives the 'professionalism' as a fundamental element of beekeeping and his relationship with the bees. To Giulio, to be a professional beekeeper means to build an efficient farming model that reduces to the minimum the risks and the problems and that foresees every aspect of the production. Giulio sets this efficient model against 'a form of beekeeping based on old traditions.' His remarks on traditions made me feel that our conversation was not intended to answer the questions I prepared. Instead, the beekeeper seemed to speak to an 'implicit guest' who, at that time, it was not clear who was. Likewise, the conversation with Giulio's brother, Felice, appeared to be aimed at answering someone that was not there with us. Felice is the president of the OP *Antigus padentis*. He better outlined the implicit recipient of his arguments. The entire structure of the discourse of Giulio and even more of Felice seemed to aim to use our meeting to send a message to the members of *Ortus de is abis*. I must point out that at the time of the interview, the conflicting relationship between the two associations was exacerbated by the fight to participate in the new beekeeping

commission. The failure of the process to build the Protected Designation of Origin (P.D.O.) of honey represented a strong argument that Felice brought against *Ortus*' representatives. At the time of our meeting, both Felice and the spokesperson *Ortus* appeared in a few newspaper articles and on local TV newscasts to state their position on the matter. They also used the annual conference of Montevecchio and other public meetings as arenas to claim their arguments. Felice argues that these conflicts are symptomatic of the incapacity of Sardinian beekeepers to work together for a common interest. Similarly to Giulio's statements, Felice affirms that Sardinian beekeepers' dodginess on 'tradition' and 'culture' limits them to a provincial vision, preventing them from developing market strategies that are aware of global dynamics. Specifically, Felice states that 'culture' is merely 'handwavy' that has nothing to do with beekeeping. He argues that Sardinian beekeepers must reduce the link with old beekeeping to develop new market chain strategies. The president of *Antigus padenti* claims that beekeepers should pressure policymakers to design projects that harmonize agricultural practices with beekeeping.

Felice's prolific activity on Facebook, as well as his engagement with media, offered me the opportunity to analyze a wide range of material on *Antigus padentis*' ways of dealing with the Sardinian identity of beekeeping and the environment. In his narrative, Felice seems to conceive *Antigus padentis* in a dialogic and sometimes conflicting relation to *Ortus* but also to *Coldiretti* and the *Movimento Pastori Sardi*, representing respectively workers in the agropastoral sector and the Sardinian shepherds. On Facebook, Felice often appears to blame the beekeeping sector in Sardinia for being too weak to claim political power before the policymakers. From this perspective, Felice seems to advocate the righteous place of beekeepers in the agro-pastoral world, likewise beekeepers from *Ortus*. However, this element seems to remain on the political level and to be disconnected from identity claims.

I must point out that Felice does not directly handle the hives, unlike his brother and sisters. This aspect is worth noticing, considering his pivotal role in the communication strategy of *Antigus padentis*. The vision of Sardinian identity conveyed by other beekeepers affiliated with the O.P. appears consistent with the one Felice communicates. *Antigus padentis* seem to show a sense of belonging that considers Sardinia as a whole, without 'falling' on forms of the extreme locality as other beekeepers appear to conceive (Cfr. 187-210).

Finally, the conflicting behavior of Giulio and Felice did not allow me to build a close relationship with them. This fact prevented me from deeper exploring their personal understandings of the Sardinian identity and their notion of beekeeping. Nevertheless, their Facebook activity and public speeches offered significant information. The beekeepers and most prominent spokespersons of *Antigus padentis* seem to conceive Sardinia as the endless island of the hegemonic representation. In the narrative of the OP, Sardinians as represented as the heirs of the Nuraghi's culture. *Antigus padentis* seems to device the stereotypes of the Sardinian identity to provide 'authenticity' to the honeybees' product in the selling strategies. The Sardinianness is mostly used in the strategies of self-representation connected to the market.

As I have shown, the Sardinian identity plays a fundamental role in the dynamics and public strategies of the association of Sardinian beekeepers. *Ortus de is abis*, and *Antigus padentis* convey two conflicting visions of the Sardinianness connected to beekeeping. The beekeepers of *Ortus* conceive 'identity' as a fundamental aspect of their activity. This mirrors the various projects they carry on as an association. To *Ortus*, the golden age of the Sardinian identity dates from the times of the Judges, in the Middle Ages. *Ortus* seems to conceive Sardinianness on an ongoing mutual relationship between bees and humans that co-created culturally and naturally the environment. In this notion, beekeepers become the heirs of the Medieval *apiareros* for their ability to carry on this 'endless' co-creation process. In contrast, the vision of *Antigus padentis* implies a sense of immobility and immutability in conceiving Sardinia as an ancient island lost in time. The two diverging notions of the Sardinian identity are based on contrasting 'temporalities:' On the one hand, an endless co-creation that began in the times of the Judges, when beekeepers were a distinctive working class. On the other hand, beekeeping is considered for its ability to keep the island unspoiled and the same through time.

Finally, whether *Antigus padentis'* notion seems merely a form of self-referential concept, the Sardinianness for *Ortus* is a form of activism and resistance to the homogenization of the global market.

5.3 The shape of Sardinia in P.D.O. and labels

The obsession of beekeepers with the Sardinian identity mirrors the labels of Sardinian honey jars. The geographic shape of Sardinia is used constantly in many beekeeping products. The designer Stefano Asili pointed out that the shape of Sardinia has a symbolic value only for Sardinians (Asili 2015, 152). Notwithstanding so, the island's shape is almost obsessively reproduced on a significant number of labels of various commercial goods in Sardinia. This obsession is shared in the labels of honey jars, where the shape of Sardinia is often combined with Nuraghi and other symbols of the Sardinian visual culture. This recurrent shape, which is common in other products, serves to claim the product's authenticity and to remark the solid connection for the Sardinian territory. Despite the law for labels requiring the caption 'Italian honey,' most beekeeping holdings remark 'Sardinian honey' on their labels.

The shape of Sardinia was designed to become the logo of the label of Protected Designation of Origin (P.D.O.) for the varieties of honey of Sardinia. The project, carried on by members of *Ortus de is abis* in collaboration with regional officers and delegates of *Antigus padentis*. After almost a decade of negotiations and after approving the quality scheme, a part of the proponent group withdrew their consent, and the project was abandoned. It seems that the production steps designed in the quality scheme raised tensions among beekeepers. Mainly, beekeepers seemed to disagree with the standardization of beekeeping practices.

Look what happened with the P.D.O.! I formed part of the group that carried on the procedure. I participated in all the meetings to decide what to do. I believed in the project. But to carry on that project, you need to make rules that everyone must follow—the consumer trust in those rules that they provide quality foodstuff. You should be able to show that you sell your honey according to those rules. But everyone manages the beekeeping holding in his own way. We don't have the attitude to do such things. We are not united. Moreover, our companies are all different, and too often, part-time beekeepers manage to have the power to claim to represent the beekeeping sector before the policymakers. (Fabio Aru, 30th March 2018).

For the EU council, standardizing the practices represents a pivotal element in defining the quality of the agricultural products and foodstuffs (European Parliament and Council of the European Union 2012). Standardization of practices is undoubtedly a threatening aspect for Sardinian beekeepers. Considering the deep involvement of beekeepers in the life of bees, I argue that standardization represents a form of disturbance in the relationship between humans, bees, and the environment.

An attentive analysis of the discourses regarding the project's failure suggests that most beekeepers also feared losing their identity and the connection between their products and the territory. Honey seems to embed the last outcome of the relationship between beekeepers, bees, and the territory. Thus, the holding logos appearing on the jars of honey is a token of beekeepers' way of keeping bees. Despite the labels of the honey jars might appear all too similar, an attentive look reveals that they effectively differentiate the honey produced by the various Sardinian beekeepers. Beekeepers build their market chains upon this distinction and by promoting their honey because it was produced in a specific local environment. A strong sense of locality appears linked to the strategies of honey-selling and logos design (Welz 2013; 2017). Hence, despite the shape of Sardinia and the capitulation on the labels indicating the honey is produced in Sardinia, beekeepers tend to add information regarding the very place where the honey originates. The P.D.O. procedure may contribute to neglecting this high diversity in Sardinian honey products.

This, in turn, represents a fundamental concern of beekeepers who patiently build market trades worldwide. To them, the P.D.O. 'Honey of Sardinia' may not represent any advantage or create new fundamental market chains. Ultimately, a lack of a strong connection between the product, the territory, and the practices in designing the label seem to have led to the failure of the project. The system of economic safeguards that are at the base of most food labels of origin requires that a community recognize a good as an essential product of the local know-how and biodiversity of a given territory (see Papa 2000; Bérard et al. 2005; Bérard and Marchenay 2006; 2008). Most beekeepers of the community did not find the label appealing. Some beekeepers did not agree on the possible economic advantages for their business. But primarily, the fragmentation of the concept of locality beyond every 'Honey of Sardinia' that is currently sold suggests high variability in the collective dimension of belonging in the honey. That is, despite the statement 'honey of Sardinia,' beekeepers consider their honey 'typical' of the Sarrabus, of the Cixerri plane, of the Marghine, and so forth. This notion makes it impossible to create a standardized label, even a P.D.O.

In the following chapter, I analyze how beekeepers built the Sardinian identity of bees. In doing so, I offer a brief introduction to the role of bees in the Italian community.

6. Bees

Along with beekeepers, bees became subjects of this inquiry. Thus, it is helpful to introduce bees as equal agents of the relationship with beekeepers before focusing on how the latter develop their sense of belonging to the environment.

The emotional engagement of beekeepers with bees seems to be based on various philosophical understandings of beekeeping. There is abundant literature that provides different perspectives on beekeeping ‘naturally.’ This is beekeeping ‘with minimum intervention by humans’ (Hemenway 2013; Fontana 2017; Flottum and Bruneau 2021).

Bees’ mean of communication is still under discussion (Meighoo 2017). It is impossible to interview bees as I interviewed beekeepers. Bees do not return their gaze. Unlike mammals, the relationship with bees implies an individual and a plurality of subjects that function as an individual (Seeley 2010). Communicating with bees requires attunement to the functioning of the Superorganism in its interaction with the environment (Moore and Kosut 2013). In this research, the insects conversed through their buzzing behavior about what they allowed me to do or not to do at the apiary. To which extent I could accurately understand their buzz is impossible to say⁹⁸. However, if we consider stings as a sign of dissent, I can argue that their humming guided my movements to avoid conflicts.

It is undeniable that beekeepers set the pace and places for my encounters. Yet, my familiarity with the insects allowed me to establish a personal ‘dialogue’ with the bees. This was attuned to their different responses to our presence near them. I danced with the bees of Giancarlo, I rested with Fabio’s bees, and I was cautious with Giuseppe’s bees. I smelled the sensual scent of Peppe’s bees, and I felt ignored by the bees of Efsio. In every apiary I visited, bees told me what to do, where to stay, and how to move. The attunement to the bees’ world allowed me to acquire sensorial material about the personal interaction with each beekeeper. However, the pieces of information on the level of the representation of human-bee relationships were limited. The main information I could

⁹⁸ On how to interview other-than-human species see Hartigan 2017.

get about how bees are shaped in their flesh and blood and represented in the public sphere all came from the perspectives of their human keepers.

In what follows, I offer an overview of how bees are represented in the public debate. In doing so, I will explore some of the elements that, in the past few years, have been contributing to changing the perspective on bees' bodies.

6.1 Bees amidst domesticity and wilderness in Italy

Like plant species, honeybees often serve as a token of 'purity' and 'hybridity' in the discourses about race, nationality, and kinship (Tsing 1995; Hartigan 2017). The notions of domesticated, tame, wild, and feral are incredibly slippery. In their edited book about HAS, anthropologists Garry Marvin and Susan McHugh have shown that humans repeatedly negotiate these notions according to how they represent and categorize animals (Marvin and McHugh 2014). For instance, cats can be considered companion animals or feral invaders, depending on the context (Holmberg 2014).

In Italy, the recent worldwide environmental crisis strongly influenced the public perception of bees. Like other countries, the popularity of honeybees and bees in Italy is generally connected to the fear of the 'Bee Apocalypse' (Cfr. 49). Hence, just a few years ago, the common sense of Italians defined bees, at best, as stinging animals. Likewise, beekeepers belonged to an undefined category amidst animal husbandry and garden activity. Recently, the concern for bees' survival boosted the presence of bees in the public sphere and turned beekeeping into a mundane practice. From flying pests (Moore and Kosut 2013), bees have become subjects of care (Fenske 2017b).

In the Italian beekeeping sector, honeybees have always been a crucial concern for beekeepers. The tension between domesticity and the wildness of honeybees represents a fundamental point of discussion in beekeepers' narratives. Italian law does not define bees as wild or domestic species. However, before the EU initiatives for pollinators, bees were always mentioned merely in connection to beekeeping (Presidenza della Repubblica 2004 see also art. 924 of Civil Code). That is, bees only appeared in connection to human-tended practices.

One reason that may explain the difficulties in defining honeybees under a precise category is the high variety of subspecies in the Italian territory. To this date, 31 subspecies of *Apis mellifera* worldwide are officially acknowledged by the international scientific community (Fontana et al. 2018, 4,5). In Italy, alongside the *Apis mellifera ligustica*

(commonly Italian honeybee), the scientific taxonomy distinguishes an *A. m. siciliana* in Sicily and the presence of *A. m. mellifera* and *A. m. carnica* in the Northern border territories between France, Switzerland, and Austria. In Sardinia, a study that compares old samples of honeybees with current populations has found discontinuities in the lineage of *A. m. ligustica*. According to scientists, this suggests the possible presence of another subspecies that nevertheless seems to have disappeared after the 1980s (Floris et al. 2007).

Commercial beekeeping and its linked practices seem to complicate the situation further. Many commercial beekeepers have favored the widespread *A. m. buckfast*, a breed that results from a crossbreeding of many subspecies of honeybees realized by Brother Adam in 1919 (Adam 1987; Bill 1989). The difference between these subspecies mainly concerns morphological aspects (color, length, and forewing characters), as well as behavioral (tameness, productivity, resistance to pests, and adaptation to climate conditions).

Recently, the endless conflict between ‘purity’ and ‘hybridity’ took a turning point with the *San Michele all’Adige Declaration* (Fontana et al. 2018). The Declaration was written in 2018 by Italian scholars and beekeepers that wished ‘to provide guidelines to policymakers to safeguard wild colonies of honeybees.’ In the wishes of its signers, it aims to ‘grant adequate protection to the honeybee (*Apis mellifera* Linnaeus, 1758) and in particular to its indigenous subspecies.’ The signers of the *Declaration* believe that the wild nature of honeybees requires a form of protection from human-driven loss of genetic uniqueness in the Italian population of honeybees.

The *Declaration* raised tension in the community of Italian beekeepers. Many commercial beekeepers felt threatened by the possible implications of the *Declaration*. Supposing its principles were included in the beekeeping policies, they may force beekeepers to adapt. Some national beekeeping associations publicly disagreed with the *Declaration*, which became a case in the community. On an economic level, commercial beekeepers are concerned that safeguarding the subspecies of bees may become a crucial requirement for EU funding. In addition, regional and local administrations may produce policies that prevent nomadic beekeepers from bringing their hives to specific territories. The law issued in Emilia-Romagna represents a first step in the translation of the principles of the Declaration into the policies for environmental and beekeeping management.

However, the tensions around the *Declaration* are not merely connected to economic reasons. Instead, they show how the bee is understood and constructed as a subject in

the field of beekeeping. In 2018, some months after the *Declaration* went public, the beekeeping specialist Journal *L'Apis* published a special dossier titled 'Quel pasticciaccio brutto de San Michele All'Adige' (roughly transl: *The ugly hash of San Michele All'Adige*). The dossier authors explore each point in the *Declaration* from a critical perspective. They blame the creator of the *Declaration*, Paolo Fontana, for his 'dichotomic and Manichean vision of the relationship between Man and Nature' (Bosco et al. 2018, 8). This notion bases the entire document leading to the failure in pursuing its goal of safeguarding the honeybees. In the *Declaration*, the safeguard of honeybees appears to develop from the assumption that there is a profound ontological inconsistency between the world of humans and the world of bees. The first belongs to the category of 'culture' and the latter to the category of 'nature.' This notion appears supported by scholarly scientific knowledge that the dossier authors define as 'outdated.' This vision seems to be at the center of the problem for the dossier authors. In their interpretation of the *Declaration*, the fracture between humans and 'Nature' would put bees under the condition of being threatened by human usurpers. Hence, humans should care for bees to fill the unfillable gap with Nature. Beekeepers do not share the same continuity with nature, and instead, they are responsible for its crisis. According to the dossier authors, the *Declaration* considers beekeepers as 'alien' to nature, and this represents a crucial point of tension. In addition, the authors highlight that the *Declaration* defines bees as 'undoubtedly' wild species. According to their proposed analysis, this assumption leads to the paradox that 'bees survive only thanks to beekeeping, but to save the species, it must be brought back to Nature, far away from beekeepers' hands' (Bosco et al. 2018, 11). According to spokespersons of the beekeeping sector, the long historical interaction between humans and bees self-evidently shows that bees do not belong to the wild category. The conflicts around the *Declaration* are worth reflecting on for how bees are represented in the field of beekeeping in Italy. Geographer Henry Buller has pointed out that '[t]he terms 'wild,' 'domestic,' 'companion,' 'feral,' 'pet,' 'invasive,' and 'alien' imply – sometimes explicitly – spatial categorizations that ultimately say less about the animal than about us. They suggest how bees are spatially configured in the human environment. However, these notions appear to remain within the field of beekeeping.

Finally, the raw nerve of the conflict lies in the impact of breed beekeeping practices on the genetics of bees. The authors appear to admit that commercial beekeeping has harmed the ecosystems due to their selection of pure traits of bees, the increase in the numbers of hives in the same area, and the use of chemicals to prevent diseases (Bosco

et al. 2018, 13). Notwithstanding, ‘more than scientists, beekeepers know how deeply and conflicting the human pressure is on the evolution of living beings, bees in particular’ (Bosco et al. 2018, 14).

In the dossier, scholarly scientific knowledge is used to reinforce the authors’ claims in contrast to the type of ‘old fashion’ scholarly scientific knowledge that Fontana and the other signers would have used in designing the *Declaration of San Michele All’Adige*. I must point out that Fontana is not simply an entomologist. He has been practicing beekeeping for forty years. He is the president and founder of the World Biodiversity Association (henceforth WBA), which aims to discover and protect the biodiversity of areas that are rich in biological diversity. The members of the WBA engage in educational projects to promote the knowledge of small species, particularly among young generations. However, Fontana is the most publicly engaged in promoting bee safeguards. He appears regularly on a TV show about nature, and recently he has been awarded with the title *Guardiano dell’Arva* within the Rigoni Stern Prize for his engagement in bees’ protection. He also participated in a TEDx speech, where he explained the world of bees.⁹⁹ The public role of Fontana boosts the visibility and political power of the WBA. Hence, the *Declaration* went public thanks to the dissemination endeavor of Paolo Fontana. In a way, the WBA and Paolo Fontana are gaining political capital that they use before regional and national policymakers to pursue their vision. Yet, the *Declaration* is not legally binding, and, at the moment, it does not appear to have significantly contributed to changing the configuration of honeybees in the Italian common sense.

Nevertheless, Fontana went further in pursuing his cause. In May 2022, he organized an international meeting in Pantelleria to discuss what he called *Apis selvatica*. At the meeting, he urged scientists from different countries worldwide and representatives from Apimondia¹⁰⁰ to work on the text of a new Declaration to safeguard the ‘free-living’ colonies of *Apis mellifera*. The wild nature of honeybees’ colonies became the focus of the lively discussions that followed the process of writing the *Declaration of Pantelleria*. Because I was invited to bring a contribution about the human-bees relationship from the perspective of cultural anthropology, I took part in the three-day discussion on the ‘wilderness’ of bees and on how to save them from humans.

⁹⁹ See: https://www.youtube.com/watch?v=wn918o2-sAI&ab_channel=TEDxTalks (Accessed 13.10.2022).

¹⁰⁰ The international Federation of beekeepers.

The gathering aimed to design a document that provides guidelines for beekeepers and policymakers to protect the insects. Scientists and researchers from the field of biology, entomology, and other experts that relate to beekeeping practices did not all agree on defining *A. mellifera* as a ‘wild’ animal. During the debate, I took on a participant observation approach, and I was directly involved in discussing the implications of defining bees as wild animals. Despite the homogeneity of the scholarly background of most scientists, the alleged wilderness of bees raised many tensions. According to Fontana, the high variety of local populations of bees is threatened by beekeeping breeding practices. They tend to replicate similar characteristics with the result, for Fontana, of creating bees that are incapable of resilience to local conditions and climate. Fontana urged the participants to consider bees essentially wild animals. He believes that humans can address biodiversity loss by protecting the wild colonies of bees that live inside trees or recesses. Local ecotypes represent for Fontana the best chance bees have for surviving in the times of crisis we are currently living. The entomologist argued that by conceiving bees as domesticated animals, people tend to consider these insects out of place when they live freely in nature. This statement evidently requires a turn on how Western thought conceives bees. This point proved conflictual with some European and African scientists. Some participants argued that the division between domestic and wild was pointless in their understanding of nature. The Polish beekeeper and scientist Zbigniew Lipiński contributed to the discussion, arguing that ‘wild’ is not the correct definition for colonies that are not tended by humans. Instead, he suggested to use ‘free-living’ because it is more consistent with the dynamic of current bee populations. After a lengthy discussion, the session agreed to consider non-human-tended bees as ‘free-living’ colonies of honeybees.

A further element of tension was linked to how to safeguard the ‘free-living’ colonies of honeybees without generating conflicts with commercial beekeepers. The Italian representatives of the beekeeping sector appeared highly skeptical about combining the need to safeguard biodiversity with the bee breeding market. A first draft of the new *Declaration* appeared to suggest that beekeepers were responsible for biodiversity loss in bee species. Given that the proponents aimed to propose the *Declaration* before the policymakers, this element may have created conflicts in managing the economic resources allocated for the beekeeping sector. Eventually, the discussants agreed to sew a different role for beekeepers, and, in the final text of the *Pantelleria Declaration*, they become ‘guardians.’

The meeting of Pantelleria mirrors the dynamics of arguments concerning bees and their ‘nature.’ Bees are tokens of race and purity. In the discourses of beekeepers, bees can be tame, aggressive, wild, domesticated, or feral. Beekeepers define them for their pure race as Italian, Sardinian, and African or their lack of race as hybrids and ecotypes. Beekeepers often appear to breed any sort of bee that seems to be more productive. This jeopardizes the biodiversity of bees with vegetal species. Beekeepers cannot control mating partners, and because the queen mates with multiple drones, the risk for hybridization is high in the areas where different subspecies co-exist without any barrier. The risk grows with nomadic beekeeping. When beekeepers move several hundred bee colonies from the deep South of Italy up to the North to produce different qualities of honey. In the Italian specialists’ Facebook groups, there are reported traces of the use of *A. m. caucasica*, *A. m. carnica*, and *A. m. adansonii*, which are not autochthonous in Italy. To avoid hybridization, the regional council of Emilia-Romagna has recently banned the importation of subspecies other than *A. m. ligustica*, establishing a 10 kilometers range of protection for beekeepers that belong to the queen breeders’ bar (Assemblea legislativa regionale 2019 art. 7). The law aims to protect the international trade of pure genetics of the Italian honeybee historically focused on this region. The Emilia-Romagna law appears to be an isolated case despite some of the beekeeping associations working on pressing Italian policymakers to protect the Italian honeybee.

The elements outlined above represent the frame for the Sardinian beekeeping sector. Sardinian specialists took part in the process of writing and signing both *Declarations* above-mentioned. In the island, the ‘wilderness’ of honeybees takes on a more specific narration that entangles with the discourses about identity. The conflicts around the nomadic practices and the breeding of species of bees intertwine with the narration of the island as a closed space. In contrast to other Italian regions, the safeguard of the local population of honeybees is imbued with notions of the ‘constant resistance’ of Sardinians. However, the lack of scientific pieces of evidence on the existence of a Sardinian subspecies seems to lead to a tendency to protect bees as such for their pollinator roles. The regional law n. 19 for managing beekeeping refers to a generic safeguard of the *A. m. ligustica* and the ‘populations of typical autochthonous bees’ without defining how the regional government aims to protect these insects (Consiglio Regionale della Sardegna 2015). In the following section, I will focus on how bees are represented in this region.

6.2 Bees in Sardinia

A DNA-based survey on the Sardinian population of honeybees in the 1970s compared to the current population and the Northern-Tunisia population shows a sensitive loss in the genetic diversity of the old samples (Floris 2000, 43; Floris et al. 2007, 106). Before the 1980s, in Sardinia, there were two types of autochthonous honeybees: one was genetically and morphologically close to the *A. m. ligustica* of the North of Italy. The other was morphometrically closer to the *A. m. mellifera* (Floris et al. 2007). The higher productivity attributed to the *A. m. ligustica* led the regional delegates that administrated the allocated funds in the 1980s to embolden Sardinian beekeepers to buy genetically certified queens¹⁰¹ from queen breeders in Emilia-Romagna. The final goal was to replace the ‘less productive and extremely aggressive bees that inhabited the oak cork hives.’ Importing Italian honeybees to the island led to widespread mite *Varroa jacobsoni* which contributed to the disappearance of the local bee (Floris 2000, 42–43).

The feelings regarding the importation of queens from the continent are very conflicting in the memories of contemporary beekeepers who established their businesses during those times. A Gallurese beekeeper revealed to me his embarrassment in thinking about the extinction of the ‘authentic’ Sardinian honeybee due to the widespread varroa mite that followed the importation of Italian bees. The beekeepers Marcellina Pintus and her son Oscar Melis say that at first sight, they were astonished and curious about the meekness of the imported insects and their productivity. Nevertheless, for Marcellina and Oscar, the Italian honeybees did not seem acquainted with the climate peculiarities of Sardinia. Eventually, they concluded that those revealed to be unable to produce strawberry tree honey, a specific type of bitter honey that is collected between November and December. In their compelling narration, the bees seem to take on human features and become symbols of the passage from traditional to modern beekeeping:

You could see them when they arrived: blond, with a very long abdomen! And they were so tame and quiet! [The seller] came here and showed us how to manage them. Mama was very excited about her blond bees, but I did not trust those bees. I put them in some hives, far from the other I collected hunting wild swarm, I waited. At the end of the summer season, the colonies were strong. Then we had the first rain in August, and it slowed down. In September, they started to prepare for autumn, and when the Strawberry tree bloomed, the blond Italian honeybees were closed inside the hives, and my Sardinian bees were producing honey. They were not ready to collect nectar from the strawberry trees. They were burst! They lasted one season! The blond Italian honeybees! (Oscar Melis, Lower Campidano, 20 February 2017)

¹⁰¹ Bees are considered genetically pure when the breeder can certify the blood lineage of the mothers.

With exception of some cases, many Sardinian beekeepers believe that the regional policies that encouraged the importation of *A. m. ligustica* have destroyed the genetic heritage of the Sardinian bees and led to the loss of biodiversity on the island.



Figure 16. Sarrabus, *A. m. ligustica* returning to their hives after collecting pollen and nectar (Credits: Greca N. Meloni 2019).

Beyond the specific issues related to the biodiversity of honeybees, the narration around the loss of ‘Sardinian traits’ in honeybees seems to link to the discourses connected to the resistance of Sardinians to Italian domination. By carrying diseases and pests, the Italian honeybees are considered responsible for the extinction of ‘real’ Sardinian bees. The latter, according to this narrative, could only save herself by hiding in recesses in the mountains, maybe protected by some forward-thinking beekeeper that resisted the fascinating Italian promises. The account of the loss of authentic Sardinian honeybees seems imbued with the notion of the Sardinian ‘constant resistance’ (Cfr. 24) that is often used to claim fundamental alterity from ‘the Italians.’

The concern over the Sardinianness of honeybees coexists with the use and purchasing of many subspecies of bees. Considering the lack of a systematic inquiry into these practices, it is impossible to determine whether there is a difference in age, gender, or business scale in choosing other subspecies. During the ethnographic research, I have never interviewed or interacted with beekeepers that openly declared to breed ‘races’ of bees other than *A. m. ligustica* and its subspecies. A general tendency to hide these uses is

connected to their negative consideration in the beekeeping community. Nevertheless, not all beekeepers appear to be concerned with the purity of the *A. m. ligustica*, and there is much more flexibility in keeping bees with signs of hybridization. Beekeepers select the queens that can offer them offspring with specific characteristics suitable for their way of beekeeping. Kosut and Moore have noticed that '[b]eekeeping styles and philosophies vary widely, often reflecting the personalities of each beekeeper.' (Moore and Kosut 2013, 26). Beekeeper seems to develop their way of beekeeping and dealing with the bees. In my experience, this aspect reflects the 'personality' of bees. The insects that I have encountered are not everywhere the same. There is often a sort of consistency between the nature of the beekeeper and the behavior of the insects. It is a mutual relationship in which each part reciprocally changes the other. Sardinian beekeepers often say that 'bees tell you what to do; you have to learn to interpret it.' This say is emblematic of the mutual exchange between beekeepers and bees.

To some extent, the beekeeper learns to adjust their corporeal presence to the bees' reaction. Kosut and Moore pointed out that: '[b]ecoming attached and sync with a colony or a hive is a ritualistic process, but it is also a sensual one where insects and humans connect, overlap, and collide' (Moore and Kosut 2014, 13). Some beekeeper develops specific techniques and practices to address the bees and avoid an adverse reaction.

The beekeeper from the Sarrabus Giancarlo, for instance, claims that wearing gloves to protect the hands produces the side effect of being too confident with the movements and careless of the rhythm of the colony. This may lead to an aggressive response from the bees. He developed a way of conceiving the interaction with bees as a dance rhythmically directed by bees' humming. He taught his daughter how to avoid using gloves without being stung by bees, and he told his workers not to wear them to better 'dance with the bees.'

Beekeepers also learn the movements that could trigger the colony to take on a defensive mechanism against an 'intruder.' A family anecdote from my grandma's beekeeping stories is emblematic. When she was still practicing beekeeping, she used to keep one or two colonies of more 'lively' bees to serve as 'dissuaders' for meddlers. To run away from some nosy person from her apiary, she used to act in a way that she knew her bees would attack the poor person. She knew how to fling the bees against someone without the risk of being attacked herself. Clearly, other beekeepers know how to trigger an adverse reaction in their apiary.

Many beekeepers appear to consider the insects as an extension of themselves. They ideally link their lives to one of the bees. This notion seems to connect with what anthropologist Carlo Maxia analyzed in the context of goat herders. Maxia affirms that humans and animals create a sort of ‘blood’ kinship understood as a way to establish a link between the different human and non-human generations (Maxia 2015, 168). This appears to be a crucial element also for Sardinian beekeeping. Oscar Melis considers part of himself and his life story a particular lineage of bees that he kept in the same place for forty years to preserve their ‘true’ Sardinian genetics. Oscar appears to conceive a sort of ontological continuity between him and the bees he breeds. He rejects purchasing ‘foreign’ bees, and he rears his queens. He chooses the mother lineage¹⁰² from his apiaries to duplicate bee colonies. Thus, he selects the ‘traits’ that he considers indispensable for his way of beekeeping. Unlike most beekeepers, Oscar considers ‘tameness’ a negative characteristic and a sign of ‘excessive’ domestication that makes bees too weak to survive on the field. On the contrary, the beekeeper believes that aggressiveness is a useful ‘device’ to contrast hive thieves, resist varroa and parasites, and protect against wasps and ants’ raids. Likewise, Fabio Aru affirmed that ‘a bit of aggressiveness’ in the bees’ behavior is necessary to survive. He stated that ‘if you leave the bees all alone in the countryside, it is better that they can defend themselves!’

The aggressiveness of bees is a characteristic that Sardinian beekeepers attribute to the alleged populations of authentic Sardinian honeybees. These bees seemed to have been associated with the cork hives until the 1970s (Floris et al. 2007, 107). They were difficult to manage and remained wild bees, although they were kept in human-made cork hives. Sardinian honeybees should appear smaller, hairy, black, and with a clear tendency to resist any form of domestication. The construction of the subjectivity of the authentic Sardinian honeybee seems to mirror the narratives on the Sardinian ‘constant resistance’ to external domination.

¹⁰² Bees’ genetic system is called haplodiploidy, which is peculiar to certain Hymenoptera. In this system, males have one of the chromosomes, and so are haploid, and females have two sets of chromosomes, thus they are diploid. Any unfertilized egg will develop into a male with half of his mother’s genes. Between the fifth and fifteen days after a new queen emerges from the cell, she starts doing first flights. Usually, during the mating process, the queen mates with multiple drones, so to ensure genetic variety. The mating is completed when the spermatheca contains between 5 and 7 million spermatozoan. It seems that the queen can select a particular mate’s sperm to fertilize her eggs. Thus, considering the polyandry of bees’ reproductive system, beekeepers can only select the mother lineage but have difficulties in determining the male line. This also means that in case of the presence of different subspecies of bees around an apiary, it is impossible to prevent queens from mating with drones from other subspecies (Wilson-Rich 2014, 34,35; 44,45; Contessi 2021, 61–63; 69,70).

A newspaper article offers the possibility of understanding the impact of this narrative in the mundane sphere. Appeared in 2000, the author enthusiastically declared that on the Southwest coast of Sardinia, two beekeepers renounced public funding to keep breeding the last surviving colonies of the ‘real’ Sardinian honeybee.

Honey is produced according to the techniques of the Nuragic people. The hives are made of cork or wood, and the harvesting only happens once a year. Bees are small and black, extraordinarily resistant but very nasty. It is the last colony of a race that only survives in the countryside of Teulada. (Cambedda 2000).

The article is plentiful of references to the familiar symbols of Sardinianness: The Nuragic population, the ability to resist ‘colonization,’ the blackness, hairy, and smallness of inland’s autochthonous inhabitants with an implicit comparison to Italians. The scientific research on bees is not immune to the narrative that attributes the inhabitants of the interior regions of the island to the capacity to keep the ‘true’ traits of Sardinianness. When working to determine the existence of this bee species, the researchers appeared to look in specific regions of Sardinia that are commonly considered the fortress of truly authentic Sardinianness.

The search for the Sardinian honeybee seems to prod the fantasies of beekeepers that often involve the team of entomologists of the University of Sassari to certify the discovery of an ‘ancient bee.’ However, as the entomologist Ignazio Floris has pointed out, these attempts always fail before the extreme level of hybridization of bees. According to Floris, the Varroa mite and the contemporary importation of different species of bees for commercial uses have determined the loss of the island’s biodiversity.

The question about the differences between races is losing meaning because beekeepers have often used hybrids, and they are more or less aware of it. Thus, I say it undoubtedly, we are simply losing genetic diversity and this worldwide problem, not merely in Sardinia and Italy. The loss of genetic diversity relates to the problems bees are suffering on a global scale. That is, bee losses, increased susceptibility to diseases, etc. Yet, we insist on looking for the Sardinian honeybee, but this bee no longer exists. We are looking for it, and people often contact me, claiming to have found one in a wild nest in the mountains in the center of Sardinia. They send us samples of bees, and we try to identify them. But we can never find these differences [with the old Sardinian honeybees’ population]. (Ignazio Floris, Sassari, 20th July 2016)

Notwithstanding the fantasies for Sardinian honeybees, their alleged aggressiveness makes them unsuitable for modern beekeeping. This factor seems to have contributed to establishing a stable connection between the island and the queen breeders in Emilia-Romagna. Despite the presence of specialists in queen rearing in Sardinia, many beekeepers seem to prefer to buy pure certified *A. m. ligustica* from that region. This seems

to be a common practice among some beekeepers. Those that do not possess the competencies to rear their queens or to make new families on their own prefer to buy queens from breeders. According to Piero Comandini,¹⁰³ the politician that supported the new beekeeping law, Sardinian beekeepers wanted to keep open the possibility of importing ‘pure’ *A. m. ligustica* from Emilia Romagna. The politician claimed that all beekeepers that he asked to give their opinion wanted to safeguard bees as species without any reference to local ecotypes.

The beekeeper Efsio Mele confesses to being very interested in a potential discovery of the real Sardinian honeybee. This discovery, he claims, may contribute to developing an ‘identity discourse about bees.’ (Efsio Mele, Baumele, July 2018). However, he admits to purchasing certified bees from Emilia-Romagna from time to time to revivify the blood lineage of his bees and avoid the replication of weaknesses in breeding, the same as his grandfather used to do. Other Sardinian beekeepers prefer to breed their queens. These beekeepers claim that despite being the same subspecies of *ligustica*, bees purchased from Emilia-Romagna poorly adapt to the Sardinian climate and floral behavior.

When I started in the 1970s, I had Sardinian honeybees. Those bees were the ones from the cork hives, smaller, hairy, and black. They swarmed a lot. Now, we breed our bees. We have selected the characteristics that better adapt to this territory and our way of doing beekeeping. Although, we might buy some to exchange the blood. Nevertheless, ours are definitely better because we’ve selected them here. Selecting bees in the territory is way different; you work better with them in this way. Making your bees is pivotal for beekeeping holding. Besides, it is not true that they do not produce enough. The *ligustica* has always been considered the best honeybee, and now, suddenly, it’s no longer good?! That’s not true. (Fabio, Sarrabus, 30th March 2018)

Whether choosing to keep pure *A. m. ligustica* or claim to breed local bees, Sardinian beekeepers appear to conceive their bees as different from the bees that come from the Italian region. It is a form of alterity that links to the construction of the subjectivity of bees in continuity with humans.

The relationship between species of bees and the territory seems significant. The brother of Oscar, Alessandro Melis, affirms to purchase of bees from breeders in Emilia-Romagna because he can mix that genetic material with the local one. He stated that he could select the better traits of *A. m. ligustica*, tameness, and productivity with territorial adaptability and strength of the local bees. He obtains a species of bee that is naturalized in Sardinia.

¹⁰³ Interview with On. Piero Comandini on the 4th of August 2017.

Other Sardinian beekeepers appear to consider the *A. m. ligustica* produced in Sardinia by local breeders better to work on the island compared to the pure honeybees coming from the Emilia-Romagna. Here, ‘hybridization’ takes on the form of ‘naturalization’, symbolically more acceptable to define the ‘otherness’ of the local genetic patrimony of bees in contrast to the Italian pure line. While the scientific inquiries seem to support the actual differences in *A. m. ligustica* according to the different territorial contexts they come from. The specific race of bees is a primary concern for queen breeders and commercial beekeepers. For Sardinian beekeepers, the connection between territory and the particular type of bee breed seems to offer another level to re-think their identity. For Sardinian beekeepers, the connection between bees and the territory is not merely a matter that regards the ‘nationality’ of the insects. Instead, I argue that this is a corner element of what I call the Human-Bee-Environment relationship. The knowledge of the territory is necessary to keep bees successful in the long run. Beekeepers must know all aspects that regard human activities as well as flora and fauna that interact with the bees. I argue that the insects seem to become ‘gatekeepers’ of the environment they co-inhabit and co-create with other beings.

In what follows, I introduce the notion of the Human-Bee-Environment relationship from a theoretical standpoint, and I reflect on bees as companion species.

6.3 Reflections on bees as companion species

The relationship between humans and bees dates as early as the domestication of dogs (Morey 1994, 338). Indeed, somewhen around 10.000 years of BP, most likely humans were interacting with wild nests of bees (Crane 1999, 35). It seems that the first hominids used to hunt for honey already in the Pliocene. Several rock paintings found in different regions of the world suggest that humans already had a broad knowledge of bees’ behavior and hunting practices (Crane 1999, 36–39). Recently, Alyssa N. Crittenden, among other scholars, suggested that the consumption of honey and bee larvae may have played a fundamental role in providing the necessary energy to fuel the enlarging hominin brain (Crittenden 2011). Through centuries, humans have acquired the techniques to safely collect honey from wild colonies in rock recesses and tree holes. In many European regions, humans have developed a system of ownership and use rights of bees’ trees (Crane 1999). Given the extraordinary system of co-evolution of bees and plants, we can only grasp how humans are so deeply entangled with the evolution and survival of

honeybees (Fishman and Hadany 2010; 2015; Nepi, Grasso, and Mancuso 2018). Indeed, besides directly providing food through honey and larvae, bees also contribute to shaping the landscape and ensuring food through pollination services (Bagella et al. 2013; Klein 2015).

It would be impossible to think about the current capitalistic food production system without considering bees' capacity for the sexual reproduction of plants. Sociologists Mary Kosut and Lisa Jane Moore pointed out that

Humans are not directly interconnected to any other insect in such a profound manner; through pollination and the consumption of honey, bees become part of our bodies. There is a tangible ecological, economic, agricultural, and physical link. For many beekeepers, this relationship is clearly emotional and intimate, an interspecies exchange of life and labor. (L. J. Moore and Kosut 2013, 21)

Not to mention the symbolism linked to bees and their role in religion and mythology (Crane 1999).

Humans have contributed to shaping bees' bodies by developing breeding techniques, selecting subspecies, and purchasing races of bees that would be imported all over the world. Bees have accompanied colonizers in domesticating new lands. They became competitors of the local population of pollinators and, in some instances, led to the extinction of endemic species of plants and their specific pollinators. The long-lasting relationship between humans and bees involves co-evolution, co-habitation, and opportunistic and mutualistic exchange. To put it in Donna Haraway's words, bees are humans' companion species to the extent that humans and bees have learned to *become with* together (Haraway 2003). She develops her notion of companion species by delving into the relationship with her dog Cayenne (Haraway 2008), arguing that dogs are perfect for exploring interspecies, nature-culture, and the co-evolutionary relationship between humans and dogs. Yet, I argue that Haraway's notion can be beneficial to delve into the deep entanglement between bees and humans and other species. Drawing from Haraway's thoughts on domestication and becoming with other species, I argue that bees can be understood as companion species of beekeepers and particularly Sardinian beekeepers.

Bees are a rather peculiar animal to be analyzed as companion species because they lay at the intersection between domesticity and wilderness and amidst animal husbandry and agriculture. Anna Tsing pointed out that honeybees defy human control, notwithstanding they are also a symbol of domesticity (Tsing 1995, 120). Honeybees are kept in human-shaped hives to produce honey and to serve in the pollination system for

producing orchards. In a way, like cows, poultry, and sheep, bees can be considered domesticated. Yet they can abscond or swarm despite the efforts of the beekeeper to keep them in the hive. This peculiarity makes them hard to be stable and considered under the category of wild and feral, even when they are kept by humans. This might be the reason why beekeeping is still hardly considered an animal husbandry activity, and it is often linked to silviculture or horticulture. Haraway pointed out that in Western thought, only wild animals are considered separated by human domination, thus maintaining their subjectivity (Haraway 2008, 206). Bees question the Western categories of objectifying other species and dividing humans from 'nature.' The companion species notion seems to offer more opportunities to delve into the practices of Sardinian beekeepers and interpret their understandings of the relationship between bees and the environment. Companion species help us to avert the risk of interpreting the human-bee relationship in beekeeping without considering the world of organisms that co-operate with these species. For Haraway 'Companion species' is a bigger and more heterogeneous category than companion animal [...] it is 'A bestiary of agencies, kinds of relations, and scores of time trump the imaginings of even the most baroque cosmologists.' (Haraway 2003, 15; 6).

Beekeepers shape bees in their flesh and blood by selecting the queens and purchasing particular races of bees. Beekeepers do not merely change the bodies of the bees they keep. By moving hives in the environment, beekeepers change the bodies of the insects that live in different territories. Humans have moved bees for centuries (Crane 1999). The present-day configuration of subspecies of bees results from this long-lasting interaction between the bee populations and humans.

In the case of Sardinian beekeepers, the companion species honeybees enable beekeepers to develop a strong sense of belonging to the territory based on the notion of living together with the environment for a long time. Like Meratus' hunting beekeepers (Tsing 2003), Sardinian beekeepers entangle their lives in the lives of bees and other beings, and thus the forests, the countryside, and the mountains become a multitude of subjects rather than a place 'external' to the human. In their narratives, bees appear to take on the role of gatekeepers to the 'world.' Bees teach beekeepers to notice small species and to acknowledge their agency in the environment, not merely as pollinators but rather as creators of stories with plants and people and their relationships. Through bees, beekeepers seem to perceive the functioning of the environment as a living being composed of the intra-actions and co-actions of various organisms. These actions are not

fixed in time, but they constantly change with generations of people that interact with the environment.

From this standpoint, beekeepers consider plants, flowers, and other animals, as active subjects in the human-bee-environment relationship rather than mere objects of human domination. Plants and flowers are considered capable of suffering and struggling with climate change or human-driven disturbance and destruction. Crestfallen represents a sign of the pain of the flowers in reaction to some environmental problem. The brown-shaded color of the flower of eucalyptus trees indicates the dehydration of the plant due to climate conditions.

The intertwined connection between humans and bees urges us to include the environment in the relationship between insects and humans. In my notion of the Human-Bee-Environment relationship (henceforth HBE), bees take on the role of ‘connectors’ between humans and the environment. This is conceived for its external visual features and for the multitude of living beings that live and dwell within it.

By taking the bee’s perspective, beekeepers enable perception of the environment that goes beyond their human binocular point of view. This intellectual effort contributes to a detailed understanding of the relationship between humans and non-humans attuned to the presence of small critters that have a high impact on the human world. For Sardinian beekeepers, taking the perspective of bees means reflecting on the notion of Sardinianness imbued in continuity between humans and nature.

It is through the HBE relationship I argue that beekeepers develop a somewhat different notion of wild, domesticated, autochthonous, and allochthons that contrasts with the policymakers’ scholarly ecological and environmental understanding. Drawing on Haraway’s arguments on invasive species (Haraway 2008; 2016a, 234–36; see also Timeto 2020, 70–72), the scholarly ecological notion of allochthon species implies an objectification of certain species and the possibility of killing them or ‘replace’ them to ‘restore’ an authentic Sardinian species. This notion is utterly in contrast with beekeepers’ perception of mountains and environments as living being created by a multitude of subjects in which humans, plants, and animals, ‘assemblages’ (Tsing 2015) that are entangled by stories of mutual collaboration and opportunistic relationships that characterize their ‘living with.’

It is, I argue, by taking on this approach and by acknowledging the role of bees in the human-bee-environment relationship that we can access the intimate representations of the Sardinian identity that Sardinian beekeepers project to the environment.

In the following chapter, I will explore in detail the functioning of the HBE relationship with the Sardinian beekeepers. This will enable me to highlight the role of the Sardinianness in beekeepers' perception of the environment and of their sense of belonging.

7. The Sardinian identity in the relationship between humans, bees, and the territory

Drawing from the ethnographic material, the chapter highlights how various notions of Sardinian identity are linked to different understandings of places, memory, and their interaction with other species. Policymakers (but as I will also show some beekeeping associations) convey a concept of ‘endless’ immutability of an island that is lost in time and kept its ‘authentic’ Sardinianness. The contrast appears to lay on different sorts of temporalities in the understanding of the Sardinianness. Beekeepers that practice the ‘art of noticing’ appear to conceive Sardinia as a co-created place that results from the ‘endless’ co-work of humans and non-humans. In this chapter, I will explore how beekeepers conceive their sense of belonging to a specific territory. In doing so, I will highlight the role of bees as companions in the narratives of beekeepers, and I will show the functioning of the Human-Bee-Environment relationship.

In the following section, I show the intricate network of human relationships that link people and lands in choosing a location for an apiary.

7.1 Human relationships dynamics in selecting an apiary

Beekeeping — in Italy and particularly in Sardinia — does not require the practitioner to own the land where they locate the apiaries. As long as keeping bees is compatible with various other activities on the territory, beekeepers put their apiaries on someone else land without the need for a written agreement.

Yet, not every field is suitable for beekeeping. There are some rules that beekeepers must follow in choosing a good location to put the bees. Generally, beekeepers tend to avoid fields where pesticides are used or where bees can harm people. Depending on the type of apiary, migratory or resident, the following components are essential for the survival of the honeybee’s colonies: sun exposition in Winter and/or Summer, wind exposure, presence of water, nature of human activities nearby, types of vegetal species and their blooming period. The American bee biologist Roger A. Morse says that

A good apiary site is one that is secluded, exposed to full sunlight, and close to a multitude of flowering plants; it must have good air circulation and water drainage, and a reliable source of fresh water. It is helpful to have a small building nearby in which beekeeping equipment can be kept. An access road that is usable all year round is a necessity. The apiary site should be secluded because some people are afraid of bees, and others might vandalize the hives. [...] A sun-warmed colony with a large force of bees to send into the field will gather more honey than a colony that is shaded and cool and has a smaller field force. (Morse 1994, 15–17)

Finding good spots for putting the beehives represents a vital concern of beekeepers. It also requires a certain degree of expertise in recognizing the specific type of flora around the territory. Migratory beekeeping (not necessarily long-distance ones) needs to know various types of species that are available in which seasons if they want to produce a wide range of honey varieties (see Gruber 2021, 60).

In Sardinia, the search for ‘good places’ for the apiaries envelops to a network of human relationships which sometimes may include gift-giving circulation of bee-related products. A system based on gift-giving circulation coexists with more ‘formal’ ways of getting a location to put the bees. In the first case, to find a good spot, it is necessary to combine some local-based knowledge of the territory with technical expertise. This includes an intimate knowledge of local toponyms in Sardinian and a profound acquaintance with the kinship relationship of landowners. In Sardinia, the knowledge of the neighboring landowners and occasional land users (e.g., woodcutters, daily workers, helpers, shepherds, sharecroppers, and other beekeepers) is pivotal to protecting the beehives. They also need to be aware of the different people that have access to the land (e.g., forestry rangers, joggers, and other rangers). Finally, it is crucial to be acquainted with the nature of the relationship that all these people entertain with each other. This knowledge about the network of human users of the lands around an apiary is necessary to prevent hive thefts or other vandal actions against the bees, representing a primary concern for beekeepers. Generally, this knowledge represents a part of the local ecological knowledge that is handed down from generation to generation. I must remark that until recent times, land ownership in Sardinia tended to pass from parents to sons and daughters. Until now, the same family groups may own the lands. The knowledge about the dynamics of successors and land ownership is handed down.

The beekeepers I interviewed appear to possess an intimate knowledge of the human network around the territory where they practice beekeeping. Nevertheless, hive theft is increasingly becoming more popular in Italy and Sardinia, and sometimes it is unavoidable. In the previous chapters, I showed that hive theft in ‘traditional’ beekeeping was accepted as long as it occurred according to customary rules (Cfr. 124). These rules

appear to be connected to a system of network circulation that was investigated in the Mediterranean regions, where animal rusting was widespread (Moss 1979; Herzfeld 1988; Caltagirone 1989). In central Sardinia, anthropologist Benedetto Caltagirone showed that the theft of flocks broke the isolation between communities and promoted new forms of friendships (Caltagirone 1989, 124). However, society has profoundly changed from Caltagirone's ethnography as much as has beekeeping and hive theft. Present-day hive theft is no longer connected to the ritual system described for 'traditional' beekeeping (Cfr. 124-127). Hive theft nowadays severely affects beekeeping holding. Sometimes, thieves rob between 10% and 20% of beekeepers' total amount of hives. Thus, the theft represents real economic damage to beekeeping holdings. In general, after the rob, thieves separate the bee's families from the wooden hives and sell them separately to avoid being traced. Rarely are the hives found. Yet, the theft triggers a network of relationships that seems to produce new forms of friendship. The body of knowledge described seems crucial in this case. It enables the creation of the mechanisms of circulation and network-relationship building.

Besides simply *knowing* the networks of people, beekeepers should be on 'good terms' (*essi in bonas*) with the landowner who grants them the location and the protection from possible threats. Sometimes, in exchange, the beekeeper prepares a 'basket' (*sa mandadedda* or *s'imbiatu* depending on the Sardinian spoken) with the outcomes of the bees' toil. Often these gifts are shared during Christian holy days. Because being on good terms goes in both ways, the landowner may also give back small gifts to the beekeeper. In this gift-giving circulation, only goods produced on the land are exchanged between beekeepers and landowners. This system of gift-giving and the kinship relationship connected to it is not specific to beekeeping. In the Sardinian rural areas, the system is functional to build mutual identity and a sense of belonging between and within communities (Zene 2007, 299). The system of gift-giving makes explicit the type of relationship established between people. To be on 'good terms' means also to 'take into account' (*cracculai*) the other and therefore share with them their wealth (Zene 2005; 2007). Evidently, this type of relationship requires a strong social engagement from both sides.

In present-day beekeeping, the relationships between beekeepers and landowners based on gift-giving coexist with new types of agreements. It seems that the age, gender, and size of the beekeeping householding may determine a different approach to searching for good locations to position the beehives. Young generations seem to build their own networks of relationships under different systems. Recently, an ever-increasing number

of professional beekeepers have been seeking to draw up regular contracts for pollinating services with Sardinian holdings engaged in agriculture or nursery gardening. They represent a more stable solution that does not involve a strong social engagement with the communities where the apiaries are located. Nomadic beekeepers that move the hives throughout all of Sardinia territory find it more convenient to sign regular contracts with companies or landowners. In this case, the highly local-based network above-mentioned weakens. EU policies are influencing how community-based relationships are built in rural areas. Additionally, the tendency of the ARS to turn forests into regional parks and include them in Natura 2000 networks is also changing the relationships between beekeepers and between them and landowners when looking for good places for their apiaries.

Beyond how beekeepers establish relationships with landowners, I argue that these relationships represent the human dimension of what I have been calling the Human-Bee-Environment relationship. With this notion, I refer to the special bond that links beekeepers to bees, the territory, and other human and non-human beings. I argue that the daily work with bees enables beekeepers to develop a different perception of the environment and the relational dynamics between species. The 'human' dimension of the HBE relationship includes the memory of the ancestors, or, to be precise, the traces of ancestors that are embedded in the environment and their memory that is fixed in the Sardinian toponymy. The vernacular toponymy offers many references to the uses and presence of bees' families (Spiggia 1997; Pinna, Deiana, and Floris 2017), and the network of relationships that contributed to shaping the present-day environment. This toponymy contributes to creating a sense of belonging to specific places among beekeepers. They also represent the implicit context in which beekeepers operate on the territory.

Once defined what I consider to be the human dimension of the HBE relationship, I will now turn to the environmental level. In what follows, I will explore how beekeepers build their sense of belonging drawing from ethnographic accounts. In doing so, I will highlight how the HBE relationship works and produces alternative understandings of the Sardinian identity.

7.2 Belonging and the perception of the environment in beekeepers

7.2.1 *Efisio Mele and the Marmilla*

It is July, and I am surrounded by kilometers of golden-colored tidy farmed fields that climb back to the top of gentle hills and that lend an almost dull appearance to the landscape. The feeling of profound calm and silence embraces me. I am astonished by the tidy beauty of this landscape. You could think of not meeting any humans for kilometers. Yet, the road is quite busy. Farmers are driving their tractors; some big trucks hit the road, a few cyclists are riding, and even a couple of women are engaged in what seems to be their regular morning walk. At the roundabout, I stopped to let pass a shepherd and his flock. This is not unusual in Sardinia, and it happens very frequently on secondary roads such as this one. I keep driving and observing the landscape around me until I glimpse the small dome of Baumele¹⁰⁴ Church on the horizon. I stop to look at the map, and I soon realize that I need to call Efisio to know the directions to reach his laboratory. After I talk to him, I turn back and take on a narrowed, rutty path that ends right in front of the entrance door. I glimpse an apiary of about 25 to 30 colonies right on the left side, in a raised position. The bees look towards the neat hills cultivated before them. Efisio is waiting for me in front of the door. I wave at him, turn off the engine and get down of the car to meet him in person.

Efisio Mele is a 60-year-old beekeeper who lives in the countryside area nearby Baumele, a town of a little more than 1.000 inhabitants located in the historical region of Marmilla. Crop farming and winemaking shape the landscape of this region. Baumele is also famous for being the hometown of Antonio Gramsci.

When I enter the building, I discover that it functions as Efisio's house and as the honey laboratory. In the first room, I glimpse various 'vintage' beekeeping tools like brushes, smokers, frames, and old oak cork hives. On the left side lay a few large panels suggesting that this space was used for an exhibition not so long ago. A very old and rusty honey extractor is standing just in the middle of the room. There are some jars of honey on which the old label states *Apicoltura Razionale Nello Massa Aru, Baumele (Cagliari)*. Later Efisio explains that this is the original honey jar from his grandfather. Moving towards

¹⁰⁴ All the names of towns are anonymized.

the other rooms, I notice various bookshelves that host an extensive catalog of books. The beekeeper proudly explains that the books form part of ‘one the most important beekeeping libraries in Italy.’

My presence seems to trigger in Efsio specific strategies of self-representation. They become evident when he suggests arranging the first room for the interview ‘with the exhibition material so that we can use it as a background.’ As we are moving the heavy panels, he explains that the exhibition was meant to celebrate the role of his grandfather in developing modern beekeeping in Sardinia. Efsio points out that the building itself is erected in a field that belonged to his grandfather. He adds that it has ‘an ancient heart in a modern shape’ because it is built using ‘stones, about sixty thousand mudbricks produced by a company based in Baumele, and wood.’ He argues that it is a ‘bee-friendly building’ with a low environmental impact. When we finish, arranged in this way, the room becomes the perfect stage for Efsio to perform the interview before the anthropologist’s camcorder.

I adjust the focus, set up the microphone, and then the interview begins.

To break the ice, I ask Efsio to start with a short introduction of himself. ‘Should I tell you where I was born?’ he asks. ‘Well, you don’t have to...’ He does not let me finish the sentence, and he immediately starts to narrate his story as a beekeeper who works in Baumele:

I am no longer a teenager who does beekeeping because he fell in love with bees. Actually, I am the heir and successor of the family tradition, started by my grandfather Nello Massa Aru in 1917. [...] The tradition of beekeeping already existed for a long time in Baumele. In an old document of February 1654, Josè Mele took a hundred-fifty hives in sharecropping from the cathedral of Baumele. [...] The hundred-fifty hives given to the *pastor de abejas* Josè Mele were used to produce wax [for religious purposes] and honey. There is a long tradition of beekeeping in Baumele and Sardinia more broadly. My grandfather continued beekeeping until the 1960s. When he died in 1968, his daughter Anna Aru took over his company. Finally, since 1977 I’ve been practicing beekeeping without ever stopping. (Efsio Mele, Baumele, 19 July 2016)

This brief self-introduction summarizes Efsio’s understanding of beekeeping as a way to link to the territory and the memory of his ancestors’ beekeepers. The knowledge of the past forms part of his sense of belonging to the environment of Baumele and the Marmilla. In Efsio’s narrative, the lives of his ancestors intertwine with the history of Baumele. The ancestors become creators of the environment that Efsio appears to conceive in its human and non-human dimensions. It seems that by beekeeping, his relatives have taken part in the history of the town and the history of beekeeping on the

island. The reference to the past for Efsio is never based merely on oral memories. Instead, during the interview, he constantly refers to historical documents from local and regional archives and his family archives. The beekeeper seems to quote the documents to prove the accuracy of his narrative and the authenticity of his story. After a lengthy introduction, we enter the core of our conversation. At this point, I feel it is the right moment to ask Efsio what beekeeping means in his understanding. He answers me by quoting more historical documents:

I have a certification in organic beekeeping. I have always been sensitive to a form of beekeeping that nowadays people define as ‘bee-friendly,’ that is friendly, etc. I don’t know; I have always thought that you can practice beekeeping in the very place where you were born, where your grandparents were born. My family has been reported in Baumele since 1487. I have always thought that it was a good opportunity rather than a form of isolation, an excellent opportunity to keep doing what your ancestors have been doing [...] in the same place where they were born. I genuinely feel part of this territory; I am not just the heir as I said of activity; I am actually part of the landscape, a human landscape also, right? This is truly important to me [...].
(Efsio Mele, Baumele, 19 July 2016)

It seems impossible for Efsio to describe his personal way of keeping the bees without linking it to his relationship with the environment and its history. The relationship with the past is built by intertwining historical and archival sources with biographical memories. This link seems to support Efsio’s claim to belong to the place. However, it would be simplistic to consider it a mere strategy that Efsio uses to certify the veracity of his story. Instead, it seems to be Efsio’s way of building his relationship with the past and finding his place in the present.

Around twelve, we decide to turn off the camera. Efsio suggests visiting his old *tzia* Anna, who initiated him into the world of bees. She used to be a beekeeper herself, and Efsio is significantly linked to her. After a short stop-by at the house of the old aunt, Efsio suggests coming back to his house/laboratory, and he offers to make lunch for us. This seems a good opportunity to explore his way of beekeeping without the mode of representation connected to the use of a camcorder. This is also the moment that I can discover Efsio’s relationship with other beekeepers in the community.

I observe him while is preparing the pasta with the *nieddittas*¹⁰⁵, some mussels that are breed in the Gulf of Oristano, and a salad with some small pears and fruits he collected from the garden. He remarks that in choosing his food, he tries to keep consistent with his notion of the world. Eating locally for Efsio is a way to become part of the territory

¹⁰⁵ The term ‘nieddittas’ is a brand connected to the quality and the geographical location of the mussels’ production.

incorporating the food he contributed to creating through the work of bees that pollinate the plants around.

[...] Our genetic heritage is extraordinary rich. Do you want an example? The Monte Arci. The Monte Arci is a famous mountain because of the obsidian¹⁰⁶. Yet not everyone knows that 16% of Sardinian endemic vegetal species root in the Monte Arci. They are of beekeeping interest for both, providing pollen and nectar [to bees]. You can infer the extraordinary work of characterization, which outcomes of characterization [result from bee pollination]. Through a melissopalynology analysis, we could check the presence of these pollens in the honey produced in this area. Bees are unmistakably connected to the identity of this place. You could make the same discourse for the honeybee and this building as well. Other beekeepers don't think that it is helpful to make these choices. [...] this is a 'bee-friendly' building, friendly with the bees and with the environment in general. [...] I believe that a reflection on identity is not disconnected from making beekeeping a living. One of my jars of strawberry tree honey in New York costs 33 dollars. I believe we find a compromise between bees as God's gift and the potato bag. I believe there could be a middle way between myth and practice. But! We could do it by trying to take advantage of all the resources provided by the territory where one lives if we think that living in that very place makes any sense. (Efisio Mele, Baumele, 19 July 2016).

For Efisio, beekeeping is a form of taking part in the world. Beekeeping is part of Efisio's notion of staying in the world. He considers essential the work of bees in the environment. By pollinating, bees ensure the sexual reproduction of flowers and plants. This affects the landscape in its visually appealing features as well as in its productions. Wild and domesticated orchards would not offer their fruits without bees' intervention. The Sardinian pear tree (*Pyrus amygdaliformis*)¹⁰⁷, which complements the landscape of Marmilla, would not produce its fruits without bees' pollination. The beekeeper affirms that his salad of fruits and veggies would be different without this intertwined work of bees and plants in the Sardinian landscape. For Efisio, the Sardinian identity is strictly connected to the territory where he lives and with which he shares a mutual exchange of goods. Living in the Marmilla, eating locally, and working with the bees represent Efisio's form of resistance to the homogenization connected to globalization. However, the resistance for Efisio does not imply a narrowed vision of the world. Like the notion of Sardinianness developed by Renato Soru (Cfr. 28), Efisio considers his locally based identity a quality to distinguish himself in a globalized world. Nevertheless, Efisio's

¹⁰⁶ Obsidian is a dark-crystal colored igneous rock famous especially for its uses during the pre-historical Sardinian. The Nuragic civilization used obsidian to produce arrow's points and other weapons. (see Lugliè 2010)

¹⁰⁷ There are two types of pear trees in Sardinia: the 'real' pear tree, *Pyrus pyraster*, and the 'Almond-pear' tree, *Pyrus amygdaliformis*. The latter is the most common species on the valleys. The former is a rare species that can be found in the mountains.

notion of Sardinianness bases on the perception of the environment he developed by working with the bees.

Ef시오 appears to frame his sense of belonging in a broader context where he claims his place. For Ef시오, living in the Marmilla, claiming his historical roots, and eating locally does not prevent him from selling his honey at a high price in New York. On the contrary, his sense of belonging to the Marmilla and his connection to this little town makes him unique compared to any other beekeeper. Ef시오 uses these characteristics as a marketing strategy to sell his honey. However, this is not merely a marketing strategy but rather a way to claim his Sardinian identity in the global market. For Ef시오, there cannot be an identity without awareness and knowledge of the history and places where a person belongs.

In forty years of beekeeping activity, he built his concept of local honey and created a national and international network of clients that appreciate the taste of the territory. Recently, he also took part in the *slow food* chain. This aspect is not exclusive to Ef시오, and it is common among Sardinian beekeepers to create marketing strategies based on a strong micro-locality of the product and its connection to Sardinia.

Unlike other beekeepers in Sardinia, Ef시오 participates in the network ‘Workaway,’ a ‘community of global travelers who genuinely want to see the world whilst contributing and giving back to the places they visit.’¹⁰⁸ He regularly hosts volunteers from all over the world that assist him with the bees. By providing accommodation and food, the occasional workers help Ef시오 to achieve eight of the UN sustainability goals¹⁰⁹ that the beekeeper aims to tackle. According to the website of *Workaway*, working with the bees *specifically* in Baumele Ef시오 attempt to address the following UN goals: *zero hungry* (goal 2), *gender equality* (goal 5), *affordable and clean energy* (goal 7), *decent work and economic growth* (goal 8), *sustainable cities and communities* (goal 11), *responsible consumption and production* (12), *climate action* (13), and *life on land* (15).

The extreme locality claimed by Ef시오, is both a way of opening up to the world and a form of resistance to the homogenization and standardization produced by

¹⁰⁸ See Workway webpage: <https://www.workaway.info/en/community/mission>

¹⁰⁹ To know more about the UN Sustainable Development Goals see the webpage: https://www.undp.org/sustainable-development-goals?utm_source=EN&utm_medium=GSR&utm_content=US_UNDP_PaidSearch_Brand_English&utm_campaign=CENTRAL&c_src=CENTRAL&c_src2=GSR&gclid=CjwKCAjwu_mSBhAYEiwA5BBmf5LAS252K8s6Y6abBuAUR8m4xr7ffAFJ5bs45Z8vmIc0yoPxa7ISTBoCduQQAvD_BwE

globalization. Under the tension between locality and globality, Efsio conceives his identity as a beekeeper and as Sardinian.

During our lunch, Efsio goes deeper in telling me his vision of beekeeping. In his narrative, landscape and the ancestors seem to entangle. He explains his relationship with *tzia* Anna. She introduced him to beekeeping and taught him how to keep the bees, how to harvest the honey, and how to catch the swarms. In his story, the sites that he describes with accuracy telling me their name and locations, seem to have the same importance as highlighting that beekeeping is a family tradition. In Efsio's narrative, the apiaries and the landscapes of Baumele seem to become places where his memory entangles with the memory of his ancestors and with the history of Baumele and the history of Sardinia. In Efsio's narrative, 'memory' and 'history' are not linked by ritualized forms of 'remembrance' connected to a specific place in a specific timeframe.

Pierre Nora defines the sites of memory, *lieux de memoire*, as those places 'where memory crystallizes and secretes itself has occurred at a particular historical moment, a turning point where the consciousness of a break with the past is bound up with the sense that memory has been torn — but torn in such a way as to pose the problem of the embodiment of memory in certain sites where a sense of historical continuity persists.' (Nora 1989, 7). According to Nora, the sites of memory appear when the collective memory of an environment disappears. Consequently, the need to attribute symbolic value to places and buildings that enclose the illusion of eternity (Ivi 1989, 12). Nora's notion of the site of memory does not seem appropriate to interpret the link between memory, history, and places in Efsio's representation strategies. Instead, it seems productive to follow anthropologist Cosimo Zene's analysis of social processes in the Sardinia (Zene 2005; 2007). Zene suggests that in interpreting some social facts in Sardinia, it is helpful to recover the indigenous meaning of *su connotu* (what is known, handed down, given) and use it as an analytical tool. As Zene points out, in Sardinia, the notion of *su connotu* embodies a bipolarity that pivots around: (i) what it may be defined as 'cultural heritage,' that is, language, culture, local knowledge, customary laws, poetry, and (ii) a more tangible domain constituted by the material goods, which it includes the lands, houses, flocks, that have been handed down and therefore represent the 'inheritance' that belongs to a family, a group, a village, or even to an entire region (Zene 2007, 295). I argue that Zene's approach proves pivotal to understanding the symbolic value that the beekeeper attributes to Baumele's landscapes and the apiaries.

Applying *su connotu* as an analytical tool to Efisio's narrative enables us to observe that the apiaries, the landscape, the family's stories, and the old beekeeping tools represent for the beekeeper what he has got from his ancestors, his 'inheritance.' By remembering the past of beekeeping in his family, Efisio is paying respect to his ancestors (*is antigus/sos mannos*). In the meantime, he contributes to keeping alive his inheritance (Ibidem). I must remark that according to the Sardinian meaning of *su connotu*, remembering implies 'knowing' the past, that is, *being aware of it*. From this perspective, the incessant reference of Efisio to archival documents represents a way of 'knowing' and shows his relationship with what has been handed down. For Efisio, knowledge is the mean by which to acquire the right of belonging to a place. Zene highlights that *su connotu* is not a fixed entity; rather it is meant to change generation after generation through the toil and labor of people (Ivi 2007, 296). I argue that *doing* beekeeping (*traballai cun is abis*) represents a way of taking part in the ancestors' history and ensuring to transmit *su connotu* to the next generations. By working with the bees, the beekeeper takes his place in the present, and he actively participates in passing on what is known.

For Efisio, what is handed down, the 'tradition' (in the Latin sense of *tradere*), does not pertain exclusively to his inheritance. Instead, he considers beekeeping in his family and Marmilla as a part of the history of beekeeping in Sardinia. This represents a sort of shared heritage among the beekeeping community.

Efisio considers the genetic characteristics of honeybees part of *su connotu*.

I would be very interested in working on an identity process to [scientifically] retrace the lineages of the Sardinian honeybee if she resisted and exists. I genuinely believe that working with our local genetic patrimony can be much more productive than bringing other species and waiting for they will adapt to here's condition. In this sense, I want to trust the thesis of the beloved professor Giovanni Lilliu regarding the so-called 'constant resistance' of Sardinians. Therefore, I hope that these attempts to make easy money, because this is what it is, drown. That is, I hope they fail miserably. This is my honest wish. I refer to the senseless importation of honeybees. I refer to this desire to, let us say, produce fast. [...] It is useless to grow chardonnay. Work on a good local cultivar instead. That is, select something that represents the best of your local heritage and work on that. Because we have adjustment problem when you bring a queen here that is adapted to a different climate, pedological, and botanical conditions very different [...] I say that it is better if we work on the existing, *su connotu* we used to say, the known, delving into the knowledge of it. (Efisio Mele, Baumele, 19th July 2016).

For Efisio, the landscape and the environment embed the essence of being part of a place. The landscape is both the result of a long co-creation process and the inheritance that can be handed down. The landscape is inherited from the past and produced in the

present. The landscape, in its biological components, also forms part of *su connotu*. For Efisio, beekeepers and bees have a pivotal role in passing down the landscape from generation to generation. The gentle picks covered with prickly pears, the twisty roads towards the *casteddu*, and the numerous vineyards that characterize Baumele's territory are all elements of a space co-created through centuries of the toil of humans and non-humans in their inter-actions. That is, the landscape embeds the traces of the past, but, in the meantime, as the landscape is constantly shaped in the present, it also represents a canvas on where to draw current imprints.

Efisio's actions on the landscape depend on his bees, or, more precisely, on his way of beekeeping, moving the bees to follow the blooming seasons, or simply leaving the apiaries in a fixed location. It is only by assuming the interconnections between the vegetal endemic species, honeybees, beekeepers, and honey in the narrative of Efisio that we can understand his notion of Sardinian identity and beekeeping.

Obviously, Efisio's notions of beekeeping and being a beekeeper in Baumele and in Sardinia are rather refined. In this regard, I should point out that apart from managing about two hundred bee colonies, Efisio is an archivist and librarian. He also works as a cultural operator and book editor on several projects with his brother. His archivist attitude constantly emerges in his reconstruction of the professional identity of the beekeeper. However, Efisio can be considered an intellectual for his concept of staying in the world conveyed by working with the bees. It is by *doing* beekeeping that Efisio seems to have learned the 'art of noticing' to pay attention and grant care to different species.

Although not as refined, other beekeepers appear to share Efisio's understanding of the relationship between beekeeping and becoming part of the territory. The fieldwork showed that by working with bees in a given territory, beekeepers develop an intimate knowledge of that area that ultimately enables them to perceive themselves as a part of that place.

In what follow, I will offer the ethnographic accounts of beekeepers from the Sarrabus, in the South-east coast of Sardinia.

7.2.2 *Beekeepers in the Sarrabus*

The first time I visited the Sarrabus was in the spring of 2018. I contacted different beekeepers in the area to organize some days of fieldwork. Before researching

beekeeping, I had never come to this side of the island. About 80 kilometers with bends have always dissuaded me from visiting the beautiful shorelines of Sarrabus. I fell in love with this region the very day I came here. The peaceful sunsets gently embrace this area that seems populated by mistake. Now I appreciate the gentle hills of this region, the colorful countryside with the scent of oranges, and the beautiful crystal-clear waters on the seaside. ‘Sarrabus has everything. There is everything here: the sea, the countryside, the sweeps of wheat, the rocks, the mines. Everything!’ stated one of the beekeepers I interviewed here. It might be true somehow.

Giancarlo Bono. After two hours of driving northeast from Cagliari, I finally arrive at Ollasteddu, at the house-laboratory of Giancarlo Bono. I glimpse the giant white billboard with blue letters at the entrance indicating the short dirt path that leads to his laboratory.

Giancarlo is an old beekeeper and friend of my father. He and his wife Maria hosted me while I did fieldwork in this area. Maria arranged for me in their son’s room so I could be comfortable because ‘he no longer uses it as he does not live here anymore. He’s traveling all around the world for his job. He only comes back a few times in the year.’

I arrive after lunch, in the late noon. Giancarlo is waiting for me, wearing a beekeeping suit, visibly tired, probably after the whole day working outside. My camcorder is ready to be used next to me on the passenger seat. I’ve learned to be prepared, as beekeepers’ plans often require to be ready, and there is no time to adjust the camcorder and microphone from scratch.

I thank Giancarlo for his hospitality, and he immediately asks me about ‘the situation.’ ‘How is your father? I am waiting for confirmation from a politician to modify the law for importing the *noackae*. This time seems the good one, but let’s see.’

‘Noackae’ is the short name for the *Cleruchoides noackae*, the natural antagonist of the *Thaumastocoris peregrinus*. The latter was accidentally imported into Sardinia in 2014, causing severe damage to eucalyptus tree forests (Cfr. 223-228). Giancarlo took on the extraordinary role of negotiator with policymakers to activate the biological fight against this pest and import the natural enemy. When we met in 2018, the situation was still uncertain, and Giancarlo was still heading a fight to change the laws.

We speak briefly about the issue of the eucalyptus. Then, he asks me what I want to do, suggesting we can take advantage of the nice weather and sunlight. ‘Let’s go visit a nice apiary of yours!’ I propose. ‘Have you ever been in the Sarrabus?’ he urges me. I

follow him up to the stairs that bring us to the open roof of his house. He begins describing the landscape all around his land, pointing out the most important things:

We've also got archaeology here! Up there, look, you can sight a nuraghe, and on there, there is a medieval castle. Then, come here. During the middle age, crossing this road, you can still see some ruins, where you see those little houses. Now they are restored, but in reality, they date back to the 1000 Century and 1300 A.D. That was the old village of *Bidda Majori*. Later I will explain how *we* discovered this unknown village corresponded to *Bidda Majori*. There you see Capo Ferrato with the lighthouse, far there you see the Sette Fratelli Mountains, then *Sa figu* down there, deep into the gallery from the road you drove to come here, then on the north side, there are three villages: Bacu Arroddas, Gibbas, and Narba. Finally, close by, there is Ollasteddu. There, there was a medieval castle. Down there was the village, and up there was the medieval castle of Arculenti. Now, here, you see the situation? So, here is the valley where there is the citrus. Eucalyptus and citrus. Also, on that side. From this part, the mountains begin, and thus another type of flora begins. There is *Asphodelus*, the European wild pear (*Pyrus pyraster*), Lavander (*Lavandula stoechas*), the Carob tree (*Ceratonia siliqua L.*), and up above the Strawberry trees (*Arbutus unedo*). This land used to be inhabited by the Nuragic culture, and then later because two rivers merged here. This is a fertile land. Well, now that I've shown you the territory, we can hit the road. (Giancarlo Bono, Sarrabus, 28th March 2018).

Giancarlo chaperons me throughout the meaningful places in this environment. The journey to reach the apiary takes on the shape of a guided tour. Giancarlo offers me accounts of the flora and fauna of the environment intertwining this description with pieces of information about archeological and historical facts. There seems to be a continuity between artifacts and natural elements in his narrative. To Giancarlo, every pick reveals the long history of the Sarrabus landscape and the human interaction and impact on the territory. Pointing out to a mountain, Giancarlo tells me that the 'biggest' silver mine in Europe used to be here in the Sarrabus.

I observe this unknown landscape before me. The thick Mediterranean shrub covers the hills all around. I can't glimpse anything rather than small bushes of lentisk (*Pistacia lentiscus*) and Euphorbia (*Euphorbia characia L.*, *Euphorbia dendroides*) that alternate with windbreaker belts of eucalyptus trees (*E. camaldulensis Dehn.*). Occasionally I see prickly pears (*O. ficus-indica*). Bushes of sage leaf rockrose (*Cistus monspeliensis L.*), carob trees (*Ceratonia siliqua L.*), and oaks (*Quercus coccifera*) dress the hills here. From my perspective, I can only notice the vegetal species that populate this landscape. Their richness seems to have facilitated beekeeping on these hills:

Well, down there, this is called *Serra is abis* [donkey-shaped hill of bees], and on the top, there is the *Nuraghe is abis* and there, there was the medieval village of *Pranu is abis* (hill of bees). Because this area is rich in lavender and thus probably the bees... When I was young, about six/seven hundred *casiddus* there. Then, the American foulbrood decimated the colonies because

with the *casiddus* you can't inspect the hive. Because they put about six hundred *casiddus* in the same hillside. And then, all of them died, bringing bees again. Now, we are going to the apiary next to the silver mines of the Masalò. On the west side, six silver mines belonged to the French people. I guess it would be better if I stopped beekeeping and started doing guided tours. Yet, I need the license for that too. (Giancarlo Bono, Sarrabus, 28th March 2018).

During the seventeen minutes of car driving, Giancarlo offered me much information regarding the history of the mines in this area, as well as pointing out the places where the Nuraghi are located. He also highlighted the medieval towns scattered all over the irregular hills. Along with the historical account, Giancarlo explains which kinds of flowers are available to the bees and describes to me the climate challenges that flowers, and insects must face. He appears to be very excited about the possibility of talking with me about the things that matter to him. Giancarlo's passion for the history of the area is even more remarkable given that he was born and raised in North Italy. Together with his wife, they moved into the Sarrabus in their 30s. The slogan of 'returning to the land' move them to leave the place they were raised. The Sarrabus appeared to Giancarlo and Maria the place where they could genuinely live with nature and avoid the 'terrible urban sprawl' they were witnessing in the North Italian regions.

At that time, Giancarlo had some knowledge of beekeeping because he did an apprenticeship at the beekeeping company of a professional nomadic beekeeper in Emilia Romagna. Beekeeping sparked Giancarlo's interest. When he arrived in the Sarrabus to work as a farm helper, he and his wife started to keep some bee colonies. Although Giancarlo considers the beekeeper Orlando Sarti, his Master, he argues that he has steeled with his eyes much information from 'traditional' beekeeping and how people kept bees in the *casiddus*.

Giancarlo and his wife Maria live in the simplest way possible. Hills covered with Mediterranean shrubs surround the house next to the laboratory of beekeeping and hide the sight of the shoreline close by. Like Efsio, they also eat the food they grow in the garden they cultivate behind their house. From our conversation, I understand that both engage in several social activities with people in the communities nearby. Giancarlo appears to oversee the work in the field. Maria instead takes care of the activities at the laboratory and the relationships with the clients. This gender division in running the beekeeping holding is quite common in Sardinia (Cfr. 138).

A few years ago, the health state of Giancarlo led his daughter Gianna to take over the physically demanding practices. Despite Giancarlo keeps overseeing his daughter's job to be sure that 'she did what she had to,' Gianna is the 'beekeeper's practitioner' at

the moment. She is a forty-year-old woman who lives nearby with her husband and two children. I meet her the day after my arrival when she prepares the truck for the day. She explains that I will follow her and her helpers in the seasonal activity of swarming control. This is a usual and mandatory phase of beekeeping spring management.

There are several ways to prevent bees from swarming. The scale of beekeeping holding, the way of doing of the beekeeper, the goals in production, the material available, the type of hives used, and the attitude of bees determine the methodology of swarm control. Beekeeping specialist literature is abundant in methods for swarming control and prevention (Morse 1994, 64–73; Contessi 2021, 380–83). Each beekeeper may apply their variants to the ‘official’ methods.

In a Telegram group of beekeepers, the regional beekeeper and specialist Michele Tomasello suggests using a double super to bring uncapped brood’s frames and eggs above, replace them with capped brood and wax foundations or built combs and keep the queen in the nest with these frames.

Once the brood is inverted, that is, when there is capped brood in the double super above and capped in the nest, you remove the frames from the double super where there is also the varroa in its reproductive phase. Thus, in practice with this method, on the one hand, I provide many frames of capped brood and bees to make a nucleus (that must be treated immediately after the first adult emerges). On the other hand, I recover the weak families while also cleaning all from the varroa mite infestation. (Mario Tomasello, Telegram group of beekeepers, 2022)

Gianna does not use this method. Instead, she follows Giancarlo’s experience. During the swarming fever, she systematically inspects the hives and removes all the queen cells on the frames. This is what I will be filming today. Two helpers assist Gianna: Mario and Rebecca. The first is a young guy in his twenties, the latter a forty-years old woman with a strong accent from North Italy. Before going, Gianna fixes a few comb foundations on the wooden frames. While she prepares the truck, we shortly talk about the day and whether I should follow them with my car to be free to live when I need. They will keep removing cells non-stop, all day long until evening.

Once the truck is loaded, we are ready to leave the laboratory and drive to the apiary. Mario and Rebecca accompany Gianna in the truck. They stop by a small grocery shop to buy a big sandwich with mortadella, and then Gianna drives to the apiary. We proceed along a bent road full of eucalyptus on both sides. After a few minutes of driving, we reach a tidy apiary where roughly thirty beehives lay on a small plane field. On all four sides, tall eucalyptus trees protect the beehives. Gianna opens the truck, and they all start to prepare the field for the coming activity. Rebecca puts three metal stands on three

different points, Mario puts down a few supers, and Gianna lights on a piece of jute cloth to insert inside the smoker. They chat a little while, and Gianna kindly explains where to put all the tools. When Gianna starts to open the first hive, she immediately grows apart and does not utter a word.

I observe them working, focusing on how they dress and move their hands and bodies. They all wear a beekeeping suit and a bee veil. All of them have rolled up the sleeves of the beekeeping suit and work gloveless. This unusual ‘set-up’ surprises me, and I ask Gianna why they are all covered except for their hands. Gianna informs me that working gloveless is part of Giancarlo’s approach to bees. He believes that without wearing gloves, the beekeeper *feels* the hive and moves respectfully to the bees. The kindness of the movements does not slow down Gianna. She rapidly inspects the hives, catches the queen in a small cage, removes all the queen cells on the frames, then puts the queen back inside the hive, closes it, and starts with a new one. Every gesture seems in harmony with the rhythm of the bees’ humming. For every hive they inspect, Gianna writes down all the information regarding the status of the colony, the possible activities to do, and any remarks that might be useful for her to have a general view of all beehives. After some hours of work, I let Gianna, Mario, and Rebecca continue their job, and I return to Giancarlo and Maria.

The day after, I filmed Gianna and Mario working at the apiary in front of the laboratory, at the donkeys’ field. An extraordinary glooming of *Asphodelus*’ flowering (*Asphodelus microcarpus*) surrounds them. The calmness of Gianna and Mario’s movements reflects on the bees. The insects are extraordinarily quiet, allowing me to observe them closely without fearing for my life. By getting closer to the bees, I can dwell on observing better the relationship and intra-actions between Gianna and the insects. Observation is my most important source of information regarding Gianna’s way of beekeeping. She does not have time to stay longer at the beekeeping holding because she has to take care of the household management and the kids.

Instead, during my visit, I spent many evenings after dinner talking with Giancarlo and Maria about beekeeping and discovering more about why they ended up in Sardinia.

Already in 1980, we started to catch some swarm, and from that, we began. We realized that this was an area where we could practice beekeeping successfully because of the presence of wild pastures, where Nature expresses with natural blooming that is not disturbed by plows. The bee is a wild animal. Where tractors and plows rule, cohabitation is difficult (Giancarlo Bono, Sarrabus, 30th March 2018).

In Giancarlo's narrative, humans, bees, plants, and history belong to the same place. Through beekeeping, Giancarlo seems to develop a strong sense of belonging to the Sarrabus. However, Giancarlo's attachment to this place appears slightly different from Efisio's construction of the sense of belonging. Obviously, Giancarlo cannot claim 'a long history of ancestors' to remember. Yet, his sense of belonging seems built on the same symbolic features that other beekeepers refer to. Giancarlo appears to use the knowledge he acquired on the Sarrabus' archaeology and history to claim his sense of belonging. His and Maria's notion of living close to 'nature' represents a component of their construction of the sense of belonging to this place. From their intertwined after-dinner discourses, it seems that some profound bond links them to Sardinia and specifically to the Sarrabus. Giancarlo's endeavor to save the eucalyptus shows his ability to create an international network of people to tackle this task. Nevertheless, his world is the Sarrabus and Ollasteddu. He feels attached to this very place, and he can't help finding every moment to enthusiastically share with me the stories about archaeological evidence of this area.

On the last day before my departure, we arrange to interview him in the courtyard after lunch. Throughout all these days, he seemed to try to avoid a direct interview with the camera and preferred to talk about the different topics of beekeeping casually. Maria convinced him to talk with me about his role in the eucalyptus issue before I left. During the interview, he explains to me better what it means for him to keep the bees.

Beekeeping is a job that keeps you in contact with the development of the seasons of the blooming. It is an incredible way to take part in the life of Nature. And you get enthusiastic about participating in this dynamic where from Winter, then plants start blooming, and we follow them with our bees, we move them from one flowering to another. We harvest the honey and move them for another blooming. It is not dull. An extraordinary enchantment welcomes every blossoming season with excitement for taking care of the bees and moving them according to the time and characteristics of flowers and plants.' (Giancarlo Bono, Sarrabus, 30th March 2018).

From his words, he seems to describe a profound bond with the environment and the species that co-inhabit it. Probably tactlessness, I urge him, 'It seems you also suffer from swarm fever?'. Giancarlo smiles while looking at some point far away, trying to avoid eye contact with the camcorder. He admits that caring for the bees, he developed a sort of 'longing for Africa' or '*mal di Sardegna*', quoting the famous poem by Marcello Serra¹¹⁰.

¹¹⁰ Marcello Serra wrote the poem *Sortilegio* in 1982. The poem describe the sort of enchantment that the 'island of Sardinians' exert to people by naming all sorts of its natural beauties. Here I report the text in Italian: *Quando ti staccherai per ripartire | dall'Isola dei Sardi | con la memoria densa | di favolosi incontri, di paesaggi | senza tempo e di antiche creature | pazienti, allora il cuore, | fratello d'oltremare, | ti peserà come un frutto maturo. | I*

Despite the melancholic hue in Giancarlo's gaze, I ask him a very intimate question: 'Does it mean that you feel Sardinian after many years?' At this point, I finally sense the profound emotions triggered by this question. I look at Giancarlo's eyes and observe his vain attempt to conceal his deep feelings. At this moment, I realize that in the past days, he was not avoiding the camera. Instead, he was probably trying to avoid sharing his intimate relationship with the Sarrabus and with Sardinia. I turn the camera off to respect his intimacy. Maria comes in and tries to support him.

After some minutes, he breaks the silence, turns on me, and says: 'Turn on the camera! I want to tell you this, I want you to record this thing!'

Here in Sardinia, the horizon before you are very wide. Then, the flora is always green. Thus, we could say that there is always Spring; I could not live in the place where I was born where in Winter, all the trees lose their foliage. Nature in Sardinia is overwhelming, it is everywhere. Some people affirm that Sardinia is a poor region. I say that here there are seas and mountains. Thus, it depends on what a person considers wealth. Am I Sardinian after all these years? I chose this region and the Sarrabus in particular. (Giancarlo Bono, Sarrabus, 30th March 2018).

The days spent with Giancarlo in the Sarrabus offered me a glimpse of his way of conceiving his 'acquired' Sardinianess, although he struggles in loudly self-defining Sardinian. The cornerstones of Giancarlo's sense of belonging are shared among other Sardinian beekeepers: knowing the historical, natural, and human characteristics of a place by taking on the perspective of the bees. Yet, for Giancarlo is difficult to claim a Sardinianness because he doesn't have 'roots' on the island. In contrast, he proudly highlights that Gianna wears the traditional dress of Gibbas and participates in folkloristic groups. She can claim to be Sardinian because she has roots in this place; she was born in Sardinia.

The construction of the sense of belonging for Giancarlo appears to base on the intertwined relationship of co-habitation and co-creation between bees, their keepers, and the landscape. This multispecies consistency allows the first to take part in the endless cycle of 'nature' that renews every year.

*tuoi occhi e i pensieri stenteranno | in quel commiato a sciogliersi | dalla terra, che quanto più dirada | tremula all'orizzonte,
| sommessa più nell'anima s'addentra | con il suo sortilegio. Con un filtro | che ha il profumo del timo del Limbara | e del
vino d'Oliena, | l'alito dei lentischi, | delle macchie di cisto, | il fiato delle umide scogliere, | il sapore del miele di Barbagia,
| la dolcezza dei lidi e dei tramonti | lungo il Golfo degli Angeli, | il colore d'Alghero stemperato | con le sue torri bionde
e le sue guglie | tra rive di corallo, | la forza millenaria | dei toneri d'Ogliastra | e dei graniti azzurri di Gallura. | Questo
filtro spremuto alle brughiere | e dal seno dei toscchi, | dai vertici dei monti e dal respiro | degli abissi marini | ti correrà le
vene in un languore | dolce ed amaro di malinconia | che forse chiamerai mal di Sardegna.*

For Giancarlo, there is a continuity between bees and their keepers. He believes the beekeeper can dissolve the differences in races and ecotypes and create harmony between the colonies and the keepers. He seems to conceive of existing a profound consistency between humans and bees.

I argue that the specific need to know the territory in its human and non-human features for practicing beekeeping, in time, enabled Giancarlo to feel to have become part of this territory. The profound bond he shares with the landscape of the Sarrabus through the work of the bees makes him feel to have acquired his Sardinianness. Yet, the Sardinianness for Giancarlo is an intimate matter that should not be part of the public debate.

Lino Deias — While I am in this region, I take advantage of meeting other beekeepers that are willing to talk about their understanding of the activity. The beekeeper Lino Deias appears to share with Giancarlo similar notions of the opportunities to follow the cycle of ‘nature’ offered by beekeeping. Lino is a 60 years-old beekeeper living in Narba, a small town close to Ollasteddu, where Giancarlo lives. Lino remarks that he does not consider himself a professional beekeeper. Instead, he believes that Giancarlo and surely Fabio Aru, who respectively own around 300 and 1000 colonies, can be considered professional. Lino manages 100 colonies with the occasional help of his wife. He sells his products in the local street markets. In December 2017, he participated in the beekeepers’ protest in Cagliari to claim the intervention of the policy-makers for ‘saving beekeeping’ (see Bulla 2017).

It was afternoon when I reached his house. The abundant flowering plants that decorate the entrance spark my attention.

The house is impressive. A beautiful wisteria with its violet flowering branches runs gently from the flowerbed at the entrance up to the sloping roof, creating a scenic and scented arbor. Different kinds of flowers are orderly and distributed in the garden around the house. The humming of all sorts of bees welcomes in this fascinating insect’s paradise. I immediately notice the unusual style of the architecture of this house; it reminded me of the buildings in North Italy. When I arrive, Lino is alone waiting for me. He welcomes in the living room, which design with the red-colored matchboarding resembles to 1970s style. Various drawings hanging on the walls spark my attention: they seem hand-made from an expert draftsman. (Fieldwork notes, 29th March 2018)

Lino prefers not to be filmed. Thus, I leave my camera on the wooden table. We begin to talk while he prepares a cup of tea for the two of us. He tells me that when he was young, he migrated to Germany. There he worked as a technical illustrator for a factory. Despite the earnings, Lino was not happy with the job. At some point, he decided to take his way back to Sardinia. He bought a piece of land in the Sarrabus with friends and funded a commune. It appears that the same principle of ‘returning to the land’ that guided Giancarlo to move into the Sarrabus also convinced Lino of the endeavor of the commune. Along with various agricultural activities, they also began to keep bees. Eventually, the idea failed, and each friend took his path alongside a piece of land. However, this experience moved Lino and his fellow friend Venanzio Cuccu¹¹¹ to go on beekeeping. Nowadays, after forty years, the two friends work on a somewhat different scale of business: Lino maintains a ‘peer-to-peer’ scale of business that allows him to keep an intimate relationship with each colony. As for Venanzio, he built one of the most extensive beekeeping holdings in Sardinia and has become a point of reference in the community.

After a while, Lino’s wife, Maura, comes in and joins the conversation about the role of beekeeping in their lives. Maura explains that she comes from the North of Italy and that ‘I met him in the aftermath of the earthquake in Friuli. Everyone was affected, and also my family’s householding. Lino came as a volunteer to help us.’ Maura’s father worked in a plant nursery, and she admits to having inherited the love and expertise in plant gardening. The beautiful garden in front of their house is the result of her love for vegetal species.

For Lino and Maura, beekeeping offers the opportunity to follow the rhythm of ‘nature,’ to live in strict contact with the land. Lino explains that during the past forty years of beekeeping, he developed his notion of working with the bees based on minimum interventions and following the insects’ needs. While we speak, Lino constantly compares his way of beekeeping to the practices of Fabio and Giancarlo. The beekeeper believes that an utter difference in approaches to the bees distinguishes his way of dealing with the insect from the ways professional beekeepers do.

When you have a such number of hives, you don’t have time to take care of each carefully. You don’t care. A professional beekeeper showed me once that they do not use the metal distancing in the hive because it takes time to put the frames, and he instead takes a bunch of them and throws them inside

¹¹¹ In this inquiry I did not personally meet with Venanzio, although beekeepers often refer to him as an influential professional beekeeper.

the super and goes on with the other. There is no care in doing beekeeping in that way. (Lino Deias, Sarrabus, 29th March 2018).

In Lino's notion of beekeeping, the beekeeper must serve the bees and learn how to understand the colony's needs by simply observing them from outside. Every intervention inside the hive represents for Lino an intrusion that stresses the bees. This notion represent an important element of Lino's way of doing beekeeping and is shared among other beekeepers beyond Sardinia (Storch 1985).

Despite his attunement to bees' needs, there seems to be a concept of a profound discontinuity between bees and humans in Lino's concept of beekeeping. Unlike Efsio and Giancarlo, that consider humans for their ability to co-operate in the creation of a landscape, Lino sees humans as disturbances of 'nature.' He remarks on this notion in the honey he sells. The label states: 'produced by the bees, harvested and wrapped by Lino Deias.'

The label deserves analysis on its own. On the front, some yellow liquid spurs from a hole in a giant oak tree. On it, we found the indication that states, 'Original honey from Sardinia.' On the right side of the tree is information about how to store the jar. On the left side of the oak, on the top, the draw of a Nuraghe precedes a 'traditional song' in Sardinian and Italian. The song states that the honey is so abundant that it gushes from the oak's trunk. Finally, at the bottom, the above-mentioned indication of who produced the honey. It is possible to believe that Lino himself designed the label. All the element refers to the ideal Sardinian identity explored in the first chapter. Although they are used for commercial strategy, the conversation with Lino helps to shed light on this too-easy association. Each element seems to suggest that Lino considers the territory as a fundamental element of his relationship with beekeeping.

The short time spent with him, and his wife does not allow me to delve into his notion of Sardinianess concerning Lino's notion of beekeeping. This is why I will now turn on the beekeeper Fabio Aru, whom I met several times between 2018 and 2021.

Fabio Aru — In contrast to the short visit to Lino, various fieldwork trips and different public meetings offered me the opportunity to explore the concept of beekeeping of Fabio Aru and his wife, Lucia Troncia. Fabio was born and raised in Gibbas. Lucia grew up nearby Cagliari and moved to the town when she married Fabio. Fabio and Lucia's beekeeping holding consists of approximately 1.200 colonies. All of them are located in the surroundings of Gibbas. Fabio and Lucia practice short-range nomadic beekeeping in the Sarrabus. However, it might happen that at the end of the swarming fever, the

beekeepers move some apiaries to the mountains in Ogliastra or the Sulcis. This extended range of nomadic beekeeping ensures they produce different types of honey for their customers. They offer a wide variety of honey, along with honey-based creams, candles, and honey-based cosmetics. They do not seem to sell their honey on the large-scale distribution chain. Instead, their market appears to cover local and touristic requests. They also sell their products through online websites that sell other 'traditional' products from Sardinia. Recently, they developed an app to retail their products online. All these aspects suggest that Lucia and Fabio conceive that beekeeping is professional entrepreneurship capable of building its market chain outside the large-scale distribution.

Because only a few Sardinian beekeeping holdings possess over 1.000 colonies or more, Sardinian beekeepers consider Fabio a point of reference for his entrepreneurship and expertise. He used to be part of the past regional beekeeping commissions, and he's the spokesperson for the *Coldiretti* in the current beekeeping commission. Notwithstanding this public role, Fabio has a rather shy and humble personality. He does not appear to show off the man braggadocio that is very common in most male professional or part-time beekeepers.

Unlike other beekeepers that usually have their houses next to the honey laboratory, Fabio and Lucia's home is probably in the town center. In the town center, they also have a shop for tourists and locals. Their laboratory is located along a bend narrowed countryside road in the surroundings of Gibbas. Probably due to the scale of the holding, two large warehouses compose the laboratory. He explained to me that a recent arson forced them to downsize their capacities, and thus probably, it used to be even bigger.

The scale of Fabio and Lucia's business mirrors the organization of the inside of the depots. The first time I entered the building, I was impressed by the thousands of supers tidily piled up, forming an aesthetically appealing composition with their colored sides. At the bottom of the first room, I could see substantial stainless steel honey storage tanks alongside smaller white plastic buckets used to store honey. There were also packages for selling bigger quantities of honey. Honey extractors and the working chain of honey have probably been used not a long time before, and yet everything appeared so clean and perfectly tidy. Tidiness is a characteristic of Fabio's work also at the apiaries. The grass on the fields is always cut. The two helpers follow Fabio's instructions and work tidily and smoothly.

As far as I could see, Fabio and Lucia ran together with their beekeeping holding. The gender division here does not appear so strict as Lucia admits preferring working in the field and that only lately she is dedicating herself to the laboratory.

We used to work together; we did all the jobs together, just him and me. I started on one side, he started on the other, and we would meet in the middle of the apiary. I would only ask his opinion in a particular situation where I needed a second look to be sure what to do. I enjoy more being in the field, and I do not especially like the work at the laboratory, but we do what we need to do to keep on with the business. (Lucia Troncia, Sarrabus, 30th July 2019)

I told her to work with queen rearing as this might be better for her. Women are much more precise in doing this task. But she doesn't like it. Thus, I must do this work on my own. But we used to go on the field together; we did a lot together. We always share our opinions on what to do. We even used to do nomadic beekeeping, such a stressful job! Waking up at 3 A.M. to move the bees in the middle of the night from the Sarrabus on the east side to the west side of the island! (Fabio Aru, Sarrabus, 30th July 2019).

Despite her expertise, Lucia prefers not to take an active role in the public discourses about beekeeping in Sardinia, and she also appears less keen to be interviewed. Thus, here the main focus will be Fabio and his understanding of beekeeping in Sardinia.

The first time we met at the laboratory of the honey, Fabio was just coming back from a long day of working with the bees. Thus he preferred to show me only the small apiary uphill from the laboratory.

About sixty colored hives are here, some holding the basket to collect pollen. Walking in this area, I noticed that some hives had a mastic tree's twig inserted between the telescoping top cover and the inner cover.

The twigs indicate some problems in the colony. When I see this, I knew that I should strengthen the colony. Otherwise, I use the twigs to indicate some other problem inside the hive. Then I know that that colony needs more attention, so I take the time to inspect it or add some supplies. (Fabio, Sarrabus, 30th March 2019).

I immediately think about Gianna, who writes down in a notebook everything she makes about each family. Fabio uses a personal system of symbols to remember which intervention is required in which families. We take some time to find an excellent place to begin our video interview. He decides to stare before his apiary, surrounded by the humming of busy bees. Fabio began to tell me his story about the insects.

I started in 1978 by buying fifty cork hives. I started big, and someone told me I was crazy. I bought some oak cork hives to pour the bees in the movable frame hives. You would take off the brood frames, cut out the combs so that you could fix them on the movable frames, and then you would pour the bees inside the hive. From a cork hive with good families, you would

get two frames of brood. It was not that much, but it was a start. Starting with a nucleus created this way, you could even bring the families to produce honey. Maybe the years were better at that time. Most importantly, there was no varroa mite. When I started, there was no varroa mite, I worked for six years without it, and I can say it was an excellent job when there was no varroa mite. Then I stopped having fun. Due to the varroa, we have something to do all year long. We never stop; you never know when you start and finish. This is how changed. I was interested in bees, thrilled by them, and still am. Yet, when you do it for a living, it kind of loses its poetry. We usually had 1.500 colonies, but lately, arson has affected us deeply. With such numbers, you work all year non-stop (Fabio Aru, 30th March 2018).

During our first meeting, we covered many topics that embed beekeeping's problems in Sardinia. Fabio points out that in the past forty years, beekeeping has considerably changed due to Varroa mites, climate change, importation of pests, and diseases of plants and insects. He claims that, however, the gap between policymakers and beekeepers remained the same, if not even more significant. Similar to other beekeepers, Fabio feels that policymakers and their delegates tend to take on a police-like attitude against beekeepers instead of providing solutions to their problems. Fabio argues that there is a profound misunderstanding of the specific characteristics of keeping bees. Hence, beekeeping is classified alternatively under the categories of silviculture and herding. Fabio believes that the impossibility of comprehending the mechanisms of bees' functioning leads to an utter lack of effective policies that protect bees and the environment.

They have the power to decide whether to help us by protecting the *A. m. ligustica* race, but they need to seriously take care of the territory full of any kind of bee races. Unlike cows, where you can control the crossbreed, with bees, you can only ban the importation of other races if you want to protect them. (Fabio Aru, Sarrabus, 30th March 2018).

Talking with Fabio, the lack of effective policies of environmental management that consider the needs of bees intertwines with discourses about the autochthony of species, questions about races of bees, and the role of beekeeping in the Sardinian agro-pastoral sector. Every word seems to make a statement to the possible listeners of the video interview.

We ask that the Regional administration uses a percentage of the regional forestry lands to plant species with nectariferous interest. This is not in contrast with other activities. Then we ask for planting autochthonous species, or at least those defined that way. For instance, the carob tree (*Ceratonia siliqua* L.) is not autochthonous but not only gives nectar, and its fruits are also suitable for other animals; further, it is an excellent plant to see in the landscape. Chestnuts tree (*Castanea sativa* Mill.) can be planted in the mountains. Instead, the Region planted pine trees (*Pinus nigra* and *Pinus*

*radiata*¹¹²). We are asking to plant bee-related plants that do not disrupt the territory. Also, the eucalyptus is here now; I do not say we should plant it in the mountains, they did it, and they look like toothpicks up there. Then we need policymakers to encourage farmers and landowners to cultivate forage species useful for livestock and bees. They should encourage new policies of collaboration because we form part of agriculture. In fact, we should be the main actors because we, with pollination services, contribute to producing better fruits. We form part of agriculture; we are not other than agriculture. We are breeders of bees, not of cows or sheep. The fact that we harvest honey does not make us fewer breeders. What else can we be? (Fabio, Sarrabus, 30th March 2018).

The constant comparison with other agricultural sectors in Fabio's narrative suggests that he conceives his identity as a beekeeper in dialectic relation to other forms of animal farming. Fabio seems to compare beekeeping to shepherding and goat herding. The island as a 'land of herdsman' is a fundamental component of the Sardinian identity, in the gaze *about* Sardinia and the self-representation of Sardinians (Cfr. 152). The shepherd is the figure that embeds all the qualities of an authentic Sardinian: stubbornness, pride, self-effacing, and 'resistant' (see Caltagirone 2005). An 'anachronistic man' (Sorge 2015) that nevertheless keeps its allure within a part of Sardinian society and certainly among the regional delegates in charge of dealing with beekeepers.

The various conversations I had with Fabio showed that his claim is not aimed at defining his identity as a professional in the agricultural sector. Instead, by demanding to be included in the category of breeders and the agricultural sector, Fabio seems to claim the right to belong to the place. Given the symbolic role of 'the shepherd' in relation to Sardinian territory, the beekeeper seems to seek to be considered as part of the territory. Fabio appears to believe that beekeepers, more than shepherds, shape the Sardinian environment. By keeping bees and doing migratory beekeeping, beekeepers contribute to creating the landscape and the territory. According to this standpoint, bees boost the agency of beekeepers on the territory. Likewise, beekeepers enhance bees' role in the territory. Fabio seems to believe that beekeepers become 'landscape-makers' by working with the bees.

I had the opportunity to follow Fabio several times during different seasons, and I observed him and his workers doing various activities in different apiaries. From the slowest interventions in the colonies of Spring to the agitated rhythms of the harvesting in Summer, Fabio and his workers maintain a profound calmness in their gestures. Fabio's love for bees is palpable when he wears a beekeeping suit in the field. Despite the

¹¹² More information regarding the species of pines and trees used by the Autonomous Region of Sardinia in the reforestation and reforestation programs are available at: <https://www.sardegnaforeste.it/notizia/i-rimboschimenti>

fatigue and hardiness of the job, his movements can't help to show his kindness and respect for an insect that appears to be his companion. In his care of touching the queen to mark it, there is the poetry and passion for bees that guide the beekeeper in his job.

Despite the scale of the beekeeping holding does not allow Fabio to keep this sort of peer-to-peer connection with the colonies, bees appear as his companions (Haraway 2008) in the journey of co-creating the Sardinian landscape.

In contrast to Giancarlo and Efisio, who build their sense of belonging on history and archaeology, Fabio's notion of Sardinianness is constructed upon the relationship between humans, bees, and the environment.

When talking to Fabio about usual beekeeping practices, the need to know where he does beekeeping seems a requirement to deal with bees.

Swarming control and prevention are not simple tasks. They include a series of arrangements and tricks that you must do. It is not a single thing. It's much more complicated. You can only do it if you know the territory where you are operating. Then you work to make the families of bees grow slowly enough to be ready when the blooming starts. (Fabio, Sarrabus, 30th March 2018)

Bees grant beekeepers the privilege of creating the territory. Fabio's intimate relationship with the territory is derived from working with the bees. Fabio's notion of belonging to a place is not explicit as the previous beekeepers. For Fabio, bees seem to take on the role of 'mediators' between humans and the environment. Precisely bees represent a crucial element of beekeepers' intimate relationship with the territory.

* * *

At the end of the fieldwork, driving my car back to the lower Campidano, I take the time to observe the sunlight calmly getting down and the blue shades of the night gently repainting the landscape before my eyes. I see farmers in the countryside slowly coming back to their homes. The roaring tractor stops and is replaced by the thunderous murmur of cicadas. This is the moment I reflect on the experience with the people I met, about their bees, and the places and landscapes of this region. All the beekeepers I met here in the Sarrabus seem to share a likewise perception of the environment around them that they appear to have developed by working with the bees. Although the three of them explicit their notion of the relationship with the territory differently, there seems to be a standard line in their narrative. The profound connection between beekeepers, bees, and the environment seems a constant element of the narratives of beekeepers in the Sarrabus

and elsewhere. Interestingly, Giancarlo's strong sense of locality is based on the knowledge of the historical and archaeological aspects of this region which he ideally links to the vegetal composition of the place. For Fabio, knowing the territory is the only way to work effectively with the bees. The insects appear to take on the role of mediator between the beekeepers and the environment, and they become the mean by which to know the territory. It is through this relationship that beekeepers claim to become part of the territory, to intertwine their actions with the bees and other species. Compared to Efsio's narrative, Fabio and Giancarlo's notions of beekeeping and identity appear less connected to seeking historical documents to claim their right. The historical continuity between bees and beekeepers is self-evident in their contribution to making the environment such.

Many of these aspects, partially witnessed in Efsio's narrative, come back again in other beekeepers from the region of Monte Arcosu, in the South of Sardinia, which I will discuss in the following section.

7.2.3 *The beekeepers from the Monte Arcosu*

Nina Montis. It was a sunny and windy evening at the end of summer in September when I met Nina Montis in her small apartment above her parents' house. She welcomes me to enter the garden, and I am astonished by the humming of any kind of bees at this time of the day, desperately seeking some food or water. In the past few days, various arsons have reduced the already poor source of nectar around the countryside. Urban gardens are usually more palatable for bees at this time. She offers me a cup of tea and proposes five different jars of honey she produces for sweetening it. Although we met several times on different public occasions and we spoke a lot through Facebook, this was the first time I entered the intimate space of her house. Nina is a fifty-year-old part-time beekeeper with two young teenagers to support and a complicated personal life. Beekeeping represents a secondary source of income to provide the necessities for her two children. She keeps thirty colonies, which is the maximum amount to have a good fiscal regime. In addition, she seems to use beekeeping to escape from the ordinary routine and loneliness.

I grew up on the 'arm,' my father was an agriculturalist, and he was in charge of running some farms around. At that time, I could attend primary school on the farm with the other children of the farm's workers. I liked it there. Doing high school in agriculture felt natural. I remember running away

for hours to stay in the field surrounded by nature. It was different then. This place was different. It was not polluted like it is right now. I asked my father what they were thinking when using such amounts of pesticides. Why didn't they think about our future? He simply replied that this was not even an issue for them. Back then, they were simply thinking about producing more to provide a better future for their children. So, he said. (Nina Montis, 10th September 2019).

In Nina's discussion, beekeeping represents a way to return to a simple life connected to 'nature.' Her father kept a few hectares of land on the slopes of Monte Arcosu, where she keeps her hives now. Because her education did not include beekeeping, a few years ago, Nina enrolled in a regional beekeeping course. She started to keep a few bee colonies of passion. After a while, bees 'cached her,' and she couldn't help to start doing beekeeping on her own. Since then, Nina has built a network with other beekeepers to learn as much as possible about the secrets of beekeeping.

They help me a lot! My father helps me with his expertise. Then I ask the other 'beekeepers uncles' to advise me. Yet, I've learned that it's just them and me in the field. And it might be that you do one thing to one, and the other colony next to it does not appreciate it. But I like to share knowledge with the 'beekeepers uncles.' They helped me a lot. (Nina Montis, 10th September 2019).

In contrast to most male beekeepers, Nina never claimed a 'long tradition' of beekeeping knowledge. From her way of communicating her relationship with the bees, it seems possible to detect an attempt to 're-connect' to what is left of the place she feels to belong. After some time, we move to the backyard of the house. Nina shows me her small 'urban' apiary with an exemplar of an oak cork hive designed to allow the beekeeper to inspect the brood. She appears to have a shy and humble attitude. Her online posts seem to provide more information about her relationship with the bees and the territory. She takes on an active role in the Facebook group of Sardinian beekeepers. She often posts about the future of beekeeping in Sardinia.

In person, she appears genuinely concerned about the rivalry tendency shown off by her male fellows when it comes to cooperating on common problems. For Nina, working with the bees seem to represent a way to learn about the intimate relationship between beings in the environment. She seems to approach bees with the scholarly ecological knowledge she acquired at school and in the beekeeping courses. Bees offer her the possibility to explore the peculiarities of each place through honey. She constantly seeks to find spots of 'unusual' biodiversity where she can produce honey of a particular taste that are extremely locally based.

I found a beautiful location for the bees, nearby the countryside of Parteolla. At the right time of the year, there is an astonishing blooming of cornflower (*Centaurea diluta Aiton*), you know, this African species that has been widespread here recently? Every year, I send a sample of honey to Dr. Lucia Piana¹¹³ to see if she can find the pollen of cornflower that I am sure bees are collecting here. Nothing, there is something but not enough to label ‘cornflower honey.’ I will try again next year to see if I can make it pure. (Nina Montis, 10th September 2019).

Nina seems to conceive honey as a reward for the interspecies relationship she establishes with bees and the territory. In contrast, most male beekeepers appear to consider honey a mere commodity to sell or a simple outcome of a way more exciting job. Hence the gender division where women oversee selling honey and men ‘make’ it. For Nina, the more she learns how to support bees and flowers in their mutual communication, the better the quality of honey she can manage to get.

The lack of Nina’s engagement in the political debate on beekeeping is why I did not further engage in fieldwork with the beekeeper. I instead kept with her a constant conversation through Facebook and sometimes Whatsapp.

A more prolonged and deep relationship I share with my father, who took part in various issues of beekeeping, despite refusing to take on the role of spokesperson on public occasions. The following part presents an ethnography of my father’s understanding of beekeeping.

My father—I grew up on the slopes of Monte Arcosu, in a valley named after the main river, the Cixerri. I lived a little less than ten kilometers away from the urban center. The hydrologic system of the Cixerri river has influenced the types of activities in the area and shaped the urban edges for Centuries. Several floods during the 20th Century determined the present-day configuration of the rural-urban continuum. To control the floods and provide water to agricultural holdings, a large dam was built in the 1980s. The dam took the name *Genna is abis* (passage of bees), the name of the place before the State built the dam. In this place, my great-grandfather used to catch swarms of bees to refill his cork hives. Nowadays, some people believe that the dam has changed the area’s microclimate and negatively affected the rain average per year.

The Cixerri river separates the urban area from the rural territory of the municipality of Uta. For local citizens, the river seems to function as a symbolic border between the *bidda* (town) and the *monti* (mountain). Monte Arcosu is the central mountain in this

¹¹³ Lucia Piana is an authority in Italy in the field of beekeeping. She is an expert of honey tasting and she does the chemical analysis of honey components.

region. It is located on the Southside, representing another symbolic element of the landscape of Uta. The Mount is also the home of various Sardinian species saved from extinction, vegetal, mammals, and other non-human beings. In 1985, the World Wild Fund acquired various lands in the Monte Arcosu Mountains to protect the Sardinian reindeer (*Cervus elaphus corsicanus*) that, due to decades of reckless hunting practices, was threatened with extinction. In time, the WWF Oasis of Arcosu Mountain became the ‘largest forest of Mediterranean shrubs in the Mediterranean Sea basin.’¹¹⁴ Nowadays, the reserve is going through a new process of environmental heritagization. The recently funded regional park of the *Gutturumannu* incorporated the WWF Oasis of Monte Arcosu. Both parks interpenetrate each other and embed Special Protection Areas (SPAs) and Sites of Community Importance (pSCIs) of the Natura 2000’ network.

My father inherited a piece of land at the slopes of the Arcosu Mountain from my grandparents, which in turn, they inherited from my great-grandparents, who bought it somewhen at the beginning of the 20th Century. The numerous citrus plants that are left are only a few compared to the garden that my great-grandparents planted in this *ortu* (garden). *Ortu* was the name used by my grandparents to indicate this place in contrast with their home inside the village. The *ortu* was the seat of my grandmother’s laboratory of honey. The same *ortu* became the place where my father built his laboratory and our home. Facing the neat triangle shape of the Arcosu Mountain, surrounded by forests of eucalyptus trees planted during the 20th Century. This familiar place influenced my father’s relationship with the territory he conceives as a repository of his personal history, memory, and what makes him ‘him.’

My father started to keep bees at the end of the 1970s, in his mid-20s. Similar to other beekeepers, he affirms that the tiny insects sparked his attention, and soon he became ‘enchanted’ by the bees’ humming. Despite his mother running her own beekeeping business at that time, my father worked alone at first and later with the help of my mother.

It was easier then. I had nothing at that time. I was working at the local joiner’s workshop, and I asked them about the possibility of using their equipment to build the hives. My first hives were made that way. Then, to acquire the bees, I would catch swarms. Back in the day, it was not so difficult to find wild swarms. At the right time, you could hear them flying by above your head. Your mother even managed to catch one while it was flying. We knew the places where they were indeed flying. In her village, for instance, was remarkably full of opportunities for catching swarms. It was the passage of the bees. Here, granddad brought me to the recesses where I could find them. There was this place, at *Genna is abis* (Passage of bees) where he had an olive-trees plantation at *su forru de Caboni* (the oven of Caboni) where he told

¹¹⁴ See: <https://www.wwf.it/dove-interveniamo/il-nostro-lavoro-in-italia/oasi/monte-arcosu/>

me he would put a casiddu there and wait for the bees to enter in them. There were years that he would catch even ten smarms per season, naturally. The bees were just going there themselves. So, when I needed it, I would go there to find the bees. Now, the place it's empty. No more bees are there. It was easier than before the varroa mite destroyed the Sardinian beekeeping patrimony. (My father, Monte Arcosu, 10th February 2016).

My father considers the relationship with the territory fundamentally connected to the activities he did and does with his bees. He appears to have inherited the knowledge of this place and his surroundings from my grandfather.

According to our conversations, my grandfather taught my father about the better spots to find honey, along with the classification of the territory according to Sardinian denomination (see Angioni 1976, 62–71), the climate, and a part of the names of flowers and plants in Sardinian. My grandfather was also passionate about Sardinian culture and archeology. Thus, alongside a geographical indication of sites connected to water uses or floods, for instance, my father appears to know the location of several archeological sites that seems to contribute to the uniqueness of this place. The knowledge of these aspects contributes to nurturing my father's sense of extreme locality and attachment to this place. His sense of belonging seems built on similar notions to how Efisio claims his right of belonging to Baumele because of a long lineage of ancestors working in that place. For Giancarlo, the knowledge of the history and archaeology of the place where he works with the bees seems to grant him a sort of right to Sardinianness.

Bees play a fundamental role in my father's notion of beekeeping and the Sardinian identity. The insects represent the means to observe the environment and grasp its 'wholeness.' Bees are crucial in his perception of the landscape and his relationship with the environment. He seems to take on the bees' perspective to look at the environment. The needs of the bees become his needs. To show the mechanisms of this notion, I can bring an example.

Because I was confused by the blurring boundaries, he drew to describe the mountain territory, one day, I asked my father to explain to me *where* he thought the mountain began. His answer was fascinating as instead of talking about places, he began describing the different plants that define the mountain area:

The carob tree (*Ceratonia siliqua* L.) and strawberry tree ensure forage for the bees during autumn and winter. Heather (*Erica arborea*), lavender (*Lavandula stoechas*), euphorbia (*Euphorbia characias* L., *Euphorbia dendroides*, *Euphorbia pithyusa* L.), Italian buckthorn (*Rhamnus alaternus*) and other species of Mediterranean shrubs that blossom from February in the up hills you find them in the area between the mountains and the plane. Cistus (*Cistus salvifolius*, *Cistus monspeliensis* L., *Cistus corsicus*) Asphodelus and Eucalyptus (*E. Camaldulensis*, *E. Globulus*, *E. Occidentalis*, *E. gomphocephala*) are

in the plane or where there are agri-pastoral activities. (My father, Monte Arcosu, 22nd July 2019).

I must point out that all the vegetal species he quotes have some connection with the bees. He separates the boundaries between ‘countryside’ and ‘mountain’ with the specific type of flora that characterizes the territory where he lives and practices beekeeping. By beekeeping, my father seems to have learned to pay attention to the tiny critters and other neglected species. During our walks on the mountain or visiting the apiaries, he constantly urges me to notice tiny insects or the aspects of the flowers. The predominance of the bee’s perspective seems to make him almost blind toward anything that is not bee-related. My father’s focus lay on the nectariferous capacities of the plants, and any other species sparks any interest in him. His notion of this area utterly contrasts with the WWF’s representation of the Arcosu Mountains as a wild place or with the wilderness narrated by the administrators of the Gutturu Mannu’s park. It is not an unspoiled area; instead, my father considers the mountains a place co-created by human and non-human beings who worked together for at least a century of interaction. The landscape of the mountains embeds the traces of the past generations of humans and non-humans. In the meantime, the landscape results from human dwellings with non-human beings. Interviewing other people that worked and hunted in this area, I figured that they share a similar notion of the environment. I must point out that in Sardinian *su monti* (=the mountain) refers to the multitude of living beings that inhabit an area. Thus, rather than something external, the mountain is an alive being with whom humans can interact under the condition of knowing how to.

But beekeeping is how my father connects and deals with the landscape. The intimate knowledge of the territory and of the people who, for various reasons, take advantage of the territory seems specifically connected to satisfying the bees’ needs.

His perception of the environment and his relationship with bees seem similar to Fabio’s description of the beekeepers as landscape-makers. For my father, working with the bees represents a way to interact with this living organism and become part of its history. Like Fabio, my father considers beekeeping a form of collaboration with bees that shapes the landscape’s territory and his own identity.

Bees are part of my story and form part of my identity. When some people steal my bees, it is not simply an economic matter; they also steal part of my story here. I kept the lineage of the old bees, the wild Sardinian bees that used to populate this area, and most of them died after the varroa mite. I never bought any bees from Italy. Why should I? I’ve got the best I could get from this territory; they are perfectly acquainted with the functioning of this place; they are adapted to the dry seasons that this area can provide, and they know

how to face them. They used summer clustering instead of Winter clustering. They know how to survive here. (My father, Monte Arcosu, 10th February 2016).

My father's notion of beekeeping is land-based and connected to the relationship that he established with the territory through the bees. My father chose to breed a particular type of bee, a local ecotype that he considers the heir of the Sardinian honeybees. This aspect is often a theme of lively discussion in the Facebook community of beekeepers. Sometimes, other fellow beekeepers accuse him of claiming something that is *scientifically* impossible to prove. In some cases, he finds the interest of colleagues who seek the 'authentic' Sardinian honeybee. My father argues that the people who import other bees intending to produce more honey are doomed to fail because they lack knowledge of the territory and their bees. This choice, for my father, is a form of resistance to the influence of Italian beekeeping. This type of bee is not easy to handle, and they are often very aggressive. Hence, from a practical point of view, breeding these bees does not provide advantages. In addition, breeding some bees other than *A. m. ligustica* bees made him lose public funding. Thus, from an economic point of view, breeding this ecotype does not bring any additional financial value to the beekeeping holding. However, from a moral perspective, the bees provide him with a fundamental connection to the landscape. Breeding the local ecotype is a way to feel consistent with the landscape and fear the bees. He does not merely keep generic bees. My father keeps the 'authentic' biodiversity of this place. In this case, the relationship between bees, beekeepers, and the environment is based on the continuity between the Sardinian identity of bees, the beekeeper, and the territory.

7.3 The Human-Bee- Environment relationship

The few ethnographic sketches outlined above offer some different perspectives on the meanings of beekeeping in Sardinia. The ethnographic encounters reported do not cover all Sardinian regions. Yet, they are significant in showing how working with the bees seems to urge beekeepers to reflect on their position in the world.

In all the stories reported, the relationship with the territory is built upon an intimate knowledge of its features, history, and the memory of humans' actions in that specific place. From the description, it emerges a notion of the landscape as a space created by the *endless* co-operation of humans with non-human beings.

However, despite the similarities between beekeepers' perspectives on the relationship between bees and the environment, a few elements of tension arise. The relationship between 'nature' and the perception of the environment cannot be considered univocal. Divergent understandings of 'nature' coexist in opposite relations. Despite conceiving his work with bees in the environment as co-operation, Efsio affirms that 'nature' is something other than humans and that the latter live in 'eternal conflict against nature.' The ontological framework within beekeepers' work and life is based on a conflicting relationship between nature and humans widespread in western societies (Ingold 2000, 104). I refer here to the ontological implication behind the visual representations of humans as individuals and everything else external to them that I presented in chapter one (Cfr. 21). Local, national, and EU policies and international conventions of biodiversity protection all appear to convey and empower the ontology based on the dichotomy between 'nature' and 'culture.'

It is undeniable that Sardinian beekeepers operate entirely in this context. The data collected show that beekeepers often embed these notions. Yet, these notions seem to coexist with alternative understandings of 'nature' and 'culture' and of Sardinianness itself. Beekeepers appear to deconstruct the nature/culture dichotomy and to develop a perception of the environment that puts humans into a position of collaboration with non-humans. By analyzing their narrative, it seems that beekeepers do not position themselves in a relation of dominating of 'nature.' Instead, they appear to consider beekeeping a way to work together with bees to create the landscape. The insects play the pivotal role of beekeepers' companions in the enmeshed network of humans and non-human beings that co-inhabit and co-create the environment.

By changing perspective and assuming bees' point of view, beekeepers appear to elaborate alternative notions of 'autochthony' and 'allochthony.' The 'right to belong' to the soil does not depend on the western scholarly scientific categorization of species. Beekeepers develop a more porous notion of 'autochthony' based on the mutual co-operation of species. Beekeepers appear to deconstruct the hegemonic notion of 'autochthony' based on a nationalistic perception of the relationship between people and the territory. I argue that this intellectual process of deconstruction results from what I have called the Human-Bee-Environment relationship. The 'alternative' notion of Sardinianness generate on this daily multispecies relationship. Somehow, beekeepers appear to develop different ontologies of the relationship between 'nature' and 'culture.' I argue that this change in beekeepers' ontologies fuels the tensions with policymakers

that instead convey and empower the ‘nature/culture’ dichotomy typical of western societies.

In the following chapter, I will present a practical example of how policies of environmental management imbued with the hegemonic notion of Sardianness conflict with the alternative notions of the Sardinian identity of beekeepers.

8. ‘Identity’ in the policies for territorial management: the ‘issue’ of the eucalyptus

In this chapter, I will follow the eucalyptus as a leading plant to explore how a specific notion of Sardinianness influences the policies of environmental management and affect the lives of plants and bees. In doing so, I will focus on a specific plantation of eucalyptus located in South Sardinia that, in the past twenty years, has been at the center of numerous regional programs. I argue that the area offers the opportunity to analyze the process of construction of the Sardinianness of plants and other non-human beings. In turn, this will enable me to analyze the notions of allochthonous/autochthonous in the policies for environmental management in Sardinia and how they produce tensions with beekeepers.

8.1 The eucalyptus in South Sardinia

Eucalyptus is a genus of a plant native to Australia with over six hundred different species that belong to the family of *Myrtaceae*. Eucalyptus forests represent a significant part of the total surface of forests in Australia (Doughty 2000, 2). Historically, the first specimens of the eucalyptus genus reached Europe in 1770. Joseph Banks and Daniel Carl Solander collected them during Captain James Cook’s expedition to the Pacific Ocean (Doughty 2000, 24). Approximately a century later, the first eucalyptus plantations sprouted in the Mediterranean basin, mainly in the Southern regions of Europe and in North Africa (Campanini 2020, 216). Ever since then, various species of eucalyptus have been imported and planted in different regions worldwide where the tree was not native (see Shiva and Bandyopadhyay 1983; Bennett and Chaloupka 1993; Tsing 2005). The rapid growth rate of the plant, its adaptability and resilience to a wide range of soils and climates, and its need for water made it particularly suitable for reclaiming lands and as a means of forestation in different parts of the world (Doughty 2000, 137).

Eucalyptus is one of the most contested plants worldwide in the regions where it was used for reforestation or afforestation practices (see Shiva and Bandyopadhyay 1983; Tsing 2005, 220). Excellent for policymakers, its qualities have raised concern among local populations and environmentalists. Numerous scholarly studies nurture the negative

fame of the plant by focusing on some of the consequences of eucalyptus plantations on the territory (Vacca et al. 2002; Mukund and Palanisami 2011; Badalamenti et al. 2018). The plant is accused of altering the soil moisture, drying up underground water sources, and competing for survival with local flora (Doughty 2000, 144–58). In Europe, the tension between environmental concerns and capitalist issues is at times intersected with cultural heritage claims in many regions. A fascinating example concerns the Spanish Galicia, where self-organized teams of volunteers spend weekends doing a *deseucaliptización* (total eradication of eucalyptus) in the Galician mountains (Arnáiz 2019; Rey and Cabalar 2019; Santiago, Martín, and Guerrero Alfaro 2019). The Galician *brigadas de deseucaliptizadores* claim that the trees are spoiling their cultural heritage connected to the uses of the mountain.

In Sardinia, the first species of eucalyptus planted is the *Eucalyptus populifolia* Desf, which was imported at the beginning of the nineteenth century (Bacchetta 2006, 335). Other species of eucalyptus were imported during the second half of the nineteenth century (Campanini 2020, 218). At that time, malaria was a real plague on the island (Wagner 2001). Eucalyptus trees were used to occupy the lands to eliminate the ponds where the Anopheles flies, who carry the diseases, multiplied. Plantations of eucalyptus tended to be commonly used near mines. They seem to have provided cheap wood for various purposes connected to the mining industry (Bacchetta 2006, 335–37). Excluding the numerous windbreak belts and small private plantations spread over the island, it is estimated that nowadays, eucalyptus trees cover an approximate area of 8,000 hectares in Sardinia (Assessorato della difesa dell’Ambiente et al. 2012, 6). This overwhelming presence causes many reactions among Sardinians. Among farmers, horticulturists, and woodcutters, for example, eucalyptus represents either an efficient windbreaker or a substantial source of income for its value in the wood market and biomass business. The vicissitudes that contributed to implanting the Australian tree in Sardinia reveal a story that intertwines the lives of different species with colonialism, globalization, and capitalism.

Particularly, the area in the Southwest of the capital is worth of reflecting on because of the pervasive presence of eucalyptus from the most humid zones to the slopes of the mountains. In this region, Count Grottanelli and Count Angelo Ceconi planted the first seeds of eucalyptus (*E. camaldulensis*) as early as the beginning of the nineteenth centuries. Various rivers connected to the Cixerri merged into the pond of Cagliari in this land. One

century ago, this territory was significantly humid and particularly sensitive to hydro-geological upheaval. Hence, the use of eucalyptus.

At that time, Grottanelli and Ceconi bought the lands facing the pond on the Gulf of Cagliari, where they established their farms. Between 1902 and 1944, earl Angelo Ceconi used eucalyptus as wind cutters to protect the almond orchards and planted the trees on the brackish water areas to reclaim the lands and provide cheap wood (Kitzmüller 2010). Likewise, earl Grottanelli extensively used eucalyptus trees in his lands around the Gulf of Cagliari. The activity of the two earls impacted the territories of the municipalities of Grogastu, Bau Arena, and Santa Lucia.¹¹⁵ It could be said that they defined the contemporary agricultural landscape in the area in the valley of the river Cixerri. In 1944, Ceconi died, and a significant part of his farm was sold to private owners. Most parts of the lands became suitable for designing the new industrial pole of the Mediterranean basin (see Presidenza della Repubblica 1962). Another family is responsible for the contemporary landscape of South Sardinia. In the aftermath of WWI, Umberto Baveno bought roughly thousands of hectares in an area called *Pranu de is morus*, in the south of Bau Arena. Baveno established a modern farm with various daily workers and several specialists to run their business. For many years, the Baveno's farm represented a unicum for its width, and the productive model practiced compared to the agricultural system widespread on the island at that time (Meloni 2021, 71; see also Angioni 1976; Meloni and Farinella 2015, 447–53; Ortu 2017, 132–66). The Baveno family is responsible for having promoted the development of extensive agricultural practices in their thousands of hectares of land property and introduced innovative systems for cultivating several types of orchards (Meloni 2021, 71). The farm closed two years after the death of the last descendant, Ada Baveno, that is in May 2022. Hence, it remained active for roughly a century.

This area is attractive for critical analysis because of the overwhelming presence of eucalyptus trees. The Bavenos extensively used the eucalyptus trees to cut the strong winds to protect cultivations. According to local memories, before realizing that plants could be replicated directly *in loco*, Baveno imported seeds of river red gums (*Eucalyptus camaldulensis*) directly from Australia. He planted them all over his farm. The hundred years of activity on the Baveno's farm profoundly affected the landscape in this area. Since the second half of the twentieth century, Baveno took advantage of the EU funds

¹¹⁵ The names of municipalities are anonymized.

for reforesting.¹¹⁶ He and his sons implemented the land coverage of eucalyptus trees by creating extensive plantations tidily divided into squares. The neat organization of the plantation served to prevent and manage possible arson.

Besides the big farms of Bavenos, Grottanelli, and Ceconi, other farmers in the area used various species of eucalyptus trees (*E. camaldulensis*, *E. trabuti*, *E. globulus*, *E. occidentalis*) to reclaim lands and fix the soil against seasonal floods. This is not peculiar to South Sardinia. The plant was widely used in different agricultural environments on the island, particularly in the areas with ponds or with numerous floods. The significant presence of eucalyptus in such areas reflects in the Regional Landscape Plan, which defines the plants as a ‘characteristic element’ of South-West Sardinia’s landscape (Giunta Regionale della Sardegna 2006b, 144). By mirroring the processes and effects on the regional scale, the valley of Cixerri in the South of the island offers the opportunity to analyze the conflicts that arise around the presence and absence of the eucalyptus trees in Sardinia. Its location amidst two important Special Protected Areas (henceforth SPAs) and the industrial area of Cagliari makes it a sort of ‘laboratory’ to analyze in practice the functioning of identity issues in the policies for environmental and agricultural management.

From a beekeeping perspective, the dense presence of eucalyptus favored the development of many beekeeping companies in the area, including my father’s. The density of the number of beehives in this area is one of the highest on the whole island (see Figure 17 below). In times of climate change, this leads to various controversies regarding the production potential of each apiary.

Finally, this area became a key location in the controversies to safeguard the eucalyptus trees raised within the regional project of monitoring the invasion of the *P. bliteus* and of the *T. peregrinus*. The events connected to these two little insects, the eucalyptus, and the beekeeping sector in Sardinia are discussed in the following section.

¹¹⁶ More information regarding reforestation practices in Sardinia between 1960s and 1970s are available at: <https://www.sardegnaforeste.it/notizia/i-rimboschimenti>

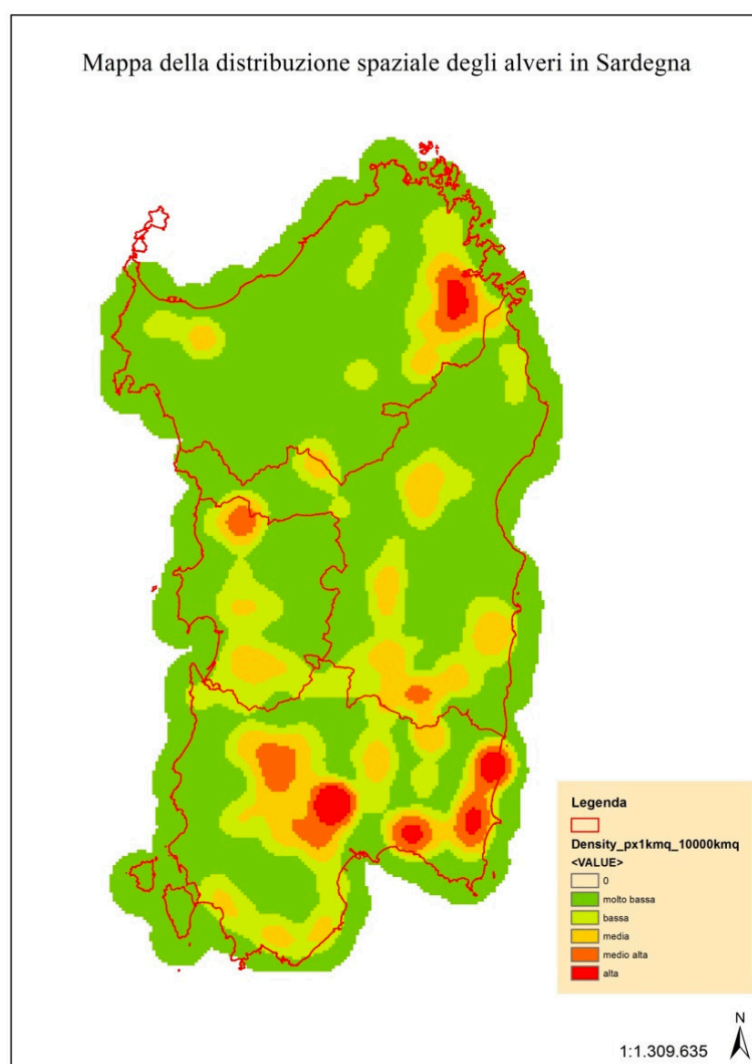


Figure 17. Map of the density of beehives in Sardinia (Assessorato dell'igiene e sanità e dell'assistenza sociale 2018, 2).

8.2 A multispecies story of bees, plants, humans, and other insects.

It is June 2010, and the beekeeper Oscar Melis notices some white spots on the eucalyptus leaves of various plantations where he has his apiaries. Oscar is an experienced beekeeper who started to keep bees around the end of the 1970s. He grew up in Bau Arena, and for almost his entire life, he worked around the valley of the Cixerri. Oscar appears to know every bend in the roads across the squares of eucalyptus plantations and every dirt passage created by the various floods during the past century in the territory. He also shows an intimate knowledge of the archaeological evidence in the area. Deep

knowledge of the floral pattern from the valley near the river up to the mountain adds to his expertise. Oscar's local ecological knowledge seems both a product of his attentive observational practices of the territory and handed down knowledge from his father and grandfather. According to him, they used to practice agriculture and hunting in this exact territory. This lifelong intimacy with the territory, attuned to the various tiny critters that shape the landscape, seems to have enabled him to notice even almost imperceptible environmental changes.

Oscar observed the white spots on the leaves of eucalyptus trees rapidly increasing. Day by day, they seemed to cover all the leaves of plants. By August, all the eucalyptus trees in the plantations appeared utterly white. Oscar had never observed anything similar. In forty years of beekeeping, he had noticed all sorts of unusual pests trying to overcome the trees, but nothing was like these strange spots. Oscar became concerned for the plant's fate and the lives of *bis* bees. In this area, honeybees depend upon eucalyptus that blossoms when there is no other significant autochthonous flower. The eucalyptus provides high quantities of nectar and pollen between mid-June to August, depending on climate conditions and species' peculiarities¹¹⁷. Under ideal conditions, the eucalyptus is estimated to produce roughly a honey yield potential of 200 kg/ha (Floris et al. 2020, 66). Thus, compared to the other melliferous species, the eucalyptus represents the most productive and remunerative plant for Sardinian beekeepers.

After attentive observation in the field, Oscar started to look for information on the web. At that time, the only reports of white spots in Italy appeared on a specialist Journal in English (Laudonia and Garonna 2010). There was no information in the Italian language. Oscar took advantage of Google's translation tools to acquire detailed pieces of information about the new disease. He discovered that the white spots he noticed in the field were the capsule covers of the nymphs of the *Glycaspis brimblecombei* (Moore 1964; 1970), also known as the red gum lerp psyllid. Nymphs of this pest feed by sap-sucking the vascular tissue of the leaves of eucalyptus trees (particularly *E. camaldulensis*). A severe infestation can kill the plant (Laudonia and Garonna 2010, 233). Since its first detection outside the Australian forests in 1998, the psyllid has widespread in various parts of the worlds arriving in Europe in 2007 (Laudonia and Garonna 2010, 233). The red gum lerp psyllid (henceforth 'psyllid') is considered one of the most dangerous threats to eucalyptus in the Mediterranean areas (Deidda et al. 2016, 884).

¹¹⁷ In Sardinia, the most widespread species is the *E. camaldulensis*, followed by *E. globulus*, and in minor measure *E. occidentalis*. Unlike the former two, the latter species blossom in September.

When reading about the possible dangers to eucalyptus plantations, Oscar contacted Ada Baveno. At that time, she owned roughly 430 hectares of plantations and several kilometers of windbreakers in the area where the beekeeper noticed the white spots. Alarmed and preoccupied with losing part of her properties, Ada contacted a niece who worked at the Minister of Agriculture in Brazil, where the psyllid damaged local plantations of eucalyptus. She asked the niece for more information and, possibly, some cure for the pest.

In the meantime, the beekeeper Oscar reported to the at that time appointed regional specialist, Michele Tomasello, the presence of the psyllid on the island. He also informed him about the possible threats to the Sardinian beekeeping sector connected to the widespread of the psyllid in the island's forests.

At first, they replied to me, 'it will pass,' as if it was only my concern and not something that could harm the entire beekeeping in Sardinia. They do not care about what we have to say. If it weren't for Giancarlo Bono, they would have simply dismissed the issue. (Oscar Melis, Lower Campidano, 20th December 2016).

Oscar involved beekeepers from the Sarrabus, where the eucalyptus significantly contributes to the yearly production of commercial holdings. According to Oscar, Giancarlo started to look for some information on his own. He came to know about the research of Italian entomologist Stefania Laudonia about the status of the infestation of eucalyptus in Campania (South Italy). He contacted the entomologists of the University of Sassari in Sardinia, providing them with pieces of information regarding the local infestation in Sardinia. Sassari University's entomologists credited the beekeeper's observations and began to collect information from various Sardinian beekeepers. Alongside academics, Giancarlo started a long process of negotiation with various policymakers. In the fall of 2010, delegates of the regional beekeeping sector informed all Sardinian beekeepers about the presence of the psyllid on the island, asking them to provide pieces of information regarding the situation in different areas of the island.

Oscar and Giancarlo did not stop to look for some possible solution. They discovered that other States used the *Psyllaephagus bliteus* (Daane et al. 2005), the psyllid-specific natural enemy, to reduce the infestation in eucalyptus forests. Oscar, Giancarlo, and Ada made a sort of informal 'task force' that put pressure on the policymakers to find a solution as soon as possible. They also provided the contacts of Ada's niece at the agricultural department in Brazil to the Sardinian delegates.

The eucalyptus in Sardinia represents one of the most precious melliferous essences – although it is not autochthonous species, it is essential for its production. Thus, we started to do something to make sure to protect our jobs. Because this parasite was described as very dangerous on the internet, besides, it was the first one to arrive because in a globalized world, alongside goods, other ‘things’ travel too: insects, bacteria, viruses, and so forth. Anyways, something that takes off from a far land to land in a different one where it finds a totally different environment and where they harm local animals, plants. Because they are not in equilibrium. The problem would be fixed if we could bring natural enemies. Unfortunately, a badly designed law forbids legally importing any kind of living organism. Hence, we still cannot bring the natural enemy of the present-day enemy of the eucalyptus, that is, the *Taumastocoris peregrinus*. (Giancarlo Bono, Sarrabus, 30th March 2018).

Giancarlo and Oscar wanted to introduce the *P. bliteus* to activate the biological fight against the psyllid. Some beekeepers in the community also supported this solution. Yet, other beekeepers considered the matter a way to eliminate an *allochthonous species* that did not belong to Sardinia. The association *Ortus de is abis* appointed Giancarlo to take care of the issue of the eucalyptus before the policymakers. However, a national law forbade the importation of non-autochthon species of any kind (Presidenza della Repubblica Italiana 1997 art. 12, comma 1; see also EU Council Directive 1992). The national law applies the Eu Council Directive on conserving natural habitats. It slowed down the process of negotiation and made particularly hard the relationship between policymakers, researchers, and beekeepers.

At the same time, the *Osservatorio Nazionale del Miele* reported a severe decrease in the eucalyptus honey yield production in Sardinia, whit not production at all in 2012 and 2013 (Osservatorio Nazionale Miele 2013, 4; 2014, 6; see also Floris et al. 2020, 68,69). Before the dissemination of the psyllid, the average yearly production of eucalyptus honey reached 35kg per hive, which consisted of roughly 50% of the entire production of a Sardinian beekeeping company (Floris et al. 2020, 68). The psyllid severely affected the beekeeping sector in Sardinia, decreasing the yield production up to these days. In 2012, the regional government set up a technical table to tackle the issue with a three-year monitoring program of the psyllid (Assessorato della difesa dell’Ambiente et al. 2012). The spokespersons of the different beekeeping associations participated in this table. The monitoring program aimed to determine the level of infestation in the Sardinian forests. Simultaneously, the entomologists studied the interaction of the psyllid with the local entomofauna, particularly with honeybees and various *Apoidei* (Assessorato della difesa dell’Ambiente et al. 2012). The regional departments for environmental and agricultural development provided the entomologists of the university of Sassari with the necessary funds to conduct the research. The entomologists collaborated with various beekeepers

to acquire local knowledge based on beekeepers' daily observations of the plants and the psyllid interaction with bees.

To study the population of a species of insect, you need to follow it through time, not merely for a year but several. You need to observe the insect in its adult phase and the youngest. You can monitor adult stages by using yellow chromotropic traps that are in various places in the forest. After fifteen days, you take them and replace them with new ones. We bring the yellow traps to the laboratory at the University of Sassari, where they are analyzed with a microscope. You count the adults on the surface, and you analyze the insect's captures with a statistic model comparing with the number of adults captured in other sites in Sardinia, then you know the situation. But we also monitor the nymphan by taking some samples of leaves. You also compare the climate condition and external factors that can interact with the composition of the population of insects. (Ph.D. Franco Buffa, Forest in lower Campidano 29th July 2016).

By the time the project entered into force, the *P. bliteus* (the natural enemy of the psyllid) was recorded in the Baveno's forest. This is not surprising, given the close distance of the forest to the international commercial harbor of Cagliari. The enemy most likely arrived with the same mean of transportation as the psyllid. This fact nurtured beekeepers' hope for returning to previous years' yield of eucalyptus honey. However, the *P. bliteus* replicated at a lower rate than the eucalyptus parasite. It took some years before beekeepers could see some effect. In the following years, other pests soon reached the island in the same way as the psyllid and the *P. bliteus* (Deidda et al. 2016; Floris 2016; Floris et al. 2018).

Nevertheless, national and international laws appeared to efface Giancarlo Bono, and the beekeeping associations' efforts for importing non-native species for biological control purposes were very intricate.

After a long way of passing through the various national and EU policy levels to verify the possibility of importing non-native species (see Moi 2015; Andriukaitis 2016), the law was eventually implemented in 2019. On the 5th of April 2019, through a Facebook post, Giancarlo informed other beekeepers' fellows that the 'fight was finally over.' The Council of Ministers approved changing the law for allowing to import of non-native species for biological control purposes.

It was highly intense work with various institutions to convince them to change the law. Because other EU countries also made a law to protect the autochthonous species in their countries. Nevertheless, they were smart enough to conceive a waiver to the importation of allochthonous organisms to apply the biological control of accidentally imported pests. Meanwhile, the natural enemy of the psyllid accidentally came to Sardinia, transported with some goods. And now, another dangerous parasite is harming eucalyptus, and we are still working to change the law. [...] Humanity artificially and

suddenly moving these organisms from one place to another is introducing them to places where they don't belong. It is not that these parasites are some sort of devil destroyers of environments. Man is modifying the harmony between different organisms. (Giancarlo Bono, Sarrabus, 30th March 2018).

Eucalyptus struggles are not over yet. New threats appear to jeopardize the plant's survival in an 'alien' land. The plant has a fundamental role in the ecological transition. The eucalyptus is part of the regional plans to produce biomass to sustain the local power plant station (Powercrop Macchiareddu 2017). Eucalyptus trees represent the most suitable option for producing biomass in Sardinia (Assessorato della Difesa dell'Ambiente et al. 2007, 233; Pani 2005, 7). Even before constructing the local power plant, the offices of the ARS already foresaw the use of the various eucalyptus implantations in Sardinia (Pani 2005; Powercrop Macchiareddu 2017).

In the next section, I focus on the role of the eucalyptus and the environmental impact of the ecological transition policies.

8.3 The eucalyptus in the ecological transition

It has been roughly a month since I returned to Sardinia during the Covid-19 pandemic. The government just released a few restrictions. I've just come out of the 'trustworthy quarantine,' and I am thrilled by the possibility of going outside my parents' house to walk alone in the countryside finally. I was in Vienna when everything started. I need to put behind me the feelings connected to the lockdown in Austria and Italy. The visions of those coffins on military cars deeply affected me emotionally.

On the very first day of opening, I pick up my mountain bike and started to ride it through the familiar dirt roads in the nearby surroundings. This place is surrounded by several hundreds of hectares of eucalyptus plantations that characterize this agricultural landscape strongly shaped by humans' actions. The plant is the only tall tree in the region; thus, it creates strong contrast with the contiguous natural park of the Mediterranean shrub. I know almost every trail in this area. I came here several times alone with my bike or with my father, both to help him in beekeeping or simply for pleasure. Despite being only May, it is already sweltering. I take on a road to seek some shelter under the tall eucalyptus shade. Unexpectedly, I cannot find the trees. All the long trunks have been cut and laid down in colossal woodpiles, waiting for the machine to crumble them. Nearby, there are massive mountains of wood sawdust chips that the timber company will remove only at the end of the summer season. This bewildering bleak landscape that

I discover through every pedal triggers in me uncomfortable feelings. The absence of my usual point of reference contributes to making me feel disoriented to feel like I am lost. Now, the windmills towers stare just before me. My gaze can spot the gulf and the city beyond it. The aspect of the soil sparks my attention: turned upside-down and destroyed by the constant come and go of the heavy vehicles that are used for turning trees into mere dust. The ground looks like a distressing battlefield that will soon be replicated in other parts of Sardinia.

In 2018, after the local biomass power plant was turned on, the company that was appointed to provide biomass collected in Sardinia began its activity (Powercrop Macchiareddu 2017, 2). When they started, they focused on the plantations of eucalyptus trees close to the industrial pole of the capital. In that area, several hundreds of eucalyptus trees have been used for approximately a century for agricultural purposes. Obviously, the trees available in this small field could not provide enough biomass to satisfy the needs of the local biomass power plant. Thus, the company soon started to operate in other regions of Sardinia. The community of beekeepers began to be concerned with the risk of losing rich pastures for bees.



Figure 18. *Eucalyptus* trees cuts for the local biomass power plant (Credits: Greca N. Meloni 2019).

Analyzing the documents of the ARS shows that eucalyptus is considered a mere commodity. Compared to other vegetal species, the eucalyptus has no right to be taken

care of. Unlike other plants, people can cut the eucalyptus at any time of the year without restrictions (see Assessorato della Difesa dell’Ambiente 2006, 7). When the local biomass power plant station in the industrial pole of Cagliari started to function, the eucalyptus plantations in the nearby Cixerri valley were the first to be massively cut. The brothers’ Satta company signed some agreements with the local owners to cut several hundred hectares of eucalyptus in their lands. The ecological transition seems to have offered the opportunity to eliminate a plant that ‘should not be there’ (Meloni 2021). Hence, in many cases, various hectares of solar panels plants have replaced the eucalyptus plantations. According to the procedures for the Environmental Impact Assessment enlisted in the regional website,¹¹⁸ more projects are to come. The replacement of eucalyptus forests with solar power plants sparked the interest of the Italian National Institute for Research and Environmental Protection which is monitoring the rapid soil erosion in the area (ISPRA 2020; 2021).

The growing need for biomass in the ongoing process of ecological transition increased the economic value of even tiny plots of land of eucalyptus plantations. By acquiring lots of small areas, corporations can compose the legally needed zone to build solar panels power plants. Multinational corporations offer to pay a high price for lands that were previously considered of any economic value. Small plantations of eucalyptus irregularly scattered in the territory are now cut down and turned into extensive sweeps of solar panels that totally modify the landscape. The changes in the territory are also affecting the local fauna¹¹⁹ (Meloni 2021). According to the last reports of *Istituto Superiore per la Ricerca e la Protezione dell’Ambiente* (ISPRA), the area already fragile from hydro-geological erosion is now under the threat of solar panel power plant exploitation. To understand the environmental impact of this exploitation we must consider that the municipalities of Grogastu and Bau Arena are in the top 10 Italian cities with the highest grade of soil consumption in the past years (ISPRA 2020; 2021). Yet, this fact doesn’t seem to create any concern among the citizens, and in general to occasional ‘users’ of eucalyptus forests.

The situation nearby the Baveno’s farm mirrors what is occurring in the rest of Sardinia. The Sardinian Environment website dedicated to the queuing procedures for

¹¹⁸ See <https://portal.sardegnaasira.it/valutazione-impatto-ambientale>

¹¹⁹ A glimpse of the current process of land grabbing connected to the ecological transition is offered by the various documents for the Environmental Impact Assessment (VIA in Italian) available at the regional website Sardegna Ambiente <https://portal.sardegnaasira.it/web/sardegnaambiente/ricerca-dei-progetti> See also (Assessorato della Difesa dell’Ambiente 2021)

the regional Environmental Impact Assessment shows the amount of ‘green energy’ projects in various parts of the island.

Sardinians often appear to welcome the loss of eucalyptus trees as an opportunity to remove a vegetal colonizer that is spoiling their lands. This vision is not unanimously supported. Beekeepers feel threatened by the possible rapid loss of forage for the bees, already damaged by various pests. At an intimate level, the loss of eucalyptus trees triggers sentiments of nostalgia for their connection to the past and personal history of the people.

The disappearance of the eucalyptus in the area around the Cixerri valley in South Sardinia offers the opportunity to explore different perspectives on the presence and absence of the plant in the landscape. A simple walk through a eucalyptus forest can provide exciting insights into the different ways Sardinians perceive the plant.

In June 2020, I met Michele Murru, a fifty-year-old hunter whose expertise resides in the forests of Arcosu, nearby the Baveno’s farm. Michele accompanies me through the short vegetation of dense Mediterranean shrubs to teach me how to notice the traces of wild boars, the tiny prints of hares, and the tracks of the Sardinian reindeer’s hoofs. He calls these paths the ‘highways’ of boars and reindeer. While we bow to move forward through the often-impassable roads, Michele informed me that he learned to know this place from his father, who used to hunt in this exact area. Michele’s intimacy with this place results from a long story of hunting and gathering various species this territory offers. He appears to know the best seasons when gathering some unique wild products in this area. He’s also an expert in knowing the behavior of the animals that inhabit this place. Michele offers me a detailed explanation of how wild boars and reindeer think. This, it seems, is fundamental to take on the animals’ perspective so that he could hunt them.

Wild boars go where other animals don’t. He’s a wary animal, *sirbonaztu!*
You must pay attention to your smell. If you pass here, be sure that wild boars won’t pass here for very long, even ten days! Boars know how humans behave; thus, they change their path accordingly. (Michele Murru, Lower Campidano, 09 June 2020).

‘But then’ — I urge him — ‘Is *you* that are following the boar, or *he* is following you?’ ‘We follow each other!’ Michele replies. He points out that the area used to be good for hunting migratory birds that came very early in the season. However, now many birds have moved away from the area or adapted to nonmigratory habits. Michele states that many ‘highways’ of boars and reindeer that used to be trafficked seem to have been

abandoned ‘despite the abundance of blossomed carrots flowers to which reindeers go crazy.’

Down the eucalyptus forests, many traces seem to indicate that animals have left this place. The recent cuts of the trees to provide biomass to the nearby power plant seem to have disturbed the animals’ lives (Meloni 2021). The walk with Michele made me think about the lives of beings that rely on the plant but that are unnoticed. Michele’s expertise made visible to me the connections between plants and animals that before were unusual to me.

Following the lead of the eucalyptus trees, I met the farmer Antonio Aru who produces organic almonds in the same area. To him, eucalyptus trees are fundamental windbreakers that protect the orchards during heavy storms. They also constitute a fundamental vegetal resource for endangered species that are struggling in the current time of climate change and environmental crisis.

I met with Antonio several times at his orchards, at my father’s place, and at his house. In the latter, we sat around one green wooden table in his garden, in the shade of olive trees and surrounded by all sorts of colored flowers. His wife was teaching online, as we met just a few days after the first reliefs on the Covid-19 rules, and school was still online based. A pleasant light wind moves the leaf branches of the tall trees. A vast and beautiful old olive tree plantation encloses Antonio’s humble house just in the middle of the land. His view appears to be informed by a wide range of readings, particularly on the anthropological research on agricultural farming in Sardinia. He uses the works of anthropologists Giannetta Murru Corriga and Giulio Angioni to advocate the right to protect the environment as ‘we have known’. He states that ‘[in this area], Murru Corriga has studied the organization of carob trees. She believed that carob trees were brought for supporting donkeys and horses working in the local mine.’ Antonio uses the carob trees in his discourse because they are not a native species of Sardinia, but they are naturalized on the island. According to him, eucalyptus trees are not different from carob trees. Both plants were imported to the island for their uses, and both species have become crucial. Eucalyptus are essential because they provide shelter, food, and habitat for the various species that ‘don’t stay within the ideal borders of the protected areas.’ Antonio appears worried about the sudden loss of eucalyptus trees for feeding biomass to the local power plant. He considers the technique of the cuts dangerous for Sardinian reindeer. He believes that ‘not only do they reduce the space for animals to move, but sprouts attract reindeer that love them and move far from protected areas, to be exposed

to any sort of [human] danger.’ Antonio criticizes the cuts and the land grabbing generated within the ecological transition in this area. He argues that power plants of renewable energy are, in fact, another form of colonization of Sardinia that puts Sardinian farmers in a subaltern position. To Antonio, the eradication of eucalyptus represents an environmental disaster produced within a new form of colonization of Sardinia and Sardinians. The farmer blames the regional administrators for their lack of knowledge on the history and of expertise in agriculture. To Antonio, these two elements combined are responsible for the incapacity of territorial management of Sardinian policymakers. In our conversations, Antonio complained about his struggles to deal with the regional delegates from the department of agricultural management and development. He believes that policymakers are too focused on the allochthonous nature of the eucalyptus when they design projects for biodiversity protection. These projects fail in their aims because they are inconsistent with the real needs of the ecosystems they aim to safeguard.

They don’t really know how things work out in the field. Everything is connected, but they just lack knowledge. They don’t even realize that they support things that actually harm the ecosystem. Now, all these cuts on the eucalyptus trees, for instance. How could they possibly think that removing so many plants at once would benefit the environment? The sprouts of the eucalyptus attract deer, putting them in danger before the poachers. And then, the insects? What about the little animals? They completely lack knowledge of how that field works. It’s a disaster, and they call it green! They say that the eucalyptus does not belong, but this is just nonsense. (Antonio Aru, Lower Campidano, 15th May 2022).

Eucalyptus is not worthy of protection because they are alien to the Sardinian flora. Policymakers appear to believe that by eliminating the tree, they are safeguarding the Sardinian soil.

The notion of safeguarding is crucial in the view of Dario Desogus, a sixty-years old forestry ranger from the Sulcis who works around the Baveno’s farm and the SPAs of Monte Arcosu. Like the farmer Antonio, Dario seems to take on an anthropological approach to Sardinian issues. When talking of the negative effects on different species of the recent sudden loss of more than 200 hectares of Baveno’s eucalyptus forests due to arsons and biomass feeding, the forestry ranger Dario Desogus pointed out that:

You must understand what it means to protect the landscape. In Sardinia, the territory is harmonic, and the landscape also has harmony heigh. In Sardinia, everything is harmonic, and thus humans adapted to the landscape. When you look at the eucalyptus in the landscape, you immediately notice that it is inconsistent with the rest of the Sardinian plants and bushes. Eucalyptus trees are not in harmony with the Sardinian landscape, where everything has another seize, smaller. You see it. (Dario Desogus, Lower Campidano, 19 June 2020).

Dario is a friend of the hunter Michele Murru, who introduced him to me because he is

different from all the other [regional officers]. A person who really knows how the mountain works and the needs of animals and plants. He understands what we [hunters] do because he grew up herding goats, so he really knows the real meaning of mountain stuff. (Michele Murru, Lower Campidano, 09 June 2020).

The all three of us, sitting around the table of a featureless bar in the town of Grogastu, surrounded by the fake plastic leaves that ‘garnish’ our meeting place, Dario carefully shares with me his thoughts.

Dario’s arguments *against* the eucalyptus are fine elaborated and based on a deep knowledge of the various juridical tools on Sardinian forests and endangered species management. He appears to consider the Regional Landscape Plan an ‘extraordinary and excellent juridical tool’ that provides the guidelines to protect what is worth to be protected. Dario explains to me that he considers pointless ‘Taliban protection,’ that is, safeguarding everything in the Sardinian landscape as such. He argues that instead, it is essential to know *our* history when designing protection plans that affect the territory.

Take the use of cistus in the stone oven to make bread, for example. Gathering cistus’ wood for this purpose could work before, in old times. But today, the same oven that served a small community must serve ten more communities around, or the braid is sold in a [Large Organized Distribution] market. We’ve changed. Likewise, our way of doing on the territory has changed. Environmental management should take this into account. Rather than through speaking, you learn to *know how* to do things with your eyes, living with the mountain. This is the reason why certain techniques form part of our identity. (Dario Desogus, Lower Campidano, 19th June 2020).

Dario stresses that knowing *how to* do things and understanding the meaning of living in/with the mountain is fundamental for taking part in the life of the mountain.

Like Antonio, Dario considers the energy plants and the widespread of solar panels power plants in the landscape a ‘distraction’ from ‘foreigners’ interests in Sardinian lands. Yet, although eucalyptus exploitation and ‘green’ power plants are often two sides of the same coin, Dario appears almost thrilled by the possibility of getting rid of a plant that ‘should not be there’ (Meloni 2021). He elaborates a compelling explanation on the careless exploitation of eucalyptus trees in Sardinia.

Because the landscape is part of the Sardinian identity, losing this knowledge and awareness produces the current careless exploitation. If you don’t know about your history, then you can’t take care of what is yours. But the case of the eucalyptus is different. There is no rule that determines how to exploit it because it is an allochthonous species. There is no need to design sorts of ‘good practices’ to cut the trees. From what I could see, the ways they are

cutting the eucalyptus suggests that they want to kill the plants, preventing them from sprouting again. (Dario Desogus, Lower Campidano, 19th June 2020).

The forest ranger stresses the inconsistent nature of the eucalyptus with the Sardinian landscape. To Dario, this inconsistency might be the reason for a lack of community care for the plant. In fact, the citizens of the surrounding towns of Grogastu, Bau Arena, and Santa Lucia seem uninterested, if not genuinely blessed, in its disappearance from the Sardinian soil in favor of ‘clean’ energy. Although the plantations offer shade to local visitors like runners, bikers, and walkers, ‘occasional users’ appear to positively welcome the loss of the allochthonous plant from the landscape. I define ‘occasional users’ as those who entertain occasional relationships with the forest, such as when jogging, running their bike, passing through the eucalyptus windbreakers on the way to the natural parks, or daily workers that only occasionally have found themselves surrounded by this landscape. Usually, these people do not own land. When they own the lands, they do not live from agriculture or pastoral activities. Their relationship with the landscape and the ‘mountain’ is merely reduced to working days or occasional hiking through the natural parks. The fieldwork has shown that these people often manifest deep hate against the eucalyptus, which is generally connected to the belief that the plant is a sort of vegetal colonizer, an allochthonous species that should be uprooted from Sardinian soil.

8.4 The construction of allochthonous species in Sardinia

The subtle reference to the right of the plant to be rooted in the Sardinian soil is at the base of the construction of the contemporary notion of allochthony attributed to eucalyptus trees. Focusing on the mechanisms that produce this notion reveals how ‘Sardinian identity’ is used to design the policies for environmental management in Sardinia. Furthermore, it shows how the discourses about the Sardinianness of different species are deeply entangled with the rules that manage the field of agriculture. These rules work as a superstructure that provides elements to reify non-human beings.

Obviously, the eucalyptus is not the only species (or genus in this case) naturalized or invasive in Sardinia. According to the recent checklist of the alien flora in Italy, there are roughly 2900 vegetal species, of which 2441 are autochthons and 481 exotic species in Sardinia (Galasso et al. 2018; Bartolucci et al. 2021). Yet, among the allochthonous species, the eucalyptus seems the only one that Sardinians consider deeply entangled in the history of colonialism and agricultural development strategies on the island. The form

of hate against the eucalyptus seems at the edges of racism, similar to what the anthropologist John Hartigan described in Mexico for corns (Hartigan 2017). In Sardinia, this form of ‘vegetal racism’ appeared to have progressively emerged in the past decades. The Regional Landscape Plan (RLP), designed in 2006 during Soru’s mandate, considers the eucalyptus a characteristic element of the agricultural landscapes of South-west Sardinia and shorelines (Giunta Regionale della Sardegna 2006b, 144). The resentment over the eucalyptus seems to have grown more profound in the past few years. The analysis of the official documents of the last twenty years reveals that starting from Soru, the policies for environmental management appear to apply the RLP and its annexed Plans in a restrictive way against the eucalyptus. The eucalyptus appears to be conceived as a mere object without any agency. For this reason, the plant can be removed, displaced, replaced, uprooted, or employed with almost any limit except for the cases in which these practices can negatively affect the territory (see Assessorato della Difesa dell’Ambiente et al. 2007; Regione Autonoma della Sardegna 2008).

As explained in chapter one, the RLP represented a crucial element of the political project of the then Sardinian governor, Renato Soru. He considered the environment a fundamental aspect that makes Sardinians who they are (Soru 2004, 14,15). Soru claimed the right of Sardinians to safeguard *their* environment (Bandinu and Cubeddu 2007, 97). The RLP became an element that marked the imprint of Soru on the governmental structure of the region. Journalist Bachisio Bandinu and sociologist Salvatore Cubeddu coined the word ‘sorismo’ to define a ‘particular way of intervening in the [Sardinian] economy through a rigid legislative control of landscape and environmental conditions of the territory’ (Bandinu and Cubeddu 2007, 273). According to Bandinu and Cubeddu, Soru acted in the regional council as he was the head of a company. Therefore, every activity in the territory fundamentally depended upon his vision. The RLP was conceived by a team of experts hired specifically to address the concept of landscape, as elaborated by Soru in his discourses. It resulted from an intensive process of research that involved different expertise in various field connected to the management of the territory. They classified all the ‘types’ of landscapes on the island to develop a good management strategy. Along with the RLP, during Soru’s mandate took form the plans that regulate forest uses, energy supply, and the management of hydrogeological and arson risks (Assessorato della Difesa dell’Ambiente 2006; Giunta Regionale della Sardegna 2006a; Regione Autonoma della Sardegna 2008). It might seem pleonastic to highlight that all these laws were conceived in a fundamentally consistent way. Yet this fact represents an

essential aspect of the businesslike concept of Soru of the regional council (Bandinu and Cubeddu 2007, 274). I argue that Soru's ability to create a coherent system of laws for managing the environment imbued with the Sardinian identity empowered policymakers' actions in the territory. 'Identity' became a diriment element not merely for perceiving the environment as Sardinians but rather to manage it and change it according to the hegemonic vision of Sardinianness.

It is worth dwelling upon the role that the institutional image developed by Soru and his successors — recently designed as the 'Endless island' — in the policies for environmental and agricultural management. Soru counted on the 'diversity' of the island, its environment, and 'traditions' as values that can be monetarized to create wealth (Soru 2004). The entire institutional image of Sardinia was built from scratch (Giunta Regionale della Sardegna 2007), and the island took on a 'new' visual identity that was promoted all over the world. This 'new' visual identity uses those elements that, through centuries, have been established as the most typical Sardinian 'traits.' That is, an unspoiled island, with a wild landscape such as the one described in the books of Grazia Deledda or depicted in the images of the documentaries of Marcello Serra and Fiorenzo Serra (Serra 1958; Serra 1958; 1962; 1965), and the paintings of Chicharro and Ortiz (Frongia 1995). These iconic images work in two directions: Sardinians can self-identify in this *topoi*. Non-Sardinians acknowledge these elements as representative of Sardinian culture.

I argue that by applying a business-like model to the regional administration, Soru activated a process that institutionalized the Sardinianness. This contributed to build an hegemonic vision in the Sardinian identities. I contend that this hegemonic representation of Sardinianness feeds all the discourses about identity and penetrates the everyday life of people, including the programs for biodiversity protection (or restoring it).

In a conversation, the landscape manager Gianni Barega reported an exciting anecdote that shows how these notions work in practice when managing the environment:

The [municipality of Matta Masoni] has contacted me to help them because they hired some architects to do the job, and the plants the guys chose are not growing. They strive to make a beautiful park, yet they use exotic plants that don't say anything about that place. I told them, you're famous for your caper. This is your identity. You must plant caper bushes because they are adjusted to the territory. And in this way, you are also creating a park that narrates something about your identity and history, the history of this place! If you don't know your story and your landscape, you are dead. (Gianni Barega, Iglesiasiente, 22nd August 2020).

Beyond the correctness of scientific practices for biodiversity protection, it seems that the efforts of Sardinians to protect the environment are aimed at keeping the authenticity

of the ‘endless island.’ A wide range of documents issued by different regional departments in charge of managing the environment reveals the traces of this narrative. The ethnographic fieldwork has shown that at the territorial level, local policymakers tend to interpret the environmental management guidelines in a more restrictive way. The notion of allochthony contraposes the concept of autochthony of species. This translates into practices of eradication of ‘exotic’ species that are considered symbols of domination and subordination of Sardinians to Italians. In the commonsense, Sardinia must keep its Sardinianness. It seems that policymakers act to eradicate allochthonous species and replace them with autochthonous ones. The environmental management programs seem to attempt to de-colonizing the landscape from the traces of the colonizers, particularly the eucalyptus, because of its relation to Italian ‘domination.’ The latter is specifically the Italians, who are considered to be responsible for putting Sardinia in a subaltern position. The words of Gianni Barega, well exemplify the resentment and hate against the eucalyptus. Referring to the eucalyptus landscape, he stated:

Sardinians talk about *su connotu* without knowing what it is! They told us we have a millennial tradition of sheep herding, and this is instead a story Italians invented. The landscape in Sardinia is ubiquitously colonized. Everywhere you can see the traces of the colonization that Sardinians did not resist. If you think that this landscape represents you, then you do not know what it means to be [truly] Sardinian! (Gianni Barega, Iglesiente, 22nd August 2020).

In the view of Gianni, Sardinians should engage in a coherent work of re-organization and removal of the ‘polluting’ vegetal agents that colonize the island and restore the authentic biodiversity of Sardinia. For Gianni, this is the only way to reclaim the Sardinian identity and for Sardinians to start to live consistently with their real nature.

Gianni’s words may appear rather extreme. Yet his vision is imbued with a notion relatively widespread on the island at various levels of society and ultimately in the policies for environmental management.

Local administrations appear to design their plans according to this view. However, this creates tensions because of the loss of a typical landscape element. In fact, in some cases, allochthonous species became part of the local cultural heritage. Thus they are often protected by the law of landscape safeguarding (see Il Presidente della Repubblica 2004). Old vegetal species are often replaced with new autochthonous species that might take several decades to reach a high that can offer shelter during hot summer days.

Sardinia is not the only European region where the management of the eucalyptus plantation entangles with discourses of cultural heritage protection. In Spain and

Portugal, the plant is bitterly contested for the environmental damage it is assumed to have created on the typical landscape of the mountains (Arnáiz 2019). However, the Sardinian case seems to differ from the Spanish region. First, there seems not to be organized groups of citizens that remove the plants. Second, on the island, the hate against the plant seems particularly widespread among the bureaucratic machinery that works in a more subtle way to do the same as the Galician *brigadas*. Biodiversity safeguarding appears to take on the mean by which to restore the ancient appearance of the island of Sardinia. At the local level, this allows for eradicating certain species, specifically the eucalyptus. In the fieldwork, the latter species emerged as the most unwanted plant.

In the Sardinian common sense, the only agency allowed to the plant is the ability to pollute the authenticity of the Sardinian landscape. In the regional policies, in contrast to many non-human vegetal species that are considered living beings, the genus of eucalyptus is reified as an object that can be sold, cut, destroyed, or removed without restriction. The eucalyptus appears as a species ‘out of place’ that can spoil the authenticity of the island’s landscape. The construction of the ‘allochthony’ of the eucalyptus is based on its ability to ‘invade’ the Sardinian soil like the Italians that would have invaded Sardinia. ‘Invasive’ is another term that often appears in various official documents to address the presence of the eucalyptus and its management. Donna Haraway has pointed out that terms such as ‘invasive,’ ‘relocation,’ ‘displacing,’ and ‘removal’ all hide the acceptability of killing a living being. As she puts it:

[...] *invasive species*— itself a term that ‘makes killable,’ the very use of the term *invasive species* makes killable, whether you’re talking about immigrants from Central America or rats and cats on an island. ‘Invasive species’ is, literally, a powerful way to make killable. (Haraway 2016a, 235).

Despite many other species being considered ‘invasive’ or ‘exotic,’ only the eucalyptus does not have the right to root in Sardinian soil. Similarly to what is described by Haraway for invasive species (Haraway 2016a; 2016b) and by Anna Tsing for Africanized bees (Tsing 1995), the allochthony of the eucalyptus in Sardinia is compared to an illegal immigrant (see Comaroff and Comaroff 2001). In the discourses about the ‘inconsistency’ of eucalyptus to the Sardinian soil and landscape, the plant seems to become the token of the Savoyards officers. It is worth remembering that in the hegemonic representation, Sardinia is culturally, historically, and ‘naturally’ diverse from Italy. In this discourse, ‘wilderness’ is a particular element that characterizes Sardinian people and the island itself. The alleged wild temper of Sardinians allowed them to

domesticate the wild territory and take advantage of even disgraced lands. The ‘authentic’ Sardinian culture helped Sardinians to shape the environment according to the wilderness they shared with it. The concept of Sardinianness is connected to a notion of rootedness in the land that embeds humans and non-humans on the soil. I argue that nationalistic sentiments hide behind this notion of autochthony. In common sense, autochthony represents the mean by which to ‘purify’ the island from ‘polluting’ species. To put it in the words of Gianni Barega:

If you look at the landscape, I can show you the development of species from 0 to 100, that is, from lifeless rock to the forest of holm oak. Day by day, the bushes prepare the land for the great chief holm oak. If you remove everything that does not belong here, the polluting species, the allochthons species, then you just need to wait for Nature to do her work. If it were for me, I would remove everything from here up to the forest of the Arcosu Mountains to restore the ancient forest. You know, Marganai’s forest was a vast forest that covered South Sardinia up to Arcosu Mountains. They were one. (Iglesiente, Gianni Barega, 22 August 2020).

This nationalistic concept of ‘autochthony’ seems to have slowly emerged as a powerful tool to shape the Sardinian environment according to an ideal image of how the island should be or, to be precise, how it should return. ‘Diversity’ is a crucial element in this narrative. Determining which species are ‘authentic’ Sardinian human and non-human beings implies that they are substantially different from what *is not* Sardinian.

Because the eucalyptus stands out on the landscape, they are immediately recognizable as different from the rest of the species. Additionally, the story of the importation of the plant overlaps with the story of the colonization of Sardinia under the Savoy kingdom. As the Savoy’s rulers have colonized Sardinians by imposing their regulations, so the eucalyptus is still colonizing the Sardinian landscape, attempting to prevail over native species. The eucalyptus tree symbolizes domination and subalternity embedded in the landscape.

Scholarly ecological thinking seems to provide scientific evidence in constructing the eucalyptus as a species ‘out of place.’ Its naturalization in the Sardinian soil is not enough to judge the eucalyptus as a local plant or a ‘new local.’

The Sardinian botanist Gianluigi Bacchetta defines the eucalyptus as a ‘sub cosmopolitan’ plant because it traveled around the world, adapting and rooting to various environments in places that are even more suitable than its motherland. Yet, Bacchetta affirms that the eucalyptus is a fundamental part of agricultural landscapes in Sardinia. According to him, there is no need to remove allochthonous species in urban spaces, as well as in agricultural and industrial contexts, because in those cases, the plant does not

find the possibility to germinate, replicate itself and become a competitor of the local species. Bacchetta does not seem to share the same deep hate against the eucalyptus that seems to nurture the projects of eradicating the plant from everywhere to restore the authentic Sardinian landscape. The botanist seems to believe that there are contexts in which the eucalyptus can grow old, and in some cases, it can become a monument¹²⁰. Bacchetta argues that when managing plants, people should consider that they are living beings. Therefore, every action must be carefully considered before putting it into action. For Bacchetta, similarly to people, plants should not be ‘removed,’ ‘replaced,’ or ‘displaced,’ because they are living beings with the right to ‘care.’ However, the eucalyptus should be removed in those areas in which it could overcome the Sardinian endemisms that is precious for the biodiversity of the island.

We should protect endemic species because we are Sardinians, and if we don't do it, who else can do that? I apply a sort of scale of value for the species: first, I save the autochthonous species that you can only find in Sardinia. Second, I protect the endemism that is peculiar to the Mediterranean islands. Then, I take care of the species typical of the Mediterranean area in general, and so forth. Thus, it is pointless to remove the eucalyptus in urban contexts. I cut the eucalyptus for instance in *Guttureddu*, where lives the Sardinian trout¹²¹, where there is the Sardinian reindeer¹²², the wild Sardinian cat¹²³, and so on. That is, I cut the eucalyptus where there are Sardinian endemic species that have an ecosystemic value and the eucalyptus can damage its harmony of it. (Gianluigi Bacchetta, Cagliari, 18 March 2022).

Clearly, scholarly ecological knowledge informs Bacchetta's point of view on the eucalyptus and its differences from Sardinian species. Yet, in his discourse, there are traces of the notion of Sardinian identity that implies a continuity between humans and non-human beings. Interestingly, Bacchetta uses ‘we’ to stress the responsibility of Sardinians to take care of non-human species suggesting that he conceives an ontological continuity between people and plants. The vision of the botanist seems coherent with the aims and contents of the Regional Landscape Plan of 2006 mentioned above.

This notion of the plant coexists with alternative visions that consider the eucalyptus from a different perspective. The plant takes on a different role depending on the proximity that people establish with it. In the community of beekeepers, the plant is often

¹²⁰ With the Law n. 10/2013 and of Decree 23 October 2014, Italy issued the national list of monumental trees where any species that fits the requirements can be enlisted. Eucalyptus genus form part of this list.

¹²¹ Scientific name: *Salmo cettii Rafinesque*

¹²² Scientific name: *Cervus elaphus corsicanus Erxleben*

¹²³ Scientific name: *Felis lybica sarda*

considered a friendly companion of honeybees. In what follows, I offer some insight into the alternative visions of this plant.

8.5 Alternative visions of autochthony and allochthony

It seems that depending on how people deal with the eucalyptus, the trees play a different role. Among hunters, the plant is a precious resource because it attracts birds and shelters smaller prey. As one hunter put it during an informal conversation: ‘Beneath the trees, many animals find refuge from the sun but even to human disturbance.’ For many lumberjacks who works to produce firewood, eucalyptus is a mean of living. Lumberjacks tend to cut trees using a technique that can guarantee the renewal of the forest without killing all the plants. they seem to be aware that massive exploitation of trees could lead to the death of plants. From a long-term perspective, this could cause problems because other vegetal species are protected or can’t be cut down so often as the eucalyptus (Giunta Regionale della Sardegna 2006b; Assessorato della Difesa dell’Ambiente et al. 2007). Many local lumberjacks seem to own small land parcels often planted with eucalyptus trees. The small parcels of land are often what is left from a long process of handing down the family heritage from generation to generation. Small eucalyptus parcels are not very remunerative. The amount of wood they provide sometimes covers merely the annual need of each family. Nevertheless, lumberjacks appear to consider these lands worth being protected from capitalistic reification because they form part of a family heritage. As material heritage, eucalyptus becomes more than simple land parcels. They take on the role of material goods that embed the family history. Zene’s analysis (Zene 2007) helps to reflect on the resistance of lumberjacks to capitalist exploitation of their lands. I have explained how Cosimo Zene remarks that *su connotu* also incorporates a concrete and tangible sphere that refers to lands, properties, flocks, and anything that may be inherited (Zene 2007, 295). By this token, eucalyptus trees become part of the landscape that is handed down by the ancestors (*areren*), known through oral history in the family, and where are visible the traces of the past generations (Meloni 2018d; 2021, 79). Like beekeepers, some lumberjacks appear to perceive the landscape as a space inhabited and co-created by the interactions of humans and other non-human beings.

For many Sardinians, including some members of the community of beekeepers, the honey of eucalyptus, like the plant it comes from, does not have the right to be considered

‘Sardinian.’ Yet, the honey of eucalyptus formed part of the project for the PDO label of honey of Sardinia. Gianni Barega offers again an incisive opinion in this regard:

What is the eucalyptus, after all? How can you say that this plant can define you as Sardinian? Herders, farmers, and beekeepers are doomed to die because they do not understand what they are. I can pick up the phone, make one call to Australia, and they send you hundreds of kilograms of eucalyptus honey. (Gianni Barega, Iglesias, 22nd August 2020).

Likewise, for Gianluigi Bacchetta, the honey of eucalyptus should not be included in the ‘Sardinian’ honey kinds list because the plant is not a Sardinian species.

I have been working along with other researchers and beekeepers to characterize honey of autochthonous flora, which can offer an added value to the excellent quality of honey. For instance, there is a specific kind of Euphorbia, the *Euphorbia dendroides*, which covers a significant part of the hills on the seaside in Chia that can produce honey of a truly Sardinian species. In addition, the *Teucrium marum* is also very specific to some Sardinian regions. Obviously, these plants cannot provide significant quantities, instead is a niche product. But some beekeepers are receiving good feedback for these types of honey. Also, the Myrtle honey. The eucalyptus is a ‘sub cosmopolite’ plant, almost stateless, that cannot provide such value. (Gianluigi Bacchetta, Cagliari, 18 March 2022).

A specific notion of territoriality seems to emerge in the discourse of Bacchetta. This territoriality is connected to the rootedness of Sardinia that, as we have seen, is not granted to the eucalyptus.

The beekeeper Oscar Melis seems to share a similar perception of the presence of the eucalyptus. Oscar’s family owns various small land parcels that have been handed down since the 1800s from his mother’s lineage and father’s sides. Each walk seems to remind Oscar of a meaningful episode that links the history of his family with the history of the landscape. Oscar claims that his local knowledge result from the oral expertise of his father and grandfather. From them, he learned the perfect locations for the bees and other important information regarding climate and geological conditions. Oscar’s notion of belonging to the territory seems to be based on similar premises to the one that informs Efsio Mele’s sense of belonging (Cfr. 187-194). The ancestors’ actions and the possibility to shape the landscape through the action of bees.

The loss of hundreds of hectares of eucalyptus due to arson and the cuts for the local biomass power plant triggers Oscar’s different preoccupations. The sudden disappearance of hundreds of eucalyptus trees changes the landscape so profoundly that Oscar almost loses his ability to orient himself within the dense eucalyptus forests. Without the high leafy branches of eucalyptus, the tallest species in this area, the landscape takes on a desert appearance. The blades of the nearby windmill’s plants look

closer, and the previous reference point disappears. That landscape where Oscar grew up with the unpaved, now dismal stone roads that his mother contributed to creating when she worked for the Baveno's family; the small, old, ruined bridge he used to cross when exercising for running the marathons; everything now looks a different place, a place that he does not recognize as he has *known it*. To put it in simple words, the landscape that Oscar has inherited as he *knew* from his ancestors, from his family's history, and from living with the trees is now totally changed, almost wounded by the careless cuts of biomass producers. The eucalyptus was part of the environment handed down by his ancestors. They were there before he was born and even before his father was born. They grew up together with Oscar's ancestors. The eucalyptus provided more than enough honey to supply his five hundred colonies and his family. The trees became sort of companion species, allies, and kin. I argue that although Oscar does not own the forests, in a way, he feels like he is losing his heritage, which in turn means that he also loses the possibility to pass it to the next generations.

The massive cuts to the eucalyptus plantation occurring in the area where Oscar operates and lives significantly reduce the possibility of producing eucalyptus honey which, in this area, represents the most significant source of income. The cuts add to several problems that are affecting plant survival and, consequently, are threatening the lives of bees. The ongoing process of desertification that affects the area (Motroni et al. 2004) is indeed considerably reducing the nectar potential of the various vegetal species. Frequent drought and sudden floods alternate with long windy periods that have the effect of drying out the flowers' secretions. A consequence of this environmental crisis is the notable reduction within the last twenty-five years of the varieties of honey Oscar produced in this same area. In the 1990s, with his five hundred hives scattered in various parts and divided into apiaries of thirty families, Oscar produced monofloral honey from asphodel, thistle, cistus, heather, citrus, lavender, rosemary, and thyme in the Spring season. Then, after the summer harvest of eucalyptus, the landscape provided carob-base- autumn honey and monofloral honey of strawberry tree. Nowadays, 'in the good years,' Oscar produces only four varieties of honey in total, two of which are in the Spring season. According to him

Climate has changed so profoundly that plants seem not to bloom anymore, or at least the flowers are there, but they do not secrete any nectar. When you look at them, you see they look like hangdogs with their ears lowered. Look at the asphodel, for instance: can't you see its color? Look, this place is full of asphodel, yet no bees are coming. It means that flowers are not attracting them. Thirty years ago, I produced so much honey that I

didn't know where to store it. But now. Now I am lucky if I manage to produce enough honey to supply only one market chain, my sure primary source of income (Oscar Melis, Lower Campidano, 2017).

Oscar explains this drop in varieties with climate change. He noticed that in the past ten years, the Azores' high had been replaced by the African high. The first used to place in the Mediterranean regions from the end of June up to late August. It brought humid nights and mid-hot temperatures during the day, with a gentle breeze or any sign of wind at all. The African high, instead, is characterized by over 40° C temperatures and strong southeast winds. This dries out the flowers of eucalyptus, which appear 'burned' right after they bloom. The white, 'fluffy' flowers of the eucalyptus tree, which generally could last very long and produce an astonishing scent, under these weather conditions, take on a brown color overnight. That means that the plant is suffering from this climate.

For Oscar, the problem is the lack of laws that prevents biomass' woodcutters from cutting the trees during the blooming period or just before it. Oscar's fear for bees' survival is shared among other beekeepers who work in areas where there are eucalyptus plantations that are recently cut down to provide biomass. As long as woodcutters can cut eucalyptus with no limits, beekeepers cannot plan the season. Further, they risk losing bees because of the lack of forage in summer.

For all other plants, the law says that you cannot cut them at anytime. You can cut them in specific periods. Then, there is a law that says that you cannot cut trees during the nesting season of birds. Do you understand? They protect birds. Then bees, no one thinks about bees. They do not understand that if you bring bees to the eucalyptus, you bring the families to a good spot, and then you come back to harvest, and you have to feed the bees because they came and cut down all the trees at once, without any notice. The bees starve. Then, they say you can move them. Where? There are beekeepers everywhere. You cannot put your bees close to others. If there is no flowering, then either of you can make honey. In addition, this stupid weather decreases the nectar potential. This is a matter of survival, not only of making honey; bees die out of starvation because there is nothing at all, and the only source of survival is cut down. Bees need to eat nectar, not sugar. I refuse to feed them artificially. (Oscar Melis, Lower Campidano, 2020).

In the Facebook posts on *Abieris di Sardegna*, some beekeepers asked for the support of beekeeping associations to claim before policymakers to introduce regulations that include the needs of bees likewise the already existing rule to safeguard birds (Giunta Regionale della Sardegna 1998). Nevertheless, the relationship between beekeepers and the eucalyptus tree is diverse, and not all beekeepers are always willing to support the plant's 'salvation.' The hate against the eucalyptus is so deeply rooted in common sense that some beekeepers consider the plant a 'vegetal colonizer' who defaces the authentic

Sardinian landscape. Yet, it seems that bees enable beekeepers to develop a different understanding of the role of eucalyptus on Sardinian soil.

Davide Nonnis, a passionate activist for Sardinian independence and commercial beekeeper, admitted to having changed his perspective on eucalyptus after starting to keep bees.

I hated that plant so much. Deeply. The Piedmontese brought it here, they spoiled our island. I still struggle. When I started beekeeping, I realized how important they are for the survival of bees. When they bloom, there is nothing else. Bees struggle to find something to eat in summer. Without that, bees might die. There is no other plant that provides so much nectar for bees. And honey too, for beekeepers! (Davide Nonnis, Barigadu, 17th July 2019).

8.6 The HBE relationship and the Sardinian identity

In this chapter, I illustrated that ‘identity’ represents a pivotal element in how Sardinians perceive the environment and operate in it. In doing so, I took the eucalyptus tree as a leading plant and as the most representative ‘misplaced’ species in Sardinia. In the Sardinian common sense, the eucalyptus is considered ‘out of place,’ and its presence in the landscape seems to represent a symbol of colonization. The presence of the eucalyptus in Sardinia results from the policies of environmental management of the last hundred and fifty years roughly. Since the second half of the 1800s, the plant was imported during the Savoyard kingdom to contrast malaria on the island. The negative sentiments against the history of the Savoyards in Sardinia influence how Sardinians consider the eucalyptus. Hence, the plant on the landscape is conceived as an evident symbol of the subalternity of Sardinian to Italians. Farmers extensively used the plant as a windbreaker to protect their orchards. This is the case with the Sarrabus, where the presence of the plant goes along with the cultivations of orange trees. Between the Cixerri valley and the humid areas of the pond of Cagliari, at the slopes of the Monte Arcosu, the eucalyptus became a peculiarity of the landscape of this area. Despite the ‘autochthonous’ use of the plant by Sardinian farmers, in common sense, the plant remains a symbol of domination and subalternity. Given that the notion of the Sardinian identity conceives a consistency between people and territory, the eucalyptus is conceived as a vegetal colonizer that aims to destroy the ‘authentic’ biodiversity of Sardinia. The construction of the plant as an ‘alien,’ ‘exotic,’ and ‘invasive’ species seems disconnected from the scholarly ecological knowledge that guides the EU policies of biodiversity protection. Hence, the hate against the eucalyptus seems to root deep in connection to

the construction of the Sardinianness in a conflicting relationship with the ‘Italianness.’ This concept bases the construction of the ‘otherness’ of humans and non-human species.

On the level of territorial management, officers of regional departments and local administrators appear obsessed with the idea of restoring the ‘authentic’ biodiversity of Sardinia. This hate seems connected to a nationalistic concept of ‘autochthony’ that has developed in recent decades. Safeguarding the biodiversity of Sardinia has become a way to ‘purify’ the island from species that are considered symbols of the alleged subordinate role into which Sardinians have been confined since the Savoy regime. The obsession for ‘purifying’ the island from the ‘invasive’ species recalls the politics of belonging and the anxiety about ‘aliens’ in post-colonial contexts (Geschiere and Nyamnjoh 2000; Murray Li 2000; Comaroff and Comaroff 2001; Geschiere 2011; 2009). Jane and John Comaroff have pointed out that the never-ending controversy about alien-nature conveys concerns about the proper constitution of the polity, the limits of belonging, and the ways the nation, the commonweal, and the stakeholding subject are to be constituted in the age of global capitalism (Comaroff and Comaroff 2001, 651).

The different ethnographic accounts reported in this chapter aimed at showing how different notions of Sardinianness seem to connect to diverse ways of perceiving non-human species. Notwithstanding the continuity between people and the environment, the hegemonic notion of the Sardinianness is based on the dichotomy between ‘nature’ and ‘culture’ of the western ontologies. The policies of environmental management are crucial in translating this into practice this notion. They all aim to ‘purify’ and ‘restore’ the ‘authentic’ biodiversity of Sardinia by dominating the nature that is considered inconsistent with the Sardinian soil. The health of the plant offers another level of reflection on the dynamics between local struggles and global changes. Various non-native pests and diseases are attacking the eucalyptus trees in Sardinia. They seem to get an advantage from the international and industrial connections of the harbor of Cagliari. The pests arrive along with other materials, and they soon spread on the island. Eucalyptus ‘haters’ appear to consider this fact exemplary of the necessity of removing the plant from the Sardinian soil because it would attract other ‘invasive’ species.

The eucalyptus also offers the opportunity to reflect on how Sardinian use the new ecological transition to tackle the project of eradicating the plant. The ‘haters’ of the eucalyptus appear to consider these policies as a better way of producing ‘clean’ energy

than usual fossil fuel-based power stations with the side benefit of removing an ‘alien’ from the territory.

In contrast, beekeepers and, to some respect, some farmers and hunters appear to conceive the eucalyptus for the benefits that it provides to other species. It seems that these people tend to look at the eucalyptus with the eye of their companion species. Notably, beekeepers appear to conceive the eucalyptus from the perspective of their bees. I argue that through the intimacy with bees, and the HBE relationship, beekeepers develop different understandings of the intertwined network of connections between human and non-human species in the environment. This awareness seems to prod beekeepers to develop ontological notions of the relation between ‘nature’ and ‘culture’ that contrasts with western ontologies. Rather than dominating other species, beekeepers appear to consider their work as a form of collaboration with other species. From this standpoint, beekeepers appear to consider the environment as a place co-created with the ‘endless’ toil of humans in collaboration with other non-human species. Given the pervasive role of ‘identity’ in Sardinian common sense, this multispecies cooperation becomes the means to rethink the Sardinianness of human and non-human species. For beekeepers, autochthony, that is, the right to belong to the Sardinian soil, is no longer perceived as a taken-from-granted category defined according to scholarly ecological knowledge. Rather, autochthony depends on the ability to create connections of co-operations with other species, to ‘worldling’ and ‘becoming with’ other species, to put it in Donna Haraway’s words (Haraway 2008; 2016b). I argue that because the eucalyptus has formed part of this co-operation for generations of people, the plant has the right to be part of the world as beekeepers have known (*su connotu*). The eucalyptus takes on a different meaning and becomes a subject of a relationship rather than a symbol of domination.

In conclusion, I argue that the HBE relationship enables beekeepers to develop an alternative vision of the Sardinian identity that contrasts with the hegemonic notion of the ‘wild’ and ‘endless’ island. Hence, the continuity between people and the environment does not base on wilderness and resistance. Instead, the Sardinianness seems to be conceived as something that is acquired by co-operating to shape the environment. That is, the right to belong depends on the actions that a person and their ancestors have left on the environment.

9. Conclusions

In this research, I have analyzed how a hegemonic notion of ‘identity’ in Sardinia crucially influences the policies of environmental management, creating tensions in the field of beekeeping. I aimed to fill the gap in the anthropological knowledge about identity-making in Sardinia. Hence, focusing on the field of beekeeping, I used a multispecies approach to investigate how the connections between beekeepers, bees, and the territory enable the former to develop alternative understandings of the Sardinianness of non-human species. I have shown that the hegemonic notion of the Sardinian identity is imbued in the nature/culture dichotomy typical of western ontology. Chapter one focused on unpacking this notion. In doing so, I dwelt upon its visual dimension to investigate the connections between art, literature, cinema, and archaeology. This allowed me to trace the edges of what Alberto Mario Cirese has called the ‘suggestive images’ of Sardinia. I argued that the so-called ‘visual identity’ of Sardinia that the ARS promotes in its institutional networks reveals a specific understanding of the relationship between ‘nature’ and ‘culture.’ The stunning images of a ‘wild’ and ‘endless’ island pivot around two key-aspects of Sardinianness: First, the notion of ‘resistance’ to external domination; Second, the consistency between the wilderness of the island with the alleged ‘wild temper’ of Sardinians. The notion of ‘resistance’ is built upon the theories of archaeologist Giovanni Lilliu, who attributed to Sardinians the ability to ‘endure’ their ‘true diversity’ and ‘resist’ the attempts of domination from people that came from the sea. From this perspective, Sardinianness is connected to the ability of Sardinians to have remained biologically and culturally similar to the Sardinians who built the Nuraghi. Lilliu believed that the beginning of a Sardinian civilization, diverse from the rest of the world, appeared in the age of the Nuraghi. According to him, the stone towers symbolically reveal the consistency between Sardinians and *their* environment. Hence, only Sardinians would have been able to ‘culturally’ shape the environment by creating ‘monuments’ that perfectly integrate with ‘nature.’ In the current notion of the Sardinian identity, both humans and non-humans are wild. However, humans can dominate the environment because their wild temper is consistent with the wilderness of non-humans. This notion became hegemonic with Governor Renato Soru who empowered the concept of

Sardinianness by integrating it into the structure of the policies for the environmental and agricultural management of Sardinia. In this way, policymakers can affect the territory and endorse policies that shape the environment according to this implicit notion.

Chapter two focused on the theoretical dimension that informed this dissertation. Given the implicit role of the ontologies that influence how Sardinians conceive their identity, I took on a multispecies approach to investigate how the relationship with bees affects beekeepers' understanding of Sardinianness.

Chapter three presents the different methodologies that enabled me to access and study the field of beekeeping in Sardinia. This chapter reflects on the implications of researching in a field that is directly connected to my family. The chapter dwelt upon the uses of the camcorder and the blog that I created: *www.fareapicoltura.net*

Chapter four analyzed the Sardinian beekeeping sector and reflected on the gender division and the tensions between commercial and part-time beekeepers. Additionally, the chapter dwelt on the historical dimension of beekeeping on the island, offering insights into the ergology of 'traditional' beekeeping. As I have shown, movable-frame beekeeping developed relatively recently in Sardinia, and many of the current professional beekeepers established their businesses between the 1970s and 1980s. To some respect, certain notions and previous knowledge seem to influence the present-day modes of beekeeping. 'Traditional' beekeeping tools are often used and re-designed for new purposes. Sometimes, these uses are linked to claims of a connection with the past. In other instances, economic reasons are behind the reuse of 'traditional' material. The chapter suggests that beyond the process of reinvention of the 'tradition,' the present-day uses of oak cork hives often represent the answer to the new needs of beekeepers. Hence, the availability of the raw material, the cork, and its light weight make these old-fashion hives suitable for replacing commercial swarm catcher boxes. At the level of knowledge, the expertise of present-day beekeepers seems often informed by local ecological knowledge of 'traditional' beekeeping. The local ecological knowledge handed down by ancestors or predecessors proved fundamental to working with the bees in a particular area. In the meantime, this knowledge is not fixed and keeps adapting to the new needs of present-day beekeepers.

Chapter five investigated the public representation of the Sardinian identity by focusing on the activities of the members of the association of beekeepers. The chapter highlighted that among the various associations and organizations, only two actively engage in public discourse on beekeeping in Sardinia. The chapter explored the different

notions of the Sardinian identity that the two associations convey. On the one hand, the O.P. *Antigus Padentis* appears to use the *topoi* of Sardinianness to claim the ‘authenticity’ of their honey products. I argued that the big-scale of the organization and the nomadic beekeeping they practice on long-distance is connected to their understanding of Sardinia as an ancient land lost in time. *Antigus Padentis*’ narrative seems to be consistent with the hegemonic representation of the Sardinian identity. In contrast, the beekeepers of *Ortus de is abis* claim to be the heirs of the beekeepers of medieval times. Their efforts in seeking historical evidence for their claim form part of their way of conceiving their identity and their relation to bees and the environment. I argued that the smaller scale of beekeeping holdings in this association enables beekeepers to develop a more intimate knowledge of the territory where they perform beekeeping. This bond to territory and bees is often connected to the ‘roots’ of the ancestors to a given territory. In this regard, the indigenous notion of *su connotu* (tradition) as Cosimo Zene unpacked, proved to be effective in revealing that in beekeepers’ understanding, the landscape forms part of what is handed down, that is *su connotu*. Together with the daily multispecies relationship that beekeepers live with bees and other non-human beings, this aspect contributes to building their sense of belonging to a given territory. The monolithic concept of Sardinianness starts to crumble into many identities. The failure to create a P.D.O. Honey of Sardinia mirrors the coexistence of often conflicting understandings of the Sardinian identity with notions more or less consistent with the hegemonic representation of Sardinianness.

Chapter six explored bees as subjects of the inquiry. The members of the Italian beekeeping sector appear to struggle in defining bees either as ‘wild’ or as ‘domesticated’ insects. The ‘wilderness’ of bees represents a crucial concern for the signers of the *Declaration of Pantelleria* and the *Declaration of San Michele all’Adige*. Both Declarations aim at redefining the role of bees in common sense and to provide guidelines for their safeguard. Some spokespersons of the Sardinian beekeeping community took part in designing the text of the *Declarations*. The question of the ‘wilderness’ of bees is connected to the local discourses about the consistency of the insects in the Sardinian environment. The chapter showed that even when beekeepers buy ‘Italian’ queens, they claim that their bees keep a sort of Sardinianness that makes them diverse from the ‘pure race’ of *A. m. ligustica*. Interestingly, the notion of Sardinianness is often connected to a concept of the hybridization of insects. Finally, the chapter explored the relationship between bees and their keepers, suggesting that the insects appear to become companion species of beekeepers.

Drawing from ethnographic sketches, chapter seven dwelt on the relationship that beekeepers establish with the environment by taking on the perspective of bees. The chapter showed that beekeepers' sense of belonging is built upon two fundamental aspects that intertwine: the symbolic meaning attributed to the environment and the role of bees. Beekeepers perceive the environment and the landscape as something that is handed down by their ancestors. Assuming that the territory forms part of the material aspects of the *su connotu* as defined by Cosimo Zene (2007), the present-day landscape results from the incessant toil of humans and non-humans in shaping the environment with their actions. The role of bees adds a further level of interpretation. It seems that by working with the bees, beekeepers develop an intimate knowledge of the environment they co-inhabit with a multispecies network of humans and non-human beings. I argue that these funds of knowledge and wealth of experiences represent the cultural capital of Sardinian beekeepers. I believe this enables them to re-think their position in the world. To be precise, I argue that by following the 'affective buzz' (Moore and Kosut 2013, 88,89) of these tiny companions, beekeepers learn the 'art of noticing' (Tsing 2015) of small species. Beekeepers become attuned to the world of small and neglected species, enabling them to develop new understandings of the history of the places and their sense of belonging. By working with bees, beekeepers appear to reconsider their human position within the intricate network that entangles people, places, and non-human beings.

To explain the mechanisms of this process, I introduced the concept of the 'Human-Bee-Environment relationship.' I use this notion to describe how the complex intellectual process prodded by bees' humming facilitates some Sardinian beekeepers to develop alternative visions of Sardinianness. The relationship between humans and bees opens to the environment, intended as a living entity composed of different creatures. Sometimes these creatures are categorized as 'native,' and thus, they belong to the Sardinian soil and landscape. Sometimes, bees interact with species that are 'misplaced' and therefore are considered 'alien' species. Beekeepers appear to change their perception of the environment and conceive the landscape as the outcome of an endless co-work of a multispecies environment. I argue that the Human-Bee-Environment relationship urges beekeepers to rethink the categories of 'nature,' 'culture,' and 'autochthony.'

This vision evidently differs from the hegemonic concept conveyed by the ARS through its machinery of laws and rules aimed at managing the environment, territory, and agriculture. In the field of beekeeping, these alternative visions co-exist with visions

of the Sardinian identity closer to the hegemonic representations of a wild ‘endless’ island outlined in the first chapter. Some beekeepers endorse the hegemonic concept of Sardinianness and the narrative of ‘wilderness’ connected to it. The ethnography suggests that to understand beekeeping in Sardinia, one should include the environment in the Human-Bee relationship. I argue that it is impossible to analyze how Sardinian beekeepers negotiate and de-construct their Sardinian identity without comprehending the meaning of the Human-Bee-Environment relationship.

For clarity reasons, the Human-Bee-Environment relationship can be unpacked in two levels. The level of practice and knowledge that connects to the notion of *su connotu* and concerns the perception of the environment and its symbolic meaning. The dimension that concerns the human-bee relationship. At this level, we can explore how humans and bees co-constitute with each other. The two levels are not separated but intertwine.

Firstly, mirroring the Sardinian notion of *su connotu* (Cfr. 79), the environment is understood as ‘the world that we have known (=inherited) from our ancestors and that results from the toil of people, animals, and plants in their interaction through history.’ The historical regions, the vernacular toponyms, the history of ancestors, and their toil on the landscape all contributed to building the world as it is ‘known’ by the ancestors. In Sardinian beekeeping, the environment emerges as a social landscape co-created by the intertwined connection between humans and non-human species through time and history. Beekeepers use practices and knowledge to build their relationships with the bees, with the environment, with the work, and with other members of society. Drawing from Giulio Angioni’s notion of doing, thinking, and saying (Angioni 2004, 243), *doing* beekeeping represents a tool for knowing the world, understanding it, interpreting it, constructing it, and classifying it. *Doing* beekeeping, Sardinian beekeepers take part in the network of human and non-human beings and become ‘makers’ of the world they inhabit (Bennett 2010; Tsing 2015). *Doing* beekeeping is also how beekeepers build the relationship with the territory and how they act on/in the ‘known’ world.

In a nutshell, working with the bees, and *doing* beekeeping, represents for the beekeeper a way to take part in the history and memory of the territory. This, in turn, solicits the beekeepers’ sense of belonging (Meloni 2018).

The perception of the environment as a symbolic place connects with the intimacy between beekeepers and bees. Working with bees, beekeepers seem to take on the bees’ perspective. A practical example can be helpful here. In choosing where to put an apiary,

the beekeeper selects a particular area for its nectar potential, sunlight, and wind exposure. To take bees' perspective is a meaningful ontological training for beekeepers. The insects train beekeepers to abandon human binocular vision and take on the wide visual gaze of the insect. By taking on the insect's gaze, beekeepers abandon the binocular vision of a predator and observe the environment with the eye of a prey. This exercise prod beekeepers to position differently *with* other species. Combining knowledge and bees' gaze, beekeepers seem to develop a perception of the environment attuned to the intertwined 'small agencies' (Bennett 2010) of different species. I argue that bees' humming solitudes are a daily physical and mental effort that urges the beekeeper to develop a specific concept of 'being in the world.' This notion forms part of beekeepers' cultural capital, which contributes to making the beekeeper an intellectual in the Gramscian sense of the term (Liguori and Voza 2009, 425–32). The research seems to have several points in common with the inquiry by Carlo Maxia on goat herding. The anthropologist affirms that goat herders develop a specific form of 'ecological knowledge.' This knowledge, he argues, enables them to 'deal' with the 'instinctive agency of plants, animals, and humans, that is, to deal with the 'natural' agency of living beings (Maxia 2015, 172). According to Maxia, the cowbells represent the chain element that links humans to animals and the environment in goat herding in Sardinia. Maxia points out that the relationship between humans and goats is carved out on a form of negotiation between the first and the latter. The anthropologist considers the herder as one of the 'agents' of a particular 'habitat' that intertwines the 'men-environment-animal' relationship (Maxia 2015, 176). Maxia concludes that the relationship between humans and goats includes the environment he calls 'habitat,' in which they operate and co-operate.

These elements seem to connect with Sardinian beekeepers' understanding of the environment through the bees. However, I aimed to move a step forward to explore how this relationship produces alternative notions of the Sardinian identity. This revealed that there is a profound tension between the western ontology in which beekeepers grew up and operate and the notion they developed through beekeeping. This fracture reflects on the understanding of the Sardinian identity.

As explored in chapter one (Cfr. XY), the hegemonic notion of Sardinianness is based on the visual representation of the island as a wild space and an 'endless island.' The ambiguous continuity between people and landscape is constructed on the alleged wilderness the two subjects share. However, 'nature' is not on the same level as 'Sardinian

man.’ The latter dominates ‘nature’ because of its wilderness. Additionally, the notion of the endless island implies the endless ‘immutability’ of human and non-human beings. Beekeepers appear to deconstruct the temporality of the endless immutability.

In contrast, beekeepers appear to conceive the environment as a living organism created, shaped, and renewed by the *endless* work of co-operation of various organisms that inhabit it. By taking on bees’ perspective, beekeepers learn the functioning of the various organisms within the environment, and they feel to become part of it. Fabio’s notion of ‘landscape-makers’ is eloquent. Although in different ways, beekeepers appear to attribute to bees the capacity to boost their agency in shaping the landscape. These notions coexist in a subaltern and implicit position with the hegemonic representation of a dichotomy between the level of the natural world and the cultural landscape.

Ef시오 and Giancarlo, for instance, explicitly refer to an ‘eternal conflict’ between humans and the world of ‘nature.’ They consider humanity to be in an eternal conflicting relationship with the non-human world. Yet, in describing how they deal with bees, they appear to affirm the opposite; that is, bees teach them how to notice and collaborate with other organisms in the world’s creation.

The diverging perceptions of the environment coexist and often generate conflicts in the meaning of the Sardinianness.

Sardinians seem obsessed with dividing human and non-human beings into Sardinians and non-Sardinians. The hegemonic understanding of the Sardinian identity seems to inform the policies that protect biodiversity. Plant and animal species are divided into Sardinians and not Sardinians, that is, into species that belong and species that do not belong to the Sardinian soil. To restore the authentic biodiversity of the endless island, policies should operate to eliminate the species that do not belong to the Sardinian soil.

In contrast, beekeepers appear to negotiate and de-construct the meaning of autochthonous and allochthonous species. For beekeepers, the historical interaction with humans in a given place determines the ‘citizenship’ of non-human beings. From this standpoint, allochthonous species that have dwelled with humans for decades have acquired the right to belong.

Beekeeping allows beekeepers to create forms of kinships with bees and other non-human beings that grant them to cultivate the possibility of co-flourishing, to put it in Donna Haraway’s terms (Haraway 2003; 2008; 2016). From this standpoint, the traces of the toil of ancestors that worked with other non-humans can be considered signs of ‘co-flourishing.’ The mutual collaboration between species is embedded in the landscape. To

return to *su connotu*, the ‘endless’ mutual collaboration constitutes ‘the world as we have known.’ To beekeepers, non-human beings can acquire and claim to have become Sardinian as far as they have been part of the landscape for several generations, contributing to co-flourish.

This, I argue, is how the Human-Bee-Environment relationship enables beekeepers to deconstruct the Sardinian identity.

Chapter eight unpacked these tensions in managing natural resources by focusing on the eucalyptus that, in the Sardinian common sense, is considered the most exemplary of all ‘alien’ species. As I have explained, the hegemonic notion of Sardinian identity is built upon an alleged substantial continuity between people and the landscape in Sardinia. This continuity is the cornerstone of the mainstream concept of autochthony of humans and non-humans. This notion represents the base of the nationalistic claims of Sardinians *against* Italians. I showed that this nationalist sentiment guides policymakers in developing their environmental management projects. It determines which non-human species are ‘truly’ Sardinians and which instead do not belong to the Sardinian soil. In the various environmental government projects, agricultural development, and industrial management, controlling autochthonous and allochthonous species appear to be a fundamental aspect. The obsession for ‘purifying’ the island from the ‘invasive’ species recalls the politics of belonging and the anxiety for ‘aliens’ in post-colonial contexts (Geschiere and Nyamnjoh 2000; Murray Li 2000; Comaroff and Comaroff 2001; Geschiere 2011; 2009). Jane and John Comaroff have pointed out that the never-ending controversy about alien-nature conveys concerns about the proper constitution of the polity, the limits of belonging, and the ways the nation, the commonweal, and the stakeholding subject are to be constituted in the age of global capitalism (Comaroff and Comaroff 2001, 651). In Sardinia, this is particularly evident in the public debate about the presence of the eucalyptus tree. The EU policies for biodiversity protection seem to empower this notion.

I analyzed the politics of belonging to explore how intimacy with different companion species could lead to elaborate alternative notions of autochthony. The analysis of the policies of environmental management suggests that in the various projects, ‘nature’ is considered something other than human. Similar to other contexts in which scholarly ecological knowledge informs environmental management projects, in Sardinia, the policies appear conceived as tools to dominate ‘nature.’ From this standpoint, ‘nature’ can take on a different meaning, and it is categorized under the diverse class to turn living

beings into commodities. In many plantations, the eucalyptus adjusted to the climate condition and pedological contexts, and the network of species around them also took advantage to create new interspecies networks. The massive and disruptive removal of eucalyptus plantations causes severe damage to those species that live together with the tree. Yet, most Sardinians seem to welcome the removal of the eucalyptus for the opportunity it provides to eliminate a plant that is ‘out of place’ (Meloni 2021). Interestingly, Sardinians would consider the same kind of activity in the territory as an environmental disaster when damaging other plant species.

The relationship that beekeepers build with the eucalyptus offers exciting fields of inquiry. For beekeepers, the high nectar potential of eucalyptus trees represents one of the most important sources of economic value in terms of honeybee survival. The plant provides a rich amount of pollen, which is fundamental for the honeybees’ diet when the queen lays eggs. Most varieties of eucalyptus planted in Sardinia blossom from June to August, that is when Sardinian native species of flora are already withered, and honeybees can’t find anything to eat until late September¹²⁴. Compared to the same variety of honey produced in other regions, the honey of eucalyptus from Sardinia has a crucial commercial value in the Italian honey market. However, these factors alone do not seem necessarily connected to a change in the perception of the plant and of its right to stay in the soil. It is within the Human-Bee-Environment relationship that the eucalyptus becomes a subject of interaction rather than a symbolic object of ‘disturbance.’ Bees offer beekeepers the opportunity to ‘see’ the plant in its relation to the world. As explained in the previous chapter, bees train beekeepers in the ‘art of noticing’ small creatures and their interactions and co-operations with other species. From this perspective, the eucalyptus becomes a subject that interacts with various species, autochthons, and allochthons, including bees. By looking at the plant as a subject that co-operates with other critters, particularly bees, beekeepers appear to grant eucalyptus the right to belong to the Sardinian soil. Sardinian beekeepers perceive the environment as a place co-created by the endless co-operations of humans and non-human beings. By working with bees, beekeepers perceive become part of the territory and take part in the history and memory of that place. Given the presence of the eucalyptus for over a century and considering its history of interactions with humans and non-humans in shaping the landscape, the plant has acquired its right to belong to Sardinian soil. Rather than being a plant ‘out of place,’

¹²⁴ For ten years, due to drought seasons and various pests that attack the eucalyptus, the plant has difficulties blossoming for such a long period of time, and the harvesting season ends by the end of July at the latest.

the eucalyptus forms part of the ‘world as we have known.’ By taking on the bees’ perspective, besides suggesting a profound fracture in a binary notion of nature/culture division, beekeepers appear to re-think the notion of ‘autochthony’ connected to the Sardinian ‘identity’ of non-human beings. From this standpoint, the edges of the notion of ‘autochthony’ start to wrinkle and lose their neat sharpness. It is utterly in contrast with the hegemonic notion of autochthony supported by the policies of environmental management. In this sense, the research showed that beekeepers negotiate and deconstruct the hegemonic notion of the Sardinianness through what I called the HBE relationship. Further, the multispecies approach proved fundamental in providing different perspectives to reveal the ontological implications behind the hegemonic notion of the Sardinian identity and the beekeepers perceptions.

The eucalyptus represented an excellent example of investigating how different notions of autochthony reveal rather diverse and often contrasting ontological positions.

It is undeniable that the tensions between policymakers and beekeepers result from the resistance of the latter to the attempts of the former to objectify beekeeping according to EU standards (Ploeg 2008; see Pitzalis and Zerilli 2013). The research proved interesting, showing how EU policies may affect and ‘disturb’ indigenous understanding of ‘nature.’ Yet, the multispecies approach proved crucial to highlight the divergent ontologies that inform the construction of the Sardinian identity for beekeepers and policymakers. Only by taking on a multispecies approach could I go beyond the binary relationship between beekeepers and bees and include the environment as a living entity. This approach revealed the intertwined connections between the understandings of ‘nature-culture’ and ‘identity.’ Focusing on beekeeping led me to *see* the struggles of another non-human being — the eucalyptus — for its alleged inconsistency with the Sardinian soil. The eucalyptus emerged as a possible new field of inquiry that can open up to reflect on environmental human and non-human rights (Schlosberg 2007; Woods 2017; Celermajer et al. 2020; Cuturi 2020), on the relationship between humans and plants (see Stobbe 2019; Marder 2013), and the interconnections between history, capitalism, local necessities in current ecological crisis (see Tsing 2005; Moore 2016; Stensrud and Eriksen 2019) in the Mediterranean contexts and elsewhere.

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11. Appendix

Table of draws

What follows is a series of draws that depict some of the vegetal species of the Sardinian flora that I encountered during the fieldwork. The draws are not meant to offer detailed information regarding the morphology of the plants. Instead, they function more like portraits of vegetal species that I made to exercise my ‘eye’ in recognizing the differences between species. Most of the draws result from attentive observation in the field. I have integrated empiric observation with reference books about the Sardinian flora (Boni 1994; Camarda and Valsecchi 2008; Camarda 2020; C. Cossu 2020; I. Piras 2021). The online database of the *Biodiversity online* database of the *Dryades project*¹²⁵ and the website of *Sardegna foreste*¹²⁶ provided additional information and pictures for this series of images. I have chosen to indicate each species primarily with the Sardinian name in the *Campidanese* variant. Hence, this is the name that people use in the field to refer to plants. Additionally, for each species, I indicated the scientific name of the plant that I drew and of the other species that are reported in Sardinia. The Italian, English, and German names are also indicated.

Finally, the sketches of ‘traditional’ and ‘modern’ apiaries and the honeybee form part of this series of draws.

¹²⁵ See: http://dbiodbs.units.it/carso/chiavi_pub00

¹²⁶ See: https://www.sardegnaforeste.it/flora_fauna/

Abi

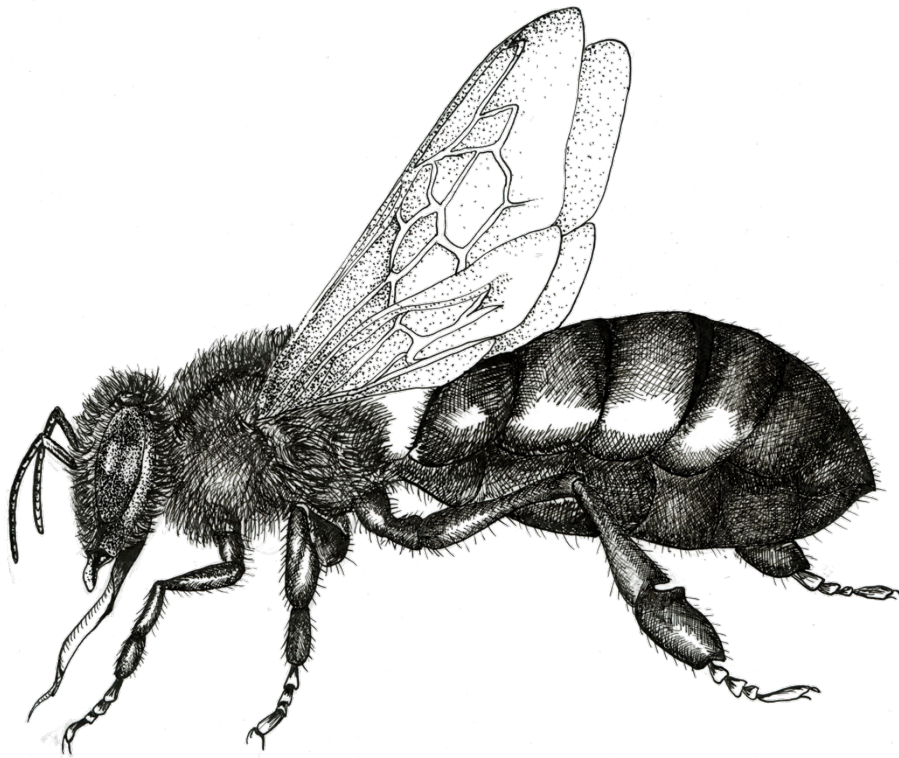
ape

Scientific name: *Apis mellifera*

Italian: *Ape*

English: *Bee*

German: *Biene*



Abioni
ispigula aresti, alchimissa

Scientific name: *Lavandula stoechas*

Italian: *Lavanda*

English: *Wild lavender*

German: *Schopf-Lavandel*



Cardilloni

arutu

Scientific name: *Asphodelus microcarpus*

Italian: *Asfodelo*

English: *Asphodelus*

German: *Weißer Affodill*



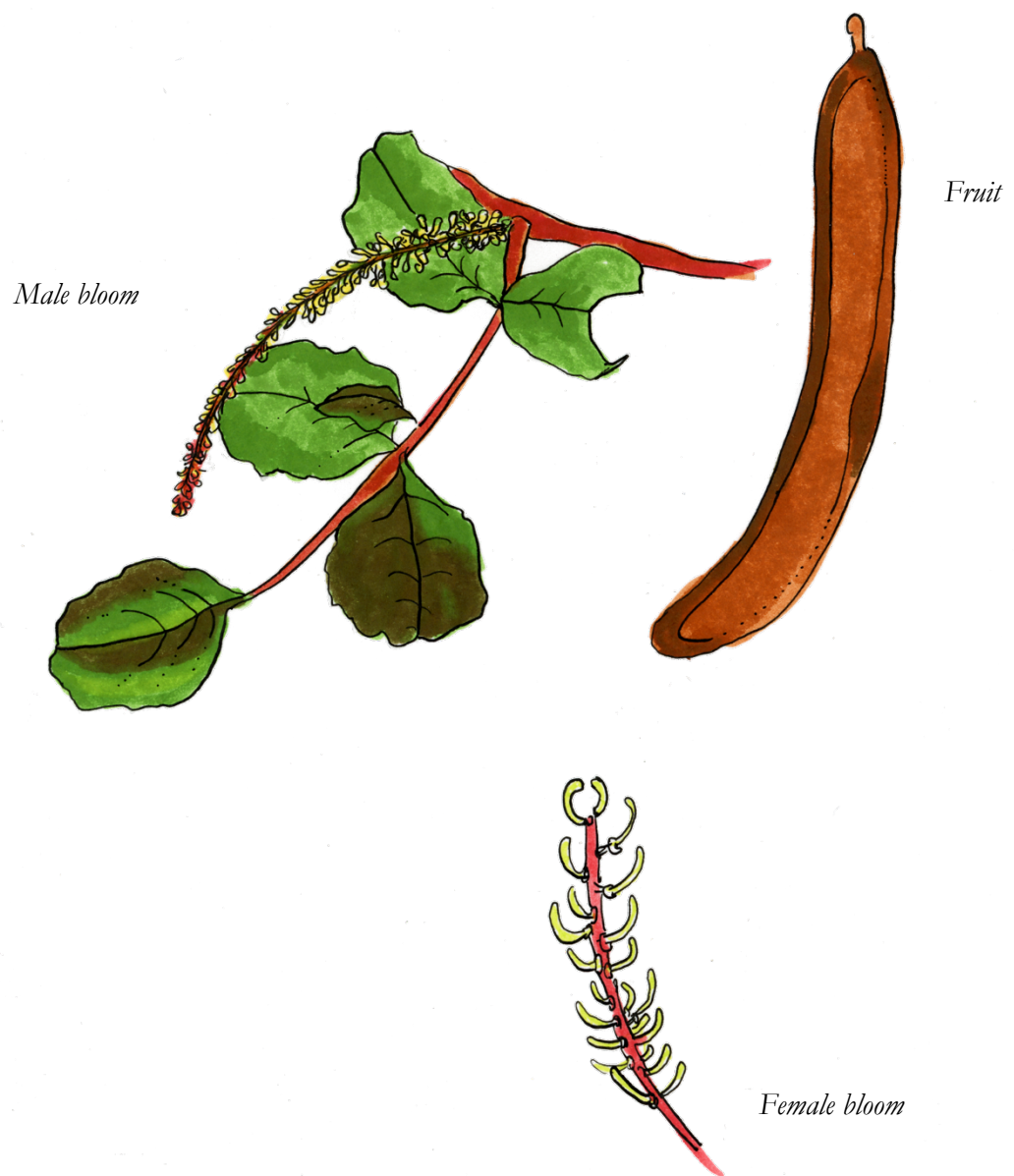
Carruba

Scientific name: *Carruba siliqua*

Italian: *Carruba*

English: *Carob tree*

German: *Johannisbrotdbaum, Bockshörndlbaum*



Casiddos
casiddera, ortu de mojos

Scientific name: -

Italian: *Apiario*

English: *Apiary*

German: *Bienenstock*



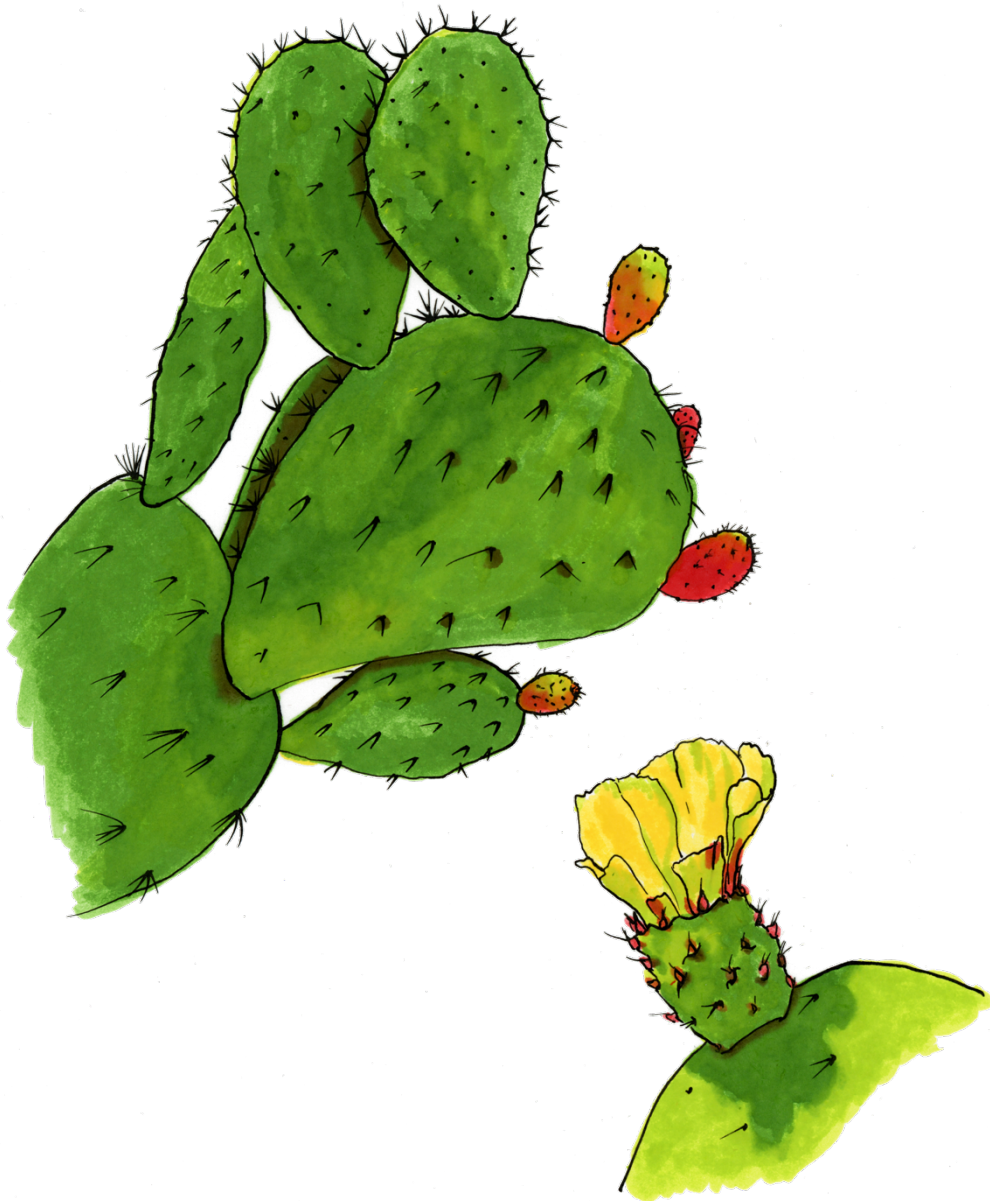
Figu Morisca

Scientific name: *Opuntia ficus-indica*

Italian: *Fico d'India*

English: *Prickly pear*

German: *Kaktusfeig*



Fiordaliso

Scientific name: *Centarea diluta Aiton*

Italian: *Fiordaliso*

English: *North African knapweed*

German:



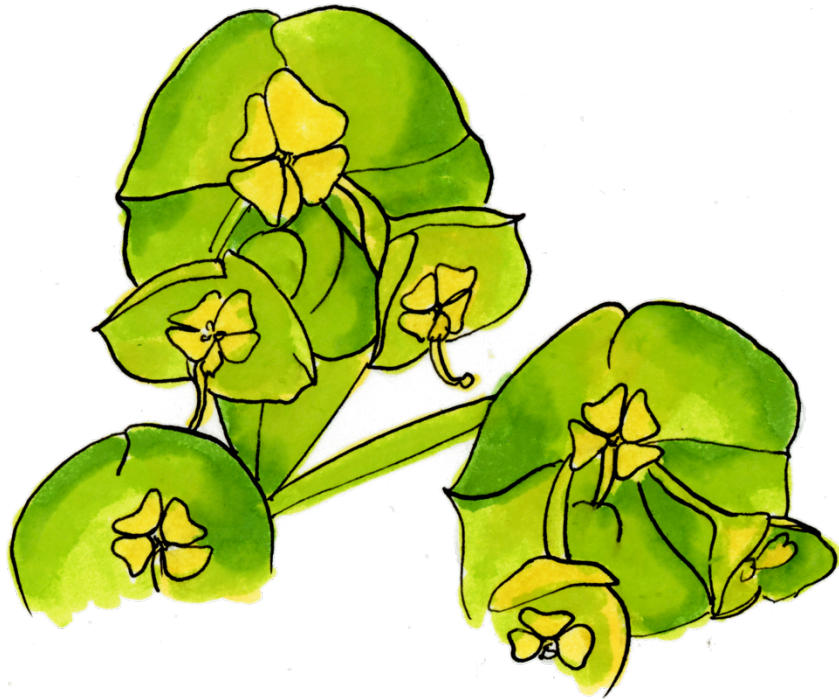
Lua

Scientific name: *Euphorbia choracia* L., *E. dendroides*, *E. pithyusa*

Italian: *Euforbia*

English: *Euphorbia*

German: *Wolfsmilch*



Modditzi

Scientific name: *Pistacia lentiscus*

Italian: *Lentisco*

English: *Mastik tree, lentisk*

German: *Mastixstrauch*



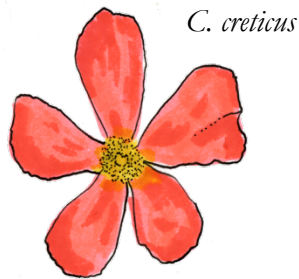
Murdegu

Scientific name: *Cistus salvifolius*, *Cistus monspeliensis* L., *Cistus corsicus*, *Cistus creticus*

Italian: *Cisto*

English: *Rockrose*

German: *Zistrose*



Murta

Scientific name: *Asphodelus microcarpus*

Italian: *Asfodelo*

English: *Asphodelus*

German: *Weißer Affodill*



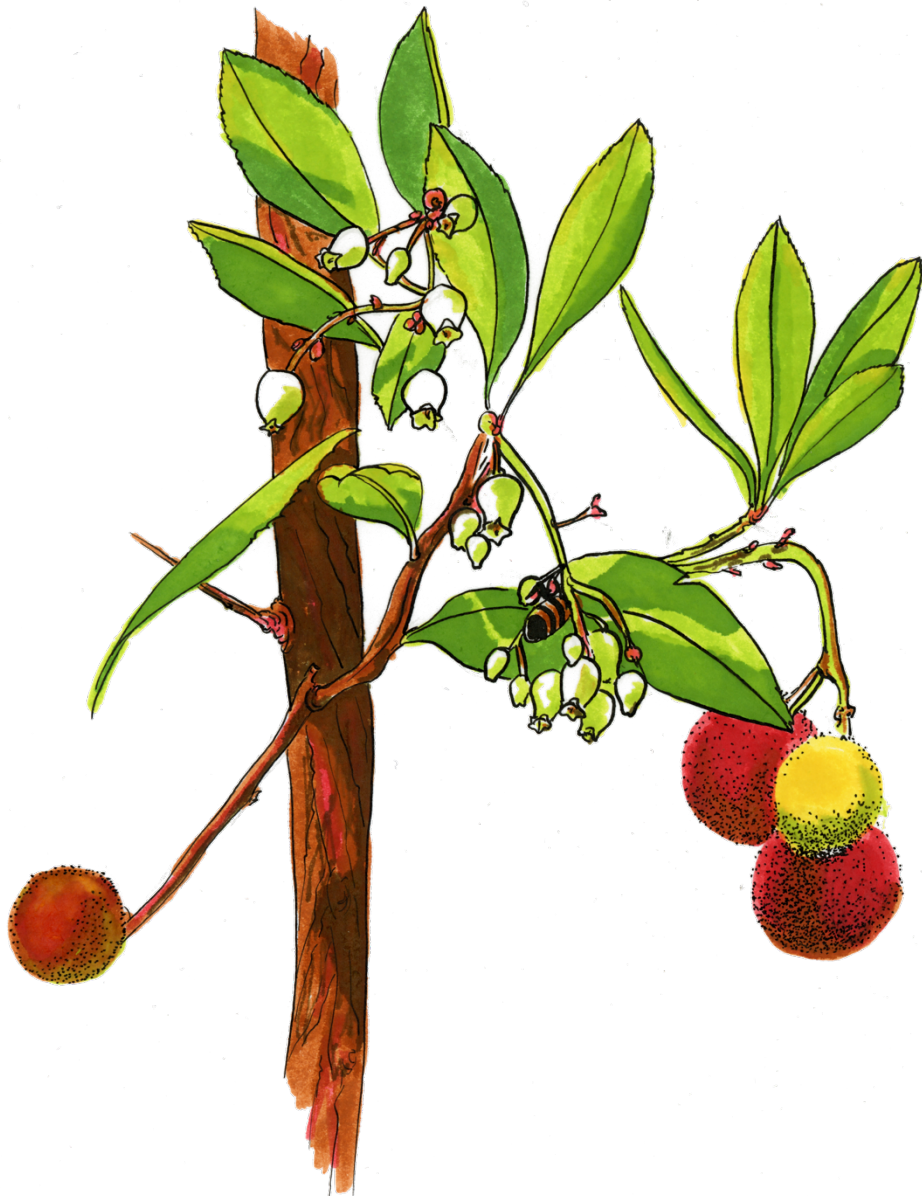
*Obioni
ghilisoni*

Scientific name: *Asphodelus microcarpus*

Italian: *Asfodelo*

English: *Asphodelus*

German: *Weißer Affodill*



Ocallitu

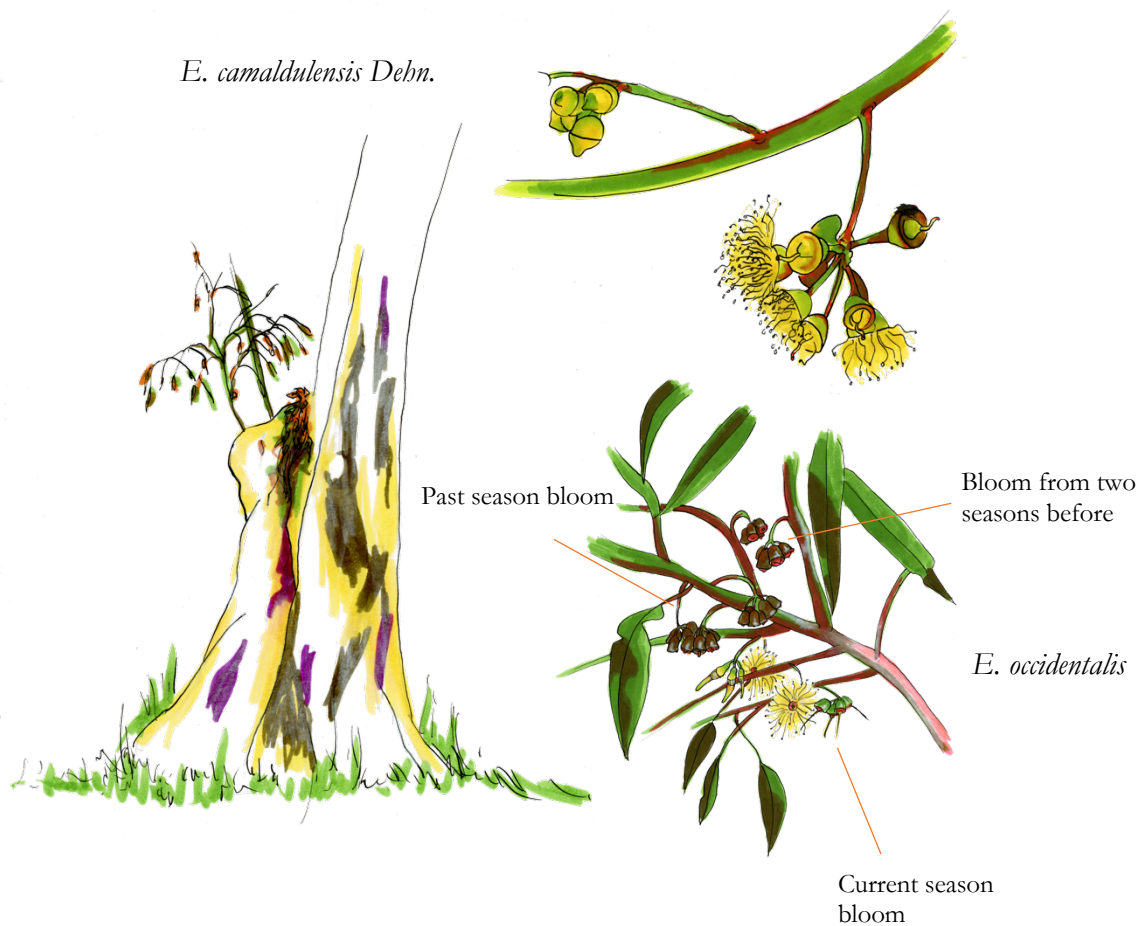
Scientific name: *E. Occidentalis*, *E. camaldulensis* Debn., *E. Globulus*, *E. gomphocephala*, *E. populifolia* Desf.

Globulus, *E. gomphocephala*, *E. populifolia* Desf.

Italian: *Eucalipto*

English: *Eucalyptus*

German: *Eucalyptus*



Pira

Pirastru

Scientific name: *Pyrus amygdaliformis*

Italian: *Perastro, pero mandorlino*

English: *Almond-leaved pear*

German: *Wild birne*



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Deutscher Abstract

Aufgrund der massiven Bienenverluste und der Folgen des Klimawandels ist die Imkereibranche weltweit mit den negativen Auswirkungen des kritischen Produktionsrückgangs konfrontiert. Die Bienenzucht in Sardinien (Italien) macht 4 % des gesamten italienischen Sektors aus. Die Honigproduktion knüpft dabei an die Diskurse über die „Sardische Identität“ der Menschen, Pflanzen, Bienen und der Landschaft an. Daher ist „Identität“ für viele Sarden auf verschiedenen Ebenen ihres Alltagslebens ein wichtiges Anliegen. Die politischen Entscheidungsträger scheinen bei der Konzipierung der Politiken für das Umwelt- und Landwirtschaftsmanagement von einer bestimmten Vorstellung der sardischen Identität auszugehen. Diese Politiken wirkt sich auf die Imkerei aus und führen zu Spannungen mit den Mitgliedern der Gemeinschaft der sardischen Imker. Das von mir hegemonial definierte Konzept der sardischen Identität steht im Zusammenhang mit einem konfliktreichen Verhältnis zwischen „Natur“ und „Kultur“, das vom Management der „autochthonen“ und „allochthonen“ Arten und dem Schutz der Biodiversität bestimmt ist. Eine Analyse von Literatur, Kunstwerken und Kinoproduktionen zeigt, dass die Kernpunkte dieser hegemonialen Vorstellung „Widerstand“ und „Wildnis“ sind.

Ein Multispezies-Ansatz deutet darauf hin, dass Bienen die Imker zu einer täglichen Beziehung zwischen den Arten drängen, welche die Menschen mit der Zeit dazu veranlasst haben, das Sardische der nichtmenschlichen Spezies zu überdenken. Ich habe den Begriff der Mensch-Biene-Umwelt-Beziehung eingeführt, um zu erklären, in welcher Beziehung Imker zu Bienen und der Umwelt stehen. Ich argumentiere, dass das Einnehmen der Bienenperspektive ein ontologischer Trainer ist, der es Imkern ermöglicht, alternative Visionen der sardischen Identität von nichtmenschlichen Wesen zu entwickeln. Von diesem Standpunkt aus betrachtet, resultiert die „Autochthonie“ aus einer unaufhörlichen Zusammenarbeit zwischen menschlichen und nichtmenschlichen Arten bei der Gestaltung des Territoriums. Schließlich untersuche ich die Machtmechanismen, die durch Politiken des Umweltmanagements ausgelöst werden, und die daraus resultierenden Konflikte zwischen Imkern, politischen Entscheidungsträgern und anderen regionalen Institutionen, die sich mit der Imkerei auf Sardinien beschäftigen.

English abstract

Worldwide, the beekeeping sector is facing the adverse effects of the critical drop in production due to the massive bee losses and climate change consequences. Beekeeping in Sardinia (Italy) represents 4% of the overall Italian sector. The industry of making honey connects to the discourses about the Sardinianness of people, plants, bees, and the landscape. Hence, ‘identity’ represents a major concern for Sardinians on various levels of their everyday life. Policymakers appear to draw from a specific notion of the Sardinian identity in conceiving the policies for environmental and agricultural management. These policies affect beekeeping and create tensions with the members of the community of Sardinian beekeepers. The analysis of literature, artworks, and cinema production reveals that the key points of the hegemonic notion of the Sardinian identity are ‘resistance’ and ‘wilderness.’ These elements connect to the concept of a conflicting relationship between ‘nature’ and ‘culture’ that inform the management of ‘autochthonous’ and ‘allochthonous’

species and safeguard biodiversity. A multispecies approach highlights that bees urge beekeepers to a daily interspecies relationship that, in time, prod humans to rethink the Sardinianness of non-human species. I introduced the notion of the Human-Bee-Environment relationship to explain how beekeepers relate to bees and the environment. I argue that taking bees' perspective is an ontological trainer that enables beekeepers to develop alternative visions of the Sardinianness. From this standpoint, 'autochthony' results from an incessant work of cooperation between human and non-human species in shaping the territory. Finally, the research explores the mechanisms of power triggered by environmental management policies and the consequential conflicts that arise between beekeepers, policymakers, and other regional institutions engaged in the field of beekeeping in Sardinia.