



# Assembling mountains through food. Typical cheese and politics of mountainness in the Italian Alps

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## ABSTRACT

The role of typical products in rural regions has sparked scholarly debate, with a great variety of approaches and perspectives employed to investigate agri-food goods with unique territorial characteristics. This paper delves into the complexities surrounding the identification and codification of such products, particularly focusing on the cheese industry within mountain regions. Through the assemblage theory, it explores the multifaceted elements contributing to the production of typical cheese, including geographical indications, local practices and knowledge. Using Castelmagno cheese as a case study, the research investigates the intricate dynamics of its recognition and production, shedding light on important issues such as re-localization, economic strategies, and conflicts within the local community. By defining and analyzing the politics of mountainness inherent in the designation of typical products, this study uncovers the diverse perspectives and negotiations shaping rural economies and landscapes. The research elucidates the intricate relationship between the qualification of Castelmagno cheese as a typical product and the relational fabrication of the mountain, both as a tangible geographical entity and as a conceptual construct. Through qualitative methods such as interviews, observations, and literature analysis, it provides insights into the interplay between food production, cultural heritage, and the negotiation of territorial identities in mountainous regions, thus proposing an unconventional understanding of the relationships between food-making and place-making.

## 1. Introduction

Geographers have created a comprehensive body of work on the link between food and its places of production, analysing the physical and cultural characteristics of these places to explain the material and symbolic qualities that are attributed to agri-food products by different subjects, including producers and consumers. Such an approach has made it possible to investigate the contemporary and historical character of numerous agri-food systems or items, and at the same time to examine the physical and social identity of their territory of origin.

This article proposes a conceptual shift in the perspective through which the links between place and food qualities are analysed. We do not concentrate on the real or presumed contribution of the cultural, social, and environmental characteristics of the place of production on the quality of food, rather we investigate how the qualification of some products as typical of a specific place, and the narratives linked to this process, contribute to the material and symbolic transformation of rural places and landscapes. As widely discussed in critical food studies,

designating a product as typical of a place ‘reinvents’ that product as it is required to conform with rules and frameworks that transform diverse and fluid local practices into legally regulated standards of production (Grasseni et al., 2014; Jackson, 2014; de Suremain, 2016). Our main argument is that this process also concerns a “re-invention” of the place of production. Through the designation of a food product as typical, the related production systems and landscapes are also defined as typical and accordingly considered worthy of being preserved and reproduced through food-making. This process, which can be seen as a practice of heritage-making and therefore described critically as a selective narrative proposing and reproducing one version of food culture, from the many co-existing in the same context (Harrison, 2013), is highly controversial and loaded with political value, as it is linked to intra-rural conflicts, including over which rural heritage (landscape; food culture etc.) is more appropriate and valuable (López-i-Gelats et al., 2009; Wang et al., 2023).

Specifically, we focus on the process through which a version of a traditional Alpine cheese, called Castelmagno, was formally qualified as

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the most important typical product of Grana Valley, in the Italian Alps, mainly through the attribution of a Protected Designation of Origin (PDO) label. From our perspective, we can use the definition of a specific version of Castelmagno – among the many slightly different versions of the same cheese that have informally coexisted in the same area for centuries – as a lens to investigate the social construction and the politics of “mountainness” that are mobilised in this process. In doing so we refer to an understanding of the mountain not only as a geographical category, but above all as a socially and politically produced category of thought and as a referent of collective action (Debarbieux and Rudaz, 2015).

In our study we approach cheese as a dynamic assemblage of different elements – human and non-human, material and non-material – and move away from a conception of food as a homogenous object. We then use a specific conceptual framework first theorized by philosophers Deleuze and Guattari (1987) and subsequently developed by thinkers such as DeLanda (2006, 2016) and Latour (2007) to understand how different entities come together to form complex wholes (see paragraph n.3). Indeed, the theory of assemblage is becoming increasingly popular in food studies, and scholars from various disciplines have employed the concept to describe actors and processes concerning the agri-food sector such as the relations emerging from alternative food networks and food policy groups (e.g. Dwiartama and Piatti, 2016; Santo and Moragues-Faus, 2019), the current nature of social (food) movements (e.g. Levkoe and Wakefield, 2014; Amo, 2023), and the emergence of agri-food production (e.g. Welz, 2018; Mouat et al., 2019; van Veelen, 2021) or consumption practices (e.g. Lin et al., 2022). However, little attention has been paid to the idea that specific food items can be interpreted as assemblages to analyse not only the character of the food in its composition, but also the territorial outcomes of the relations between the various elements arranged within the assemblage.

The article tries to fill this theoretical gap, using assemblage thinking to investigate the role of typical food qualification in promoting the assembling and reassembling of human and non-human elements in the production of mountain cheese and in opening spaces where different interacting – and sometimes colliding – “politics of place” are mobilised. With “politics of place” we refer to those political actions, formal or informal, that are generated from the question “what does this place stand for?” (Massey et al., 2009). In this work we specifically refer to those politics of place that contribute to characterising a place as “mountain”, that we call “politics of mountainness”. The concept thus refers to the political processes that define and characterize a place as a mountain, focusing on how certain traits, values, or identities are attached to mountainous regions. This can involve land use, environmental policies, and cultural preservation—all contributing to how a mountain is perceived and understood politically, socially, and culturally, both by people living in mountain regions and by those outside. This perspective is strongly rooted in a constructivist view of the relations between human societies and physical/environmental objects, widely discussed for example in the debate on social natures (Castree and Braun, 2001; Demeritt, 2002), but also mobilised by various authors with regard to the concept of mountains (Freudenburg et al., 1995; Debarbieux and Rudaz, 2015). As Sarmiento argues (2020: 2513): ‘Mountainscapes are the appropriated and represented reality of three factors: (1) the physical mountain edifice, (2) the psychological appropriation of mountainous socioecological systems, and (3) the spiritual and mythical alignments of mountain folk in one cogent identity’.

The existence of multiple and sometimes conflicting politics of mountainness is analysed by employing the idea of desire as developed in assemblage theory. Desire refers to a creative, positive force that operates within systems of interconnected elements or assemblages; a force capable of forming connections and enhancing power through interactions (Parr, 2010). We thus examine the forces that shape relationships within various assemblages. By focusing on the concept of desire, we can uncover the political dynamics of our research and highlight the presence of different food assemblages, emerging from

competing territorialities (systems of relations and spatial actions aimed at shaping places, as proposed by Raffestin, 2012) and politics of mountainness.

## 2. Typical products and the politics of place

A wide range of terms is mobilised to refer to ‘agri-food products with special characteristics relating to territory’ (Tregear, 2003: 91), which here is understood not only as a geographic production area, but as a dynamic, socially constructed space shaped by power relations and interactions (Raffestin, 2012). Expressing the variety of perspectives that exist on this broad topic, different definitions have been adopted by scholars from various disciplines. Each definition stresses specific dimensions of such edible goods: “origin products” (Belletti and Marescotti, 2011); “regionally distinct products” (Parrott et al., 2002); “regional foods” (Kneafsey, 2010); “regional speciality products” (Ilbery and Kneafsey 2000), “geographical indication products” (Arfini et al., 2019), and so on.

For the purpose of this article, the most interesting qualification is that of “typical” products, because of the semantic field to which it is connected and its implications in terms of production of symbolic and material space. Tregear (2003: 91) conceptualises typical products as ‘issuing from small-scale agricultural systems, with special characteristics due to the combination of local raw materials with traditional, inherited, production techniques’.

According to the definition proposed by the online version of the Cambridge Dictionary (2023), the adjective “typical” means ‘having all the qualities you expect a particular person, object, place, etc. to have’. The meaning of the word derives from its Latin (and Greek) etymology: the noun *typus* (Greek: *typos*), which means “model” or “stamp”. Thus, food is considered as “typical” of a certain place or region when it has the qualities someone associates to that place, i.e., when it corresponds to a (idealised and often stereotyped) model of the food culture of that place.

The process of identifying and labelling a specific food product as typical of a place (typicalisation) also involves those characteristics of the territory that are considered important to preserve as an emblematic expression of the place. When the qualification as typical is formalised – e.g. through a legally binding Geographical Indication (GI) label – the procedural guidelines that must be followed to obtain the label directly influence landscape transformation. The guidelines for example regulate how animals should be fed and grazed, particularly in the case of meat-based or dairy products. We can state that to every typical food product (TFP) a typical landscape and a typical place are, explicitly or implicitly, associated (Grasseni, 2016; Lozej, 2020, 2021; Santini and Guri, 2013).

A critical perspective on TFPs requires a processual and relational understanding of issues such as: “How is a specific food product identified as typical of a place? At what scale; by whom, for what purposes? Mobilising what discourses and frameworks? With what spatial and social implications?”. These questions are essential for addressing the main objective of this investigation, which is to explore how typical food qualification relates to the assembling and reassembling of heterogeneous elements in the production of mountain cheese and how the variety of combinations that these assemblages can assume is strictly linked to the desire to discursively define and materially shape mountain territories. This process can be conceptualised as an example of food-heritage making. If heritage is a version of the past that emerges and becomes dominant in collective narratives and practices, after a process of negotiation, conflict, exclusion, resistance and exercise of power (Atkinson, 2005; Harrison, 2013), TFPs are versions of local food culture, materialised in a specific product or recipe, which emerge after a similar process, often becoming hegemonic in discourses and practices. For example, Demossier (2011) shows how the international recognition of the quality of Burgundy wines and vineyard landscapes has led to a standardisation of the local landscape and its discursive representations, which are increasingly aligned with global standards of “good wine” and

“beautiful landscape”, which contrasts with the local specificity of the terroir from which this heritage creation process originated. The standardization of Alpine cheese, resulting from its designation as a ‘typical product,’ is explored by [Grasseni \(2011\)](#). She highlights how the heritage-making process leads to the homogenization of dairy practices, driven by the need to translate diverse and often poorly codified traditions into products that can be marketed and communicated in a consistent, standardized manner. At the intersection of critical food studies and critical heritage studies, several contributions have already stressed the need to abandon a static and undisputed understanding of localised food culture, suggesting and implementing a processual and political perspective on food heritage-making and TFPs identification. To consider TFPs as politically produced means to reveal competing narratives or strategies, conflicts, multiscale power relationships and the socio-spatial impacts of the identification and qualification of some food products as heritage ([Tregear, 2003](#); [Tregear et al., 2007](#); [Demossier, 2011](#); [May 2017](#); [Quiñones Ruiz et al., 2018](#); [Amilien and Moity-Maïzi, 2019](#)). The notion of authenticity applied to food and its relations with places of production is primarily contested as an ahistorical normative that fails to recognise the ever-changing nature of food practices and cultural values ([Appadurai, 1986](#); [Jackson, 2013](#)). Food cultural heritage does not eschew the process of “invention of tradition” widely conceptualised and documented by critical history and cultural studies ([Hobsbawm, 1983](#); [Lowenthal, 1985](#)), highlighting the influence of “current concerns” and providing lenses through which the past is approached ([Jackson, 2013](#)).

### 2.1. The re-invention of food

Many scholars have investigated how the process of food heritagisation always entails a “re-invention” of food, in terms of historical roots and evolution, geographical demarcation of its “typical” origin, social practices and even material composition and production. A clear example in this sense is Pierre [Boisard’s \(2003\)](#) seminal work on the emergence of Camembert cheese as a French “national myth”, among the hundreds of different varieties of cheese historically produced in France. Others have analysed the fluid and relational nature of a shared food tradition ([Amilien and Hegnes, 2013](#); [Sassatelli, 2019](#)); the deeply political and contested dimension of acknowledged (we shall say “authorised”, recalling [Smith, 2006](#)) national or regional food heritage ([DeSoucey, 2010](#)); the role of tourism in generating a planned and “staged authenticity”, aimed at satisfying tourists’ imaginary and expectations regarding food culture and typicality ([Jackson, 2013](#)). Focusing on products, critical contributions that explore the “invention” of TFPs have mainly emphasised the role of three closely intertwined elements. The first is the market. Consumers’ propensity towards products explicitly linked to a place (or terroir) has grown considerably and the geographical origin of food has become one of the most powerful quality conventions ([Ilbery and Kneafsey, 2000](#); [Parga-Dans and González, 2017](#)). Consuming and producing “typical products” is considered a means of showing distinction and prestige ([Magagnoli, 2018](#)) or of resisting the globalisation of the food industry ([Grasseni, 2016](#)). This consumers’ inclination stimulates the search, acknowledgement, and marketization of TFPs by producers, institutions, and other stakeholders ([Parrott et al., 2002](#); [Ceccarelli et al., 2010](#); [Magagnoli, 2018](#)). Nevertheless, traditional food production systems have in most cases been profoundly modified to meet the needs and expectations of the market, in terms of taste, storage requirements, packaging and amount of production ([Allovio, 2001](#)).

The second element that has favoured the “re-invention” of food as typical are voluntary geographical indication labels, the purpose of which is to ‘protect the legal, commercial and cultural value of foods and customs whose characteristics and reputation can be variously attributed to their origin’ ([Parasecoli, 2017: 2](#)). As [Watson \(2013\)](#) observes, the protection of specific products through means aimed at legally recognising their provenance and their historically rooted origin, is now

almost taken for granted, but it has distinctive stories. In the EU, the most relevant legal instruments are the PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication) labels that since their establishment in the 1990 s have transformed the general designation of foods as “typical” of a place into an official and legally binding recognition of typicality, which requires specific governance systems ([Conneely and Mahon, 2015](#)) and demonstrable historical links between a food product and a clearly delimited region ([Marescotti, 2003](#)). These strict requirements have fostered a “reinvention” of TFPs, both symbolic (i.e., producing narratives on the historical embeddedness of the product in a specific region) ([Tregear, 2003](#)) and material, due to the need to standardise the production and codify it through the adoption of legally binding procedural guidelines ([Rippon, 2014](#)).

Third, the evolution of food safety regulations has affected the production techniques of those products that have been “upgraded” from strictly local productions to officially labelled TFPs, circulating on national and international markets. This is one of the most interesting fields of negotiation and conflict concerning traditional food production. EU geographical indication schemes are accused of reflecting ‘top-down management perspectives and practises more in keeping with a regulatory environment for food safety and quality than with development of place-based food product links’ ([Conneely and Mahon, 2015: 15](#)). Resistance to food safety regulations – often considered too rigid and favourable to the food industry rather than small traditional producers – is at the core of some notable examples of opposition to official geographical indication schemes and the emergence of alternative labelling initiatives ([Grasseni, 2016](#); [Rinallo and Pitardi, 2019](#)).

Cheese, the subject of this article, constitutes a privileged field of critical research on TFPs. This attention is first linked to the impressive variety of existing types of cheese and production techniques – at least 750 cheese varieties have been identified globally, but the real number is probably higher ([Fox et al., 2017](#)), of which 275 are labelled as PDO or PGI in the EU. It is also linked to the high number of factors that constitute its production and that can be the object of variations, negotiations, conflicts and narratives including animal breeding, pasture management, milk quality, landscape, historical knowledge, labour, production methods, ageing environments and techniques. Thus, in the last two decades alone, dozens of contributions have focussed on issues such as the influence of evolving external forces in affecting local initiatives of cheese typicalisation ([Viazzo and Woolf, 2001](#); [Tregear, 2003](#); [MacDonald, 2013](#)); the role of cheese production in shaping rural regions and fostering rural development ([Tregear, 2003](#); [Vakoufaris, 2010](#); [Lamarque and Lambin, 2015](#); [Grosinger et al., 2022](#)); the process of negotiation and the possible conflicts regarding cheese typicalisation ([Grasseni, 2011; 2012; 2016](#); [Rinallo and Pitardi, 2019](#); [Amilien and Moity-Maïzi, 2019](#)).

### 2.2. The re-invention of place through food

As discussed in the next section, cheese can be conceptualised as an assemblage of material and non-material elements, whose “re-invention” as a typical product entails a selection, combination, coding, and narration of its components. When it is the object of a typicalisation process, the fluidity and indeterminacy of local cheese-making culture and practices is framed and delimited to re-assemble cheese as a typical (standardised) product. In the previous section we have critically reviewed the literature focusing on the re-invention of food as a typical product. Here, we aim to put in the foreground another assemblage ([Woods et al., 2021](#)), that of place – a network of social, economic, and cultural relationships spread across space that can be either limiting or empowering ([Cresswell, 2014](#)) – which is equally re-invented through the definition of TFPs.

The geographical and spatial dimension of TFPs has been mainly investigated by focusing on the spatial articulation and extension of food networks ([Kneafsey, 2010](#)); the link between TFPs and rural development ([Tregear, 2003](#); [Tregear et al., 2007](#); [Vakoufaris, 2010](#)); the link

between the heritagisation of local food and the competition among rural localities in the globalised economy (Horlings and Marsden, 2014; Parasecoli, 2017); the disputes over claims and counterclaims of different regions and localities as the “true” places of origin of specific foods (Amilien and Moity-Maïzi, 2019; Gallagher, 2020); the risks of the hyperspecialization of places in the production of a limited number of food products (Demossier, 2011; García-Hernández et al., 2022; Ponte 2021).

The debate still lacks specific accounts on the role of the qualification and designation of TFPs in “re-inventing” places. Here lies the theoretical and empirical novelty of this contribution. When local food is labelled as typical, the localities associated with it are shaped accordingly, both symbolically and materially. This includes narratives about their role (and value) as “terroirs” that are produced and disseminated; the landscapes related to the production of TFPs that are valued as “typical”; the spatial practices resulting from the economic success of TFPs and the legally binding tools that codify their production. We have already discussed how the process of food typicalisation involves the codification and the creation of material and symbolic boundaries to practices that were previously multifaceted, informal, and fluid, especially when linked to the attribution of geographical indication labels. The production techniques and narratives of officially recognized TFPs are the result of a negotiation process, which leads to the inclusion of some elements of local food culture in the “authorised food-as-heritage discourse” (Smith, 2006) and permitted practices, and to the exclusion of other elements, which do not fit the prevailing vision of that specific product. As a corollary, recalling the literal meaning of “typical” that we have described above, it can be argued that what emerges and prevails is also a specific vision of the place of production. Using cheese as an example, issues such as the boundaries of the production area, the allowed animal breeding and feeding techniques, the methods of milk transformation, etc. are not only linked to cheese as food, but also to the idea of the place of which that cheese is supposed to be “typical”. In other words, local and non-local actors use TFPs as material and discursive resources to pursue their strategies on places, trying to benefit of the assertive power of heritage discourses (Smith, 2006), especially when they become official and are reinforced by legally-binding instruments, like GI labels.

TFPs can be interpreted as means through which politics of place are performed and practised. They are “versions of local food culture” that represent and embody “versions of place”. Localities as “terroirs” are politically produced as much as food products as TFPs. Adopting this perspective allows us to expand the prevailing food-centred perspective of critical studies on TFPs, integrating it with a place-centred gaze. This approach aims to use TFPs as lenses to investigate issues such as the role of food heritage in remaking space in the global countryside (Woods, 2007); the role of GI labels as arenas where different “politics of the rural” – ‘in which the meaning and regulation of rurality itself is the primary focus of conflict and debate’ (Woods, 2006: 580) – meet and sometimes clash (Lang and Heasman, 2015); the defensive (Winter, 2003) or reflexive (DuPuis and Goodman, 2005) localism that inspires the qualification of TFPs; the role of TFPs in making specific visions of place as landscape hegemonic, actively ‘silencing [...] alternative strategies of value construction’ (Grasseni, 2011).

### 2.3. Typical food and politics of mountainness

This contribution focuses on a specific category of place, whose cultural, political and social production is the object of a rich theoretical debate and empirical research: mountains. As critical human geographers have extensively discussed, most geographical concepts combine the material dimension of landforms and artefacts with the symbolic dimension of the meaning attributed to them by individual and collective subjects (Demeritt, 1996). The category of “mountain” constitutes a privileged field of investigation for post-structuralist and constructivist approaches to geographical concepts, considering that ‘mountains do

not have determinate, prominent and complete boundaries. [...] The category “mountain” is not distinguished [...] from neighbouring categories, such as hill, ridge, butte, plateau, plain, and so on’ (Smith and Mark, 2003: 412).

Debarbieux and Rudaz propose the very incisive concept of “political orogenesis” to describe the processual and politicised nature of ‘how and why modern societies and states tend to demarcate and characterise entities described as mountains in certain ways and then act accordingly in relation to them’, in search of the ‘social forces at work in their identification and classification’ (2015: 12). This process concerns both the geomorphological definition of mountains (i.e., the altitude or slope that a region should have to be defined as mountainous) and the socio-anthropological characteristics that are attributed to mountain societies (Cosgrove and Della Dora, 2008). In Italian the two concepts are effectively differentiated as geomorphological *montuosità* and socio-cultural *montanità* (Varotto, 2020). For example, in relation to the iconic character of one of the largest mountain ranges in Europe, Debarbieux and Rudaz (2015: 49) suggest that: ‘the Alps, and the Swiss Alps in particular, functioned as a model through which a general knowledge of the mountain and its populations was forged’. Building on this understanding of mountains as categories of thought and referents for collective action rather than simply as classes of geographical objects (Debarbieux and Rudaz, 2015), we aim to explore how the qualification process of TFPs can play a crucial role in the socio-political definition and production of mountains, both in a material and symbolic way, through the performative value of representations and food geographical indication regulatory schemes (i.e. TFPs procedural guidelines).

Indeed, mountain regions are a favoured object of research on the process of identifying food as “typical”; this concerns not only the study of the links between a product and its place of origin, but above all a broader reflection on what characteristics a food production should have to be considered (and labelled) as a “mountain” food (Bentivoglio et al., 2019). Thus, when a food product is defined – discursively or legally – as typical of a mountain region or place, the characteristics of that place as a mountain food production area are contextually and accordingly defined. Referring to our case study and citing the long line of works on the social and political production of English landscapes and English-ness (Lowenthal, 1991; Matless, 1998), we can say that the definition of one version of Castelmagno cheese, and of the related landscape and modes of production as ‘typical’ of the Grana Valley produces the definition of a Castelmagno-ness, which performatively affects spatial transformation and social behaviour. For example, if the procedural guidelines that a cheese producer must respect to obtain the PDO or PGI label require the animals to be fed outdoors and spend the summer season in high altitude pastures, there is a higher chance that the local grasslands and pastures are maintained and managed along the entire vertical section of a valley and that sustainable and locally rooted practices, like transhumance, are preserved. Conversely, if the procedural guidelines allow the use of silage fodder or do not mention the altitude of the pastures, it is more likely that the animals remain in the valley floor all-year-round and that cheaper, perhaps less environmentally and landscape friendly methods of production prevail. This is strictly related to the GI scheme chosen by stakeholders to label the “typical” product (Lamarque and Lambin, 2015; Verduna et al., 2020).

Through TFPs and their qualification as typical of a specific place, we can explore what we define as the politics of mountainness put into play by the actors involved in the process. We can therefore investigate the competing visions of how mountains should be terroirs or in other words how the relationships between food production and local resources should “typically” characterise that specific mountain place. From this perspective, place is invented through food qualification as typical, in a highly politicised combination of economic interests, heritage-making and socio-political construction of (mountain) rurality. Borrowing from Raffestin (1980; 2012), this “invention” can be described as a production of place (or territory, in his terms), resulting from the efforts of actors to implement their spatial strategies concerning mountain

places and their resources.

### 3. Cheese and assemblage

The debate on the social and political construction of “mountain” can be developed by connecting it to the application of assemblage thinking to food, drawing largely from Woods et al. (2021) elaboration of DeLanda’s conceptualization of assemblage theory (DeLanda, 2016). As such, through assemblage we challenge the understanding of the food product as a totality; we propose instead an interpretation of cheese based on the concept of agencement as ‘the coming together of various entities into a loose aggregate’ (Davies, 2012: 274). Where the article focuses on the analysis of food as an assemblage, it also adopts an approach to territory which ‘seeks to abandon any quest for a transcendent account of place identity and instead seeks an understanding of how places emerge through morphogenic processes’ and then through creative paths based on ‘the multiplicity of relations and flows of desire as the drivers of becoming’ (Dovey, 2020: 26). Specifically, we identify PDO Castelmagno cheese as an assemblage of the material (e.g. water, milk, grass, enzymes) and non-material (e.g. labour, knowledge, capital, landscape, GI schemes regulations, etc.), human (e.g. producers) and non-human (e.g. animals, bacteria) elements that contribute to its production; we try to reconnect such elements to the processes of emergence and consolidation of economies, products and identities. In our analysis we assert that unpacking the cheese assemblage to understand the characteristics of its parts and the combination among them can help us to identify the politics of mountainness that emerge and feed the process of “typicalization” of food. To this end, the theoretical and methodological framework deriving from the assemblage thinking – both as a descriptor and as a concept (Anderson and McFarlane, 2011) – appears to be potentially fertile for several reasons. First, the identification of a dairy product as typical of a mountain region is part of a transcalar process, connecting local micropolitics and microprocesses to more-than-local material or non-material flows and networks. The assemblage approach can support a critical and relational investigation of such ‘globalization-in-place’ (Woods et al., 2021: 285), as it can provide ‘analytical insights into the provisional and contingent enrolment of rural commodities and communities into translocal configurations over time.’ (Jones et al., 2019: 141). Second, the goal of unpacking typicality to unravel the politics of mountainness it expresses, entails ‘shifting focus from tracing connections and interdependencies between places, to analysing how relations come into being, and how places are transformed through these relational processes’ (Woods et al., 2021: 285). Third, the emphasis of assemblage thinking on constant transformation – on assembling and disassembling (Anderson and McFarlane, 2011) – is well suited to the constant change of rural places and the continuous negotiation between possible futures (Woods et al., 2021) taking place in the process of identification of an agri-food product as “typical” (including the local economy that produces it and the representations attached to it). Fourth, assemblage thinking gives relevance to the process of coding, understood as the ‘formalisation of an assemblage’s coming-together’ (Page and Dittmer, 2015: 254), that parallels the codification and formalisation of the process of production of a “typical” product through the adoption of GI schemes and procedural guidelines. Fifth, we ‘understand assembling as a process of “co-functioning” whereby heterogeneous elements come together in a non-homogeneous grouping’ (Anderson and McFarlane, 2011: 125), and we acknowledge the provisional and non-stable status of any assemblage, the maintained autonomy of the parts that compose it and the emergence of new properties from the assembling. From this perspective, in our analysis we consider the “typical cheese assemblage” as a composition of elements that converge into a specific cheese. We appreciate the fluidity and dynamism of the relations within the food assemblage as well as their non-chaotic and non-accidental nature. As reminded by Buchanan (2015: 382), ‘the assemblage is purposeful, it is not simply a happenstance collocation of people, materials and actions,

but the deliberate realisation of a distinctive plan – abstract machine’. As such, products, labels and typicalities that lie behind the different politics of mountainness are the expression of specific cultural, social and economic models. In this sense, the different organisation and composition of the food assemblages mirrors distinctive and often conflicting politics of mountainness. In other words, borrowing from McFarlane (2009), through assemblage thinking we approach cheese as doing (a series of actions), performance (an arrangement of different agencies, enacting desire) and event (emergence of new capabilities and identities for some time), focusing on the heterogeneity and temporality of its components. We use the cheese assemblage as a lens for understanding the politics of mountainness that resulted in its identification as a typical product. The relevance of this kind of analysis is not purely theoretical, nor solely descriptive, if we consider the effects of the identification of a typical cheese and the codification of its production through the GI schemes on local economies, societies, landscapes and environments.

Our case study concerns a political dimension in terms of the different – often conflicting – economic and social landscapes that emerge from the Castelmagno cheese productions. In this sense the highly political character of the assemblage theory helps us to approach the productive forces and territorial strategies behind the assemblage(s) and to understand the creation and consolidation of determined sets of relations. We consider the notion of desire without which ‘the concept of assemblage cannot be understood’ (Buchanan, 2020: 55) – to analyse the political dimension of our research object and then to explain the existence of multiple food assemblages and competing politics of mountainness. According to Dovey (2020: 23), ‘desire is a form of becoming that precedes being and identity; as desires become coded and organised, they become identities, thing, places’; desire is at the base of power relationships which ‘are distributed and embodied in material spatial arrangements. In the case of Castelmagno, the support of specific modes of production primarily concerns the existence of multiple understandings and imaginations of the mountain, here interpreted as productive forces of material and non-material elements (traditions, food, landscapes, communities etc.). During our investigation we identified the desire to produce certain types of territory through the production of Castelmagno, a territory that conforms to a specific imaginary of mountainness and “Castelmagno-ness”. Ultimately, the identification in our study of different interpretations of Castelmagno cheese leads us to wonder if one of these scenarios will prevail rather than the other. This is a fundamental question related to the notions of desire, multiplicity and potentiality which underpin the very existence of the epistemological approach adopted here (Baker and McGuirk, 2017). Since the assemblage always exists between the present and the future, we focus on both the contemporary and upcoming dimensions of our research object. This choice that emerges through descriptions and analyses concerns the political nature of the assemblage as a productive force of reality.

## 4. Case study

### 4.1. Context

Castelmagno is a semi-hard cheese made from raw cow’s milk, traditionally produced in the upper part of Grana Valley, a sparsely populated region of the western Italian Alps. A small quantity of sheep and goat milk is permitted to be included, but current commercial producers only use cow milk. Its name derives from the small municipality of Castelmagno, located at the highest end of the valley, where it had been predominantly produced in the past. Its unique characteristic is a sour-bitter taste due to the traditional production technique. Castelmagno cheese was historically made with milk from multiple milkings, often mixing cow and sheep milk, to produce larger and more ageing-resistant wheels from few animals. Nowadays, Castelmagno is produced using milk from two consecutive days and whey is used for

acidification, “simulating” traditional techniques. Each wheel is characterised by a cylindrical shape with two flat faces with a diameter of 15–25 cm and a weight varying from two to seven kg. In the 1970 s, Castelmagno’s local community officially claimed this cheese as a high-quality “typical” product to be protected from the risk of disappearance mainly due to emigration and changes in production techniques. At that time, it was already “informally” recognized as a product characterising Grana Valley and its population, but without any formal codification. The quest for formal recognition and protected status was primarily an attempt led by local institutions to contain depopulation and support the increasingly impoverished territorial economy (Orlandi, 2021). In 1984 the cheese obtained the national Geographical Indication label of DOC (Controlled Designation of Origin) and in 1996, under the new European regulations, the PDO (Protected Denomination of Origin) EU label. Interestingly, these regulations permitted a more extensive production area for the cheese than its historic territory, expanding beyond the municipality of Castelmagno, where producers were concentrated in 1984, to also include the lower altitude municipalities of Pradleves and Monterosso Grana. The decision to expand the territory where “typical” Castelmagno can be produced was linked to the dual aim of the label: to preserve high valley producers and tackle depopulation, and to foster local development in the whole valley. The recognition of the lower parts of the Grana Valley as production areas of Castelmagno DOC (and since 1996 PDO) has favoured the establishment of new production sites in the municipalities of Pradleves and Monterosso Grana, where most of this cheese is now produced. Paradoxically, the GI label – established to protect high-mountain production and society – has encouraged the relocalisation (or new localisation) of much of the production to lower altitudes, where breeding and cheesemaking are easier, and new investments have been directed to the production of Castelmagno. Meanwhile, most producers based in the upper valley have ceased business due to retirement, the difficulty of competing with larger producers or issues adapting to changes in national and EU regulations (mainly related to food safety and working conditions). In reaction, some local actors have pushed for the recognition of the specificity of “Castelmagno d’alpeggio”, a variety produced above 1.000 m., only during the summer, when the cows are in high-altitude pastures (*alpeggi*). In 2006 the DOP label officially included the distinction between “Castelmagno di montagna” and “Castelmagno d’alpeggio”. Currently eight farmers/cheesemakers produce about 30.000 wheels of Castelmagno under the DOP label’s regulation; most of them produce both “Castelmagno d’alpeggio” (using high- altitude pastures during summer) and “Castelmagno di montagna” (during the other seasons or if they cannot access the alpeggi). Some of them are also part of the Slow Food movement project Presidia, groups of food producers whose relation ‘to a specific product linked to tradition, region, culture, and agricultural history’ (Peano et al., 2014, p. 2) is recognized by the movement with a specific label. An in-depth analysis of their production (considering the whole value chain), their use of local resources and their relationship with the local community reveals that the “community of practice” of Castelmagno producers is characterised by great complexity and frequent conflicts. In fact, various – sometimes colliding – understandings of the links between cheesemaking as economic activity and mountain regions as spaces of life/work, emerge.

#### 4.2. Methodology

The study used a mixed-method approach that combined qualitative data from in-person interviews, visits to dairy farms and archive work. This approach allowed for a comprehensive exploration of the research topic, considering both individual perspectives and historical context. Interviews and field visits in the Castelmagno production area (Grana Valley) were mainly conducted during the summer of 2022. Archive work was carried out subsequently through the autumn and winter of the same year. We visited five of the eight existing productions of Castelmagno which are representative of different and competing politics of

mountainness. By following the example of Jones et al. (2019: 144), in each site we have tried to identify ‘the grounded and multiple forms of work’ that give rise to the cheese assemblage. This meant considering the human and non-human elements involved in the productive life of each farm and the performative character of their relations. As such, we have approached cheese productions as compositions of different

agents (animals, plants, machineries) as well as symbolic aggregations of ideas and desires. Observations were recorded in notes. Data was augmented through eleven in-depth, semi-structured interviews. Participants were selected based on their knowledge and involvement in the production and marketing of Castelmagno. This included cheese makers, cheesemakers, Slow Food movement activists and representatives of local authorities. The interviews explored both the general history of the cheese and the specific practices of individual producers. We wanted to reconstruct the manufacturing process, paying particular attention to the way in which local actors represented their products and their connection with the territory. After transcription, the interviews were approached through an inductive analysis to bring out from the participants’ speeches themes regarding the production of Castelmagno and the representation of its territory. To trace the history of Castelmagno in relation to its production area, we consulted a variety of secondary sources contained in the online archives of national and local newspapers, historical documents, scientific and grey literature, production regulations. These secondary sources allowed us to integrate and expand the information gathered during fieldwork and acquire historical and technical knowledge related to our object of study.

#### 4.3. Narratives of Castelmagno cheese

The information collected during the fieldwork and the desk analysis confirmed the hypothesis that guided this contribution: the process of “typicalisation” of cheese is connected to the relational production of mountains as a material place and as a conceptual category of thought (Debarbieux and Rudaz, 2015). The actors involved in the Castelmagno value chain perform and reproduce their own politics of mountainness, through the use and management of the various tangible and intangible elements that constitute the Castelmagno assemblage, both as a general category (type of cheese, labelled as PDO) and as a single block of cheese. The current regulation of Castelmagno production is the result of a long process of negotiation between different understandings on how to preserve and support the production of this specific cheese. The production protocol could contribute to issues such as the transmission of local traditional knowledge, the sustainable management of local environmental and landscape resources, the preservation of the population in the highest villages, local rural development, the transcalar relations between Grana Valley and other localities etc. However, even under the regulation of the same strict guidelines that producers must respect to obtain the PDO label, different politics of mountainness are performed. We might say that the assemblage “Castelmagno PDO” corresponds to different interpretations of cheesemaking in a mountain region which are implemented by producers in line with their own politics of mountainness, within the regulatory boundaries set by the PDO label.

Four coexisting and intertwined narratives of Castelmagno, as a mountain product, and of Grana Valley, as the area of production of this cheese, can be posited, each viewing the current assemblage from a different perspective and anticipating a different possible future. In each of the narratives the various components of the Castelmagno PDO assemblage (e.g., milk, grass, workforce, knowledge, time, landscape) are differently combined, performing and reproducing the idea of mountainness of the actors involved in the production process. Drawing from a political understanding of assemblage thinking (Müller and Schurr, 2016; Roberts, 2021), these scenarios – which should not be considered as rigid and mutually exclusive production systems, but rather as continuously interrelating performances of mountainness through cheesemaking – can be linked to the Deleuzian idea of desire.

They represent the expression of the forces that bring the assemblage together, according to an idea of the mountain, which is materialised by cheese production.

The four narratives are presented here, beginning with a description of four production sites, each representing the spatial expression of a distinct narrative. We have chosen to adopt a narrative style of description, believing in the role of stories as ‘a resource for making sense of the material world’ (Daniels and Lorimer, 2012: 7), and recognising the value of non-conventional fieldwork accounts in posing new questions rather than merely presenting data (Lorimer, 2014; Burlingame, 2019).

1. *Castelmagno as a luxury specialty product made in high mountain locations with top environmental quality, aimed at international markets.* A limited number of non-native producers and affineurs, based in finely refurbished high valley hamlets, emphasise the exclusive nature of Castelmagno as a cheese made in limited quantity, whose quality is strictly connected with the environmental characters of high-altitude pastures and with the history of the villages where it is produced and aged, as recognized by the Slow Food Presidia label. The production, almost exclusively intended for high-spending foreign markets, is often associated with the creation of prestigious venues for tourist consumption on site. This perspective is typified by the hamlet of Valliera, located at 1507 m. above sea level in the municipality of Castelmagno. Here is the main production site of a producer (more precisely an association of non-local investors that hire cheese-making experts to produce Castelmagno and manage the herd) belonging to the Slow Food Presidia network. Completely uninhabited and inaccessible by road during the long Alpine winters, the village appears as completely refurbished, with the traditional stone houses covered by perfectly renovated slate-like roofs, offering a clear example of rural gentrification. During the summer the village comes alive with tourists populating second homes for rent and visiting the cheese shop of the only producer present, who manages the mountain pastures as well as the tiny cheese-making laboratory and the ripening cave. The mountain environment is here conceived and practised mainly as a platform for high-quality seasonal (summer) production, supported by external economic investments that contribute to the construction of the landscape and the maintenance of local environmental resources, but with few connections to all year-round life of the local community.
2. *Castelmagno as the most profitable and prestigious product of the small-scale mountain economy, which allows families to live in villages and carry on family businesses.* Castelmagno cheese is the main source of income for families residing in the villages of the upper valley, who have decided to stay and devote themselves to agriculture and cheese-making; they differ from most of the local population, who have emigrated in recent decades. Their narratives around Castelmagno include the values of its close relationship with the sustainable management of the local environment and landscape but are free from the emphasis on its exclusivity as a unique product. The productive process is pragmatically shaped on small-scale business plans, responding to the need to support the family economy, reducing risks and time-consuming activities. This is clearly witnessed by the choice of a producer to sell all her production as fresh Castelmagno to an affineur, who in turn sells it as Castelmagno DOP after the mandatory 60 or more days of ripening, making the highest share of profit. The building hosting the producer’s house and cheese-making facilities can be considered as representative of “this Castelmagno”. We are in a hamlet named Chiappi, in the municipality of Castelmagno. The large stone house is a clear expression of the traditional local architecture, but nothing in its external appearance suggests the “staging” of mountainness and mountain landscape (Edensor, 2001), aimed at reinforcing and conveying specific narratives about living and working in this geographical context. A tractor is parked in front of the house, a kid’s bicycle is

leaning against the wall, the laundry is hanging on the long balcony of a facade from which an old man looks out, bags of animal feed (in line with the Castelmagno’s procedural guidelines) are piled up in a storage room. All these details contribute to suggest that we are in front of a genuine productive landscape, which results from the daily social and economic activities of the community. The mountain is here understood and experienced as a context of life throughout the year, whose material and cultural resources are not only inputs to the production of a “typical” cheese, but above all components of the fragile everyday landscape of the local community.

3. *Castelmagno as the most renowned product of a broader mountain economy, which involves the entire valley, with the political and infra-structural support of local institutions.* Due to its historically renowned quality and the most recent national and international market success, Castelmagno cheese is widely recognized as the main economic driver of the Grana Valley economy. This role has been part of local institutions’ development strategies since the 1970s, when a coalition of local actors aspiring to formal recognition of the quality and typicality of this cheese, through a label, emerged. Together with the attribution of the DOC (in 1982, based on Italian regulations) and then PDO (in 1996, based on EU regulations) labels, decisive step forward was represented by the establishment, in the late 1990 s, of a cooperative of local producers (named Produttori Alta Valle Grana) and the construction of the cooperative dairy, still active in Pradives, in the middle valley, thanks to public funds. The dairy operates a shop for direct sales, while also distributing its cheese to retailers at both regional and national levels. This place is representative of the idea of Castelmagno as a quality cheese, the production of which can support the economy of the whole valley, providing jobs (beyond self-entrepreneurship) and giving commercial outlets to the various actors involved in the supply chain, notably milk producers that do not produce cheese by themselves. This perspective is closely connected to the decision not to exclusively consider the highest municipality of Castelmagno – with which the cheese was historically associated, after which it is named and where the high mountain pastures are located – as formally recognised area of production of Castelmagno cheese, which was taken by actors leading the bid for protected status. As such, the perspective is further explicitly linked to the strategy of bringing the benefits of Castelmagno production to the entire valley, trying to reverse the economic decline associated with the heavy depopulation that (still) characterises the middle and upper valley. The idea of mountain that can be linked with this approach to the production of Castelmagno is that of a lived-in territory, where local economic development is supported by public intervention and where various economic actors benefit from the success of a recognized typical product. Limited space is given to narratives about the purity and the “height” of mountain productions and their landscape, preferring a pragmatic approach that links product quality to broader sustainable territorial development. Castelmagno PDO can be seen here as a territorial project, aimed at managing local resources and cultural heritage.
4. *Castelmagno as a flagship item of the industrial production of various medium-scale cheeses, set in the valley to benefit from the fame and international appeal of this product.* The growing international commercial success of Castelmagno and the opportunities given by the PDO label procedural guidelines made cheesemaking in Grana Valley an attractive opportunity for companies in the dairy sector, inside and outside the designated territory. Given the requirement to have the whole production chain within a demarcated area, the only two ways to step into the “club” of Castelmagno producers are to establish a new cheese-factory in one of the three municipalities where production is allowed and to cultivate or buy hay on site (renting or buying high pastures to produce Castelmagno PDO d’alpeggio), or to acquire an existing dairy. The largest Castelmagno PDO producer, which makes about half of the entire production currently, emerged from a combination of these two strategies. Around 2000, a

regionally renowned semi-industrial dairy producer based in the plain about 30 km from Grana Valley, decided to invest in Castelmagno cheese, building a new cowbarn and a new factory at the lowest point of the allowed area of production and progressively acquiring pastures and other producers' facilities. The owners of this new business, which over the years has become autonomous from the original firm, have gained a preminent role in the consortium and over time have established close and sometimes of mutual distrust relationships with the other producers. The place that best represents this interpretation of Castelmagno as a mountain cheese is the modern dairy, which includes a ripening cave with an innovative architectural design and a modernly furnished meeting room partially occupied by a large glass table. It stands symbolically where the main road of the valley starts to rise slightly, a few hundred metres beyond the lower boundary of the Castelmagno PDO area of production. The cheese that is produced here strictly complies with the procedural guidelines, including the "alpeggio" during summer, and its quality has been certified by national and international awards. This product is sold mainly to medium and large-scale retailers, allowing its circulation on different markets. High-quality research is carried out on cheesemaking and the breeding of native Alpine cattle breeds. However, the idea of "mountain" that can be associated with this cheese is rather utilitarian, as a reservoir of resources (landscape, environment, tradition, etc.) from which to draw to make profit, even if with sustainable criteria and high levels of quality production.

#### 4.4. Discussion

The four narratives we have outlined demonstrate that the way in which mountain typical food products are defined, conceived, produced, described, marketed and consumed can be based on different understandings of how mountain places should be experienced, transformed and communicated. Adopting the perspective proposed by this article, they are expressions of different politics of mountainness. Coherently with the non-universalistic approach suggested by assemblage thinking, focused on the provisional and non-stable status of any assemblage (Anderson et al., 2012), it is important to highlight how these four scenarios are not rigidly separated, nor mutually exclusive; rather they coexist, continuously interacting and blending into each other. In addition to the personal and professional relationships between the actors involved in these assemblages (relationships that are created for example through the rental of pastures or commitment within the producers' association), the four narratives and production practices are linked through the collective project represented by the formal recognition of this cheese as a typical product of Grana Valley, using the PDO label, whose rules are respected by all producers, so as to be able to legally name their cheese "Castelmagno". We may say that the idea of Castelmagno as a cheese is variously assembled and continuously reassembled, according to the idea of Castelmagno (and more generally of Grana Valley) as a place associated with it, within the perimeter of a shared regulation and the formal or informal relationships between the actors involved. What we have called "Castelmagno-ness" is the combination of these two ideas: the material and symbolic landscape that fits the shared definition of Castelmagno as a typical cheese and the Grana valley as the place where it is typically produced. The material symbol of the system of discourses, rules and procedures shared by all the agents involved in the making of Castelmagno (understood both as place and as a cheese) is the label itself. Locally called "sventolina", it is a cross-shaped paper label that must be stuck to the top of every Castelmagno PDO wheel, as a guarantee for consumers. It legally certifies compliance with the procedural guidelines and contains information on the type of production (blue if produced in alpeggio during summer; green for the other productions), the name and location of the producer and other relevant information, such as membership of the Slow Food Presidia network. The label is issued by the producers' association to all

producers who respect the procedural guidelines, even if they are not members of the association. The sventolina holds a strong symbolic value since it physically embodies the long and controversial process of qualifying Castelmagno cheese as a mountain typical product of Castelmagno (and Grana Valley). It certifies (also legally) the characteristics of mountainness on which the actors involved in this process have agreed, re-inventing a set of informal cheese-making practices locally rooted in a set of formally acknowledged procedures, allowing the cheese to represent a locality on national and international markets.

The relation between Castelmagno as a cheese-assemblage and Castelmagno as a place-assemblage can be read at three different levels, where distinct components are variously assembled. Each of these levels can be associated with the three meanings of assemblage identified by McFarlane (2009): doing, performance and event and to different approaches to what we have called "Castelmagno-ness". The first (doing) is Castelmagno PDO as a formally recognized TFP, labelled with the sventolina, whose relationship with the place of production represents the point of mediation between the strategies and politics of mountainness of different local and super-local actors. It is a legally bound "idea of cheese", potentially resulting from the application of the agreed procedural guidelines that establish what properties this cheese must have to be considered typical of Castelmagno as an "idea" (authorized Castelmagno-ness). The second (performance) is the Castelmagno that is intentionally made by each producer, performing his/her politics of mountainness in those spaces of freedom that are left by the procedural guidelines of the PDO scheme. This involves a great variety of aspects, such as animal breeding, pasture management, the characteristics of the cheesemaking site, the specificities of the cheese-making process (e.g., ripening), the quantity of Castelmagno wheels that are produced, the local and translocal relationships in place, and the market networks to which each producer is connected. The four narratives outlined clearly show how the PDO label scheme agreed for Castelmagno is rigid enough to guarantee consumers a standardisation of the cheese they buy or taste, but flexible enough to allow producers to materialise their own idea of Castelmagno as a place, through the production of Castelmagno as cheese (performed Castelmagno-ness). Third (event), cheese – when made with unpasteurized milk – is a paradigmatic example of the unpredictability of properties resulting from the constant assembling and reassembling of components (Anderson and McFarlane, 2011). Despite the efforts to calibrate production (Grasseni, 2016) required by the regulations of the PDO label and by market demands, and despite the producers' attempt to convey their visions of the territory in which they operate in the cheese, every form of Castelmagno will be always slightly (or considerably) different from the next one. This derives from the high number of human and non-human, material and non-material agents that contribute to the result. Being open to unexpected outcomes, resulting from the contingent interdependence of elements, is also desirable when it comes to exploring the possible future forms of places, following translocal interactions (Woods et al., 2021) (unexpected Castelmagno-ness).

#### 5. Conclusions

The study demonstrates how the process of qualification of Castelmagno cheese as typical is deeply connected to the relational production of mountains in general, and of a specific mountain locality, both as a material place and as a conceptual category of thought. The four scenarios that we have described are representative of how diverse the mountainness performed and reproduced through Castelmagno cheese-making (and place-making) can be. They clearly express the juxtaposition in the same space–time context of different territorialities (Raffestin, 2012), based on the various assemblages of material and immaterial elements, which represent the sources of as many possible futures of the place (Woods et al., 2021). Without claiming to be able to predict the evolution of the realities described, we underline the importance of their future dimension in terms of competition and

coexistence. Several critical topics about rural mountain regions as parts of the global countryside (Woods, 2007; Perlik, 2019; Wang et al., 2023) emerge from our empirical research, such as: the bidirectional relationship between global consumers preferences and local consumers strategies; the role of transcalar policies and regulatory framework; rural gentrification and extractivist investments in mountain regions; intrarural competition and urban–rural links. From a theoretical and methodological point of view, our study highlighted the performative character of the assemblage as well as its political nature, understood here in its classical conception: the administration and management of the collective good (spaces, resources, services etc.) from the continuous process of negotiation of ideas, experiences, and values involving the productive part of the community (human and non-human). As such, we looked at the different politics of mountainness as products of the creative power of the assemblage (desiring machine), and we considered the process of coding of the various elements within the assemblage to explain their emergence and consolidation. Researching the politics of mountainness in the process of qualification of Castelmagno as typical allowed us to develop and empirically test an innovative understanding of the relationships between food-making, heritage-making and place-making, showing how this relational process is inextricably linked to the negotiation and competition over different understandings of the place of production, rather than the food product itself.

### CRediT authorship contribution statement

**Giacomo Pettenati:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Emanuele Amo:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Conceptualization. **Michael Woods:** Writing – review & editing, Validation, Supervision, Conceptualization.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Data availability

No data was used for the research described in the article.

### References

- Allovio, S., 2001. L'imporsi della Fontina in Valle d'Aosta fra alpeggi e strategie di mercato. *La Ricerca Folklorica* 43, 45–54. <https://doi.org/10.2307/1479789>.
- Amilien, V., Hegnes, A.W., 2013. The dimensions of 'traditional food' in reflexive modernity: Norway as a case study. *J. Sci. Food Agric.* 93 (14), 3455–3463. <https://doi.org/10.1002/jsfa.6318>.
- Amilien, V., Moity-Maizi, P., 2019. Controversy and sustainability for geographical indications and localized agro-food systems: Thinking about a dynamic link. *Br. Food J.* 121 (12), 2981–2994. <https://doi.org/10.1108/bfj-12-2019-843>.
- Amo, E., 2023. The Slow Food Movement and the Terra-Madre project: food sovereignty and translocal assemblages. *Globalizations* 20 (4), 644–660. <https://doi.org/10.1080/14747731.2022.2149158>.
- Anderson, B., McFarlane, C., 2011. Assemblage and geography. *Area* 43 (2), 124–127. <https://doi.org/10.1111/j.1475-4762.2011.01004.x>.
- Anderson, B., Kearnes, M., McFarlane, C., Swanton, D., 2012. On assemblages and geography. *Dialogues in Human Geography* 2 (2), 171–189. <https://doi.org/10.1177/2043820612449261>.
- Appadurai, A., 1986. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge University Press, Cambridge.
- Arfini, F., Cozzi, E., Mancini, M.C., Ferrer-Perez, H., Gil, J.M., 2019. Are geographical indication products fostering public goods? Some Evidence from Europe. *Sustainability* 11 (1), 272. <https://doi.org/10.3390/su11010272>.
- Atkinson, D., 2005. Heritage. In: Atkinson, D., Sibley, D., Washbourne, N., Jackson, P. (Eds.), *Cultural Geography: A Critical Dictionary of Key Concepts*. Tauris, New York.
- Baker, T., McGuirk, P., 2017. Assemblage thinking as methodology: Commitments and practices for critical policy research. *Territ. Politics, Gov.* 5 (4), 425–442. <https://doi.org/10.1080/21622671.2016.1231631>.
- Belletti, G., Marescotti, A., 2011. Origin products, geographical indications and rural development. In: *Labels of Origin for Food: Local Development, Global Recognition*. CAB International, Wallingford UK, pp. 75–91.
- Bentivoglio, D., Savini, S., Finco, A., Bucci, G., Boselli, E., 2019. Quality and origin of mountain food products: The new European label as a strategy for sustainable development. *J. Mt. Sci.* 16 (2), 428–440. <https://doi.org/10.1007/s11629-018-4962-x>.
- Boisard, P., 2003. *Camembert: a National Myth*. University of California Press, Berkeley.
- Buchanan, I., 2015. Assemblage theory and its discontents. *Deleuze Stud.* 9 (3), 382–392. <https://doi.org/10.3366/dls.2015.0193>.
- Buchanan, I., 2020. *Assemblage theory and method: An introduction and guide*. Bloomsbury Academic, London.
- Burlingame, K., 2019. Where are the storytellers? A quest to (re) enchant geography through writing as method. *J. Geogr. High. Educ.* 43 (1), 56–70. <https://doi.org/10.1080/03098265.2018.1554630>.
- Castree, N., Braun, B. (Eds.), 2001. *Social nature: theory, practice and politics*. Basil Blackwell Ltd., Oxford.
- Ceccarelli, G., Grandi, A., Magagnoli, S., 2010. The “taste” of typicality. *Food and History* 8 (2), 45–76. <https://doi.org/10.1484/j.food.1.102217>.
- Conneely, R., Mahon, M., 2015. Protected geographical indications: Institutional roles in food systems governance and rural development. *Geoforum* 60, 14–21. <https://doi.org/10.1016/j.geoforum.2015.01.004>.
- Cosgrove, D., Della Dora, V., 2008. *High places: cultural geographies of mountains, ice and science*. Tauris, London.
- Cresswell, T., 2014. *Place: an introduction*. John Wiley & Sons, Chichester.
- Daniels, S., Lorimer, H., 2012. Until the end of days: Narrating landscape and environment. *Cultural Geographies* 19 (1), 3–9. <https://doi.org/10.1177/1474474011432520>.
- Davies, A.D., 2012. Assemblage and social movements: Tibet Support Groups and the spatialities of political organisation. *Trans. Inst. Br. Geogr.* 37 (2), 273–286. <https://doi.org/10.1111/j.1475-5661.2011.00462.x>.
- de Suremain, C.É., 2016. The never-ending reinvention of 'traditional food'. In: Sebastia, B. (Ed.), *Eating Traditional Food: Politics, Identity and Practices*. Routledge, Abingdon, pp. 150–166.
- Debarbieux, B., Rudaz, G., 2015. *The Mountain*. University of Chicago Press, Chicago.
- DeLanda, M., 2006. *A New Philosophy of Society: Assemblage Theory and Social Complexity*. Continuum, London.
- DeLanda, M., 2016. *Assemblage theory*. Edinburgh University Press, Edinburgh.
- Deleuze, G., Guattari, F., 1987. *Capitalism and schizophrenia: A thousand plateaus*. University of Minnesota Press, Minneapolis.
- Demeritt, D., 1996. Social theory and the reconstruction of science and geography. *Trans. Inst. Br. Geogr.* 21 (3), 484–503. <https://doi.org/10.2307/622593>.
- Demeritt, D., 2002. What is the 'social construction of nature'? A typology and sympathetic critique. *Progress in human geography* 26 (6), 767–790. <https://doi.org/10.1191/0309132502ph402oa>.
- Demossier, M., 2011. Beyond terroir: territorial construction, hegemonic discourses, and French wine culture. *J. R. Anthropol. Inst.* 17 (4), 685–705. <https://doi.org/10.1111/j.1467-9655.2011.01714.x>.
- DeSoucey, M., 2010. Gastronationalism: Food traditions and authenticity politics in the European Union. *Am. Sociol. Rev.* 75 (3), 432–455. <https://doi.org/10.1177/0003122410372226>.
- Cambridge Dictionary (2023). [Online], (Accessed 08/09/2023) 878 <https://dictionary.cambridge.org/>.
- Dovey, K., 2020. Place as assemblage. In: Edensor, T., Kalandides, A., Kothari, U. (Eds.), *The Routledge Handbook of Place*. Routledge, Abingdon, pp. 21–31.
- DuPuis, E.M., Goodman, D., 2005. Should we go “home” to eat?: toward a reflexive politics of localism. *J. Rural. Stud.* 21 (3), 359–371. <https://doi.org/10.1016/j.jrurstud.2005.05.011>.
- Dwiartama, A., Piatti, C., 2016. Assembling local, assembling food security. *Agric. Hum. Values* 33, 153–164. <https://doi.org/10.1007/s10460-015-9624-9>.
- Edensor, T., 2001. Performing tourism, staging tourism: (Re) producing tourist space and practice. *Tour. Stud.* 1 (1), 59–81. <https://doi.org/10.1177/146879760100100104>.
- Fox, P., Guineé, T., Cogan, T., McSweeney, P., 2017. *Fundamentals of Cheese Science*. Springer, New York.
- Freudenburg, W.R., Frickel, S., Gramling, R., 1995. Beyond the nature/society divide: Learning to think about a mountain. *Sociol. Forum* 10, 361–392. <https://doi.org/10.1007/BF02095827>.
- Gallagher, S. (2020). Prošek or Prosecco: Intellectual Property or Intangible Cultural Heritage?. In Chaisse G.; Dias Simoes F.; Friedmann D. (Eds.) *Wine Law and Policy*. Leiden: Brill Nijhoff.
- García-Hernández, C., Ruiz-Fernández, J., Rodríguez-Gutiérrez, F., 2022. Geographical indications in cheese mountain areas: Opportunity or threat to landscape and environmental conservation? The case of Cabrales (Spain). *Appl. Geogr.* 146, 102753. <https://doi.org/10.1016/j.apgeog.2022.102753>.
- Grasseni, C., 2011. Re-inventing food: Alpine cheese in the age of global heritage. *Anthropology of food*, (8). Doi: 10.4000/aof.6819.
- Grasseni, C., 2012. Resisting cheese: boundaries, conflict and distinction at the foot of the Alps. *FoodCulture, & Society* 15 (1), 23–29. <https://doi.org/10.4000/aof.6819>.
- Grasseni, C., 2016. *The heritage arena: reinventing cheese in the Italian Alps*. Berghahn Books, Oxford.
- Grasseni, C., Paxson, H., Bingen, J., Cohen, A.J., Freidberg, S., West, H.G., 2014. Introducing a special issue on the reinvention of food: connections and mediations. *Gastronomica: the Journal of Food and Culture* 14 (4), 1–6. <https://doi.org/10.1525/gfc.2014.14.4.1>.

- Grosinger, J., Grigulis, K., Elleaume, N., Buclet, N., Lavorel, S., 2022. Community-Based Institutions Shape Cheese Co-Production in a French Alpine Valley. *Mt. Res. Dev.* 42 (3), 25–34. <https://doi.org/10.1659/mrd-journal-d-21-00035.1>.
- Harrison, R., 2013. *Heritage. Critical approaches*. Routledge, Abingdon.
- Hobsbawm, E., 1983. *The Invention of Tradition*. Cambridge University Press, Cambridge.
- Horlings, L.G., Marsden, T.K., 2014. Exploring the ‘New Rural Paradigm’ in Europe: Ecoeconomic strategies as a counterforce to the global competitiveness agenda. *Eur. Urban Reg. Stud.* 21 (1), 4–20. <https://doi.org/10.1177/0969776412441934>.
- Ilbery, B., Kneafsey, M., 2000. Producer constructions of quality in regional speciality food production: a case study from south west England. *J. Rural. Stud.* 16 (2), 217–230. [https://doi.org/10.1016/S0743-0167\(99\)00041-8](https://doi.org/10.1016/S0743-0167(99)00041-8).
- Jackson, P., 2013. Authenticity. Jackson P. and the CONANX Group (Eds). *Food Words*. Bloomsbury, London.
- Jackson, P., 2014. “Reinvention” Revisited: A Commentary. *Gastronomica: the Journal of Food and Culture* 14 (4), 79–80. <https://doi.org/10.1525/gfc.2014.14.4.79>.
- Jones, L., Heley, J., Woods, M., 2019. Unravelling the global wool assemblage: researching place and production networks in the global countryside. *Sociol. Rural.* 59 (1), 137–158. <https://doi.org/10.1111/soru.12220>.
- Kneafsey, M., 2010. The region in food—important or irrelevant? *Camb. J. Reg. Econ. Soc.* 3 (2), 177–190. <https://doi.org/10.1093/cjres/rsq012>.
- Lamarque, P., Lambin, E.F., 2015. The effectiveness of marked-based instruments to foster the conservation of extensive land use: the case of Geographical Indications in the French Alps. *Land Use Policy* 42, 706–717. <https://doi.org/10.1016/j.landusepol.2014.10.009>.
- Lang, T., Heasman, M., 2015. *Food wars: the global battle for mouths, minds and markets*. Routledge, Abingdon.
- Latour, B., 2007. *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press, Oxford.
- Levkoe, C.Z., Wakefield, S., 2014. Understanding contemporary networks of environmental and social change: Complex assemblages within Canada’s ‘food movement’. *Environmental Politics* 23 (2), 302–320. <https://doi.org/10.1080/09644016.2013.818302>.
- Lin, J., Cui, Q., Xu, H., Guia, J., 2022. Health and local food consumption in cross-cultural tourism mobility: An assemblage approach. *Tour. Geogr.* 24 (6–7), 1103–1122. <https://doi.org/10.1080/14616688.2020.1867887>.
- López-i-Gelats, F., Tàbara, J.D., Bartolomé, J., 2009. The rural in dispute: Discourses of rurality in the Pyrenees. *Geoforum* 40 (4), 602–612. <https://doi.org/10.1016/j.geoforum.2009.04.008>.
- Lorimer, H., 2014. Homeland. *Cultural Geographies* 21 (4), 583–604. <https://doi.org/10.1177/1474474014547335>.
- Lowenthal, D., 1985. *The Past is a Foreign Country*. Cambridge University Press, Cambridge.
- Lowenthal, D., 1991. British national identity and the English landscape. *Rural. Hist.* 2 (2), 205–230. <https://doi.org/10.1017/S0956793300002764>.
- Lozej, Š.L., 2020. Branding Tolmin Cheese. *Traditiones* 49 (3), 53–80. <https://doi.org/10.3986/Traditio2020490304>.
- Lozej, Š.L., 2021. Labelling, certification and branding of cheeses in the southeastern Alps (Italy, Slovenia): Montasio, Bovec, Tolmin and Mohant cheese. *Acta Geogr. Slov.* 61 (1), 153–168. <https://doi.org/10.3986/AGS.8746>.
- MacDonald, K.I., 2013. The morality of cheese: A paradox of defensive localism in a transnational cultural economy. *Geoforum* 44, 93–102. <https://doi.org/10.1016/j.geoforum.2012.03.011>.
- Magagnoli, S., 2018. Eating tradition: Typical products, distinction and the myth of memory. *Global Environment* 11 (1), 154–172. <https://doi.org/10.3197/ge.2018.110108>.
- Marescotti, A., 2003. Typical products and rural development: who benefits from PDO/PGI recognition. In: *Food Quality Products in the Advent of the 21st Century: Production, Demand and Public Policy*, 83rd EAAE Seminar, Chania, Greece, pp. 4–7.
- Massey, D., Research Group, H. G., Bond, S., & Featherstone, D., 2009. The possibilities of a politics of place beyond place? A conversation with Doreen Massey. *Scott. Geogr. J.* 125 (3–4), 401–420. <https://doi.org/10.1080/14702540903364443>.
- Matless, D., 1998. *Landscape and Englishness*. Reaktion Books, London.
- May, S. (2017). Shaping borders in culinary landscapes. European politics and everyday practices in geographical indications. In: S. May, K. Sidali, A: Spiller, B: Tschöfen (Eds.), *Taste. Power. Tradition: Geographical indications as cultural property*. Universitätsverlag, Göttingen.
- McFarlane, C., 2009. Translocal assemblages: Space, power and social movements. *Geoforum* 40 (4), 561–567. <https://doi.org/10.1016/j.geoforum.2009.05.003>.
- Mouat, M.J., Prince, R., Roche, M.M., 2019. Making value out of ethics: the emerging economic geography of lab-grown meat and other animal-free food products. *Econ. Geogr.* 95 (2), 136–158. <https://doi.org/10.1080/00130095.2018.1508994>.
- Müller, M., Schurr, C., 2016. Assemblage thinking and actor-network theory: conjunctions, disjunctions, cross-fertilisations. *Trans. Inst. Br. Geogr.* 41 (3), 217–229. <https://doi.org/10.1111/tran.12117>.
- Orlandi G. (2021). Les ciels (et ce au qu’il y a dessous): la candidature au Patrimoine mondial de l’Astronomie UNESCO comme proposition de développement territorial pour la vallée Grana (Italie). In Pech P. Les labels. Quels enjeux pour nos territoires alpins ?, agencemars.com, . (hal-03784708).
- Page, S., Dittmer, J., 2015. Assembling political parties. *Geography. Compass* 9 (5), 251–261. <https://doi.org/10.1111/gec3.12208>.
- Parasecoli, F. (2017). *Knowing where it comes from: Labeling traditional foods to compete in a global market*. University of Iowa Press, Iowa City.
- Parga-Dans, E., González, P.A., 2017. Marketing quality in the food sector: towards a critical engagement with the ‘quality turn’ in wine. *Geoforum* 85, 5–8. <https://doi.org/10.1016/j.geoforum.2017.07.005>.
- Parr, A. (Ed.), 2010. *Deleuze Dictionary*. University Press, Edinburgh.
- Parrott, N., Wilson, N., Murdoch, J., 2002. Spatializing quality: regional protection and the alternative geography of food. *Eur. Urban Reg. Stud.* 9 (3), 241–261. <https://doi.org/10.1177/0967642002009003878>.
- Peano, C., Migliorini, P., Sottile, F., 2014. A methodology for the sustainability assessment of agri-food systems: an application to the Slow Food Presidia project. *Ecol. Soc.* 19 (4). <https://doi.org/10.5751/es-06972-190424>.
- Perlik, M., 2019. *The spatial and economic transformation of mountain regions: landscapes as commodities*. Routledge, Abingdon.
- Ponte, S., 2021. Bursting the bubble? The hidden costs and visible conflicts behind the Prosecco wine ‘miracle’. *J. Rural. Stud.* 86, 542–553. <https://doi.org/10.1016/j.jrurstud.2021.07.002>.
- Quiñones Ruiz, Forster, H., Penker, M., Belletti, G., Marescotti, A., Scaramuzzi, S., Altenbuchner, C., 2018. How are food Geographical Indications evolving?—An analysis of EU GI amendments. *British Food Journal* 120 (8), 1876–1887. <https://doi.org/10.1108/bfj-02-2018-0087>.
- Raffestin, C., 1980. *Pour une géographie du pouvoir*. LITEC, Paris.
- Raffestin, C., 2012. Space, territory, and territoriality. *Environ. Plann. D: Soc. Space* 30 (1), 121–141. <https://doi.org/10.1068/d213111>.
- Rinallo, D., Pitardi, V., 2019. Open conflict as differentiation strategy in geographical indications: the Bitto Rebels case. *Br. Food J.* 121 (12), 3102–3118. <https://doi.org/10.1108/bfj-11-2018-0738>.
- Rippon, M.J., 2014. What is the geography of Geographical Indications? Place, production methods and Protected Food Names. *Area* 46 (2), 154–162. <https://doi.org/10.1111/area.12085>.
- Roberts, T., 2021. A constructivism of desire: Conceptualising the politics of assemblage with Deleuze and Guattari. *Area* 53 (4), 691–698. <https://doi.org/10.1111/area.12735>.
- Santini, F., Guri, F., 2013. Gomez y Paloma S, Institute for Prospective Technological. *Labelling of agricultural and food products of mountain farming*. Publications Office, Luxembourg. <http://dx.publications.europa.eu/10.2791/67942>.
- Santo, R., Moragues-Faus, A., 2019. Towards a trans-local food governance: Exploring the transformative capacity of food policy assemblages in the US and UK. *Geoforum* 98, 75–87. <https://doi.org/10.1016/j.geoforum.2018.10.002>.
- Sarmiento, F.O., 2020. Montology manifesto: echoes towards a transdisciplinary science of mountains. *J. Mt. Sci.* 17 (10), 2512–2527. <https://doi.org/10.1007/s11629-019-5536-2>.
- Sassatelli, R. (Ed.), 2019. *Italians and Food*. Palgrave-Mc Millan, London.
- Smith, L., 2006. *Uses of Heritage*. Routledge, Abingdon.
- Smith, B., Mark, D.M., 2003. Do Mountains Exist? Towards an Ontology of Landforms. *Environ. Plann. B: Plann. Des.* 30 (3), 411–427. <https://doi.org/10.1068/b12821>.
- Tregear, A., 2003. From Stilton to Vimto: using food history to re- think typical products in rural development. *Sociol. Rural.* 43 (2), 91–107. <https://doi.org/10.1111/1467-9523.00233>.
- Tregear, A., Arfini, F., Belletti, G., Marescotti, A., 2007. Regional foods and rural development: The role of product qualification. *J. Rural. Stud.* 23 (1), 12–22. <https://doi.org/10.1016/j.jrurstud.2006.09.010>.
- Vakoufari, H., 2010. The impact of Ladotyri Mytilinis PDO cheese on the rural development of Lesvos island. Greece. *Local Environment* 15 (1), 27–41. <https://doi.org/10.1080/13549830903406057>.
- van Veelen, B., 2021. Cash cows? Assembling low-carbon agriculture through green finance. *Geoforum* 118, 130–139. <https://doi.org/10.1016/j.geoforum.2020.12.008>.
- Varotto, M., 2020. *Montagne di mezzo. Una nuova geografia*. Einaudi, Torino.
- Verduna, T., Blanc, S., Merlino, V.M., Cornale, P., Battaglini, L.M., 2020. Sustainability of Four Dairy Farming Scenarios in an Alpine Environment: The Case Study of Toma di Lanzo Cheese. *Front. Vet. Sci.* 7, 569167. <https://doi.org/10.3389/fvets.2020.569167>.
- Viazzo, P.P., Woolf, S., 2001. L’alpeggio e il mercato. Qualche Osservazione Introduttiva. *La Ricerca Folklorica* 43, 3–11. <https://doi.org/10.2307/1479784>.
- Wang, C.M., Maye, D., Woods, M., 2023. Planetary rural geographies. *Dialogues in Human Geography*. <https://doi.org/10.1177/20438206231191731>.
- Watson, M., 2013. Provenance. Jackson, P. and the CONANX group. *Food Words*, Bloomsbury, London.
- Welz, G., 2018. Assembling halloumi: contesting the EU’s food quality label policy in the Republic of Cyprus. In: Forney, J., Rosin, C., Campbell, H. (Eds.), *Agri-Environmental Governance as an Assemblage*. Routledge, Abingdon.
- Winter, M., 2003. Geographies of food: agro-food geographies making reconstructions. *Prog. Hum. Geogr.* 27 (4), 505–513. <https://doi.org/10.1191/0309132503ph446pr>.
- Woods, M., 2006. Redefining the ‘rural question’: The new ‘politics of the rural’ and social policy. *Soc. Policy Adm.* 40 (6), 579–595. <https://doi.org/10.1111/j.14679515.2006.00521>.
- Woods, M., 2007. Engaging the global countryside: globalization, hybridity and the reconstitution of rural place. *Prog. Hum. Geogr.* 31 (4), 485–507. <https://doi.org/10.1177/0309132507079503>.
- Woods, M., Fois, F., Heley, J., Jones, L., Onyehialam, A., Saville, S., Welsh, M., 2021. Assemblage, place and globalisation. *Trans. Inst. Br. Geogr.* 46 (2), 284–298. <https://doi.org/10.1111/tran.12430>.