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Shifting to quality wine production in France's Midi: Ethnographic notes from the Department of the Hérault

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1. Introduction

For most of the 20th century, the wine region of Languedoc-Roussillon (L-R) in southern France – also known as the Midi wine region – was best known for its productivism. The region's vineyards – the world's largest in extent and most productive by volume (Loubère, 1990; Simpson, 2011) – sustained vinification of largely generic red and reasonably priced table wines (Touzard and Laporte, 1998). Much of this wine was sold in bulk to intermediary merchants (*négociants*) who blended and bottled under their own labels and who sold predominantly to domestic urban working class families (Crowley, 1993; Le Bras, 2013, 2020; Loubère, 1990; Simpson, 2011). This productivist or quantity-oriented model of Midi wine-making – a glaring exception to the quality model for which France is better known – emerged in the aftermath of the late 19th century phylloxera crisis (Gale, 2011) and featured intensively managed high yielding monocultures and, increasingly over time, the systemic use of synthetic chemical treatments to control competing vegetation, pests and diseases (Loubère, 1985, 1990). A predominance of Midi wine-growers – including independent *vignerons* as well as a substantial class of small-scale growers who vinified cooperatively – competed on the basis of price, not quality (Simpson, 2011).

However, beginning in the late 1960s and accelerating through the 1980s, Midi wine makers began to place increasing emphasis on quality wine (Touzard et al., 2008; Touzard and Laporte, 1998). Change was precipitated by, *inter alia*, recurrent crises of over-production, evolving domestic and international wine markets (including declining domestic demand for table wine), and the formation and evolution of the EU Common Agricultural Policy (CAP) including the common wine market.

This transition, now deeply entrenched, has become known colloquially as the “shift to quality” (Crowley, 1993; Filippi, 2012; Garcia-Parpet, 2007, 2008; Jones, 1989; Montaigne, 1999; Touzard and Laporte, 1998).

The Midi's shift to quality has been heralded by wine enthusiasts.¹ However, when viewed through the lenses of rural economic restructuring and agrarian transformation, it also amounts to an uneven socio-ecological “sorting out”, what Touzard and Laporte (1998, p. 44) referred to as a “*grande transformation*” marked by far-reaching technical, economic, political, social (and to this should be added agronomic and ecological) changes. It is also, however, a regionally distinct quality model which can be wholly understood neither as a convergence with broader French norms of quality wine production, nor as the uptake of established norms in post-productivist, quality-oriented and “alternative” EU agro-food production and regulation (norms well discussed by, *inter alia*, Barham, 2003; Bowen, 2010; Bowen and Mutersbaugh, 2014; Chiffolleau, 2009; Goodman, 2004). Instead, the Midi shift to quality represents something of a hybrid of so-called Old World and New World models of quality wine-making and marketing (Garcia-Parpet, 2007, 2008), one that has been informed both by the emergence of more sustainable practices and by re-articulation of independent and cooperative modes of vinification.

In this paper, we explore some of the dynamic and sometimes contradictory features of the restructuring of the Midi's wine sector by drawing extensively on ethnographic encounters with three people engaged in wine making in the Midi Department of the Hérault.² Informed by ongoing and more extensive multi-method research in the region, the ethnographic focus of this paper stems from our conviction that the complex dynamics of the ongoing shift to quality are decisively

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¹ See e.g., Bertolot, L. (2019). Why Languedoc has Your Next Best Wine. *Forbes*, Jan. 29, 2019, <https://www.forbes.com/sites/lanabortolot/2019/01/29/why-yo-u-should-drink-languedoc-wines/?sh=4b9aea9f7924>; also Asimov, E. (2012). The Untamed Region. *Nov. 26, 2012*, <https://www.nytimes.com/2012/11/28/dining/reviews/rolling-with-changes-of-wines-from-languedoc.html>.

² The Hérault is one of four Departments comprising the Midi wine region, and is also one of five Departments in the Languedoc-Roussillon region which was administratively subsumed into the larger Occitanie in 2015. For clarity, however, references to the L-R wine region and Midi wine region are synonymous.

shaped by the experiences, choices, and contestations of people in the region whose daily lives are centred in the practices of agrarian livelihoods and of care for the land³ (Alarcon et al., 2020; Krzywoszynska, 2016). By focusing on three interview subjects, we aim to convey some of the ways their lived experiences derive from and help to illuminate broader regional socio-ecological transformations.

Before narrating the three ethnographic encounters, we provide a more detailed portrait of changes in the Midi wine sector over the course of recent decades. In doing so, we focus on three inter-related questions.

1. How do individual growers and others involved in the Midi wine trade experience but also shape the shift to quality, particularly in relation to opportunities and constraints imposed by markets, wine appellation rules, and formal and informal norms of material and semiotic practice? In this, we are attentive to the ways that the meaning of quality is, to some important extent, emergent. In general, the term “quality” as it applies to agro-food products – recognized by geographical indicators (GIs) or not – is an elusive and sometimes contradictory one defined by far more than the material properties of the products themselves. Indeed, in scholarly and policy circles, quality may reference, *inter alia*, specific organoleptic or other physical product attributes; social relations involved in production (e.g., “artisanal” or cooperative) and distribution; the socio-economic and cultural profile of consumers and consumption practices (Guthman, 2003; Roseberry, 2002); agrarian and other production practices that are more environmentally benign; collaborative relations between farmers and consumers (e.g., community supported agriculture); and the imprint of place-specific environmental conditions (see variously, Barham, 2003; Bérard and Marchenay, 2006; Bowen, 2010; Bowen and Mutersbaugh, 2014; Buttell, 2001; Goodman, 2004; Marsden and Arce, 1995; Mascarenhas and Touzard, 2018). Wine, as an agro-food commodity, is a special case when it comes to the complexities, nuances, contradictions, and dynamism of the modifier “quality” (Krzywoszynska, 2015), including as it emerges from practices of active qualification (Callon et al., 2002; Rainer, 2021) linking production and consumption. This includes the influence of formal and informal conventions (Ponte, 2009, 2016; Ponte and Gibbon, 2005) and of evolving norms of subjective individual and instituted semiotic and material practices of representation and valorization. The role of notable wine GIs such as Champagne come to mind, but also the scoring of wines by so-called super tasters such as Robert Parker (Shapin, 2012). Qualifying wine also includes material practices such as the distribution of wine in bag-in-box (usually signifying plonk) vs bottles (generally signifying higher quality) (Krüger, 2024). All of these dimensions are caught up in the ways that wine is implicated in processes and performances of social distinction and the formation of social capital (Bourdieu, 1984; Overton and Banks, 2015; Overton and Murray, 2013). Thus, it is important to critically interrogate the active definition of quality in the Midi wine sector in ways that depart from established norms in wine production and qualification in France more widely, and further, how those involved in the region’s wine trade navigate the evolving contours of quality and practices of qualification.
2. Building on the first question, how do we understand the role of more sustainable – including organic and biodynamic – viticultural and vinicultural practices within the context of the Midi’s shift to quality? More sustainable agrarian practices are widely recognized as important aspects of the post-productivist turn in agro-food production (Bivar, 2018), helping to define the meaning of both “alternative” and “quality oriented” (Marsden and Arce, 1995) even

if the social relations involved in agro-ecological transitions may adhere to agro-industrial norms (Bowen, 2010; Bowen and Zapata, 2009; Goodman, 2004; Guthman, 2014; Poméon et al., 2019). Until the turn of the century, organic and biodynamic wines were widely seen as being of poor quality, an association that still clings to natural wine. While these views persist, it is clear that more sustainably produced wines are entering the mainstream. Many of the material and semiotic practices involved in producing and qualifying organic wine for example, in the Midi and beyond, follow norms associated with quality wine production and distribution (Le Douarin, 2022; Prudham and MacDonald, 2020). Our paper contributes to scholarship concerning the complex interplay between more sustainable agriculture (and its social dimensions) on the one hand and quality agro-food production on the other by exploring aspects of the Midi’s shift to quality and its foundation in agro-ecological transition practices and social relations.

3. How is the articulation of individual and collective modes of vinification in the Midi implicated in the shift to quality and in more sustainable (specifically organic) wine production in the region? In the Midi wine sector, the shift to quality and the growing emphasis on more sustainable wine making have each presented challenges to the region’s powerful tradition of cooperative wine-making and to the small-scale growers who feature prominently as members of co-ops. Nevertheless, Midi wine cooperatives have been and remain important influences on the trajectory of the quality transformation and in encouraging more environmentally benign viti-vinicultural practices (Mascarenhas and Touzard, 2018; Touzard et al., 2008).

While our paper is focused on the Midi wine sector, it has broader relevance to scholars of rural and agrarian political economy and change. One reason for this is that, as noted, the wine sector in the Midi, and specifically in the Hérault, dominates regional agriculture and agricultural land use. Despite dramatic reductions in vineyard area since the 1960s, in 2022, 72 percent of agricultural enterprises in the Hérault named viticulture as their primary activity while wine grape vines covered just less than half of the Department’s agricultural land.⁴

A second reason is that, as noted, the shift to quality in the Midi draws on New World and Old World models of quality wine making. It thereby diverges in important respects from the dominant and more generalized French quality wine model dating at least to the 1935 French wine laws (Gade, 2004; Loubère, 1990). These laws established the Appellation d’Origine Contrôlée (AOC) wine GI, top tier in the French hierarchy and founded on recognition, prescription and protection of terroir-based wines as products of locally specific combinations of environmental growing conditions together with agronomic and other production practices (Bowen, 2010; Gade, 2004; Loubère, 1990).⁵ The AOC system of designating and protecting agro-food products in France, including wine, became the basis of the EU’s top level GI, the Appellation d’Origine Protégée or AOP, after 1992 (Alston and Gaeta, 2021; Bérard and Marchenay, 2006; Bowen, 2011; Meloni and Swinnen, 2013). It is also widely seen as *the* model for designating and protecting place-based, socially embedded, post-productivist agro-food commodities and their production systems. However, as we discuss in more detail, much of the quality wine from the Hérault (and from the Midi more generally) is Indication Géographique Protégée (IGP) wine, a lower tier in the French and EU GI hierarchy, and one that is less restrictive. This makes the Midi shift to quality of broader relevance to scholarly and policy literatures concerned with understanding evolving

³ To be clear, “care” here is used in the sense expressed by Krzywoszynska (2016, p. 290) not merely as an abstract affect or normative state so much as “a totality of practices” and a “patterning of activities.”

⁴ Direction régionale de l’alimentation, de l’agriculture et de la forêt (DRAAF) (2023). Surface Agricole Utilisée des exploitations en 2022. Available at <https://draaf.occitanie.agriculture.gouv.fr/surface-agricole-utilisee-des-exploitations-en-occitanie-2022-a8144.html>.

⁵ The emergence of Champagne, as an appellation wine and as a region for producing it, is also bound to this story. See Guy (2003).

and sometimes hybridized systems of productivist and post-productivist agro-food production and regulation.

Thirdly, our research and profile of the three individuals in question is informed by and adds to scholarship documenting that agro-ecological transitions undertaken by individual growers are (i) diverse and shaped by context; (ii) influenced by idiosyncratic factors; and (iii) often pursued gradually over time (Chantre and Cardona, 2014; Lamine, 2011, 2017). Though not our focus, these observations are highly germane when reflecting on the ways that growers and wine-makers (whether they vinify independently or collectively) confront the challenges of climate change as an emerging and existential threat to the Midi wine sector.

2. Methodological comments

Before proceeding, some methodological comments are in order. First among these is our decision to narrow the spatial focus of analysis to the Hérault. A single French Department is a more accessible and coherent spatial scale than the relatively vast Midi wine region, encompassing as it does parts of four Departments. Certainly, some of the changes and dynamics we describe are broader in scope than the Hérault; equally, the shift to quality has been experienced differently across the region. However, the Hérault ranks first among Midi Departments in wine production and area of vines cultivated, and has long acted as a hearth of French cooperative wine-making. The Hérault has also borne the greatest brunt of policy interventions aimed at reducing vineyard area and yields while reconstituting varietal composition (Arnal et al., 2013), sometimes attended by contestation and controversy (Barthel-Bouchier and Clough, 2005; Jones, 2003; Smith, 2020; Torres, 2006). In this context, the shift to quality has been pronounced within the Hérault and so too uptake of organic and more sustainable practices by Departmental growers and wine-makers (see e.g., Alarcon et al., 2020). It also bears noting that Departments are a legible spatial reference within France and are “small enough” to capture a coherent socio-ecological context, with considerable statistical information about French agriculture also available by Department.

Secondly, our focus on three individual research subjects is informed by critical ethnographic scholarship in the political economy and political ecology traditions (see e.g., Franquesa, 2018; Guthman, 2019; Hart, 2006; Li, 2014; William Roseberry (1988), 1997; G. Smith, 1991; Wolf, 1982; Wolford, 2010), including work focused specifically on viti-viniculture (Lem 1988, 1995, 1999; Ulin, 1996). Thus, we examine broader institutional and structural changes shaping the Midi “winescape” (Crowley, 1993) as these are experienced but also shaped by specific people in specific places. Paraphrasing William Roseberry (1988), we see individual subjects as more than mere bearers of social structures even as we recognize (as do our subjects!) the very real ways that wine markets, appellation rules, the CAP, the rules governing organic and other forms of certification, and other broader institutional factors constrain available choices.⁶ We also insist, however, in attending to spatio-temporally variable environmental conditions as influences on human choices and behaviours.

The paper draws heavily on ethnographic engagements with three individuals whose livelihoods are or were based in the wine sector. In each case, we met with the individuals more than once, and in two instances several times. However, we also draw from several years of ongoing multi-method and collaborative research conducted in southern

⁶ Our approach generally draws from a sensibility well-described by Roseberry (1997, p.43) in that it “... is, first, materialist, in its broad assumption that social being determines social consciousness and its more specific assertion that the forms and relations through which humans produce their livelihoods constitute fundamental, and determining, relations in society. It is, second, realist, in its confidence that these forms and relations have a material existence and can be described and understood in thought and text.”

France (see Doncieux et al., 2022; Prudham and MacDonald, 2020). Our research methods have included semi-structured interviews and site visits with approximately 120 growers and wine makers (independents and cooperators); staff at roughly ten wine cooperatives; and others associated with the region’s wine sector (e.g., oenologists, wine merchants, staff and officials with appellation syndicates, and staff of government and non-governmental organizations). We have also engaged in participant observation at wine trade shows, at organized tastings, vineyard tours, and in the pruning of vines and the harvesting of grapes. Finally, we collected and analyzed 60 responses to a short survey of independent wine makers at the 2022 Millésime Bio organic wine trade show in Montpellier.

The three people we profile here are differently inserted into the shift to quality. Two are independent wine-makers, essentially small-scale petty commodity producers, the other a Director of a wine cooperative.⁷ Two are French (but only one is from the Midi). One of the three came from another country and another vocation to commence a second career in wine-making, embodying a narrative that features prominently among a newer generation of independent Midi wine makers who have helped to animate the shift to quality, taking advantage of relatively reasonable vineyard prices and comparatively fluid norms of quality wine making in the region.

3. Changes in the Midi winescape

In this section, we situate our three ethnographic accounts within the shifting Midi winescape, focusing on three aspects. The first of these is dialectical interplay of regulatory and policy interventions by the French and EU governments with agronomic and technical changes in regional viti-viniculture, resulting in a hybrid model of quality wine making that incorporates aspects of so-called Old World and New World approaches.

After establishment of the EU common wine market in 1962 (Meloni and Swinnen, 2013), regulatory support for productivism (e.g., via price supports) became “complicated” by measures aimed at reducing vineyard area, restricting yields, and uprooting grape varieties deemed undesirable. Among the important landmarks in the emerging post-productivist policy regime was the highly controversial French “Plan Chirac” launched in Montpellier in 1973, introducing restrictions on yields and subsidies to encourage uprooting of varietals associated with high yields and/or low quality (including Carignan and Aramon) (Arnal et al., 2013; Crowley, 1993; Gale, 2011; Jones, 1989; Touzard and Laporte, 1998). The French and EU governments also put in place supports for replanting approved “quality” grapes (Jones, 1989), including the Rhône varietals Syrah, Grenache, and Mourvèdre, along with Cabernet Sauvignon, Merlot, Pinot Noir, Savignon Blanc and Chardonnay, all planted in other wine regions in France but also integral to the emergence of the New World wine sector (Garcia-Parpet, 2008; Montaigne, 1999; Simpson, 2011).

These and other interventions helped to achieve significant reductions in total vineyard area and average yields while also inducing varietal re-constitution of Midi vineyards. Total regional vineyard area has dropped precipitously from over 430,000 ha to less than 250,000 ha

⁷ We use the term “petty commodity producer” somewhat loosely or as an heuristic rather than as a formal analytical category to strictly differentiate commodified from non-commodified social relations at the household level (G. Smith, 1985). The key features pertaining to this term include that the land-owning household or family farm is the primary unit of production (and reproduction), that production is primarily for the market (see Harriss-White, 2023; Lem, 1988), that most agricultural inputs are purchased commodities, and that competitive survival rests to a considerable degree on the mobilization of household labour (which may not be formally waged) even if some wage labour may be present. The importance of the PCP form has long been central to the Midi wine region but one aspect of the shift to quality is the growing importance of independent *vignerons* who grow and vinify their own grapes.

(including a drop of 130,000 ha between 1976 and 1996 alone, see Temple et al., 1996); in the Hérault more specifically, vineyard area dropped from over 143,000 ha in 1979 to under 80,000 ha in 2021.⁸ Midi Carignan plantings dropped from 174,850 ha in 1979 to 29,947 ha in 2014 while Syrah plantings increased from 4,029 ha to 40,105 ha during the same period, making Syrah the region's most widely planted variety.⁹ The aggregate result has been significant alteration in rural landscapes (Arnal et al., 2013), experienced by many regional growers as attacks on their identity and as nothing less than a betrayal by the French and EU governments (Smith, 2016, 2020).

Policies aimed at restructuring vineyards and curbing production have been accompanied by the emergence of new wine appellations in the Midi. In the Hérault specifically, this includes the emergence of new AOPs, notably, AOP Saint-Chinian (1982), AOP Faugères (1982), AOP Terrasses du Larzac (2014), and AOP Pic Saint Loup (2016). In addition, the AOP Languedoc continues to serve as an umbrella for numerous sub-denominations, including for example, AOP Languedoc-Pézenas and AOP Languedoc-Grès de Montpellier.

However, considerable quality wine in the Midi is produced using the IGP designation, not the AOP, departing significantly from the French norm (see Table 1). As the table shows, the four principal Departments of the Midi accounted for over 65 percent of all French IGP wine production in 2021. At the same time, IGP vineyards and wines are highly significant within all of the four Departments, but particularly in the Hérault, accounting for roughly 75 percent of total vineyard area and over 80 percent of wine production in 2021.

The most important regional IGP is "Pays d'Oc" which originated in 1987 very much as an effort to help promote quality wine from the Midi with emphasis on export markets (Garcia-Parpet, 2007, 2008; Montaigne, 1999). As befitting a GI, Pays d'Oc wines must be produced from Midi grapes and vinified in the region; the GI also includes some specific viticultural and vinicultural restrictions. And yet as an IGP, Pays d'Oc regulations and norms of wine-making depart considerably from AOP norms. The Midi region, for example, is a massive catchment area and could not reasonably be described as a coherent terroir. The Pays d'Oc appellation in fact includes in excess of 120,000 ha of vineyards, allows an extraordinary 63 different grape varieties, and includes 930 independent vigneronns and 150 cave cooperatives as producers. Pays d'Oc rules permit higher yields than are characteristic of Midi AOPs. They also allow for irrigation while making vineyard compliance inspections exceptional rather than standard, in contrast with AOP norms. Pays d'Oc wines can also be single varietals (indeed many are), in contrast to the blends required by most AOPs. All of these aspects of the Pays d'OC GI facilitate greater degrees of freedom and creativity for wine-makers. In fact, two hallmark features of wines produced under this appellation are qualification relying on the reputation of the grapes used (notably as valorized in the guise of the aforementioned single varietals) and on the name and reputation of the wine-maker (as opposed to the appellation itself) to signify quality, drawing decisively on New World (notably California) quality norms (Ibid). These attributes helped propel rapid

⁸ Data from (Touzard and Laporte, 1998); the Eurostat VIT database (http://ec.europa.eu/eurostat/databrowser/view/VIT_AN5_custom_3130292/default/table?lang=en); and Ministère de l'Action et de Comptes Publique "Production 2021 des Vins par Département". Available at https://www.douane.gouv.fr/sites/default/files/2022-02/28/2021%20-%20Relev%20C3%A9%20par%20d%C3%A9partement%20de%20la%20production%20des%20vins_0.xlsx.

⁹ National data on Carignan N and Syrah N are available from Pl@ntGrape, "Catalogue of grapevines cultivated in France" <http://plantgrape.plantnet-pr.oject.org>. Regional data are from a combination of two sources (Casier Viticole Informatisé (CVI) & FranceAgriMer, 2015; Direction Regionale de L'Alimentation de L'Agriculture et de la Foret, 2014).

growth in Pays d'Oc wine production after establishment of the appellation (Garcia-Parpet, 2008), with Pays d'Oc wines now the most exported French IGP and one of leading export wines from France by volume.¹¹

A second and more recent shift in Midi wine production involves "ecologization" (Deverre and Sainte Marie, 2008; Lamine, 2011) or "greening". In recent decades, an appreciable subset of Midi growers and wine-makers (independents and cooperators) have embraced some combination of.

- Organic and biodynamic agriculture (the latter requires the former);
- *Lutte raisonnée* (i.e., emphasizing minimalist or as-needed agronomic applications of synthetic chemicals);
- Integrated pest management (IPM) techniques; and
- A variety of practices consistent with more sustainable production, including encouraging crops or other plants to grow between rows of vines; polyculture for managing competing vegetation, for pruning, and as a source of manure; hand harvesting of grapes; and reduction or outright elimination of wine additives such as sulphur. These practices may be recognized through certification programs distinct from organic and biodynamic labels including *Haute Valeur Environnementale* (HVE), and *Vignerons Engagés*.

Ecologization in the Midi wine sector reflects broader departures from industrial and productivist agriculture, including within France (Bivar, 2018; Deverre and Sainte Marie, 2008; Lamine, 2011; Poméon et al., 2019). Nevertheless, embrace of more sustainable viti-viniculture has been strongly evident in the Midi and is a central point of emphasis and discussion in the sector. For example, the Midi has experienced particularly rapid rates of organic vineyard conversion in recent years (AgriFrance, 2020). As of 2020, 36 percent of France's certified organic vineyards and 30 percent of the country's certified viticultural farms were located in Occitanie, the majority of which were in the Midi (Le Douarin, 2022). The Hérault ranks second among French Departments in total organic wine growers, and third in total area of vineyards certified organic or in conversion, representing 17.1 percent of Departmental vineyard area in 2020 (Sudvinbio, 2022) (see Fig. 1). A private organization of organic wine-growers called Sudvinbio, founded in 1991 and based in Montpellier (the administrative capital of the Hérault), has played a central role in promoting and supporting organic wine production, signified in large part by its role in hosting Millésime Bio, the world's largest annual organic wine trade show (see Prudham and MacDonald, 2020).

In general terms, and as our ethnographic profiles reflect, it is important to understand the role of social context as an influence on the uptake of more sustainable practices in agro-food (including wine) production. This includes, for example, the role of formal organic (public) and biodynamic (private) certification programs, expert advice and outreach to farmers at various scales of governance and through social networks of various kinds (Chantre and Cardona, 2014; Lamine, 2011, 2017). *Ecologization* is also best understood as a process that may extend over time, and as a bundle of relational practices located along a spectrum from "weak" to "strong" (Ibid). Moreover, there is considerable diversity in the trajectories that wine growers and wine makers follow, shaped by the broader political economic context (including, obviously, market demand and French and EU policy regimes) as well as the biographies and social networks specific to individual growers (Alarcon et al., 2020). The latter include not only ties between independent growers, but also the role of nurseries and state sponsored researchers, as well as viticultural cooperatives acting as social and advice

¹¹ Data on Pays d'Oc from INAO Cahier des charges de l'indication géographique protégée « Pays d'Oc » (https://www.inao.gouv.fr/show_text/e/5643); Pays d'Oc IGP "Les Chiffres Clés 2022"; and <https://www.paysdoc-wines.com/>

Table 1

Vineyard area and wine production by type, 2021, select French Departments. The Gironde (Bordeaux) is included for comparison as France's largest wine producing Department and one that exemplifies the more conventional French quality model based on production of AOP¹ wines.¹⁰

Department	AOP vineyard area in production (ha)	AOP vineyard area in production as a percentage of total	IGP vineyard area in production (ha)	IGP vineyard area in production as a percentage of total	Total AOP production (hl)	Share of AOP Production in Total	Total IGP production (hl)	Share of IGP Production in Total
Aude	26,519	36.6%	42,791	59.1%	535,560	18.9%	2,131,753	75.1%
Gard	18,202	34.7%	32,090	61.2%	790,319	29.9%	1,702,091	64.4%
Hérault	16,038	20.1%	59,884	74.9%	503,816	14.7%	2,747,629	80.3%
P-O	12,541	64.9%	5786	29.9%	302,937	56.1%	212,043	39.3%
Gironde	109,874	96.8%	378	0.3%	3,820,576	94.5%	22,496	0.6%
Total (France)	449,425	58.4%	202,445	26.3%	15,923,472	42.9%	10,158,471	27.4%

Source: Ministère de l'Action et de Comptes Publique "Production 2021 des Vins par Département". Available at https://www.douane.gouv.fr/sites/default/files/2022-02/28/2021%20-%20Relev%C3%A9%20par%20d%C3%A9partement%20de%20la%20production%20des%20vins_0.xlsx

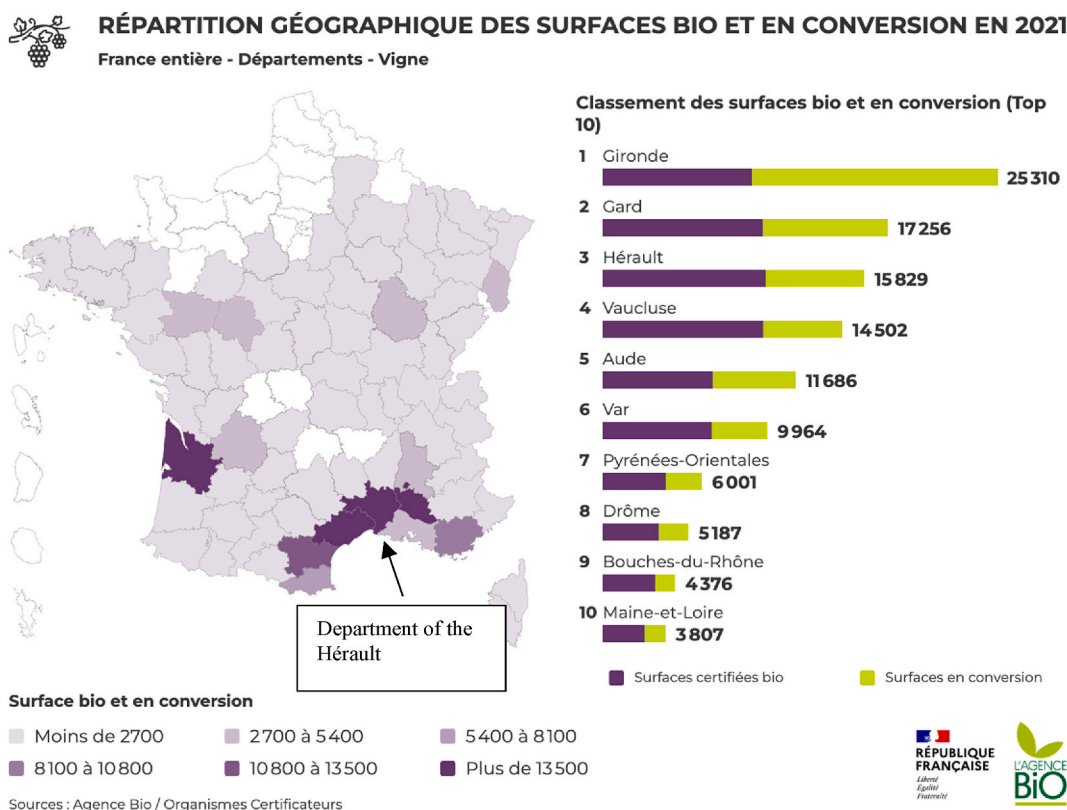


Fig. 1. Area of organic vines certified or in conversion, 2021 (Adapted from Agence Bio, <https://www.agencebio.org/vos-outils/les-chiffres-cles/observatoire-de-la-production-bio/observatoire-de-la-production-bio-nationale/>)

networks (Doncieux et al., 2022; Chiffolleau, 2004, 2005; Chiffolleau et al., 2007; Touzard et al., 2008).

The relationship between *ecologization* of Midi wine production and the shift to quality in the region is complex and somewhat contradictory. We emphasize again in this context that the meaning of quality, in the agro-food sector in general and in the Midi wine sector in particular, is emergent, contested, and produced through complex entanglements of material and semiotic practices of qualification. It is relevant in this respect that independent (as opposed to cooperative) wine-makers are more strongly represented within the organic and biodynamic wine trades (see Prudham and MacDonald, 2020); while half of French vinification is accounted for by cooperatives,¹² almost three quarters of French organic wine is produced by independent *vignerons* (Le Douarin, 2022). In general terms, French organic wine producers also place

greater emphasis on export markets; on the production of bottled (as opposed to bulk and bag-in-box) wine; on direct sales rather than sale to *négociants*; and on producing appellation wine (including both AOP and IGP) (Mercier, 2016). All of these are established signifiers of quality (i. e., they are strongly associated with quality independent of the organoleptic properties of actual wine) (e.g., on the practice of bottling, quality, and wine valorization, see Krüger, 2024).

The third aspect of the shift to quality we highlight concerns dynamic re-articulation of independent and cooperative modes of vinification. Of particular concern is the manner in which viticultural cooperatives that have long featured prominently in the Midi winescape have adapted to and participated in growing emphasis on quality wine-production and processes of *ecologization*.

Cooperative viticulture in the Midi dates at least to the establishment *Les Vignerons Libres* just outside the Hérault city of Béziers in 1901 (Cooper, 2003; Loubère, 1990; Simpson, 2011). Over subsequent decades, cooperatives became a signature institutional feature of the

¹² See <https://www.lacooperationagricole.coop/filieres/vignerons>.

region's quantity model emphasizing bulk production of generic wine (Filippi, 2012; Simpson, 2000; Temple et al., 1996; Touzard, 2011; Touzard et al., 2008). At their peak in the 1970s, viticultural cooperatives accounted for 70 percent of Midi wine production while 90 percent of regional growers (many of them smallholders) were co-operators (Loubère, 1990; Temple et al., 1996; Touzard and Laporte, 1998). Viticultural cooperatives helped secure social reproduction for small-scale growers through improved economies of scale in wine-making, storage and marketing and by pooling economic and environmental risks (Knox, 2000; Simpson, 2000, 2011; Temple et al., 1996; Ulin, 1996). They also became integral to agronomic knowledge and labour sharing, and to the formation and expression of class, community, and regional identity (Chiffolleau et al., 2007; Chiffolleau and Touzard, 2013; Lem, 1988, 1995, 1999; Loubère, 1985; A. W. Smith, 2016).

The shift to quality has presented significant challenges to Midi viticultural co-ops (Loubère, 1990; Touzard, 2011; Touzard and Laporte, 1998). While cooperatives still produce about two thirds of the region's wine by volume, membership has declined substantially because of a combination of retirements in the absence of familial succession (in some instances accelerated by the acceptance of payments for uprooting vines); members leaving to become independent *vignerons*; and sales of vineyards to third parties looking to establish or expand their own private wine-making operations. Meanwhile, the aggregate number of Midi cooperatives has dropped from a peak of over 550 in the 1970s to less than 300 in 2010 (Touzard, 2011), due in significant part to a wave of mergers or fusions between two or more local cooperatives. Fusions have helped offset the loss of members and vineyard area while increasing efficiencies in administration (Touzard, 2011; Touzard and Laporte, 1998), but have deprived many small villages of one of their institutional pillars (see Fig. 2).

It would be incorrect, however, to say that the shift to quality has been imposed on or taken place solely at the expense of Midi wine cooperatives. Many have re-oriented toward quality wine production, embracing in various combinations: a move toward bottled wine sales (though bulk sales remain important); new approaches to marketing (e.g., entering wines into tasting competitions seeking medals that are important in promoting wine); reformed governance structures and differential remuneration schemes (notably paying premiums for higher quality grapes); vinifying and explicitly marketing quality wines produced from the select grapes of a subset of members; new agronomic practices including yield restrictions and more sustainable viticulture; and the aforementioned fusions which, while typically offering savings in administrative costs, can also allow for improved economies of scale and scope in vinification and marketing (Chiffolleau, 2005; Jarrige and Touzard, 2001; Mascarenhas and Touzard, 2018; Temple et al., 1996). Touzard et al. (2008) noted that, by 2008, of the Midi's then 360 operating wine cooperatives, 65 percent were producing wines of quality (i.e., some combination of AOC, IGP and single varietal wines), up from 20 percent in 1980. They also noted that 55 percent of the region's cooperatives had (by 2008) adopted differential grape remuneration schemes for members. Some regional cooperatives are also providing incentives for young farmers to buy vineyards and, in some instances, are exploring direct acquisition of land (traditionally rare for viticultural cooperatives).¹³

Such changes are aimed at improving competitiveness and viability, but they can also undermine organizational solidarity (Chiffolleau, 2004; Temple et al., 1996; Touzard, 2011; Touzard et al., 2008). Moreover, when it comes more sustainable viticulture, formal organic and biodynamic certification comes with specific challenges to cooperators and cooperatives alike. For many small-scale growers who disproportionately populate viticultural cooperatives, financial and administrative costs of formal certification and compliance are fixed or scale inversely with farm size. Conversion typically also means lower yields and higher yield volatility which can pose existential threats to farms already at the margin of viability. Embrace of more sustainable agronomic practices, including organic and biodynamic farming, also tends to require increased farm labour intensity (Dainelli and Daddi, 2019; Mercier, 2016). For example, eliminating the use of synthetic herbicides may require additional tilling to control weeds. Again, this may be a particularly significant obstacle for marginal and/or part-time growers (the latter also being common within cooperatives).

Institutionally, wine cooperatives face logistical obstacles to producing organic and/or biodynamic wines, not least the need to partition conventional and organic or biodynamic grapes in order to produce certified wine. In some instances (e.g., the Hérault's Faugères cooperative), fusions help address this issue if one vinification facility is devoted exclusively to organic wine production. However, the costs of maintaining multiple vinification facilities can make this impractical for some cooperatives and can undermine the cost efficiency gains of fusions. Moreover, logistical issues aside, any partitioning of member grapes for separate vinification and valorization may threaten cooperative solidarity.

Still, numerous Midi cooperatives are embracing more sustainable viti-viticulture (Chiffolleau, 2005; Mascarenhas and Touzard, 2018), including formal organic and biodynamic certification for some or all of their growers. The Héracles cooperative, located in the Department of the Gard about 10 km outside the Hérault but with member farms located in both Departments, is now 100 percent organic. Héracles sells most of its wine in bulk, including to prominent Midi *négociant* Gerard Bertrand who has in turn championed the marketing of organic and biodynamic quality wines from the region. The Héracles cooperative has also taken other steps, including construction of a new vinification facility with advanced energy (e.g., passive cooling) and water conservation features (personal communication).¹⁴

Restructuring of the Midi winescape has also featured important changes to the independent sector. While the total number of independent wine-makers in the Midi has dropped alongside reductions in total vineyard area, some of the largest estates have been broken up as part of the emergence of what Touzard and Laporte (1998) refer to as the "*le nouveau domaine viticole languedocien*", i.e., a resurgence among independent family-owned and operated, (mostly) petty commodity producing wineries with vineyard holdings generally in the range of 15–30 ha.¹⁵ While these are not large estates in conventional terms, they are large relative to the sorts of small properties that have long sustained Midi wine cooperatives (Simpson 2011).¹⁶ Moreover, and as noted previously, independent *vignerons* have disproportionately animated the Midi organic and biodynamic wine-makers movements (Le Douarin, 2022; Prudham and MacDonald, 2020)

Our review of the contours of ongoing restructuring in the Midi wine sector – including increasing emphasis on quality and more sustainable

¹⁰ P-O refers to Pyrénées-Orientales.

¹³ Cooperatives that have embraced quality wine production include the celebrated Castelmaure cave cooperative in the Corbières (Department of the Aude). They also include cooperatives in the Hérault such as La Gravette de Corconne north of Montpellier and the L'Estabel cooperative, founded in 1938, which played a dominant role in the formation of the AOP Languedoc - Cabrières wine appellation in 1985 and whose members own over 75 percent of the classified vineyards (personal communication, 2022; see also <https://cabrieres.fr/?p=381>).

¹⁴ See also <https://caveau-heracles.com/content/8-valeurs-et-innovations-du-caveau-vin-sans-sulfite>.

¹⁵ To be clear, the 15–30 ha range is our number. Touzard and LaPort (1998) specify average vineyard holdings of 32 ha for the independents as of the time of their paper, but this number would still be skewed by larger estates and many private domains are comprised of much less than 30 ha of vines.

¹⁶ Jones (1989) notes that in the late 1980s, more than 56 percent of Midi wine-growers owned 5 ha of vines or less.



Fig. 2. Cooperative building in Montarnaud, a village located roughly 25 km NW of Montpellier. This cooperative was fused into a much larger, regional cooperative called l'Ormarine. The building lies unused as of this writing. Photo by one of the authors.

viti-viniculture – provides a sense of general trends, but it lacks nuance or any insight into how specific actors experience and actually shape these dynamics. Our focus in what follows turns to three such actors. Each, in different ways, helps to demonstrate the ways in which the specific choices and practices of growers, wine-makers, and others are articulated with and give shape to the changing Midi winescape.

4. Ethnographic Profiles

4.1. X

Our first visit in the field with X took place on a sunny morning in August. We met in a village located near the vineyards X and their spouse own. The village is one of a cluster of communes that makes up one of the Hérault's best known and established AOPs, and much of the vineyard area around the town is classified for AOP production (see Fig. 3).

X does most of the work in the vineyards, operating out of a half-finished shelter located about 500 m aside and 60 m above the main road leading south from the aforementioned village. The shelter had a small unfinished interior space with a kitchen, a toilet, four chairs, a table, and a small, rusted barbeque in the front. We sat on the small porch to talk and to drink the coffee X made.

The family home, vinification facility and small tasting room (which we also later visited) are located in another small settlement located about 15 km away. While this makes for a considerable amount of driving back and forth, such arrangements are part of the daily routine for many of the region's wine-growers as they move between home and vines, but also from one parcel to another in instances where land-holdings are fragmented. X noted the value of their farm's vineyards being contiguous.

X and their spouse are part of a substantial cadre of wine-makers from elsewhere who have established farms in the Hérault, drawn by reasonably priced land and the opportunity to express their own wine-making styles. Echoing another familiar theme in the area, they bought their first vineyards from a former cooperator (in 2013). Before the purchase, X gained experience working in the wine trade elsewhere in France and overseas, then after for a nearby independent *vigneron*. X is also one of many growers, wine-makers, and oenologists with whom we have spoken who obtained formal training in Montpellier, in this case in viticulture and oenology. Montpellier, with its dense network of national laboratories integrated with regional universities and research centres, has for decades served as a centre of agronomic, viticultural, and

vinicultural expertise and education. Indeed, the city's scientific community was integral to addressing the phylloxera crisis of the late 19th century that devastated France's vineyards (Gale, 2011). More recently, it has been of central importance in helping to animate the shift to quality wine production.

In total, X and their spouse own almost 30 ha of land, two thirds of which is planted with vines, the rest comprised of scrub woodland (*garrigue*) dominated by kermes oak (*Quercus coccifera*) and holm oak (*Quercus ilex*). The vineyards reach 300 m of elevation, relatively high for the area, but as X explained, better quality wines are often produced from vines on upland slopes featuring better drained soils and wider diurnal temperature swings, the latter facilitating development of higher acidity in the grapes. Yields, however, are reduced at higher elevations. X noted specifically (as have numerous other growers) that vineyards on higher ground are more desirable in the context of the shift to quality but also as a buffer against the intensifying heat of regional climatic change.

All of the farm's vineyards have been certified organic since 2016; the farm is also certified biodynamic. X described a commitment to environmentally benign practices that goes beyond the requirements of formal certification in either respect, exemplifying multi-functional agriculture of the sort increasingly favoured in EU policy (Bowen and Mutersbaugh, 2014). For example, X showed us uncultivated areas left as leave strips to encourage biodiversity, and discussed their practice of polyculture, raising cows, pigs and donkeys in part to allow them to graze competing vegetation between the rows of vines during winter. The fact that the animals control but do not eliminate plants growing among the vines reduces the need for tilling, helping to combat soil erosion that can be particularly severe during violent rainstorms ("cévenols") characteristic of the region in the autumn. The animals also provide manure that helps restore soil nutrients. X further noted that the donkeys feed on small shoots on the vines during late winter and early spring, reducing highly labour intensive pruning work that is integral to controlling yields and thus to producing higher quality wine. X expressed some disappointment that so few growers in the area practice polyculture while acknowledging that not everyone has sufficient land to make it economically practical.

We discussed the fact that the previous owner of the farm was a member of a vinicultural cooperative, and how X and his spouse in this respect reflect and reinforce important changes in the Midi winescape. At the time of our conversation, X and their spouse remained members of the cooperative in question, but they committed grapes from only 5 ha to it while vinifying the rest independently. X recognized the importance of cooperatives, readily acknowledging that the institutions help small-



Fig. 3. Vineyards in the north-central Hérault amidst hills and garrigue not far from X's farm. Photo by one of the authors.

scale growers remain viable. X also said it was important to participate in the cooperative as a way of developing and maintaining “good relations” with other growers in the area, and to share knowledge relevant to local viticulture. X cited ongoing membership in the cooperative as a kind of “insurance” for growers who are also independent *vignerons* (though this is not particularly common based on our research perhaps because many cooperatives actively restrict it via contract terms). Significantly, the cooperative to which X and their spouse belong is one that provides a monthly stipend (independent of the size and quality of annual harvests) in exchange for binding two-year membership contracts. This is a departure from the traditional and widespread practice among regional cooperatives of paying members strictly based on the weight of grapes they deliver.

And yet, X explained, deciding whether to remain in the cooperative is “complicated”. One issue is that, when we discussed this issue, X and their spouse were the only organic growers among the members. X expressed frustration with this, echoing what we have heard from both organic and conventional growers; *ecologization* of agronomic practices can be a source of tension and division within the structure of viticultural cooperatives. This is in part because embracing more sustainable agronomy is personal and represents an explicit or implied judgment of the practices and choices of neighbours and peers. These issues take on an amplified character within a cooperative institution in which growers are co-owners and partners in making and marketing wine.

Moreover, for X and their spouse, producing and marketing their own wines has become an important means of expressing their identity, their practices, their ethos, and the singularity of their terroir. While faith to terroir in wine-making is a commonly expressed sentiment in French circles (Gade, 2004; Parker, 2015; Trubek, 2008), for many

vignerons this sentiment is intensified through their embrace of more sustainable viti-vinicultural practices (often prominently featured in marketing materials) which are sometimes explained as means to better express terroir (Hill, 2021; Prudham and MacDonald, 2020). In this light, it is highly significant that the cooperative to which X and their spouse belong offered to make and market wine uniquely from grapes grown on their farm. X described the offer as an incentive to remain in the coop, but it represents a departure from established practise and one that comes with the risk of dividing co-op members, particularly when based on a system of differential remuneration for member grapes.

X expressed some hope that the offer from the cooperative, if it were to come to fruition, might convince them to stay on as members, at least in the medium term. Still, later, on a separate visit to their private tasting room, it became clear that X and their spouse are taking steps to more firmly establish themselves as independent producers of quality wines. Indeed, we have encountered X and their spouse at wine trade shows promoting their own wines.

We also discussed the challenges of producing higher quality wine, including how appellation rules come into play. X explained that producing under the rules of the local AOP means controlling yields while also using only permitted grape varieties in blends that fall within prescribed proportions. In the AOP in question, no less than half of the volume of red wine must come from a combination of Syrah, Mourvèdre, and Grenache. These three varieties have featured prominently in the reconstitution of Hérault vineyards during recent decades while more traditional regional varieties such as Carignan have been discouraged. Significantly, Carignan is allowed only as an accessory variety in the AOP applying to X's vineyards. The local AOP rules also explicitly prohibit single-varietals. X expressed a specific concern with the way

that appellation rules regarding yield restrictions combined with variable growing and market conditions create uncertainty from year to year. Restricting yields as required by the AOP rules, for example, would ideally pay off given that AOP wines tend to sell for higher prices than, say, IGP wines (which allow for higher yields). But there is no guarantee (Montaigne, 1999), and, moreover, the decision needs to be made early during the growing season, before the quality and price of the year's vintage can be known. X further lamented the way appellation rules restrict not only wine-maker creativity but also adaptation to changing growing conditions. And X lamented the loss of regional heritage and identity that has come with extensive uprooting programs while stating that some of the older and now discouraged grapes, and specifically Carignan, are ironically better adapted to local growing conditions, including extremes of heat and drought that are intensifying as the region's climate changes.

Along with a group of other Midi *vignerons*, X has been involved in an initiative to re-valorize Carignan as a quality Midi grape. X spoke enthusiastically about the qualitative properties of Carignan when the vines are older and grown on well-drained, non-irrigated upland sites. X acknowledged Carignan's reputation for making low quality wines, but pointed out that this reputation was earned by Carignan grown in highly intensive, environmentally damaging agronomic regimes on flatter land closer to the sea (regimes X specifically called "crazy"). X argued that policies discouraging Midi Carignan plantings had something of the character of throwing the baby out with the bathwater.

X and their spouse actually produce a pure Carignan wine from grapes they grow on vines in excess of 100 years old. The wine is marketed as a Vin de France or table wine, traditionally the lowest quality tier. This practice exemplifies some of the opportunities but also the risks of being an independent wine-maker in the Midi amidst the shift to quality. Eschewing the AOP in this instance makes it possible to produce a single-varietal wine while also avoiding rules regarding planting density, pruning techniques and irrigation, all of which are aimed at suppressing yield. But marketing a Vin de France wine also requires X and their spouse to rely more heavily on their reputations and word of mouth as forms of qualification without recourse to the AOP GI as a marker of quality.

4.2. Y

Y is a former Director of an Hérault cooperative, having served in that capacity for eight years prior to our most recent meeting. We spoke on several occasions, with the most extensive interview taking place in Y's office on a sunny and hot mid-July afternoon. The staff of the cooperative welcomed us into a small wine shop located at the entrance to the facility, itself just opposite the centre of the town. Most of the region's cooperative vinification plants feature retail outlets on site, but the shops vary considerably. Some are extremely plain and seem set up primarily to serve members and local residents, at times complete with a sink and hoses connected directly to tanks of wine for filling member bidons (see, e.g., Fig. 4). But others feature renovated shops that emphasize direct bottle (in contrast to bulk) sales and features such as tasting counters and photographs of local vineyards and wine-makers, all catering to oenotourism (two examples in the Hérault are La Gravette de Corconne and Vignobles des 3 Châteaux, both located within 50 km of the important Montpellier market). The shop at Y's cooperative was fairly modest, but had recently been re-designed. Bottled cooperative wines were prominently displayed, including those that had won medals in national and regional wine trade shows.

The cooperative where Y worked is located in a hilltop town surrounded by vineyards of the Hérault's Mediterranean littoral, roughly 30 km from the sea. Most members have parcels of vines nearby at elevations between 50 and 100 m, although some have farms further away at elevations in excess of 200 m. The lower elevation vineyards feature a mix of terroirs, including siliceous gravel, clay gravel, and sandy soils, all exposed to intense summer sun and heat but cooled by winds blowing



Fig. 4. Cooperative equipment for dispensing wine into re-useable bidons, a marker of the productivist era in that wine is dispensed in bulk, but perhaps also prefiguring more sustainable forms of local wine distribution.?. NOTE: This photo is not from the cooperative at which Y worked. Photo by one of the authors.

from the Cévennes mountains to the northwest and by the moderating influence of the nearby sea. Member vineyards located at higher elevations feature a mix of better drained schist and volcanic soils and experience somewhat cooler nights. These latter vineyards, in general terms, are better suited to quality wine making. One of Y's responsibilities, working with the cooperative's Board of Directors, was to help lead a transition toward greater emphasis on quality wine production, including via fusion.

Y's cooperative is one of many in the region that have experienced fusions between one or more precursors. In this instance, two formerly independent cooperatives both founded in the late 1930s and located in villages roughly 15 km apart were fused into one. Vinification and all the administrative functions were consolidated into a single location. The second facility was retained, but only as a distribution centre with a small shop for direct sales. Y noted that maintaining a commercial presence in the village where vinification and administrative functions were discontinued was important in securing political support for the fusion from members from that village and its environs.

Y cited four main factors underlying the fusion. One was a damaging storm featuring extensive and highly destructive hail that Y said "effectively destroyed that year's harvest" for many members, creating financial pressure on them and their cooperative. A second factor involved the aforementioned gains in economies of scale in administrative functions as well as in vinification, facilitated in part by the fact that both cooperatives were already selling bulk wine to the same *négociant*. We asked if this latter rationale suggested a "doubling-down" on the quantity model, but Y argued the opposite, stating that the

négociant in question had an interest in marketing quality wine. A third factor was that the merger allowed for greater efficiencies in the production of bottled wine. Bottling wine, as noted earlier, is a material practise associated with quality wine and as Y explained, while returns on bottled wine tend to be higher and less volatile, costs are also higher and to some extent fixed if the cooperative runs its own bottling facility (some rely on mobile bottling units). In this context, the fusion specifically allowed the merged cooperative to make more efficient use of a recently installed bottling facility. Lastly, Y noted that the merger allowed the cooperative to diversify production across a wider range of appellations, including two different IGP sub-designations as well as the AOP Languedoc. Y explained that expanding and diversifying vineyard holdings in this way provided some safeguards against environmental risks that can be localized, as the damaging hail storm had shown, while also providing economies of scope in producing across appellations (advantageous if, for example, margins in one appellation are higher and/or less volatile at any point than in others). Of course, as Y also acknowledged, there are administrative and technical challenges to producing in and thus adhering to the rules of multiple appellations.

At the time of our longest conversation, Y noted that there were 130 growers in the co-op owning a combined 750 ha of vineyards. Thus, average landholdings were approximately 5.8 ha per grower. This average is misleading, however, since one member owned over 40 ha of vineyards, and another a mere 0.5 ha. Y noted that most of the members owned less than 5 ha of vines, that only 20 of the members were full-time growers, and that the majority of part-time growers worked off farm. Y's cooperative thus exemplifies the reliance of many of the region's small-holding viticulturalists on cooperative vinification.

The cooperative produced on the order of 50,000 hL of wine per year. When we spoke, Y's cooperative produced exclusively wines from grapes blended from multiple farms and sold under cooperative labels. Y did indicate that the organization was giving consideration to producing higher quality wine from select grapes from a single farm or from a small group of farms and then marketing it as such, paying premiums to the members. But, Y confirmed that this is a sensitive issue and that it had the potential to undermine cooperative solidarity.

At the time of our site visit, the cooperative did not produce certified organic wine. But a small group of members were in the midst of organic conversion, actively supported by cooperative leadership. Following certification (a three-year process), the cooperative was planning to market organic wine, inspired in part by a desire to reward and retain the growers in question. Y discussed how conversion to organic growing and the production of both organic and conventional wine in the cooperative would present particular challenges, economic, logistical, and political. This includes the partitioning of conventional and organic grapes throughout the vinification process in order to comply with the terms of organic certification in the EU. Y explained that maintaining two vinification facilities was not a practical option for the cooperative because doing so would undermine the cost savings arising from the fusion. Thus, the plan was to sequence and separate the handling, processing, and vinification of organic and conventional grapes and to partition storage of the resulting wine, an approach that comes with its own costs and logistical challenges. Moreover, and as Y noted, tensions could arise between conventional and organic growers in the cooperative, weakening organizational solidarity and compromising governance, particularly if the cooperative's remuneration scheme were to feature higher prices paid for organic grapes. Yet, Y noted that cooperative members have little incentive to absorb the costs and risks associated with organic certification if their grapes will fetch the same price as conventional ones within the cooperative's remuneration formula.

Echoing X's comments, Y noted that each of these problems, with the exception of the costs of certification and compliance, is a specific manifestation of or is analogous to obstacles cooperative growers face in embracing the shift to quality. Specifically, growing higher quality grapes usually means increasing agronomic labour intensity, for example, in pruning and training vines to suppress yields (whether or

not required by appellation rules). Shifting to manual grape harvesting, widely associated with higher quality, also means more labour time. Cooperative growers – particularly part time ones – are less likely to embrace agronomic practices or new administrative burdens in growing grapes for quality wine production if their cooperative is not prepared to at least offset the added cost of doing so.

Since our last conversation with Y, the cooperative in question has commenced production of certified organic wines. In addition, on January 1, 2022, the EU organic regulatory statute¹⁷ introduced new measures intended to make organic certification easier and less costly for groups of small-scale farmers (i.e., 5 ha or less), including those involved in producer cooperatives. These measures include reducing inspection and other administrative costs by allowing small-scale growers with farms located close to one another to pool their farms into a single administrative entity for the purposes of organic certification. Future research is needed to demonstrate what effect these measures will have. But any outcome will implicate the viticultural cooperative form, models of cooperative governance, and the positionalities and decisions of cooperative Directors like Y, other staff, elected officers, and the members more generally.

4.3. Z

We spoke with Z on several occasions, including during two extended visits in the tasting area attached to their wine making facility and family home. The location is a small village in the foothills of the Cévennes mountains surrounded by vineyards, most of them classified AOP (to be clear, Z's vineyards are not in the same appellation as those of X). On each of these visits, we spoke on a wide range of topics. Z's spouse, with whom we did not speak, is involved in business aspects of their independent winery, while Z takes the lead in grape growing and wine-making.

Z is one of many wine-makers of international origin who have moved to the Hérault relatively recently and have established reputations for themselves as producers of quality wines. Z previously worked as an urban professional in a different sector and so wine-making is a second career, a version of a narrative we have heard from several other independent wine-makers in the region.¹⁸ In 2008, Z and their spouse bought vines from a member of one of the local cooperatives after searching for suitable vineyards elsewhere in France. Z told us that at the time of purchase the vineyards were in a neglected state and that restoring them took considerable work spread over more than one growing season, requiring help from family and friends. In the end, they chose this location because, as Z put it, the terroir is "unique and fantastic", but also, the price was right, the opportunity was there, and the region's dynamic wine sector and emergent quality model allowed for creativity and flexibility.

The farm includes about 18 ha of vines located around the village where Z lives, though the parcels are somewhat dispersed. The vines are at high elevations for the area, between 300 m and 400 m. Z produces a fairly wide range of wines, including those classified within two distinct AOP's, as well as wines classified as generic Vin de France. Surprisingly, a VdF wine from Z's winery is the highest priced, selling for more than 40 euros per bottle. Z claimed that the same wine, if sold as an IGP, would have to be sold for considerably less because market demand places an effective ceiling on the price of a Pays d'Oc that does not exist for a VdF wine, provided the reputation of the wine-maker can stand in

¹⁷ Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007.

¹⁸ Garcia-Parpet (2000) also notes the importance of former professionals embarking on second careers in wine-making as one source of innovation and social reproduction in the context of new viticultural practices and within an emerging appellation (Chinon).

as a qualifier. While running somewhat counter to the standard narrative concerning GIs as markers of quality wine, there is an important difference in this respect between an AOP and an IGP appellation, one highly relevant to the Midi quality wine model. What Z claimed has also been reported by others with whom we have spoken, including regional *cavistes*.

Z described their approach to viti-viniculture as “scientifically based” and motivated by the idea of “minimal intervention” in the vineyards – including with respect to chemical applications and tilling – and in wine-making. Z professed a desire to avoid whenever possible adding sulphur to wine to control oxidation, preferring to rely instead on precise temperature control during vinification and storage. Z also uses yeasts that occur naturally on the skins of the grapes for fermentation as opposed to adding commercial yeast. These are all practices consistent with the movement toward “natural” wine, yet Z was quick to argue that most of what was being sold more formally as natural wine was “terrible, hipster” wine.

Minimal intervention reflects, in Z’s view, the notion that “wine should express the terroir where it is produced” and that the job of the wine-maker is to facilitate this. Z thereby also linked adoption of more sustainable practices with a desire to reflect terroir more faithfully, echoing reasoning common to other “green” growers and wine-makers (including X). Even so, Z was quite critical of wine-makers who seek formal certification of their viti-viniculture, arguing that many do so because it is “fashionable or trendy now” and that they are merely seeking to exploit commercial opportunity. In this Z echoed the dichotomy frequently drawn between those farmers who embrace organic agriculture for practical reasons as opposed to ideological ones (Darnhofer et al., 2005), as unsatisfying as this dichotomy may well be (Chantre and Cardona, 2014). Z further claimed that their farm could be formally certified as organic and possibly biodynamic but is not because outside validation is unnecessary and not important to them. When we pointed out that this requires consumers to take on faith the integrity of Z’s viti-vinicultural practices, Z laughed and described wine-making as something of a black box, saying “you really don’t know what most of these certified growers are doing either.”

Z then went on to claim that some of the local wine-makers actually “do not know a whole lot about making wine”, expressing a specific criticism of the degree to which regional independent *vignerons* rely on consulting oenologists. According to Z, a small cadre of consulting oenologists each advises multiple local wine-makers — including prescribing when to harvest and what to add to wine at what time and in what amounts. For Z, this means that a small number of oenologists exert a significant influence on the character and style of wines – conventional and otherwise – from the local AOP. Z argued that the consulting oenologists are not hired to take risks, but rather to make sure that the wines of their clients conform to the established AOP typicity (i. e., expected organoleptic profile), thereby discouraging dynamism and creativity. Z then argued that the problem is exacerbated by the fact that some of the same oenologists sit on the AOP tasting panels that are established to uphold appellation norms of typicity.

By way of context for these comments, it is true that AOP tasting panels are established by the appellation syndicates in order to monitor and uphold typicity (Barham, 2003). Moreover, Z is correct to note that independent *vignerons* in the region frequently work with consulting oenologists. In a survey of 60 organic wine producers from the region we conducted at the 2022 Millésime Bio wine trade show, for example, 49 respondents (82 percent) indicated that they work with an independent oenologist, reinforcing what we have often heard in dialog with regional wine-makers and others.

We asked Z to comment on the role of vinicultural cooperatives in relation to the region’s shift to quality, including one located close to Z’s commune that produces a significant amount of AOP wine and a significant volume of organic wine. As noted, Z purchased most of their vineyards from a former co-op member. Z was largely complementary of the role cooperatives have played in helping keep small-scale growers

“on the land”, but also indicated that cooperatives are still primarily concerned with “cranking out the volume, keeping the price low, and paying members by weight, not for quality”. Z then noted a certain contradiction in the role of wine cooperatives in France, stating that while the French celebrate independent artisanal producers, they also value collective solidarity: “It is pretty hard to be a socialist in a capitalist economy. Something has to give”.

Our discussions also addressed climate change. Z was quite worried, and said that the notion of “normal” growing conditions is losing meaning in the area along with the idea of a “typical” year’s harvest. Z predicted a loss of 90 percent of the grapes due to a mildew outbreak in the year in which we had our first extended discussion, echoing anxieties expressed by numerous other growers and wine-makers that year. In the end, Hérault yields were indeed low that season though the quality of the grapes was considered quite high. This sort of trade-off is not unfamiliar in the region nor in the sector more generally; environmental risk (e.g., in the form of disease, hail, frost, pests, fire, etc.) can dramatically reduce the volume of harvest for some growers and in the aggregate, and yet quality may be boosted and prices may rise due to limited supply. The effects, generally, are highly uneven in their social distribution. Reflecting further on the changing climate, Z spoke to the relatively high elevation of their vineyards, saying that this was one of the main reasons they purchased the farm. Yet, Z noted, going higher can also have its drawbacks. Many upland sites have slopes too steep to safely cultivate using machines while higher vineyards may also come with a greater risk of spring frosts that can be devastating if they arrive after vines begin to sprout.

Similar to X in important respects, Z presents as being more radically independent. Foregoing the security of even partial membership in the cooperative, dispensing with the norm of relying on a consulting oenologist, and challenging the strictures of the local AOP, Z embodies the ‘outsider’ and even maverick independent *vigneron* often positioned at the centre of the Midi’s shift to quality.¹⁹ And yet both X and Z in their own ways reflect the false dichotomy between independent and collective modes of vinification at least in so far as the dynamic re-articulation of each in relation to the other is implicated and continues to shape the region’s winescape.

5. Conclusion

In this paper, we have drawn on ethnographic engagements with three people caught up in the shift to quality wine production in France’s Midi region, focusing on the Department of the Hérault. We have placed emphasis on three conjoined aspects of the region’s changing winescape: relational interplay of regulatory and technical changes resulting in a regionally distinct model of quality; embrace of more sustainable practices in viti-viniculture; and the re-articulation of independent and collective modes of vinification.

One of our goals has been to convey that, amidst discernible broader trajectories of ongoing transformation, there is also diversity, contradiction, and contestation. While the Midi’s shift to quality features aspects of the established and better known French model of quality wine production and regulation, including the promulgation of new GIs, it has also departed from it. A distinct and pronounced regional movement of viti-viniculture toward more sustainable practices also informs the shift to quality, but is not synonymous with it. In both respects, people involved in the sector, including the ones we profile here, continue to respond to but also define the shift to quality, and with it, the face of rural spaces in the Hérault and in the wider Midi.

We have also tried to capture something of the complex social fabric

¹⁹ The near mythical story of the establishment and rise to fame of Mas de Daumas Gassac, an independent wine estate founded by Véronique and Aimé Guibert in the early 1970s outside Aniane in the Hérault (Garcia-Parpet, 2008; Jones, 2003; Trubek, 2008), is often invoked in this context.

of change in the Midi winescape. The shift to quality and the pronounced regional movement toward more sustainable viti-viniculture together comprise deep and uneven agrarian, socio-economic, and socio-ecological transformations, presenting opportunity for some, constraint for others. The class of medium-sized independent *vignerons* referenced as *le nouveau domaine viticole languedocien* by Touzard and Laporte (1998) features prominently. At the same time, vinicultural cooperatives in the region are experiencing an extended crisis of institutional and social reproduction, reflected by numerous fusions, declining membership, and the transfer of cooperative vineyards to independent *vignerons*, either by sale (as exemplified by X and Z), or by means of cooperators themselves becoming independent wine-makers. And yet, though Midi vinicultural cooperatives were an institutional staple of productivism in the region's wine sector through the 1960s, they have also been sites of innovation and transition in shifting to quality and to more sustainable viti-viniculture, even if these trends are uneven across the cooperative sector. Numerous Midi cooperatives have embraced changes aimed at producing quality wine dating back decades, including the introduction of differential remuneration for member grapes, governance reforms, and in some instances, vinification of bottled wine from the grapes of a select few and even single co-operators. Midi cooperatives are also implicated in the emergence of *le nouveau domaine viticole languedocien* including via cooperative vineyards becoming a foundation for independent *vigneron* farms. As for agro-ecological transitions, while vinicultural cooperatives and their members face very real structural and institutional hurdles, particularly when it comes to formally certified organic and biodynamic farming and wine-making, our research (including as reported here) reinforces evidence that vinicultural cooperatives in the Midi are very much caught up in the changes (see also Chiffolleau, 2005; Mascarenhas and Touzard, 2018).

Our discussion and findings have broader relevance to contemporary scholarship dealing with, variously, alternative food networks, post-productivism and a quality turn in agro-food commodity sectors. The entrenched and dominant model of French quality wine production, revolving as it does around the AOP appellation as a form of GI, has influenced the development of GIs in other jurisdictions (inside and outside the EU) together with associated scholarship and policy discussions concerning how to enable and protect socially embedded and more sustainable territorialized rural development (Barham, 2003; Bérard and Marchenay, 2006; Bowen, 2011; Bowen and Zapata, 2009; Gade, 2004). The Midi shift to quality has indeed involved establishment of new GIs, and some are AOPs. Yet, a prominent institutional expression of the Midi shift to quality (particularly in the Hérault) has been through the IGP tier of GI, notably in the guise of Pays d'Oc wines. As we described in the cases of X and Z, some regional wine-makers aiming to produce quality wine and who own vineyards classified for AOP wine production are eschewing compliance with the AOP tier in order to produce IGP wine, and in some cases are producing quality VdF wines, traditionally not seen as an outlet for quality wine.

Regional *vignerons* who makes these kinds of choices participate in helping to redefine the very meaning of quality. In turn, these dynamics pose questions about the role of the IGP tier of GI in relation to both the social fabric of quality wine production and to more sustainable viti-vinicultural practices. The IGP tier is less prestigious than the AOP, in general terms, and far more permissive. No question the IGP tier allows for greater creativity and flexibility. But will the IGP tier of GI help to protect regionally distinct social networks and agricultural production practices, and will it encourage more sustainable viti-viniculture? And will the Midi wine sector eventually converge with the more established model of quality French agro-food production and regulation through greater emphasis on AOP wines (including via the creation of new Midi AOPs)? These questions remain open, but they have broader implications for how we think about quality agro-food production and regulation in France, the heartland of terroir-based GIs. These questions also reinforce the need for ongoing theoretically informed and empirically

grounded scholarship examining GIs and quality agro-food production and distribution networks (see e.g., Bowen, 2011; Bowen and Zapata, 2009; Gade, 2004), with specific attention to different tiers of GI.

Also of broader significance is the way we understand and interpret the re-articulation of independent and collective modes of vinification in the Midi within both the shift to quality and the uptake of more sustainable viti-vinicultural practices. In important respects, *ecologization* in the Midi wine sector reflects and reinforces many of the signature material and semiotic practices associated with quality wine production and distribution and seems, to this point, to have been more powerfully (though not exclusively) expressed via *le nouveau domaine viticole languedocien*. Will this continue to be the case? Here we merely echo those who have called previously for scholarship dealing with, variously, alternative, quality and more sustainable agro-food production and distribution networks to pay close attention to the social relations involved (see e.g., Bowen and Zapata, 2009; Goodman, 2004; Guthman, 2003, 2014; Poméon et al., 2019; Roseberry, 2002).

The transformation of the Midi winescape is also important for reasons that go beyond the scholarly, including in consideration of emerging challenges. We have not focused on these, but mention them instead as concluding thoughts and suggestions for future research. Independent wine-making may well reward creativity and allow more flexibility, particularly in the context of relatively robust international market demand for quality wine and the relative permissiveness of appellations such as Pays d'Oc. But markets are capricious, and independent *vignerons* may also incur greater exposure to economic risk. French vinicultural cooperatives have proven durable (Chiffolleau et al., 2007; Valette et al., 2018) and highly successful as institutional means for ensuring social reproduction among small-holding growers in part by pooling economic risk and costs (Filippi, 2012; T. Knox, 1998; Simpson, 2000, 2011; Ulin, 1996). There is also ecological risk to consider. The Midi is experiencing rapidly changing climatic conditions with significant implications for viticulture. Again, this has not been a focus of our discussion, but it looms large nonetheless. It is a topic that comes up more and more in our interviews with growers and others involved in the sector, often before we raise it. Will irrigation become more prevalent in regional viticulture? Will the varietal composition of regional vineyards change in response to climatic change? How will independent *vignerons* and vinicultural cooperatives alike respond? Are GIs – notably the AOP tier with its more complex, detailed and restrictive rules – governed in ways that facilitate adaptation? Understanding changes in the Midi winescape to this point provides at least some clues as to how these and related questions will be addressed.

CRediT authorship contribution statement

Scott Prudham: Conceptualization, Formal analysis, Investigation, Methodology, Project administration, Resources, Writing – original draft, Writing – review & editing, Data curation. **Kenneth Iain MacDonald:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Writing – review & editing. **Sophie Caillon:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Writing – review & editing.

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

The data that has been used is confidential.

References

- Agrifrance, 2020. The Organic Wine Market, 2020. BNP Paribas Wealth Management. <https://wealthmanagement.bnpparibas/en/expert-voices/agrifrance-2020-annual-report-organic-wines.html>.
- Alarcon, M., Marty, P., Prévot, A.-C., 2020. Caring for vineyards: Transforming farmer-vine relations and practices in viticulture French farms. *J. Rural Stud.* 80, 160–170. <https://doi.org/10.1016/j.jrurstud.2020.08.029>.
- Alston, J.M., Gaeta, D., 2021. Reflections on the political economy of European wine appellations. *Italian Economic Journal* 7 (2), 219–258. <https://doi.org/10.1007/s40797-021-00145-4>.
- Arnal, C., Laurens, L., Soulard, C., 2013. Les mutations paysagères engendrées par l'arrachage viticole, un vecteur de mobilisation des acteurs territoriaux dans l'Hérault. *Méditerranée. Revue géographique des pays méditerranéens/Journal of Mediterranean geography* 120. <https://doi.org/10.4000/mediterranee.6673>. Article 120.
- Barham, E., 2003. Translating terroir: the global challenge of French AOC labeling. *J. Rural Stud.* 19 (1), 127–138. [https://doi.org/10.1016/S0743-0167\(02\)00052-9](https://doi.org/10.1016/S0743-0167(02)00052-9).
- Barthel-Bouchier, D., Clough, L., 2005. From Mondavi to Depardieu: the global/local Politics of wine. *Fr. Polit. Cult. Soc.* 23 (2), 71–90.
- Bérard, L., Marchenay, P., 2006. Local products and geographical indications: taking account of local knowledge and biodiversity. *Int. Soc. Sci. J.* 58 (187), 109–116. <https://doi.org/10.1111/j.1468-2451.2006.00592.x>.
- Bivar, V., 2018. *Organic Resistance: the Struggle over Industrial Farming in Postwar France*. The University of North Carolina Press.
- Bourdieu, P., 1984. *Distinction: A Social Critique of the Judgement of Taste*. Harvard University Press.
- Bowen, S., 2010. Embedding local places in global spaces: geographical indications as a territorial development strategy. *Rural Sociol.* 75 (2), 209–243. <https://doi.org/10.1111/j.1549-0831.2009.00007.x>.
- Bowen, S., 2011. The importance of place: Re-territorialising Embeddedness. *Sociol. Rural.* 51 (4), 325–348. <https://doi.org/10.1111/j.1467-9523.2011.00543.x>.
- Bowen, S., Mutersbaugh, T., 2014. Local or localized? Exploring the contributions of Franco-Mediterranean agrifood theory to alternative food research. *Agric. Hum. Val.* 31 (2), 201–213. <https://doi.org/10.1007/s10460-013-9461-7>.
- Bowen, S., Zapata, A.V., 2009. Geographical indications, terroir, and socioeconomic and ecological sustainability: the case of tequila. *J. Rural Stud.* 25 (1), 108–119. <https://doi.org/10.1016/j.jrurstud.2008.07.003>.
- Buttel, F.H., 2001. Some Reflections on late Twentieth century agrarian political economy. *Sociol. Rural.* 41 (2), 165–181. <https://doi.org/10.1111/1467-9523.00176>.
- Callon, M., Méadel, C., Rabeharisoa, V., 2002. The economy of qualities. *Econ. Soc.* 31 (2), 194–217. <https://doi.org/10.1080/03085140220123126>.
- Casier Viticole Informatisé (CVI) & FranceAgriMer, 2015. La filière viti-vinicole en Languedoc-Roussillon—Chiffres clés et représentations. <https://draaf.occitanie.agriculture.gouv.fr/la-filiere-viti-vinicole-en-languedoc-roussillon-chiffres-cles-a434.html>.
- Chantre, E., Cardona, A., 2014. Trajectories of French field crop farmers moving toward sustainable farming practices: change, Learning, and Links with the advisory Services. *Agroecology and Sustainable Food Systems* 38 (5), 573–602. <https://doi.org/10.1080/21683565.2013.876483>.
- Chiffolleau, Y., 2004. Réseaux d'apprentissage et innovation dans une organisation productive. L'exemple d'un projet qualifié en coopérative viticole: Connaissance et relations sociales. Réseaux d'apprentissage et Innovation Dans Une Organisation Productive. L'exemple d'un Projet Qualité En Coopérative Viticole : Connaissance et Relations Sociales 35 (3), 182 [12 pp.].
- Chiffolleau, Y., 2005. Learning about innovation through networks: the development of environment-friendly viticulture. *Technovation* 25 (10), 1193–1204. <https://doi.org/10.1016/j.technovation.2004.04.003>.
- Chiffolleau, Y., 2009. From Politics to Co-operation: the dynamics of Embeddedness in alternative food supply chains. *Sociol. Rural.* 49 (3), 218–235. <https://doi.org/10.1111/j.1467-9523.2009.00491.x>.
- Chiffolleau, Y., Dreyfus, F., Stofer, R., Touzard, J.-M., 2007. Networks, innovation and performance: evidence from a cluster of wine cooperatives (Languedoc, South of France). In: Karantininis, K., Nilsson, J. (Eds.), *Vertical Markets and Cooperative Hierarchies: the Role of Cooperatives in the Agri-Food Industry*. Springer, pp. 35–59.
- Chiffolleau, Y., Touzard, J.M., 2013. Understanding local agri-food systems through advice network analysis. *Agric. Hum. Val.* 1–14 <https://doi.org/10.1007/s10460-013-9446-6>. Scopus.
- Cooper, T.C., 2003. A Critical Examination of the Social Processes Underpinning Agricultural Change: A Case Study of the Viticulture Sector, Languedoc, Mediterranean France. [Ph.D. University of London, University College, London (United Kingdom)]. <https://www.proquest.com/docview/1758952710/abstract/568B22079A2347CFPQ/1>.
- Crowley, W.K., 1993. Changes in the French winescape. *Geogr. Rev.* 83 (3), 252–268. <https://doi.org/10.2307/215728>.
- Dainelli, F., Daddi, T., 2019. Does an organic strategy pay? An explanatory study of the Italian wine industry. *Br. Food J.* 121 (10), 2322–2336. <https://doi.org/10.1108/BFJ-01-2019-0059>.
- Darnhofer, I., Schneeberger, W., Freyer, B., 2005. Converting or not converting to organic farming in Austria: farmer types and their rationale. *Agric. Hum. Val.* 22 (1), 39–52. <https://doi.org/10.1007/s10460-004-7229-9>.
- Deverre, C., Sainte Marie, C.D., 2008. L'écologisation de la politique agricole européenne. Verdissement ou refondation des systèmes agro-alimentaires. *Revue d'études en Agriculture et Environnement* 89 (4), 83–104. <https://doi.org/10.3406/reae.2008.1956>.
- Direction Regionale de L'Alimentation de L'Agriculture et de la Foret, 2014. *Viticulture: 2014 Panorama Agriculture et Foret Languedoc-Roussillon*. DRAAF. https://draaf.occitanie.agriculture.gouv.fr/IMG/pdf/3_viticulture_moy_reso_imp_image_300dpi_cle88d2c1.pdf.
- Doncieux, A., Yobrégat, O., Prudham, S., Caillon, S., Renard, D., 2022. Agrobiodiversity dynamics in a French wine-growing region. *OENO One* 56 (4), 183–199.
- Filippi, M., 2012. *Support for Farmers' Cooperatives; Case Study Report; the Essential Role of Territory: Advantages and Disadvantages of Niche Strategies*. Wageningen University.
- Franquesa, J., 2018. *Power Struggles: Dignity, Value, and the Renewable Energy Frontier in Spain*. Indiana University Press.
- Gade, D.W., 2004. Tradition, territory, and terroir in French viticulture: cassis, France, and appellation contrôlée. *Ann. Assoc. Am. Geogr.* 94 (4), 848–867. <https://doi.org/10.1111/j.1467-8306.2004.00438.x>.
- Gale, G., 2011. *Dying on the Vine: How Phylloxera Transformed Wine*, first ed. University of California Press, p. 1. <https://doi.org/10.1525/j.ctt7zw232>.
- Garcia-Parpet, M.-F., 2000. Dispositions économiques et stratégies de reconversion. L'exemple de la nouvelle viticulture. *Ruralia. Sciences sociales et mondes ruraux contemporains* 7. Article 07. <https://journals.openedition.org/ruralia/179>.
- Garcia-Parpet, M.-F., 2007. Mondialisation et transformations du monde viticole: Processus de reclassement des vins du Languedoc-Roussillon. *Soc. Contemp.* 68 (4), 37–57. <https://doi.org/10.3917/asso.068.0037>. Cairn.info.
- Garcia-Parpet, M.-F., 2008. Markets, prices and symbolic value: grands crus and the challenges of global markets. *Int. Rev. Sociol.* 18 (2), 237–252. <https://doi.org/10.1080/03906700802087910>.
- Goodman, D., 2004. Rural europe redux? Reflections on alternative agro-food networks and paradigm change. *Sociol. Rural.* 44 (1), 3–16. <https://doi.org/10.1111/j.1467-9523.2004.00258.x>.
- Guthman, J., 2003. Fast food/organic food: reflexive tastes and the making of “yuppie chow”. *Soc. Cult. Geogr.* 4 (1), 45–58. <https://doi.org/10.1080/1464936032000049306>.
- Guthman, J., 2014. *Agrarian Dreams: the Paradox of Organic Farming in California*, second ed. University of California Press.
- Guthman, J., 2019. *Wilted: Pathogens, Chemicals, and the Fragile Future of the Strawberry Industry*. University of California Press. <https://doi.org/10.1525/9780520973343>.
- Guy, K.M., 2003. *When Champagne Became French: Wine and the Making of a National Identity*. Johns Hopkins University Press.
- Harriss-White, B., 2023. Petty commodity production. *J. Peasant Stud.* 50 (1), 295–314. <https://doi.org/10.1080/03066150.2022.2138354>.
- Hart, G., 2006. Denaturalizing dispossession: critical ethnography in the age of resurgent imperialism. *Anthropol.* 38 (5), 977–1004. <https://doi.org/10.1111/j.1467-8330.2006.00489.x>.
- Hill, R.A.D., 2021. 'Le terroir, c'est la vie': Re-animating a concept among Burgundy's wine producers. *Environ. Plann.: Nature and Space* 2514848621989610. <https://doi.org/10.1177/2514848621989610>.
- Jarrige, F., Touzard, J.-M., 2001. Les mutations de l'organisation coopérative à travers l'évolution de ses règles: La rémunération de la vendange dans les caves coopératives du Midi. *Rev. Int. Econ. Soc.: Recma* 280, 36. <https://doi.org/10.7202/1023667ar>.
- Jones, A., 1989. Reform of the European community's table wine sector: agricultural specialisation in the languedoc. *Geography* 74 (1), 29–37.
- Jones, A., 2003. “Power in place”: viticultural spatialities of globalization and community empowerment in the Languedoc. *Trans. Inst. Br. Geogr.* 28 (3), 367–382. Scopus.
- Knox, T., 1998. Organization change and vinification cooperatives in France's Midi. *Economics Working Papers*. https://opencommons.uconn.edu/econ_wpapers/199804.
- Knox, T.M., 2000. *The Economic Organization of Winemaking: French Cooperatives and California Corporations in Historical Context*. ProQuest Dissertations & Theses Global. Ph.D. (304593433) [Ph.D., University of Connecticut]. <http://search.proquest.com/docview/304593433?accountid=14771>.
- Krüger, O., 2024. Peasant in a bottle: infrastructures of containment for an Italian wine cooperative. *Ethnos* 89 (2), 253–268. <https://doi.org/10.1080/00141844.2022.2163273>.
- Krzywoszynska, A., 2015. Wine is not Coca-Cola: marketization and taste in alternative food networks. *Agric. Hum. Val.* 32 (3), 491–503. <https://doi.org/10.1007/s10460-014-9564-9>.
- Krzywoszynska, A., 2016. What farmers know: experiential knowledge and care in wine growing. *Sociol. Rural.* 56 (2), 289–310. <https://doi.org/10.1111/soru.12084>.
- Lamine, C., 2011. Transition pathways towards a robust ecologization of agriculture and the need for system redesign. *Cases from organic farming and IPM*. *J. Rural Stud.* 27 (2), 209–219. <https://doi.org/10.1016/j.jrurstud.2011.02.001>.
- Lamine, C., 2017. *La fabrique sociale de l'écologisation*. <https://scholar.google.com/schola>.
- Le Bras, S., 2013. *Négoce et négociants en vins dans l'Hérault: Pratiques, influences, trajectoires (1900-1970)* [These de doctorat, Montpellier 3]. <https://www.theses.fr/2013MON30026>.
- Le Bras, S., 2020. A true revolution? Quality wines in the languedoc on the long run (19th -21st century). *Journal of Chinese Dietary Culture* 16 (October), 33–82.
- Le Douarin, S., 2022. *La Situation du Marchés des Vines Bio En France*. Milleime Bio, Montpellier.
- Lem, W., 1988. Household production and reproduction in rural languedoc: social relations of petty commodity production in murviel-lès-béziers. *J. Peasant Stud.* 15 (4), 500–529. <https://doi.org/10.1080/03066158808438375>.

- Lem, W., 1995. Identity and history: class and regional consciousness in rural languedoc. *J. Hist. Sociol.* 8 (2), 198–220. <https://doi.org/10.1111/j.1467-6443.1995.tb00087.x>.
- Lem, W., 1999. *Cultivating Dissent: Work, Identity, and Praxis in Rural Languedoc*. State University of New York Press.
- Li, T., 2014. *Land's End: Capitalist Relations on an Indigenous Frontier*. Duke University Press. <https://doi.org/10.1515/9780822376460>.
- Loubère, L.A., 1985. *The Vine Remembers: French Vignerons Recall Their Past : Interviews*. State University of New York Press.
- Loubère, L.A., 1990. *The Wine Revolution in France: the Twentieth Century* (1027611). Princeton University Press.
- Marsden, T.K., Arce, A., 1995. Constructing quality: emerging food networks in the rural transition. *Environ. Plann.: Econ. Space* 27 (8), 1261–1279. <https://doi.org/10.1068/a271261>.
- Mascarenhas, G., Touzard, J.-M., 2018. The social construction of quality in agri-food localized systems (SYAL): the case of the Montpeyroux wine arrangement, France. *Int. J. Sociol. Agric. Food* 24 (2), 275.
- Meloni, G., Swinnen, J., 2013. The political economy of European wine regulations. *Journal of Wine Economics* 8 (3), 244–284. <https://doi.org/10.1017/jwe.2013.33>.
- Mercier, E., 2016. *La situation des marchés des vins biologiques*. Agence Bio.
- Montaigne, E., 1999. Normes, qualités des vins et mutations de la viticulture du Languedoc, p. 22. <https://hal.inrae.fr/hal-02840516>.
- Overton, J., Banks, G., 2015. Conspicuous production: wine, capital and status. *Cap. Cl.* 39 (3), 473–491. <https://doi.org/10.1177/0309816815607022>.
- Overton, J., Murray, W.E., 2013. Class in a glass: capital, neoliberalism and social space in the global wine industry. *Antipode* 45 (3), 702–718. <https://doi.org/10.1111/j.1467-8330.2012.01042.x>.
- Parker, T., 2015. Tasting French terroir: the history of an idea. In: *Tasting French Terroir*. University of California Press. <https://doi.org/10.1525/9780520961333>.
- Poméon, T., Loconto, A., Fouilleux, E., Lemeilleur, S., 2019. Organic farming in France: an alternative project or conventionalisation?. In: *Ecology, Capitalism and the New Agricultural Economy: the Second Great Transformation*, first ed. Routledge, pp. 207–226. <https://doi.org/10.4324/9781351210041-10>.
- Ponte, S., 2009. Governing through quality: conventions and supply relations in the value chain for South African wine. *Sociol. Rural.* 49 (3), 236–257. <https://doi.org/10.1111/j.1467-9523.2009.00484.x>.
- Ponte, S., 2016. Convention theory in the Anglophone agro-food literature: past, present and future. *J. Rural Stud.* 44, 12–23. <https://doi.org/10.1016/j.jrurstud.2015.12.019>.
- Ponte, S., Gibbon, P., 2005. Quality standards, conventions and the governance of global value chains. *Econ. Soc.* 34 (1), 1–31. <https://doi.org/10.1080/0308514042000329315>.
- Prudham, S., MacDonald, K.L., 2020. Qualifying tradition: instituted practices in the making of the organic wine market in Languedoc-Roussillon, France. *J. Agrar. Change* 20 (4), 659–681. <https://doi.org/10.1111/joac.12371>.
- Rainer, G., 2021. Geographies of qualification in the global fine wine market. *Environ. Plann.: Econ. Space* 53 (1), 95–112. <https://doi.org/10.1177/0308518X20934816>.
- Roseberry, W., 1988. Political economy. *Annu. Rev. Anthropol.* 17, 161–185.
- Roseberry, W., 1997. Marx and anthropology. *Annu. Rev. Anthropol.* 26, 25–46.
- Roseberry, W., 2002. The rise of yuppie coffees and the reimagination of class in the United States. In: *Food in the USA*. Routledge, pp. 149–168.
- Shapin, S., 2012. The tastes of wine: towards a cultural history. *Riv. Estet.* 51, 49–94. <https://doi.org/10.4000/estetica.1395>.
- Simpson, J., 2000. Cooperation and cooperatives in Southern European wine production. In: Kauffman, K.D. (Ed.), *New Frontiers in Agricultural History (Advances in Agricultural Economic History)*, vol. 1. Emerald Group Publishing Limited, pp. 95–126. [https://doi.org/10.1016/S1569-4933\(00\)01031-9](https://doi.org/10.1016/S1569-4933(00)01031-9).
- Simpson, J., 2011. *Creating Wine: the Emergence of a World Industry*. Princeton University Press, pp. 1840–1914.
- Smith, A.W., 2016. *Terror and Terroir: the Winegrowers of the Languedoc and Modern France* (10597620). Manchester University Press.
- Smith, A.W., 2020. Uprooting identity: European integration, political realignment and the wine of the languedoc, 1984–2014. *Contemp. Eur. Hist.* 29 (4), 473–487. <https://doi.org/10.1017/S0960777320000387>.
- Smith, G., 1985. Reflections on the social relations of simple commodity production. *J. Peasant Stud.* 13 (1), 99–108. <https://doi.org/10.1080/03066158508438285>.
- Smith, G., 1991. *Livelihood and Resistance: Peasants and the Politics of Land in Peru*. Univ of California Press.
- Sudvinbio, 2022. Millesime Bio 2022 press pack. Sudvinbio. www.millesime-bio.com.
- Temple, L., Touzard, J.-M., Jarrige, F., 1996. La restructuration des coopératives viticoles en Languedoc Roussillon: Du modèle communal à la diversité des adaptations actuelles. <http://agritrop.cirad.fr/389611/>.
- Torres, O., 2006. *The Wine Wars: the Mondavi Affair, Globalisation and Terroir*. Palgrave Macmillan UK. <https://doi.org/10.1057/9780230624917>.
- Touzard, J.-M., 2011. Les caves coopératives dans la transformation du vignoble languedocien. *Etudes Héraultaises, Hors-série: Vingt siècles de viticulture en pays de Lunel* 101–111.
- Touzard, J.-M., Chiffolleau, Y., Dreyfus, F., 2008. Analyser l'innovation dans un Système agroalimentaire localisé: Construction interdisciplinaire en Languedoc. *Cah. Agric.* 17 (6) <https://doi.org/10.1684/agr.2008.0253>. Article 6.
- Touzard, J.-M., Laporte, J.-P., 1998. Deux décennies de transition viticole en Languedoc-Roussillon: De la production de masse à une viticulture plurielle. *Pole Sud.* 9 (1), 26–47. <https://doi.org/10.3406/pole.1998.1010>.
- Trubek, A.B., 2008. *The Taste of Place: A Cultural Journey into Terroir*. University of California Press.
- Ulin, R.C., 1996. *Vintages and Traditions: an Ethnohistory of Southwest French Wine Cooperatives* (641237). Smithsonian Institution Press.
- Valette, J., Amadiou, P., Sentis, P., 2018. Cooperatives versus corporations: survival in the French wine industry. *Journal of Wine Economics* 13 (3), 328–354. <https://doi.org/10.1017/jwe.2017.1>.
- Wolf, E.R., 1982. *Europe and the People without History*. University of California Press.
- Wolford, W., 2010. *This Land Is Ours Now: Social Mobilization and the Meanings of Land in Brazil*. Duke University Press.