Red and Rosé Winemaking

winemaking because the grapes must be fermented on their skins in order to extract both colour and tannin. This chapter will focus on the various ways in which colour and tannin can be extracted and how winemakers use these techniques to make inexpensive and premium red wines. As in the previous chapter there will also be a focus on internationally important grape varieties, in this case Cabernet Sauvignon, Merlot, Pinot Noir, Syrah/Shiraz and Grenache/Garnacha.

The processes and main choices involved in making red wine can be seen in the diagram on page 65. The key to red winemaking is the successful extraction of colour and tannin from the skins of black grapes, which is achieved by including the skins in the fermentation vessel. This has two important consequences. First, there are considerably more options to consider before, during and after fermentation than is the case in white winemaking. Second, pressing happens after fermentation and not before. Note also that in red winemaking malolactic fermentation (MLF) is standard practice rather than a stylistic choice as it is in white winemaking.

CRUSHED FRUIT FERMENTATION

The vast majority of fruit used in red winemaking is destemmed and crushed. Therefore the techniques that are linked to this approach will be considered first.

Pre-fermentation Extraction

Once the fruit has been crushed, some winemakers prefer to leave the grapes to macerate for a period at a low temperature before allowing the fermentation to start. This is sometimes referred to as cold maceration or cold soaking. The purpose of this maceration is to extract colour and flavour compounds. Tannins are more soluble in alcoholic solutions and are therefore not readily extracted at this point in the winemaking process.

Temperature Control During Fermentation

Red wine fermentation temperatures usually range between 20°C and 32°C, depending on the style being made. These temperatures, which are higher than those used in white winemaking, are necessary to aid extraction of colour, flavour and tannin. However, care must be taken to ensure that the temperature does not exceed 35°C as this may kill the yeast. Precise control of temperature during the fermentation process can allow the winemaker to influence the amounts of colour, flavour and tannin that are extracted. For example, although tannins become more soluble as alcohol levels rise, a winemaker can reduce their extraction by lowering the temperature towards the end of the fermentation.

Cap Management Techniques

If left to itself, a fermenting red wine will soon have a

thick mass of pulp and skins on its surface. This mass is known as the cap. If the cap is left to float, little colour, flavour or tannin will be extracted from it. There are many different cap management techniques a winemaker can use to overcome this, and these methods may be combined or used at different stages of the fermentation. The level of extraction can be controlled by altering the duration of each technique and the number of times this is practised each day.

Red winemaking is more involved than white

Punching down – Traditionally this meant punching the cap down by hand with paddles on the end of sticks. This posed certain dangers for the winery workers, as there was always the possibility of someone being intoxicated by carbon dioxide. Today, the same effect can be achieved with mechanical paddles. This is a widely practised technique and is very effective at extracting colour and tannin. Consequently, winemakers need to take care not to overwork the cap by punching down too vigorously or too often. This is particularly important at the end of the fermentation when tannins are more easily extracted. If too much tannin is extracted, the finished wine can taste overly bitter and astringent.

Pumping over – This involves drawing off fermenting juice from the bottom of the vat and pumping it up on to the top, wetting the cap. Pumping over is a popular extraction technique and is a good way of dissipating heat and oxygenating the juice.

Rack and return – The fermenting juice is drained from the fermenting vessel into another vessel, leaving the cap behind. The juice is then pumped back over the cap. This is normally only used once or twice during a fermentation as it can be very extractive. Like pumping over, it is a very good way of dissipating heat.

Rotary fermenters – Fermentation takes place in rotating horizontal tanks. This keeps the juice in constant contact with the skins.

Fermentation Vessels

These cap management techniques mean that red wines are usually fermented in large vessels. Many are opentopped so that the grape skins can be worked easily: these vessels can be made from oak, concrete or stainless steel. Fermentation in oak barrels is impractical for red wines as it would be almost impossible to maintain sufficient contact between the skins and the juice.

Post-fermentation Extraction

Maceration after fermentation encourages the further extraction of tannin, which may or may not be desirable. Therefore, the length of time that the wine stays on its skins once fermentation is complete depends on the style of wine being made. Some winemakers have found that very long periods of post-fermentation maceration can help to create a smoother tannin structure.

Press Wine

When the maceration has finished, the free run wine is drawn off the skins and the remaining mass is pressed, creating press wine. At the start of pressing, this press wine may be similar in composition to the free run wine, but as pressing continues the wine becomes deeper in colour and higher in tannin. Some winemakers will separate the wine from different stages in the pressing (these are called press fractions). Later press fractions may then be used to adjust colour and tannin in the final blend.

WHOLE BUNCH FERMENTATIONS

As has been noted, the vast majority of red wines are made solely with crushed fruit. However, some winemakers include whole bunches of uncrushed grapes in the fermentation. In some cases the uncrushed fruit may make up the entire vat; in others, only a small percentage may be used to make a more subtle contribution to the flavour of the wine. Importantly, if whole bunches are used, the winemaker must ensure that the grape stems are fully ripe: if not, the tannins in the stems can give the finished wine an undesirable bitter taste.

The objective of this technique is to create an oxygenfree environment for the uncrushed fruit. This lack of oxygen has a number of outcomes. First, the berries create some alcohol in their cells, without the involvement of any yeast. This is referred to as intracellular fermentation. Second, and more importantly, a range of distinctive fruity aromas is created inside the berry, which gives wines made in this way unique qualities.

There are three forms of whole bunch fermentation:

Carbonic maceration – This involves placing only whole, uncrushed bunches into vats that are then filled with CO₂ to remove all the oxygen. This causes the intracellular fermentation to start. Once the level of alcohol in the grape reaches 2 per cent the grape skins start to split and the grapes release their juice. The grapes are generally pressed at this stage to separate the juice from the skins. Yeast then complete the fermentation off the skins.

Importantly, this method extracts colour from the grapes, but little tannin, and the resulting wines are soft

and full of fruit, with distinctive notes of kirsch, banana, bubble gum and cinnamon-like spice.

Semi-carbonic maceration – This is a similar but slightly different technique that does not involve filling the vats with CO_2 . The vats are filled with whole bunches. The grapes at the bottom of the vat are crushed under the weight of the grapes above and some juice is released. Ambient yeast start to ferment the juice. This fermentation produces CO_2 , which fills the vat and the remaining intact berries undergo carbonic maceration. As the intact grapes begin to split and release their juice the grapes are pressed and yeast complete the fermentation off the skins.

Some notable premium Pinot Noirs are made using this technique although the alcoholic fermentation continues on the skins. In this instance the grapes will be progressively broken up using punching down over the course of the first few days. An ever-decreasing amount of carbonic maceration takes place until all the grapes are broken up. The alcoholic fermentation will then continue on the skins and may be followed by a postfermentation maceration. This approach can result in a better integration of the aromas from intracellular fermentation with aromas from the grape variety. It results in wines with a fresher fruit character.

Whole bunches with crushed fruit – A further variation is to mix whole bunches with crushed grapes in the fermenting vessel at the start of the fermentation. Although the whole bunches in the vat are not blanketed in CO_2 , they are largely submerged by the crushed grapes and kept away from oxygen, therefore intracellular fermentation takes place. The whole bunches are progressively crushed during the fermentation as the cap is regularly punched down. More 'carbonic' characteristics can be achieved by raising the percentage of whole bunches that are present at the start of the fermentation. This technique is thought to give the wine a silkier texture and a brighter, fresher fruit character.

MATURATION OPTIONS

The option of whether or not to use oak is perhaps the most important decision when it comes to pre-bottling maturation in red wine production. Virtually all red wines undergo MLF and their more robust flavours and textures, compared with most white wines, mean they generally benefit less from extended time on their lees.

Oak is widely used in red winemaking. As with white wines, this may be in the form of oak barrels, or oak staves or chips that have been added to an inert vessel. The trend for winemakers to mature their premium red wines entirely in small new oak barrels is declining in most wine regions. Now, many wine producers are aiming for greater subtlety and integration, using oak vessels of different ages and larger sizes. However, a winemaker's best wines will still often be aged for longer



and with more new oak than their lower level wines. The best wines will usually be made with higher-quality, more concentrated fruit that can support a greater level of new oak flavours.

BLENDING

The blending of two or more grape varieties is fairly common in red wine production, and is often used to enhance or balance out certain aspects of the wine, such as colour, body, tannin, acidity or flavour. The use of different press fractions to boost the colour, flavour and tannin of the more delicate free run wine is another widely practised technique. The wine's complexity can also be enhanced by blending wines matured in oak vessels of different ages, sizes and toasting levels. If a more subtle oak influence is sought, a winemaker may blend wines matured in oak with wines matured in stainless steel or concrete vessels.

Clarification and Stabilisation

The majority of red wines will undergo some form of fining and/or filtration to improve the clarity and stability of the wine. However, some winemakers avoid these processes believing that they harm the wine's structure. Gradual sedimentation naturally occurs on all wines that are subjected to a long maturation before bottling, improving the clarity of these wines without filtration.

PRODUCING HIGH-VOLUME, INEXPENSIVE RED WINES

The grape-growing areas responsible for high-volume, inexpensive wines tend to be warm, sunny and dry, and for that reason the black grape varieties used are those that can thrive in these climates. Cabernet Sauvignon, Merlot, Syrah/Shiraz and Grenache/Garnacha are all ideal candidates. Not only are they all suited to warm or hot climates, but due to the concentration of colours, tannins and flavours in their skins, they can produce fruity wines with adequate colour even at high yields. Compared with premium wines from each grape variety, these high-volume red wines may display less colour, lighter tannins, and less intense and complex aromas and flavours. Often, the specific characteristics that make these grape varieties so distinct can be diminished, leading to wines that can seem quite homogeneous.

By contrast, Pinot Noir is a grape that is rarely used in the production of high-volume, inexpensive wines. It is hard to grow, prefers cool climates and it can be difficult to extract enough colour and tannin when grown at high yields. It is therefore less suited to high-volume winemaking compared with many other grapes.

As with white wines, high-volume, inexpensive red wines may either come from a single grape variety or be a blend of varieties. Blended wines may be labelled with a description of the style such as 'fruity red'.

Winemaking Choices

Typically these wines are made in a fruity, low-tannin style. To retain fresh, primary fruit characters, the juice

and wine are usually handled protectively with SO₂ levels being monitored throughout the winemaking process. The grapes for these wines are usually destemmed and crushed on arrival at the winery. Due to the warm or hot climates where most of these grapes are grown, tartaric acid may need to be added to raise the acidity. A pre-fermentation maceration may take place, but this process can tie up vat space and therefore is not always possible in a high throughput winery.

Fermentations will generally take place using commercial yeast at around 22°C to 25°C in order to maximise fresh fruit flavours. Different wineries may use different fermentation vessels; these can be static and/or rotary. The frequency of cap management procedures will vary according to the exact style of wine being produced and the grape variety, but typically the cap will not be heavily worked. Post-fermentation maceration is generally avoided due to constraints on vat space and time, and also because the additional tannins this can extract are often not desirable in these easy-drinking styles. If extra structure is needed, the winemaker may macerate a small proportion of wine and blend it with the remainder before bottling.

Fruity wines with low tannins can also be produced by carbonic or semi-carbonic maceration. These techniques are often used on inexpensive wines made from Grenache, and are also widely used on basic Beaujolais.

There are many options open to the winemaker regarding the maturation of the new wine. The winemaker can choose to store the wine in stainless steel until bottling, making a wine with pure fruit flavours. Sometimes, a period of oak ageing may be used to smooth any harsh tannins and add spicy or toasty flavours. Oak maturation for these wines may only be a matter of months, and if barrels are used, they will usually be secondor third-fill (on their second or third usage), with new barrels reserved for higher-quality wines. Alternatively, oak staves or chips may be added to stainless steel or concrete vats to obtain toasty flavours quickly.

Just as with white wines at this quality level, consumers expect high-volume, inexpensive red wines to be clear and without sediment. The wines are typically stabilised, fined and sterile filtered before bottling. Even though the shelf life of these wines tends to be very short, SO_2 levels will be topped up at bottling to reduce the risk of oxidation.

PRODUCING PREMIUM RED WINES Cabernet Sauvignon

Cabernet Sauvignon is a thick-skinned variety and therefore has an abundance of colour, flavour and tannin. It is also late ripening and in some of the cooler places in which it is grown, it can struggle to ripen fully if the weather is poor, giving wines with astringent tannins and herbaceous flavours.

Cabernet Sauvignon is the classic grape of the Haut-Médoc in Bordeaux. Here, it makes long-lived wines that often display grippy tannins in their youth, together with some cedar and blackcurrant leaf aromas. With age, the tannins soften and the flavours become more expressive. The wines are usually blended with a proportion of Merlot, which ripens earlier and gives juicy plum fruit flavours and a smoother texture to the wine. Within Europe, Cabernet Sauvignon is also found in the south of France, in Italy and in Spain. In these regions, Cabernet Sauvignon is generally blended with indigenous grape varieties, such as Sangiovese in Italy and Tempranillo in Spain.

Outside of Europe, Cabernet Sauvignon is seen in both varietal and blended styles. The ripeness it attains from the warm temperatures and long hours of bright sunlight in many regions of these countries gives full-bodied wines with ripe blackcurrant and black cherry notes and smooth tannins. Classic regions include the Napa Valley in California; Coonawarra and Margaret River in Australia; Hawke's Bay in New Zealand; Stellenbosch in South Africa; and Colchagua Valley in Chile.

In the winery, Cabernet Sauvignon is usually destemmed and crushed. The stems on whole bunches of this variety can often give a herbaceous and astringent character to the wines and are therefore discarded. Cabernet's thick skins mean that it is capable of producing wines that are deep in colour. The winemaker may choose to maximise the extraction of colour from the grape skins by leaving the grapes to macerate before fermentation begins.

Fermentation temperatures for Cabernet Sauvignon tend to range from 26°C to 30°C, warm enough for sufficient extraction yet cool enough to promote fresh fruit flavours. Cabernet Sauvignon grapes have high levels of tannin, and therefore high temperatures and extractive cap management techniques are generally avoided towards the end of fermentation, especially if the tannins are not fully ripe. A period of post-fermentation maceration, however, may be used to encourage a more gentle extraction of tannin and to soften existing tannins.

The structure of Cabernet Sauvignon wines means they are well-suited to oak maturation and bottle ageing.

The intense flavours, medium to full body and high tannins mean that a high proportion of new oak can often be used without overpowering the wine. French oak is widely used, with 225-litre *barriques* being the most popular size of barrel. The period of maturation can last anywhere from six months to three to four years, with 12 to 18 months being typical.

Blending often plays a vital role in Cabernet Sauvignon wines. On its own, Cabernet Sauvignon can have high tannins and a lack of body and therefore it is often blended with other grape varieties, particularly Merlot, which can provide a certain softness and fruit to complement Cabernet's lean structure. Shiraz is sometimes used to play a similar role in Australia.

Merlot

Merlot is considered the other great grape of Bordeaux. It buds and ripens earlier than Cabernet Sauvignon, with which it is frequently blended. Merlot is dominant in Saint-Émilion and Pomerol.

The best quality Merlots tend to follow one of two styles. Some are made from grapes that are harvested as late as possible to generate the maximum possible degree of intense purple colour, concentrated blackberry and plum fruit, and soft, velvet-textured tannins. These wines are often matured in new oak to add toasty flavours. This is the 'international style', and it is made with great success in many New World countries, the south of France, as well as some Bordeaux estates. The other style is produced by harvesting the grapes earlier to make a wine of medium body and alcohol, but which has higher acidity and more of a fresh red fruit character, as well as some vegetal, leafy aromas. The second approach is rarely found outside of Bordeaux.

Merlot is made using very similar techniques to Cabernet Sauvignon. The grapes are destemmed and crushed, and a pre-fermentation maceration may enable the winemaker to extract greater colour and flavour if desired. The skins of the Merlot grape tend to be a little more supple than those of Cabernet

ROSÉ WINEMAKING

In basic terms, rosé wines can be made in one of three ways (see flow chart *Making Dry Red and Rosé Wine* on page 65). In all cases oak is rarely used.

Direct Pressing

The black grapes are crushed and pressed in the same way as in white wine production. This extracts a little colour from the skin but care has to be taken not to extract too much tannin. This method often produces the most delicately coloured rosé wines.

Short Maceration

Black grapes are crushed and allowed to macerate to extract flavour and colour. The duration of the maceration will depend on how much colour and tannin the winemaker wants to extract from the grape skins. This maceration may or may not extend into the start of fermentation. The free run juice will then be drained off the skins and fermented at cool temperatures as if it were a white wine.

Blending

A small quantity of red wine is added to a white wine to produce a rosé. This is not permitted in the EU with the exception of rosé Champagne, but some fruity, inexpensive New World rosé wines are made in this way. PUMPING OVER

- 1. Pumping over by hand.
- Pumping over by machine. Note each tank has pipework with a spray that can be moved into position for pumping over.





Sauvignon so less rigorous extraction may be needed during fermentation.

The toast, vanilla and clove notes of new oak tend to suit the juicy, plum fruit of Merlot, and oak maturation is often used to enhance complexity. As with Cabernet Sauvignon, 12 to 18 months in oak is common.

Pinot Noir

In contrast to Cabernet Sauvignon, Pinot Noir is an early budding and early ripening variety that produces grapes with a thin skin. It is a very old variety and therefore there are many different clones available with varying characteristics. Pinot Noir can be made in a range of still wine styles – from light and fruity with red cherry notes, to complex and earthy with flavours of spice and forest floor. Colour and tannin can be tricky to extract from the skins, therefore it is important to maximise the extraction without overworking the juice. If this happens, the elegance of the primary aromas can be lost or overwhelmed.

As an early ripening variety Pinot Noir is best grown in cool and moderate climates. This means it is the perfect black variety for the vineyards of Burgundy. At an entry level, the wines can be very light, often with marked acidity and a hint of oak to provide structure. However, the wines from better sites in the Côte d'Or have greater intensity and complexity. They can range from delicate and almost floral, to more tannic and spicy. However, there is always the risk that in very cool vintages the grapes, especially those grown in the lesser vineyard sites, may not ripen fully, leading to wines with vegetal notes such as cabbage and wet leaves.

Within Europe, Baden in Germany is also known for the high-quality of its Pinot Noir wines. In the New World, high-quality Pinot Noirs can be found from a number of regions, including Los Carneros and Sonoma (California); Martinborough, Marlborough and Central Otago (New Zealand); Yarra Valley, Mornington Peninsula and Tasmania (Australia); Walker Bay (South Africa) and Casablanca Valley (Chile). Finding areas with the right climate is very important for Pinot Noir. If it is planted in a region that is too hot, the fruit flavours become jammy and unattractive.

Pinot Noir grapes may be handled in a number of different ways when they reach the winery. Some winemakers will choose to destem and crush their fruit. Typically a period of pre-fermentation maceration will take place to maximise colour and flavour extraction from the skins. Other winemakers may decide to include a proportion of whole bunches in the ferment, a practice that is becoming increasingly popular. This practice generally enhances the red fruit and floral characters of Pinot Noir. The whole bunches are gradually crushed by a series of punch down operations, and fermentation continues on the skins once the grapes have been broken up.

It is common for Pinot Noir fermentation temperatures to rise to above 30°C. Cooler ferments may be used for lighter, fresher styles but warm temperatures enable more colour, flavour and tannin to be extracted for longer-aged wines. Post-fermentation maceration is not widely practised for Pinot Noir.

Like Cabernet Sauvignon, Pinot Noir is also a grape that is often matured in oak barrels and it is usual for premium wines to spend between 12 and 24 months in oak. Pinot Noir's delicate flavours mean that too much new oak can be overpowering, so many winemakers will use second or third-fill barrels and only a small proportion of new barrels.

Pinot Noir is not usually blended with other grape varieties. However, the winemaker may blend different vineyard plots or wines that have undergone different treatments in the winery to increase complexity or improve consistency. The best wines can develop in bottle for many years, gaining flavours of forest floor and mushroom.

Syrah/Shiraz

Syrah grapes are small with thick, darkly coloured skins and they will not ripen in very cool climates. It is a grape





PUNCHING DOWN

- 1. Punching down by hand
- Mechanical punching down. This device can be moved on an overhead rail to work each individual tank in turn.

that can produce wines in a range of styles. Depending on the climate in which the grapes are grown and the winemaking techniques to which it is subjected, Syrah can range from medium-bodied with pepper and fresh black fruit aromas, to smooth and full-bodied with intense, very ripe black fruit flavours and hints of liquorice. Syrah's intensity of fruit flavours, together with its deep colour and high tannins, makes the best examples suitable for long-term ageing.

In Europe, Syrah is most famously grown in the Northern Rhône in France. The climate here is at the coolest limit for Syrah production and therefore wine styles will vary depending on the vineyard site. Lesser sites produce quite light wines with simple black fruit and herbaceous flavours, and often slightly grippy tannins. South-facing slopes, such as those found in Côte Rôtie and Hermitage can produce fuller bodied wines with berry flavours and hints of pepper, often complemented by notes of meat and leather after a little ageing.

Syrah is also widely grown in Languedoc and Roussillon in France, where it is blended with other black varieties such as Grenache, Mourvèdre, Carignan and Cinsault. The warmer climate here provides wines with riper flavours and tannins.

In the New World, Australia has a well-established reputation for its Syrah, here called Shiraz. Hot regions, such as the Hunter and Barossa Valleys, produce soft earthy, spicy styles of Shiraz with concentrated black fruit aromas. Cooler regions, such as Great Southern, Geelong and Heathcote, produce leaner, more peppery styles. Other classic areas in the New World producing Syrah are Chile, South Africa, Hawke's Bay in New Zealand, and Washington State in the USA.

Winemaking technique has an important impact on the style of Syrah/Shiraz that is made. Full-bodied, intensely ripe wines with high alcohol can be produced in warm and hot climates. These wines have typically been subjected to vigorous cap management to extract maximum colour, flavour and tannin from ripe or overripe grapes. Toasty flavours from a high proportion of new oak may complement the concentrated fruit flavours.

Winemakers in warm or hot climates can also choose to make a more restrained style, which often starts with harvesting the grapes earlier, giving wines with lower alcohol. These winemakers, together with those in moderate climates, tend to use gentler cap management techniques and may include a proportion of whole bunches in the fermentation. A fine tannin structure may be achieved by an extended post-fermentation maceration to extract and smooth tannins, and a number of winemakers are swapping their 225-litre *barriques* for 300–500-litre barrels, and using older oak. All of these techniques can result in the production of more restrained, elegant wines.

Grenache/Garnacha

Grenache is a late-ripening grape variety and needs to be planted in warm or hot climates. Conveniently, it also has a high tolerance for drought conditions. Its sweet, thin-skinned grapes give wines that are high in alcohol, low in acidity and are full-bodied with soft tannins and red fruit flavours.

In Spain, Grenache is known as Garnacha and it is an important blending partner in the wines of Priorat and Rioja. In Priorat, Garnacha is blended with Carignan to produce deeply coloured wines with high levels of tannin, fresh black fruit and toasty oak. In Rioja, Garnacha is mainly planted in Rioja Baja and, in blends with Tempranillo, it contributes perfume, body and alcohol to the wine. It is also widely grown in Calatayud, Cariñena and Navarra. A number of regions also produce rosé wines from Garnacha.

Grenache is the most widely planted grape variety in the Southern Rhône. It arguably makes its finest wines in the appellation of Châteauneuf-du-Pape. Here, it is usually blended with other grape varieties typical of the south of France, in particular Syrah and Mourvèdre, to produce fullbodied, richly textured wines with concentrated spicy red fruit. Grenache is also widely planted in Languedoc and

UNDERSTANDING WINES: EXPLAINING STYLE AND QUALITY

Roussillon where it is often blended with varieties such as Syrah, Mourvèdre, Carignan and Cinsault. The wines may vary in style depending on the blend of grapes and the vineyard climate but most tend to have a spicy, perfumed character reminiscent of the local herbs.

Outside Europe, the highest-quality Grenache is probably produced in Australia, particularly in the Barossa Valley and McLaren Vale. These wines used to be produced in intensely concentrated, full-bodied styles with high levels of alcohol. Now, they are made with more restraint. Old bush vines yield low volumes of highly concentrated grapes, giving robust, ripe wines with intense flavours of red berries and peppery spice.

Grenache tends to be destemmed and crushed on arrival at the winery. Pre-fermentation maceration is common, promoting the extraction of flavour and colour before alcohol levels rise in fermentation. Some producers choose to retain a proportion of whole bunches to enhance the ripe red fruit flavours of this grape. Fermentation is usually conducted in open top fermenters, often made from stainless steel or cement, though some producers may choose old oak. Gentle cap management techniques, such as punching down, are used on premium wines to produce wines with more finesse. Post-fermentation maceration may be carried out if the winemaker wants to enhance the tannic structure of the wine. However, usually Grenache will be drained off the skins at the end of fermentation.

Grenache is usually matured in large vessels such as *foudres* made from old oak, as the toasty notes from new oak can overwhelm Grenache's fruit flavours.

Grenache is rarely made as a varietal wine and more usually blended with other varieties. In hot climates it can be jammy and high in alcohol and therefore grape varieties that are even more tolerant of heat, such as Carignan and Mourvèdre, can lend fresher fruit flavours as well as greater tannin and colour to the blend.