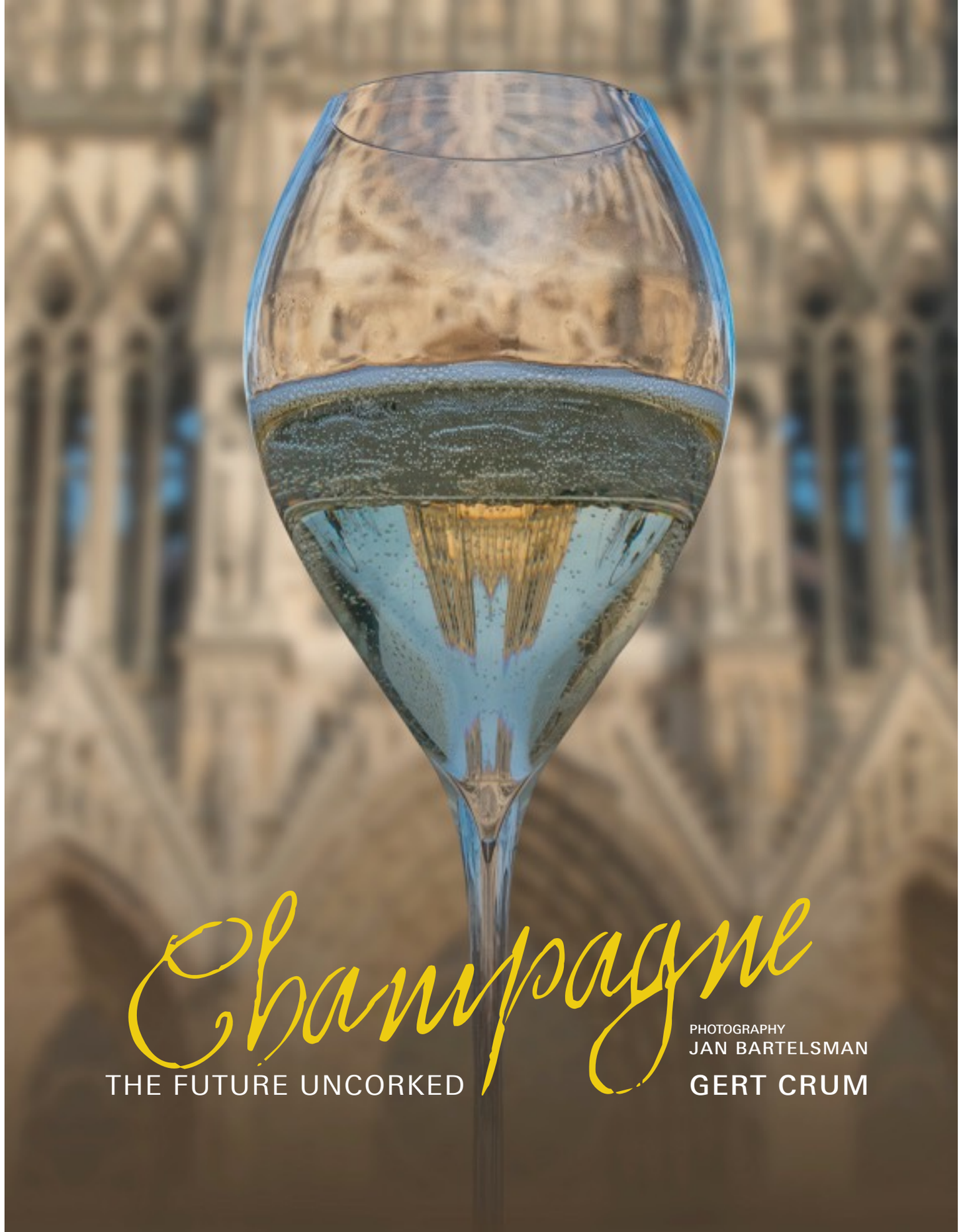

Champagne

THE FUTURE UNCORKED

PHOTOGRAPHY
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GERT CRUM

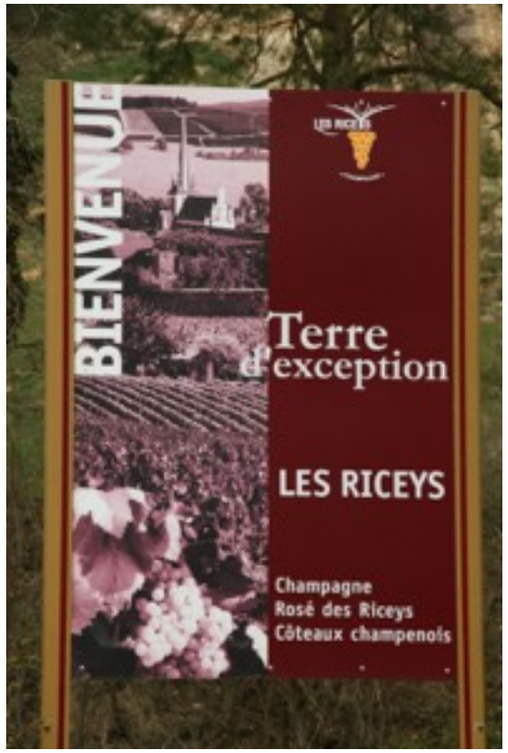
The province of Champagne

bubbly

In this chapter we will refer to both champagne and Champagne. When discussing the region where the wine is produced, we speak about *la Champagne* – using the feminine gender in French, and with the majuscule, because it is the proper name of the geographical area. However, when talking about the sparkling wine from the same area, we write it differently. It is the name of a type of wine and just like the French word for wine, *le vin*, it is also masculine – so we write it as *le champagne*. Following in the footsteps of French viticultural tradition, the reason behind the name "champagne" is geography. The official French name for the most legendary bubbly in the world is *vin mousseux de la region vinicole Champagne*.

Champagne is the source of the name for all sparkling wine coming from that region. It is surprising that there is just one *appellation* for this sparkling wine, in a rather large viticultural area. While it is true that Bordeaux is larger, it nevertheless has as many as 57 appellations. Even the Médoc by itself has eight. And Burgundy, with smaller vineyards than Champagne, boasts a hundred different appellations. Champagne and Burgundy are two great examples of extremes. Champagne covers an area of 34,306 hectares and there is only one appellation for the entire region, while the area of Burgundy is 28,500 hectares with a hundred different *appellations*! Isn't it odd, but at the same time intriguing? We could just brush it off as the French being oddballs that are impossible to understand. Or perhaps there is an explanation for that one *Appellation d'Origine*, Champagne?

Champagne is the name of a large province to the east and northeast of Paris. This old administrative region was known in the medieval period as *le comté de Champagne*, or the earldom of Champagne. In 1790, during the French Revolution, the administrative system was changed, and provinces were exchanged for departments. The current departments of Ardennes (08), Marne (51), Aube (10) and Haute-Marne (52) cover almost exactly the same area as the previous province of Champagne. Nowadays these four departments form the Champagne-Ardennes region, which is a somewhat asymmetrical triangle: the northern point poking into the bottom of Belgium, the base running along the top of Burgundy, the western side bor-



Controlled and/or protected?

As has already been mentioned, all sparkling wine from the entirety of Champagne has only one legal name: the AOC Champagne. Of course, the term A.O.C. has not been the official term in Europe since 2009: the new formal term being used is A.O.P. The appellations used within the European Union are no longer controlled ('*contrôlée*') but protected ('*protégée*'). The French don't bother with any of this and continue using A.O.C. both when speaking and writing – even in Champagne, where the generic name 'champagne' is nowhere more protected. Legal steps are taken immediately when the name is used inappropriately and they are almost always successful, so that the name champagne is fanatically protected. However, 'AP Champagne' or 'AC Champagne' are never to be found on the label of a champagne bottle; instead just the word 'Champagne' is permitted. In contrast to other appellations, however, the provenance must be printed on the cork. The French wine legislator is inconsistent, to say the least.

The 34,306 hectares of Champagne make up about four

dering the *Île de France* (the Paris Basin), and the eastern side touching Lorraine. It is a vast area, and as we travel through these departments it is striking how large and empty the land is here. Champagne is forested and very rural. There are immense fields of grain, corn, sunflowers, sugar beet, rapeseed and clover. The French speak in this context of les *agro-industries*. In May this region is a riot of colours, with many shades of green (from the vines that are beginning to spread, amongst other vegetation) and the overpowering hard, pure yellow of the rapeseed fields.

But Champagne did not become internationally famous for its sugar beet, clover and rapeseed. The reason why Champagne is written and spoken about all over the world is purely the cultivation of several varieties of grape in a unique soil, in a relatively harsh climate. This is how a wine can be created that, with the help of humans, is of a special class and can be considered unique. Champagne owes its fame to champagne, the sparkling wine from that precisely demarcated wine region.

It should be mentioned for the sake of completeness that non-sparkling wines are also produced in Champagne. Although production is limited and happens less often, it is legally permitted. There are two official appellations for still wines from Champagne: AC Coteaux Champenois and AC Rosé des Riceys. The first is available in white, rosé and especially in red; the most famous of the reds is probably Rouge de Bouzy. Rosé des Riceys is a still rosé, achieved by a short maceration of pure pinot noir grapes from the municipality of Les Riceys. In three villages in Les Riceys, deep in the south of the Aube, rosé des riceys, coteaux champenois, and champagne are allowed to be produced.

Champagne viticole

Disney and De Gaulle

The *Champagne viticole*, as it was first legally defined on 22nd July 1927, is made up of just a few islands in the huge area that is the Champagne-Ardennes region. Three of the four departments in the region have vineyards – the Ardennes department being the only one without any vineyards at all. However, there are also vineyards outside of the Champagne-Ardennes region, which also means that they are outside the historical province of Champagne. We find vineyards in the southwest of Aisne (02), which belongs to the Picardie region, and in the northeast of Seine-et-Marne (77), which is one of the departments making up the Île-de-France. In this department, however, we are only talking about a relatively small area, around the Marne river. *The Champagne viticole* therefore runs from Disneyland Paris in the west, to Colombey-des-deux-Églises – one of France's most famous villages because General De Gaulle lived and is buried there – in the southeast. It is slightly less than 120 km from west to east, while the champagne region measures some 150 km north to south. This large area is about 34,300 hectares spread across 319 municipalities. Of this acreage, 33,762 hectares were in production during the harvest of 2015. The lion's share – 22,428 hectares – can be found in the department of Marne, while Aube with 8,100 hectares and Aisne with almost 3,400 hectares are also important. A small calculation shows that the departments of Haute-Marne and Seine-et-Marne are only marginally important for the *Champagne viticole*.

Expansion

The importance of the two core departments, Marne and Aube, is only going to grow in the near future. In the spring of 2008, at the request of wine growers and producers in Champagne, the *Institut National de l'Origine et de la Qualité (INAO),* agreed to review the *aire géographique* of the *Champagne viticole*. In five years there will probably be forty new crus, or wine villages, which will mainly be located in the aforementioned departments: 22 in Marne and 15 in Aube. Furthermore, Aisne will gain one wine village and Haute-Marne will gain two. At the same time, two wine villages in the department of Marne – Germaine with slightly less than 2 hectares and Orbais-l'Abbaye with 42 hectares – will be excluded. The new total will therefore be 357 crus. It is still not entirely clear what the net gain in vineyard area will be for the *Champagne viticole* with this gain and loss of municipalities.

The process is ongoing and takes a lot of time. The names of all 357 crus were published in 2011, including the new ones. Furthermore, the criteria were established according to which all *crus* will be assessed. These include technical, geological, geomorphological, historical criteria, amongst others. Once the criteria were established, the experts and researchers were chosen in 2013. The result of their research will be released at the end of 2016, or the beginning of 2017. It will then be the time, however, for all stakeholders to raise any possible objections, and all objections – and there will be a flood of them – will have to be weighed up and considered. So it will still be a few years before the job is done.

The aim is to have everything cleared up by 2020. The necessary field research is being done in all crus, including Ay, Cramant, and Verzenay, to determine which fields and which hills are suitable for planting vineyards. However, there is also the possibility that certain parcels that are currently in use for champagne production might be scrapped; which means that theoretically, there is a chance that some parts may be downgraded. The expansion of this area for vineyards is particularly desirable, because demand is outpacing supply from the region. However, the original request was not well timed. It would have been better if the procedure had been initiated fifteen years earlier, so that those needs could be met now. Before the current request for expansion is actually realised – that is to say that before the best hills are found, the vines are planted, the new vineyards are able to deliver grapes for champagne production, and the respective champagnes come on to the market – 2020 will have come and gone. Perhaps the additional champagne will only arrive on the market when demand has once again fallen. Champagne is a product that is very sensitive to the economic thermometer.

Soft stone, hard circumstances

Champagne is unique, and this has everything to do with the special natural conditions for viticulture. Due to the soil composition and the specific local climate, sparkling wines are produced that, thanks to their sophistication and elegance, are difficult to match elsewhere. The calcareous soils and the cool climate of Champagne produce grapes that when harvested, contain a number of acids and relatively low sugar level, while still being physiologically ripe. This combination of high acidity with relatively low sugar levels at physiological maturity is crucial and forms the foundation of the lightness, elegance and sophistication, which are the keywords for the best among sparkling wines – the keywords for a good champagne.

lightness, elegance and sophistication keywords for a good champagne

The boundaries of the Champagne wine region are drawn on the basis of *terroir* that is desirable for the grapevine. This concept covers important aspects such as soil composition, structure, and mesoclimate, while physical landscape factors such as topography and exposure also play a role. The imposing hills, *falaises* or cuestas as they are called in geology, between Reims and Vertus and south of Épernay, were formed about seventy million years ago. The hillsides were created by upward forces to the north and east of the Bassin de Paris, when the centre of the basin collapsed under pressure from the weight of the sediments. The face of these formations was formed later by erosion. The limestone rocks in particular were fragmented during ice ages by freeze-thaw weathering. Rivers and streams have slowly wormed their way over time through the soft rock, creating numerous valleys and dells.

The most important of these is the Vallée de la Marne. Some of the other valleys of note are the Vallée de l'Ardre, the Vallée de la Vesle, the Vallée de la Livre, the Vallée du Cubry, and the Vallée du Surmelin. Through the process of solifluction, a number of foothills of lime and chalk were also created at the end of the ice ages, which often stretch diagonally across the hills. Solifluction is a geological process whereby the upper layer (the chalk layer in this case) thaws on sloped terrain, while the deeper layers remain frozen. The top layer then glides, like a fat, slow teardrop into the valley, forming a sort of incline like a transept. You can see this stretched across the sides of hills here and there in the Montagne de Reims and the Côte des Blancs.

Today we find a gently curving landscape with juts of chalk here and there, which while not so high, are steep.

CHALK EVERYWHERE.

Chalk, 'the salt of the earth'

Some of the most striking are (among others) Mont Rizan and Mont Boeuf in Verzenay, Mont Bernon, in Épernay, the Butte de Saran between Cramant and Chouilly, Mont Aigu in Chouilly, Mont du Gruguet in Mareuil-sur-Ay, La Côte between Ay and Dizy, and of course, the steep slope below Hautvillers (the name says it all), which is on a high chalk hillside. The Butte Saint-Nicaise also belongs to this list, but on this chalk hill in the middle of the city of Reims hardly any vines can be found. Here, great underground vaults were dug in the soft chalk when the city was built. These vaults, called *crayères*, are now used as cellars by several of the large champagne houses.

One of the many beautiful crayeres. Originally a chalk pit, now a champagne cellar.

le sel de la terre

Champagne vineyards can often be found on these as well as other surprisingly steep slopes. In some places, the wine fields stretch down to the flatter land at the foot of the Montagne or Côte. The vines are rooted in the best parts of chalk, limestone and marl, which are all sedimentary rocks of animal origin. The limestone layer is in many places 200 metres, or even up to 300 metres thick. The main fossil in the top layer, where the vine takes root, is the belemnite, a type of squid, which is why the bottom layer is called *craie à bélemnites*, or 'squid chalk'. Two hundred and fifty million years ago there was a vast but shallow inland sea in the aforementioned low-lying Paris Basin. When the water withdrew 50 million years ago, a thick layer of fossils was left on the eastern edge (the modern vinicultural area), predominantly composed of sea urchins, baby oysters and squid. Above this a thin layer of earth was left, only a few centimetres thick. This specific soil composition and structure contributes significantly to the character and quality of champagne, because the roots of the vines penetrate deep into the soft stone and feed on a rich variety of minerals. Anselme Selosse says that he can taste '*le sel de la terre*' ('the salt of the earth'), or the resonance of of the former sea, in a good champagne. And Rodolphe Péters, of Pierre Péters in Le Mesnil-sur-Oger, also says in slightly different words that you can experience the geological history of what is now Champagne in a quality champagne. His Pierre Péters Brut Blanc de Blancs Grand Cru 'Les Chétillons' reminds him of briny water and oysters.

Do not think, however, that chalk is the dominant component of the soil in the entire Champagne region. It is really only the case in the Vitryat (the region in Vitry-le-François), in parts of the Montagne de Reims, in the Grande Vallée de la Marne, and of course in the Côte des Blancs. In contrast, chalk has a limited to very limited presence in the soil of the Petite Montagne de Reims, the western part of the Vallée de la Marne, the Coteaux Sud d'Épernay, the Massif de Saint-Thierry, the area around Congy and Villevenard, the Côte de Sézanne, and the Côte des Bar in the Aube, to name a few examples.

Thanks to the steepness of the slopes, good drainage of any precipitation is assured. At the same time, perfect water absorption is guaranteed by the same soil composition and structure. The highly porous chalk, a little less than 3 metres below the surface, holds seventy-nine to one hundred and five gallons per cubic metre, which is gratefully used by the vines in times of (relative) drought. It is a natural water storage system, from which the plant can regulate, using its capillary system, whether to absorb water – and if so, how much. It is ingenious compared to the irrigation systems that can be seen in modern viticulture countries. Chalk and limestone also act like sponges and seem to be perfect for water management, which is essential for any vineyard of note. Marl contains clay and therefore ensures more water retention. Furthermore, the calcareous soil quickly absorbs the warmth of the sun and releases it in the evening and at night. This characteristic of the soil is not unimportant, considering that Champagne borders the area in

Anselme Selosse.

which, in the northern hemisphere, viticulture on a large scale is still possible. The average annual temperature has risen over the last 25 years from 10.4°C to 11°C, but it still remains only barely above the absolute minimum temperature at which the vine can still thrive. Fortunately, the vineyards are located on slopes at an altitude of 100 to 300 metres above sea level, which keeps them reasonably safe from the spring frosts that can strike here quite often, especially in the lower elevations. The Vallée de la Marne is the most affected by frost, which can cause damage in late April and early May. But the risks in the Aube – due to the contours of the landscape – are also significant. In the second half of April in 1981, 1986, and 2016 the area was heavily hit, causing significant damage to the young shoots. The average number of hours of sunshine in Champagne amounts to 1,680 per year, and for viticulture that is a bit on the low side – Bordeaux gets more than 2,000 hours and Burgundy also benefits from almost 2,000 hours of sun annually.

Vines face a battle in Champagne, and it is therefore important that the area between Reims and Épernay, and also south of that city, is wooded. It may seem insignificant, but the woods positively affect the mesoclimate. The trees on the plateaus of the ridges form a windshield, stabilising the temperature somewhat and maintaining humidity levels. At first glance these are all minor details, but they are precisely the details that the vine is sensitive to in the local climate, which varies from place to place. Chardonnay, for example, hates the wind. That is why we mainly see this grape variety in Champagne on the east-facing slopes. For instance, we see vineyards on the slopes of Cramant, Avize, Oger and Le Mesnil, which make up the Côte des Blancs south of Épernay, and also on the eastern slopes of the Montagne de Reims in Villers-Marmery, Vaudemange and Trépail, to name but a few. The forest at the top of the hills, and the fact that the slopes face east, ensure the best protection for the white varieties against the westerly winds that are common in Champagne. This is why it is so important that most of the vineyards are located on slopes, and often steep slopes. The gradient of the slopes in Champagne is, on average, 12 per cent, but there are some of up to 60.65 per cent. At such angles the amount of sunlight received, even at such a high altitude, is still optimal or near-optimal. It is no coincidence that already in the 17th century in Champagne there was talk about the *vin des coteaux*, or the 'wine of the slopes'.

THE CHAMPAGNE CLIMATE - CHALLENGING AND AT THE SAME TIME AN OPPORTUNITY.

Magnificent mosaic

It is precisely this rather harsh environment for the vine that makes a crucial contribution to the inimitable character and unmatched quality of champagne. It is the northerly latitude that creates a cold and harsh climate for the vine, while the influence of the ocean (the Channel being only about 250 km from Reims as the crow flies) means that the difference in the seasons is not too striking, and at the same time ensures the necessary rainfall throughout the entire year. The combination of relative humidity and relative coolness is also fortunate, because if there is something that the vine cannot tolerate, it is warm moisture. At the same time, we feel the continental influence in Champagne, with summers that are quite sunny, and winters that are cold and sometimes even destructive. This is felt particularly in the Aube rather than in, for example, Aisne and Marne. And although Jean-Baptiste Lécaillon, cellar master at Louis Roederer, talks about "marine" and "continental" harvest years, it is more a climatological mix of both. The consequence of this blend is that the growth and ripening of the grapes takes a long time – though

millésime

the high average yield per hectare also plays a role. The slow maturation leads to a refinement of flavours, a relatively high acidity, and relatively low sugar levels. The grapes reach physical ripeness with a potential alcohol content of around ten per cent. The harvest used to take place in mid-October when the grapes had an average potential alcohol content of nine per cent. Producers would jump for joy if the potential alcohol percentage occasionally exceeded ten – then they had a reason to produce a *millésime*. The situation has been changing since the 90s, however. Increasingly producers harvest around mid-September, or even earlier, and it is more common for grapes to have a potential alcohol percentage of ten or even slightly higher. However, the acidity of the grapes remains relatively high. The combination of high acidity and relatively large amounts of sugar means a great year for champagne: a year with on the one hand, finesse, elegance, and lightness of structure and on the other hand, strength, depth, and breadth of subtle flavour.

But what really makes Champagne special is the unique soil conditions and the equally special climate conditions, which initially gave only thin, sour, sometimes even poor still wines; but thanks to human creativity and ingenuity, these were transformed into playful, stimulating, and festive sparkling wines. The high yields per hectare, especially given the northern location, ensure that the flavours are not too strong: for example, 2004 was an exceptionally generous year for chardonnay, with extremely high returns – sometimes with 250 hl/ha and on average about 150 hl/ha! Apparent weaknesses are transformed into great strengths. Sour and thin base wines with subtle aromas are the basis for champagnes with finesse and elegance. In a marginally warmer climate than Champagne's, the ratio between sugars and acids in the grape would not be optimal for the production of perfect sparkling wines. And lower yields for pinot and chardonnay, like those in the great vineyards of Burgundy, would result in the aromas being too heavy – the wines would have too much structure.

The subtle differences in climate from one place to another, caused by (among other things) the changing nature of the landscape, the variation in the soil composition, and exposure to the wind and sun, provide a magnificent mosaic of microterroirs. We recognise this great diversity in the various districts, such as the Montagne de Reims, the Vallée de la Marne, the Côte des Blancs, the Massif de Saint-Thierry, the Vallée de l'Ardre, the Côte des Bar, the Butte de Montgueux, the Côte de Sézanne, the Région Congy and the Coteaux Vytriat, and in the more than three hundred crus. However the districts are often further subdivided, for example in the Petite and Grande Montagne de Reims, or in the Vallée de la Marne and the Grande Vallée de la Marne. Furthermore, producers are increasingly not only distinguishing by *cru*, but they recognise the quality of certain plots in the viticulture municipalities – of cer-

Cramant, grand cru in the Côte des Blancs.

tain *lieux-dits* (there are more than 280,000 parcels recognised with a proper name) – above others.

Battle for a designated area

Despite the great diversity of *terroirs* – and therefore also the diversity of characters and qualities of base wines and consequently of characters and qualities of champagne – there is only one protected *appellation* for the entire wine region of Champagne. At the same time champagne is the only French wine where there is no mention of its official status on the label, as has already been mentioned. Never (well, almost never) do you see AC Champagne (Appellation Champagne Contrôlée), or AP Champagne (Appellation Champagne Protégée). Nevertheless, champagne comes from a well-defined, legally designated area of production. The *appellation d'origine contrôlée* exists for Champagne. It dates back to 29th June, 1936. Champagne is one of the first wine regions in France where the rights to a legally protected appellation have been honoured by the *Comité National des Appellations d'Origine*, founded in 1935. The legal demarcation of the wine-growing region of Champagne took place even earlier. The first borders were drawn in the years 1907 – 1911, but they proved to function poorly. Aggressive *négociants* systematically kept the price of grapes low by buying grapes in Anjou, Touraine, and Lorraine (in Toul). There had to be a better way: because of the systemic buying of grapes elsewhere, after the harvest of 1910 a true *révolte des vignerons de la Champagne* broke out. In the spring of 1911, the offices of the 'swindlers' in Ay (including those of Ayala and Ducoin) were set on fire.

The army was subsequently called in to quell the riots. Quickly after that, the

Ayala built a new winery after the grower riots of 1911. Reconstruction took place after the Great War, hence the art deco details.

boundaries of the Champagne wine region were redrawn and it was explicitly forbidden to buy grapes from outside. Much to the disappointment of the wine growers, the Aube was placed on the wrong side of the newly drawn boundaries. Led by Gaston Cheq, the Aubois continued to protest against the designated boundaries. There was even more dissatisfaction with the boundaries of 1911. This led to work on a second, revised and more precise designation of the Champagne region in the period 1919 – 1927. The Aubois had to wait until after a '*Guerre de 20 Ans*' for their land to be completely counted as part of the wine region of Champagne. Included in this was the agreement that they would have to clear the field of gamay, and pinot noir thus became the grape of the Aube. Since then, Gaston Cheq has had a monument in Bar-sur-Aube. The current and – since June 1936 – legally existing production area is based on the designations of 1927.

A crescent moon

Despite all the turmoil around drawing boundaries, the Champagne viticole is still known locally as the "*côte de l'Île-de-France*". It forms the shape of a crescent moon, or call it a croissant, with the bulge to the east carelessly strewn about with very calcareous sediments dating from 90 to 70 million years ago – huge, thick slices of soft limestone, and more precisely chalk. These are the so-called *cuestas*, where erosion (from glaciers in the Quaternary and from rivers and streams) formed all sorts of valleys. The best known of these is the Vallée de la Marne. This gives you an image of the *falaises* – the ridges in the districts of Reims and Épernay. Nonetheless, a number of municipalities in the south-east of the department of Aube (around Bar-sur-Seine and Bar-sur-Aube) belong to it as well, as does the isolated location of Montgueux to the west of Troyes. In general, the vineyards in the Aube are fairly important, because they account for almost a quarter of the total vineyard area of Champagne, as well as other areas around Sézanne, Châlon-en-Champagne, and Vitry-le-François in the department of Marne. And finally, in the south