

CHÂTEAU DE BOUDRY
AMBASSADOR FOR THE NEUCHÂTEL VINEYARD
WINE CELLAR & MUSEUM

HALL

Before we begin the tour itself, it's important to understand why there's a museum dedicated to the vineyards and wine of the Pays de Neuchâtel region. Looking back through history, we discover that the vineyards -and the wine they produce- have been in use for over 2000 years. In fact, viticulture dates from the La Tène's period, time when the Helvetians occupied the territory now known as Switzerland. Like the rest of the Gauls, the Helvetians were great wine lovers. After tasting wine brought from Greece and Italy, they began to cultivate their own vines. The wines they imported from the South were stored in barrels -which they invented- rejecting ceramic jars or amphoras as outdated containers.

Subsequently, throughout the Middle Ages and right up to the dawn of the 19th century, vineyards and wine would play a significant economic role in the Neuchâtel region, coming gradually -over hundreds of years- to represent the major economic activity in the entire region. This predominance was important on a few levels : vineyards and viticulture influenced thinking, shaped the indigenous architecture and allowed great economic growth, bringing to the region the cash it so badly needed.

It's important to note that the 6 million litres of wine produced by Neuchâtel vineyards during the 17th and 18th centuries, around 4 million litres were drunk within the region itself, the 2 million remaining were exported to the cantons of Berne, Soleure, Fribourg and Lucerne in German-speaking Switzerland, bringing much-needed money to the region.

It was only in 1848 -when the Republic had superseded the Principality- that the vineyards, those surrounding the town of Neuchâtel, began to disappear, giving way to the buildings constructed to house the influx of settlers in the region following the freedom of trade and industry newly granted to the inhabitants of the Neuchâtel.

With the Republic came the abolition of the privileges enjoyed by the old corporations -among them the *Compagnie des Vignerons* (Growers' Corporation)- which was one of the largest organisations in the town of Neuchâtel. The vineyards were no longer protected and started to turn into building sites.

The wine and vineyard museum has been designed to tell the story of the vineyard both past and present, with old and new techniques compared. The museum provides a link between a glorious winegrowing past and an equally productive present, even if the vineyard no longer enjoys the predominant status, it once did.

1	<p style="text-align: center;">MOSAIC OF A <i>SYMPOSIUM</i> FEATURING AN <i>ASAROTOS OIKOS</i> OR "UNSWEEP ROOM" ROMAN ART, EASTERN MEDITERRANEAN, LEVANT</p> <p>This beautiful mosaic depicts a scene from a banquet, with 9 figures recumbent on a semicircular couch known as a <i>stibadium</i> or <i>sigma</i>. Tended to by 7 servants, the guests all recline on their left side, in accordance with Roman customs governing the <i>symposium</i> or banquet.</p> <p>As illustrated by the attitude of the guests -who appear drunk and in various states of undress- and the remnants of food scattered about the floor, the meal is well under way. The banquet is taking place in the <i>triclinium</i> -the formal Roman dining room- characterised by the drapes covering the windows and the position of the banqueting couches which are arranged around a central table.</p>
2	<p style="text-align: center;">AMPHORAS & ROMAN BOTTLES</p> <p>In the showcase, 3 Roman blown-glass bottles dating from between the 1st & 4th century AD (private collection) and wine amphoras from the 5th century BC and from the 1st century AD.</p> <p>Archaeologists have never found intact amphoras in the Neuchâtel region, only a few shards from wine amphoras around La Pointe du Grin which nevertheless attest to the use of wine in the region in Roman times.</p>
3	<p style="text-align: center;">LOUIS-HENRI DE MEURON (1868-1949) – SOLIDARITY, FRATERNITY</p> <p>Painted especially for the Bern exhibition of 1925 for the canton of Neuchâtel Winegrowers' Society, this painting depicts a scene of altruism taking place above the village of Saint-Blaise.</p> <p>Custom dictated that when one of the members of the Society was ill or suffered an accident, the other members would take over any work that needed doing on the vines of the incapacitated member.</p> <p>We see the afflicted man, supported by his wife and weak old father, and his colleagues in the vineyard using a grape hoe to carry out the primary tillage. 2 women are placing the stakes across each other.</p>

KNIGHTS' ROOM

The title "Knight's Room" is a modern name. In fact, this *aula magna* (great hall) was a large room where justice was administered in days gone by. The Château de Boudry has a very long history. Built during the 12th and 13th centuries, almost certainly on the site of an old wooden fortification, the Château stood on the western border of the land owned by the Counts of Neuchâtel. Continually enlarged until the 15th century, it eventually covered the entire hill, encompassing the Marfaux Tower which today marks the southern limit of the esplanade. The Château included several towers and a large keep, which the end of this room, where the hearth is, once formed a part.

Up to the 15th century, the Counts of Neuchâtel came regularly to stay at the Château to sample Boudry specialities. As they lived less and less often in their county, they abandoned subsequently the Château to the Lords of the manor, who were left to look after it. With a lack of maintenance, some of the buildings and towers collapsed, and have to serve as quarry by the townsfolk. From that point, the Château became the sole seat of justice for the Jurisdiction of Boudry and a prison. Many accused were tried here over the centuries, and many witches were subjected to inquisition (involving torture, mainly strappado) before being condemned either to death or banishment. The condemned weren't kept in prison for long, as it was a costly business.

Nowadays this room is used for banquets, dining and seminars.

4

GUSTAVE JEANNERET - LES PRESSUREURS

Dating from 1887, this painting shows the inside of the CROIX-BLANCHE PRESS at Cressier. GUSTAVE JEANNERET produced the painting from photographs, he made then several sketches and a squared-up version also kept in this room.

This painting -which can be seen as an example of naturalism- is very interesting in ethnographic terms as it illustrates the effort required by the men in the final stage of pressing ; they're in the process of turning the pressing screw the last few times. On this press, we can see a ratchet system which allows the crank to be reversed without the need -as was previously the case- to remove it from its support. We can see that the beams rest directly on the plates, which are known as *l'ivrogne* (the drunk) and placed on the grapes themselves. Note that the cage containing the grapes at the start of pressing is no longer present, having become unnecessary as the grapes have been compacted. These men are in the process of squeezing out the last few drops of juice.

Opposite is the squared-up version of this painting, showing the rough lines that allowed the artist to transpose the sketches onto the canvas.

5	<p style="text-align: center;">JEAN LURÇAT - TAPESTRY "THE GRAPE HARVEST"</p> <p>Created in Aubusson (~1960), this tapestry is considered as one of JEAN LURÇAT's masterpieces. It depicts male and female pickers spread among enormous vine stocks.</p>
6	<p style="text-align: center;">THE CV²N</p> <p>This room contains a window and several paintings representing the COMPAGNIE DES VIGNOLANTS DU VIGNOBLE NEUCHÂTELOIS (Wine Brotherhood of the Neuchâtel Vineyard). Founded in 1951, this brotherhood is a fervent defender of both the wines of Neuchâtel and the Château itself, acting as the ambassador for the Neuchâtel vineyard.</p>

MUSEUM STEPS

7

LUCIEN SCHWOB (1895 - 1985) - DRAWINGS & WATERCOLOURS

The Museum has a large collection of drawings and watercolours by LUCIEN SCHWOB, created during the 2nd World War in La Béroche. These fine observations captured from life show numerous winegrowing operations and practices. The "Cavalier Room" houses SCHWOB'S only oil on canvas painting with a winegrowing theme is dating from October 1945. In it, he applied all the principles he had learnt following in the footsteps of JACQUES VILLON, composing the work using strong lines based on the golden ratio and the rule of thirds.

8

GUSTAVE JEANNERET - FIRST TRIPTYCH

It's important to note that GUSTAVE JEANNERET was one of the few realist and naturalist artists to have chosen winegrowing as his subject during the last third of the 19th century. Indeed, at the time, very few artists dealt with the subject of winegrowing, except for a few scenes depicting harvesting or cellars. It could be said that the green shoots of the vines weren't in keeping with the academic trend of the era. GUSTAVE JEANNERET -with a body of work comprising around 100 canvases which depict the subject of winegrowing- was something of an exceptional figure. These standing serves to invest his paintings not only with great pictorial significance but also with considerable ethnographic value, as they allow us to observe the vineyards before they were subjected to the transformations brought about by the appearance of phylloxera. This triptych -which dates from around 1889- therefore shows images from a world of winegrowing which has now disappeared.

AT THE LEFT-HAND PANEL, we can an old grower explaining to a younger one -busy keeping himself warm- the art of pruning. The vines are in fact pruned in fine, clear weather during February. It's interesting however to note -by looking between the legs of the standing grower- the type of vine : we realise that the vine stocks aren't planted in straight lines but rather haphazardly, using a technique known as *la foule* (crowding).

As we move to **THE RIGHT-HAND PANEL**, we see a grower turning the soil using a tool known as an *oiseau* (the bird), on account of its shape : the handle represents the beak, the body and the head. On the ground, we see a *fossoir* hoe (rape hoe) which was the type of hoe used to carry out the primary tillage in the vineyard. However, note how the older stocks rub shoulders with the younger ones on the vine itself. During pruning, all the shoots were cut from the spurs of the vine stocks, except for a few carefully selected ones. Indeed, during the peak season, growers would mark the most robust and productive plants, that's those they wished to layer. These plants would be left with 2 or 3 shoots during pruning.

	<p>In March, a hole or ditch was dug at the base of the plants, and a little manure placed in it, then the woody tissue of the plant was folded in on itself, with care taken to ensure that the shoots were left free to emerge. It was then completely covered with soil. The shoots would give rise to new plants. Thus, the vines were continuously productive for decades, even centuries, as they never required digging due to the constant renewal by layering. We estimate that 4 to 5 % of the plants were layered in this way.</p> <p>The CENTRAL PANEL shows a typical scene of harvesting in the Neuchâtel region. The custom was to crush the grapes directly in the vineyard, for 3 reasons :</p> <ol style="list-style-type: none"> 1. purely economic : many growers sold their harvest directly after the grapes had been picked. To enable them to account properly for their sales, they required correctly calibrated tubs. In Neuchâtel, 100 litres wooden containers known as <i>gerles</i> (hods) were used. Early on, the grapes were crushed using a simple stick, and later using rollers like the one shown ; 2. tax-related : the State imposed tithes on the vineyards. For these to be collected, the harvest from each vineyard had to be placed in the wooden hods. Normally, 1 hod out of every 11, or 1 out of every 17 was taken. This tax was far from insignificant. Up to the start of the 18th century, the State took around 1/3 of its income from the vineyards and their wine ! 3. largely anecdotal : as the Neuchâtel vineyards were in the northern winegrowing area, the grapes were crushed in the vineyards in order to benefit from the sun's rays, which would begin the 1st fermentation process in which the sugar turned into alcohol. It wasn't uncommon for harvesting to take place very late and, some years, for the grapes to freeze in their wooden containers. Unlike today, there was no way to heat the cellars in order to control the fermentation.
9	<p style="text-align: center;">GUSTAVE JEANNERET - THE HOD CARRIERS</p> <p>Less of a realist work than the triptych, this painting depicts 2 growers carrying a hod with the help of a pole. The hods full of crushed grapes from the vineyards were carried to the harvesting cart and then unloaded from the cart at the entrance to the press.</p> <p>The carriers had to coordinate their movements, holding one hand at the base of the hod to prevent it from tipping.</p>

FIRST ROOM

10

THE VINEYARD : A 2000-YEAR TRADITION

In their wild state, vineyards undoubtedly allowed the Helvetians to discover the joys of drink. Probably cultivated since the 2nd century AD, they gradually covered the Neuchâtel shores. Historically endorsed in 998, they became the country's main economic and financial resource. In the Middle Ages, the Counts took over 1/3 of their income from them. Almost everybody cultivated at least a few vine stocks. The money flooded in thanks to the trade in wine established with the bourgeois cantons of Bern, Soleure, Fribourg and Lucerne.

The winegrowing industry reached its peak in the 17th century, with vineyards covering more than 1'300 hectares. As things progress, the big owners handed over the viticulture to jobbing winegrowers -whom they widely oversaw through the Growers' Corporation created in 1687- giving rise to a kind of winegrowing working class.

In the 19th century, the vineyards were gradually neglected. Industrialisation, urbanisation and the emergence of diseases and pests -such as powdery mildew, blight and phylloxera- led to the disappearance of many plots.

In the 1960s, the boom in construction was so great that the State was forced to take protective measures and fix the surface area of vineyards at around 600 hectares.

11

THE MEN & THE YIELD

The Greeks and Romans used amphoras. The Gauls invented the barrel. In our regions, the use of bottles didn't become widespread until the 18th or even 19th century, when the winegrowers began to feel their wine deserved to be kept for several years.

Nowadays, storage boxes and Tetrapaks compete with bottles made from glass, which remains the best material for storing wine.

The use of wooden dowels wrapped in oakum as bottle stoppers gave way to cork stoppers. Nowadays, due to a lack of raw materials, the use of synthetic or glass stoppers, or simply metal caps, is becoming more and more common.

Looking down the centuries, it's impossible to calculate the number of *barrisques* or *bossettes* (barrels) and wheeled barrels that have left the shores of Neuchâtel heading for destinations all over the world. As early as the 18th century, the wines of Neuchâtel were being sent as far as South Africa and America.

USE OF THE BOTTLE

The bottle is today the quintessential way of packaging wine. However, its use didn't become widespread until the latter part of the 19th century. Before this, bottles were reserved for wines deemed worthy of ageing. This meant that in the Neuchâtel region, bottling took place only every 3 or 4 years. Indeed, the quality of the wines fluctuated from year to year, so bottling wine allowed prices to be speculated on, and thus a greater profit to be made on certain fine vintages.

However, bottling wasn't as simple as one might imagine. 3 reasons for this :

1. **THE BOTTLES THEMSELVES WERE EXPENSIVE.** They were all hand-made, and the shape and capacity varied from bottle to bottle, the same applied to their necks ;
2. **THE COST OF THE STOPPERS** (which came from Spain) **VARIED FROM YEAR TO YEAR DEPENDING ON THE MARKET.** Before the use of cork, bottles were sealed using a piece of wooden dowel wrapped in oakum and covered in so-called *tar* (a wax-like substance) ;
3. **AS THE ART OF WINEMAKING HADN'T YET BEEN FULLY MASTERED,** it was very common, if the wine was bottled at the wrong moment, for improper fermentation to occur inside the bottles, causing many of them to explode in the cellars. The sides of these old bottles weren't of a uniform thickness, and so the slightest difference in pressure could cause them to explode. It's common to read in the archives about winegrowers losing up to $\frac{1}{3}$ of their bottled stock. However, the appreciation on the sale of the wine enabled them to make up for this.

In the 18th century, a fledgling commercial winery -THE ROCHETTE WINERY- used bottles to add value to its wines. In the 19th century, the sale of sparkling wines provoked a massive surge in the purchase of bottles from the glassworks at Saint-Prex (Vaud) and LA VIEILLE LOYE (Franche-Comté). The glassworks at Doubs and BLANCHE ROCHE -which sold blue glass bottles- had disappeared by the start of the 20th century.

The natural carbon content of Neuchâtel wine required the use of relatively strong bottles to prevent explosion during late fermentation. To achieve this strength, growers used bottles made from thick glass reinforced by a ring around the neck and a very concave base. The Neuchâtel bottle was very similar to the Burgundy bottle, strongly suggesting a direct influence.

Following years of commoditisation, the Neuchâtel growers began to use a new model specific to the region, which certain glassworks could make to specification. Nowadays, marketing requirements mean that vintners must use a wide variety of bottles, depending on the type of wines they sell.

The cases show examples dating from the 17th through to the 20th century.

13	<p style="text-align: center;">THE LABORATORY - THE CHEMISTRY OF WINE</p> <p>Over time, analysis techniques have been perfected. From the 1st tests in the 19th century to the current expertise in wine chemistry, many advances have been made. The main instruments used to analyse wine are shown here.</p>
14	<p style="text-align: center;">THE WORLD OF THE COOPER</p> <p>To illustrate the art of cooperage, we have selected the main tools used in the production of barrels, as well as some kegs. It's important to understand that up to the end of the 18th century, coopers mainly produced round barrels : these only required staves of one shape. Later, as their art developed, they began to produce oval barrels which were stronger and made better use of the space in the cellars, especially in terms of height. Note also the barrel drawings, which attest to the loss of empiricism.</p> <p>In the Neuchâtel region, the custom was to process wines in very large tuns : the largest known examples could hold up to 20'000 litres of wine. By contrast, in order to sell the wine, they were decanted into much smaller <i>barrisques</i>. Of the 6 million litres of wine produced by the vineyards every year, $\frac{2}{3}$ were drunk within the region itself, the remaining $\frac{1}{3}$ was exported, primarily to the bourgeois cantons of Lucerne, Fribourg, Bern and Soleure.</p> <p style="text-align: center;">THE STAGES OF BARREL PRODUCTION</p> <p>The following operations are required to produce a <i>barrisque</i> (barrel) :</p> <p>1.- MEASUREMENT</p> <p>This involves determining the capacity of the barrel to be produced in advance. Several formulas exist based on the measurement principle used to calculate the capacity of a cylinder. This operation is necessary to determine the size of the staves and heads to be produced.</p> <p>2.- CREATION OF THE STAVES</p> <p>These pieces of wood -usually oak or even fir in our region- form the essential components of the <i>barrisque</i> and are made using a series of operations in which the cooper's dexterity, accuracy and steadiness of hand are paramount.</p> <p>The staves are cut from shooks (wood split by hand in the direction of the wood grain). After a drying period, the staves are treated by the cooper to give them their final shape. He 1st cuts them to the desired size, as all the staves must be of the exact same length. Then he places them on a wooden frame to trim them and hollow them out. The cooper uses a 2 handled draw knife to produce the required curvature. He also hollows out the inside to make them easier to bend.</p> <p>The next stage is shaping to ensure that the stave is wider in the middle than at the ends. This gives the barrel its characteristic bulge. All these operations are usually performed using only the hand and eye.</p>

Before starting the assembly process, to prevent leaks the cooper must pass the stave over the planing machine, in order to achieve the required pointed edge and determine precisely the angle of the joints, depending on the diameter of the barrel. The bung-stave -that's the one containing the bung hole- is made wider, from wiry, hard wood of a uniform thickness to withstand the mallet blows.

3.- ASSEMBLY & SHAPING

The staves are stood up against each other and placed against another inclined stave used as a support. They're then arranged next to each other inside a moulding hoop. Additional hoops are then positioned and tightened on the 1st one.

4.- FIRE BENDING

To make fire bending easier, the wood must be heated. A wood and coal heater are placed inside the barrel. The heat slowly softens the wood, which is continually wetted both inside and out. A metal cable placed around the barrel is slowly tightened to bring the base of the staves together. Once they're joined, the cooper positions the hoops using hoop drivers, taking care to adjust the staves so that they are correctly aligned.

5.- CARVING

Carving involves preparing the 2 ends of the barrel so that the heads can be fitted. The 1st stage is as follows. Using sweeping cuts of the blade, the cooper carves the ends of the staves to create a bevelled edge. A couple of strokes of the plane on the ends of the staves brings them level, so that the croze or groove -in which the head will be fitted- can be cut. The internal bevel must then be hollowed out to make the inside of the barrel concave and uniform, guaranteeing its strength. The croze is cut using a crozer.

6.- PREPARING & MAKING THE HEADS

A head consists of between seven and 9 pieces which have different names. Those in the centre are the key parts (from 3 to 5). Then come the headboards (1 on each side of the key parts) and finally the cants which form the ends of the heads. The heads must be slightly hollowed to guarantee a proper seal. To assemble the various parts, the cooper places pins with drilled holes between them. To ensure perfect tightness, the smallest faults are sealed with rushes. The cooper then uses compasses to trace the circumference, which is then cut using a coping saw. The whole piece is made uniform using head planes. The final stage is carving to produce a bevelled edge.

7.- ASSEMBLING THE HEADS

This's where the heads are fitted into the ends of the barrel. The croze is 1st coated with a light paste made using flour. The hoops are removed from the 1st base, the head placed inside the barrel. This last is inverted, the head placed into the croze with a mallet or hammer. The hoops are then refitted. The same procedure is used to fit the 2nd head, a grabbing tool is so used to pull the head into the croze.

8.- HOOP SETTING

This operation involves replacing the moulding hoops with the final hoops.

9.- FINISHING & STRENGTH TESTING

Finally, the barrel must be planed along its curvature to ensure a completely uniform wooden surface. The bevels and heads are then scraped and polished. The hoops are checked to ensure they're correctly positioned. The barrel is then signed, usually on the heads at the top of the key part. The bung hole can then be bored, and a tightness test carried out.

Courtesy of JEAN TARANSAUD, *Le livre de la tonnellerie* - The Book of Cooperage, published by La Roue à Livres Diffusion, Paris, 1976.

Some tools :

CURVE GAUGE : a small wooden part used to check the curve of the staves to ensure they match the circumference of the *barrique* being produced.

CARVING BLADES : a type of very broad, rounded adze with a short handle. This's used to carve the *barrique* (bevel and internal bevel).

ADZE : tool used by coopers or large barrel makers, known as a fastening blade.

HOOP DRIVER : a typical cooper's hammer.

COMPASS : the cooper uses this to trace the circumference of the heads.

AXE : a traditional cooper's hatchet used to prepare the top part of the staves.

SCRAPER : a cooper's scraping tool.

CROZER : a tool that resembles a gauge.

DRAW KNIFE : a 2 handled blade used to thin the staves, carve the heads and prepare the pins and bars.

GRABBER : a cooper's tool used to grip the edge of the head while it is inside the *barrique* and to raise it to the croze.

RUSHES FOR SEALING : used by the cooper after being split into 2, to correct any jointing faults and guarantee complete tightness of the heads.

AUGER : an iron rod with a handle and a gimlet or bit at its end with which the cooper makes holes in which to place the pins.

THE EXPRESSION "*CHARGER POUR SOLEURE!*"

Soleure and its hospital were among the main consumers of Neuchâtel wines. The boatmen who transported the barrels on the lake and the river often arrived there in a state of considerable inebriation. It was habitually said that they had "*chargé pour Soleure!*" or "Drunk to Soleure!".

This popular local expression -which is still heard today- wasn't always used lightly. In fact, this drunkenness caused shipwrecks, deaths and resulted in claims of all kinds, to such an extent that, as far back as the 16th century, Their Excellencies of Soleure issued a plea to their Neuchâtel counterpart to put an end to the intoxication.

The Cantonal Government -in its customary wisdom- decided to enact a form of oath which the boatmen had to swear. They swore that they could only drink from the barrels using a wisp of straw of a stipulated size and, as they approached Soleure, not to replace the wine they had drunk with water from the river. It was a quality issue !

SECOND ROOM

Note 1st that this room is composed of 2 old cells. In fact, the Château de Boudry served as a prison for centuries. However, when it was returned to state ownership in 1821, having been the property of the Town of Boudry since 1752, Prussian ministers asked the cantonal government to make improvements to the detention areas. In their opinion, the dungeon crypts and wooden cages used to detain prisoners urgently needed removing. In Boudry, prisoners were kept at the bottom of the corner tower, in an area known as the "*Croton*" or in the recess of the vault wall, known as the "*Fromagère*".

They demanded that more hospitable cells be built, hence 2 cells were created in this room. Through the windows you can see the bars that remain. The remains of the Italianate ceiling dates from this refurbishment. These cells were accessed via a gallery located behind the remains of the wall. The cell door seen here was replaced in its original position when the museum was refitted in 1989.

16

JOSEPH LANDERSET (1853-1824) - GOUACHES CRESSIER IN 1808 SEEN FROM THE EAST

If we look closely at the view from the east, we notice that the village itself is relatively compact in order to preserve as much agricultural and winegrowing land as possible :the vineyards occupy the hillside, a few cultivated fields extend into the plain, the pasture near the Thielle river was used for grazing livestock in the winter and for summering the livestock in the summer.

Note the presence of the many fruit trees in the vineyards. These belonged to small owners, who planted apple, pear and walnut trees even, though not much could grow beneath these. Remember that nut oil was however the main oil in use. We also know that between the vine stocks -which were planted very close together, with between 800 and 1000 having been counted per *ouvrier* (area of land that could be worked by 1 man in a day, equivalent to 352 m² in Neuchâtel), compared to today's figure of 180 to 200 in the same area- it was common to find vegetables such as cabbages, radishes and turnips. In short, the vineyards often served as vegetable gardens. However, the planting of vegetables and trees in the vineyards was strictly prohibited for growers working for aristocratic families. As we can see, 3 vineyards -which at the time belonged to aristocratic Bernese families- are devoid of trees. Between them, we can see thorny hedgerows, planted to prevent people or animals from moving from one plot to another.

In this scene, the Château de Thielle was still in Neuchâtel territory. It only became Bernese after the 1st Jura water corrections. At the end of the 19th century, this allowed the water level of the lakes to be lowered by around 2.70 m, drying out the Grands-Marais and recovering several hectares for agricultural use.

	<p style="text-align: center;">CRESSIER IN 1808 SEEN FROM THE WEST</p> <p>From its vantage point on the path leading to the church of Saint-Martin, this gouache presents a precise view of the village, the Thièle river (with a large, flat-bottomed boat sailing along it), the Ile Saint-Jean, Cerlier and Jolimont.</p> <p>On the Lake of Bienné, the Ile Saint-Pierre is still an island, in front of which the artist has placed the tiny island on which JEAN-JACQUES ROUSSEAU attempted to establish a rabbit colony. We can also clearly see the municipality of Le Landeron, rising from among the marshes alongside the municipality of La Neuveville, a reminder of the rivalry that set the Prince Bishop of Basel against the Earl of Neuchâtel.</p> <p>On the hillside, the Bellevue Chateau (built by PIERRE-ALEXANDRE DUPEYROU), the Chapelle de Combes and Schlossberg Castle above La Neuveville are clearly visible. Also discernible is the spire of the Church of Nugerol, which was destroyed by fire in 1824. From a winegrowing perspective, note the fruit trees that stretch down the centre of the plots.</p>
17	<p style="text-align: center;">THE CHÂTENAY PRESS</p> <p>This small sepia work depicts a traditional press with a central screw, such as existed in most winemaking establishments. Made entirely from wood -usually walnut- these presses required constant maintenance.</p> <p>Before the harvest, they had to be completely dismantled for cleaning. Then the beams of the table were refitted by jointing with pitch to ensure a good seal. The screw had to be well greased to make sure it turned easily in its wooden nut. Between 4 and 6 men -working for 6 to 8 hours- were required to complete a full pressing operation using this type of press ! Here, pressing has come to an end : the men are chopping the marc into small pieces using a special marc cutter.</p>
18	<p style="text-align: center;">THE 1822 HARVESTS</p> <p>This engraving by FRÉDÉRIC-WILLIAM MORITZ depicts a harvesting scene viewed between the Town Hall and the current Communal Hall. Viewed from the north, it looks out over the dock and the Salle peninsula.</p> <p>In the foreground, ON THE RIGHT-HAND SIDE, is the base of the Town Hall set with dressed stone, then the concert venue (theatre) bordered on the roadside by trees -the remains of an avenue planted earlier during construction of the Town Hall- and a row of Jura stone pillars. ON THE OTHER SIDE of the road is the <i>Chambre de Charité</i> (Communal Hall) built between 1724 and 1729. The premises were 1st allocated for use in 1732. The Commune Administration set up there in 1876. This building originally had a garden on its north side and walls separated it from the road, as we can see in MORITZ's work. Through the open door in this wall, we can see a press.</p>

	<p>AT THE EDGE OF THE LAKE, FRÉDÉRIC-WILLIAM MORITZ has depicted the dock with a large, typical sailing boat, as well as the poplars and various buildings lining the Salle peninsula.</p>
19	<p style="text-align: center;">A PRISON DOOR</p> <p>FERRIER RODOLPHE INNOCENTE 1869 ON 14 OCTOBER</p> <p>STORY OF FERRIER AUGUSTE RODOLPHE BUILDING PAINTER AND PLASTERER / DETAINED AT THE CHATEAU DE BOUDRY / FOR STEALING WINE / WITH JAQUES REALINI BOTH / BUILDING PAINTERS/ AND PLASTERERS / SERVED 60 DAYS / OF IMPRISONMENT BEFORE / JUDGMENT WAS PASSED / FOR DRINKING 3 / BOTTLES</p> <p>Thus, for drinking the equivalent of 3 litres, Ferrier served 60 days of imprisonment before judgement was passed ! Remember that in the 18th century, for an equivalent theft, one could face either the death penalty or banishment. Moreover, JEAN VALJEAN in "<i>Les Misérables</i>" was sentenced to 15 years in prison for stealing a loaf of bread !</p>
20	<p style="text-align: center;">FRÉDÉRIC-WILLIAM MORITZ (1783-1855) NEUCHÂTEL SEEN FROM THE THOROUGHFARE</p> <p>This watercolour, signed and dated on the bench in the bottom left corner, depicts an idyllic harvest scene. A <i>brandard</i> (carrier), with a back basket full of red grapes leaves through the door of a vineyard in which women are harvesting. On each side of the door, the top of the wall is covered with bits of broken bottle to keep unwanted visitors out of the vineyard.</p> <p>A picker exchanges a few words with a woman, other crushes grapes in a hod using a stick. 2 men load a harvesting cart with full hods using a pole. The carter appears to be sharing an impromptu meal with 2 women seated on one of the benches underneath the oak tree. Next to them sits a wicker basket containing 2 bottles and a bread roll. The weather is beautiful and the whole scene seems to radiate peace and calm.</p>
21	<p style="text-align: center;">ALFRED DUMONT (1828 -1894) - THE LAST HOD</p> <p>This ink drawing evokes the tradition of the last hod, which required it to be brought to the press in a procession, with music and dancing to allow the pickers to celebrate. Although all inhabitants of Neuchâtel know the Wine Harvest Festival, its procession and its bacchanalian customs, the tradition of the last hod has been almost completely forgotten. Once the picking was finished, all the pickers gathered around the last harvesting cart and accompanied it on its journey to the press in a lively and spontaneous dance through the streets.</p>

	<p>This custom, often observed in the vineyards of France, varied slightly from province to province. In his work "<i>Les Vignerons : Usages et Mentalités des Pays de Vignobles</i>, Paris 1980", (Winegrowers : Customs and Mentalities in Winegrowing regions), CLAUDE ROYER explains "In Alsace, the procession was enlivened by the pranks of <i>Herbstschmuerele</i>, a traditional character with a black painted face. A jester, if there was one, would also amuse the members of the procession and spectators with his antics. The procession of the last harvest cart was observed in France until 1914. However, only certain vineyards decorated the cart".</p> <p>Following behind the harvesting cart, on which lie an old grape picker filling his pipe, a mother and her child and another winegrower carefully watching the barrel of 1884 vintage on which -like Bacchus himself- a young boy holds a cup in his hand, the procession of pickers dances to the sound of a bandoneon.</p> <p>The <i>brandard</i>, (carrier) keeps time with his stick, proudly brandishing a lovely bunch of grapes, the symbol of a great harvest. The female harvesters dance around joyfully, their small baskets hanging from their arms. An audacious young man seizes his chance to kiss one of the beautiful girls. Other brandishes a long staff decorated with a vine branch. Children mingle with the procession.</p>
22	<p style="text-align: center;">MEASURING DEVICES & POTS</p> <p>This case contains some of the old Neuchâtel measuring instruments. For example, the Neuchâtel pot had a capacity of 1.92 litres.</p> <p>We can also see the assorted measuring devices belonging to the <i>mesureur-juré</i> (chief measurer). In addition to measuring the contents of all the barrels, the job of this state-appointed officer was to visit all the hostelries and inns in the region 4 times a year in order to check the measurements used by the innkeepers. He therefore had rather a lot of work to do, as at the beginning of the 19th century there was approximately 1 hostelry for every 50 or so inhabitants.</p> <p>Remember that each vineyard owner could open his own hostelry by swearing a simple oath and hanging a fir branch over his door. In Neuchâtel, at the beginning of the 19th century, the tiny RUE FLEURY had 11 inns.</p> <p style="text-align: center;">CANDLESTICKS</p> <p>The characteristic candlestick used by winegrowers in their cellars during fermentation following the harvest was known as a <i>rat de cave</i> (cellar rat). Burning a candle enabled them to measure the oxygen levels in the surrounding air. As soon as the candle went out, it was time to leave immediately to avoid breathing in carbon monoxide, a highly toxic odourless gas released during fermentation.</p> <p>"Cellar rat" was also the name given to the State Representative whose job was to check the contents of the cellars for tax purposes.</p>

23	<p style="text-align: center;">MANUSCRIPTS OF THE 18TH CENTURY</p> <p>The manuscript at the front dates from the last third of the 18th century and was written by an inhabitant of Auvernier. It's the oldest preserved treatise on winegrowing in the Neuchâtel region. It makes for a very interesting read, as it explains the viticulture techniques in use at these time and suggests ways in which these could be improved. This shows clearly that the anonymous author of the treatise was aware of physiocrat theories, and that he was eager to explore all possible methods of improving viticulture.</p> <p>The 2 other manuscripts reveal the output from the vineyards around Cressier at the end of the 18th and the beginning of the 19th century. These texts were held by CÉSAR D'IVERNOIS, who was the Tithe Commissioner for Cressier. Their level of detail and accuracy allow us to estimate the winegrowing output of the time and show that the winegrowers of the day tended to favour quantity over quality. Furthermore, most of them were paid based on quantity. The idea that the quality of the harvest was important didn't take hold in the vineyards of Neuchâtel until the 2nd World War !</p>
24	<p style="text-align: center;">GUARDS' CANES</p> <p>Vineyard guard symbols. The <i>brévard</i> was a vineyard guarding arrangement established by a Council, for which the Lord's Officer had to swear an oath to watch over the goods or property placed under his responsibility. In Neuchâtel, the 2 <i>brévards officers</i> were members of the Town Council.</p> <p>The <i>other brévards</i> -who weren't officers- were appointed from among the local inhabitants. Usually, they would be called for duty in August and their work would finish after the harvests.</p>

TOWER

25

THE CHIEF MEASURER

It was the State's responsibility to check the vessels used. To do this, it appointed a Chief Measurer in charge of the official weights and measures. His job was to calibrate all instruments used in winemaking. This included the pot and its associated devices, as well as the hods and barrels. He had a complete set of calibrated instruments and brands to aid him in his verifications.

ETHNOGRAPHIC PART

26

THE VINEYARD'S WORKING CALENDAR

PRUNING : in February, the winegrowers would prune the vines.

PRIMARY TILLAGE OR CREATION OF FURROWS USING THE RAPE HOE : on return of the spring

STAKING USING THE MATTOCK : done just after layering and before 15 June.

HOEING : when the beech trees turned green on the summit of the Jura, the 2nd tillage with the shovel.

NIPPING OFF : cutting back superfluous shoots, a kind of stripping process.

TYING IN : attaching the vine stock to the stake using rye straw.

RE-HOEING OR 3RD CREATION OF FURROWS : light tillage in early July

WEEDING & LIGHT STRIPPING : optional work in late July

In **August**, the jobbing winegrower would hand over the vineyard keys to the owner. His work was done. From that point, nature alone would do the work of maturing the grapes.

In **September**, to protect the vineyards from thieves or harvesting before the authorised season, the *brévards* (the Vineyard Guards) were employed. They remained on duty until the start of the harvests, which would then take place in an order determined by the authorities.

All the seasons worked by winegrowers were set by the Councils. The Town Crier would announce them on Sundays after church. Failure to observe these set periods was punishable by a fine, imprisonment or -in serious cases- banishment from the country for foreign winegrowers !

The 19th century saw massive change with the appearance of new diseases and pests, in particular the scourge of phylloxera, which resulted in the discontinuation of layering and the use of grafted plants.

The vineyards were overhauled, the vines stopped looking crowded and haphazard, with white grapes mixed in with red and finally took on the appearance with which we are familiar today (well-ordered, in neat rows, allowing the use of ploughs and mechanised processes).

27	<p style="text-align: center;">TILLAGE, FERTILISING & DIGGING</p> <p>The stake puller is a small tool comprising a wooden handle and a blade bent into an "S" shape. It's used to pull out the stakes once harvesting is complete. In the Neuchâtel region, all the stakes planted would be removed and placed across each other on the ground. Stakes were only left in for young vines or fragile vine stocks.</p>
28	<p style="text-align: center;">L'OISEAU (THE BIRD)</p> <p>Down from the gullies, the winegrower would need to till the soil. To do this, he would use a wooden object with long handles which he carried on his shoulders. From the side, the tool resembled a bird.</p> <p>The short-handled mattock is a tool consisting of an oblong blade turned back on the handle. It enabled the winegrower to earth up the vine stocks before the winter to protect them against frost. A small ground working tool, it was used mainly for finishing operations, such as filling the holes left when the stakes were removed, in order to prevent water from entering and freezing in winter.</p>
29	<p style="text-align: center;">FERTILISING</p> <p>The hand-made woven spruce and wicker back basket was often given as a gift to winegrowers who were members of the Village Corporations of Winegrowers. It enabled them to carry all the equipment and materials required for winegrowing to the vineyard, including their lunch. In traditional imagery, winegrowers usually carry a back basket.</p>
30	<p style="text-align: center;">PRUNING</p> <p>Pruning the vines consisted of cutting back all superfluous shoots and shortening the others. The remainder of the shortened shoots is called the spur. Large buds remain on the spurs, as well as a smaller "one-eyed" bud known as the <i>borgne</i>. The number of large buds that must be left depends on the type of plant and soil.</p> <p>Left to rest after harvesting, with the stakes removed, the vine is pruned during February, in the past using a billhook, and today using secateurs. The next yield depends on the quality of the pruning.</p>
31	<p style="text-align: center;">BILLHOOKS</p> <p>These are small pruning knives with curved blades used during pruning and harvesting. As a result of several fights in the inns, winegrowers were forbidden from carrying their billhook unless they were on their way to the vineyard. They weren't also permitted to take their billhook into church !</p>

32	<p style="text-align: center;">SECATEURS</p> <p>In the 2nd half of the 19th century, these tools gradually replaced billhooks. The set on display shows how this tool has evolved into today's pneumatic version.</p>
33	<p style="text-align: center;">DONKEY BENCH TO MARK THE STAKES</p> <p>A narrow bench or trestle equipped with a type of large vice or wooden clamp, which the operator would straddle to shape the stakes during the winter. The stakes would usually be driven into the ground following the primary tillage : a vineyard area required 352 m² -in which vine stocks were planted a foot and a half apart- with between 700 and 800 stakes. Once harvesting was complete, the stakes had to be removed from the vines and placed across each other on the ground. Locally produced stakes were the best : made from cleft oak timber, between 3 and 15 feet.</p>
34	<p style="text-align: center;">TILLAGE</p> <p>3 stages of tillage were required. The 1st stage -carried out during March- was the most important. The soil was ploughed in over 20 cm using a grape hoe with 2 or 3 blades. The 2 other stages prevented the plants from covering the ground. Growers prided themselves on having a plot completely free from weeds.</p> <p>THE GRAPE HOE : a hoe or mattock with straight blades, usually 2 in the past, used mainly to carry out the primary tillage in the vineyard. The grape hoe had shorter, wider blades than the <i>fossoir</i> hoe.</p> <p>THE FOSSOIR HOE : a large hoe or mattock with 2 blades used mainly to carry out the primary tillage.</p> <p>THE SHOVEL : a hoe with a wide blade for hoeing the vineyard, used for secondary or tertiary tillage.</p>
35	<p style="text-align: center;">HARVESTING CART</p> <p>A traditional cart used for harvesting and capable of carrying between 6 and 12 hods. The floor of the harvesting cart contains grooves to hold the hods. This one is a small version.</p>
36	<p style="text-align: center;">MEASUREMENT FOR TITHES</p> <p>In the Neuchâtel region, tithes were usually collected during harvesting, at a rate of 1 hod out of every 11 or -for certain areas- 1 out of every 17.</p> <p>In other regions, tithes were collected using a conscience-based system. This saw Tithe Collectors paid in money following formal declarations. In order to collect their dues, the Tithe Collectors used special containers such as the one displayed which enabled them to collect the portion reserved for tax.</p>

37	<p style="text-align: center;">GRAPE BERRY MOTH TRAPS</p> <p>The grape berry moth (<i>Sparganothis pilleriana</i>) is one of the oldest known parasites. At around 15 mm, this insect appears in July. Once it has mated, the female lays around 100 eggs on the leaves. These hatch 10 days later to reveal tiny green caterpillars with black heads. The caterpillars don't cause much damage in the autumn. They spend the winter in the crevices of the stakes and under the bark of the vine stocks. Upon emerging in the spring, they make their way to the buds, leaves and young grapes, on which they feed. This causes severe damage. In late June and early July, the caterpillars turn into chrysalises, from which emerge new moths.</p> <p>Some years, the grape berry moth has caused the loss of $\frac{1}{3}$ of the yield in Burgundy !</p> <p>In Neuchâtel, the grape berry moth has never caused serious damage. Traps were invented to allow the moths to be counted.</p>
38	<p style="text-align: center;">TREATMENTS</p> <p>The 19th century became synonymous with vine disease and pests : powdery mildew, blight, phylloxera and black rot devastated traditional viticulture.</p> <p>The first 2 mentioned necessitated the use of sulphuring and sulphating processes and led to the invention of sulphur dusters and vine sprayers which, originally operated manually, are now pressure and motor driven, even adapted for helicopter use.</p> <p>As for phylloxera, after several vain attempts to combat it using various chemical methods, eventually it necessitated a complete overhaul of all the vineyards in Europe and the abandonment of layering techniques in favour of poudrette application and young indigenous plants grafted onto American root stocks resistant to the bites of aphids.</p>
39	<p style="text-align: center;">SULPHUR DUSTERS & VINE SPRAYERS</p> <p>The appearance of new diseases such as powdery mildew and blight necessitated the invention of a whole new range of sulphur dusters and vine sprayers.</p> <p>From the very 1st wooden models to later copper and brass versions, much progress has been made. Nowadays, motorised machines and even helicopters are used.</p>

PHYLLOXERA

Imported from America, Phylloxera (*Phylloxera vastatrix*) was first discovered in France in 1863. The existence of this terrible pest was noted in the canton of Neuchâtel in 1877, however aggressive precautions held off a full phylloxera invasion.

Phylloxera develops in the following stages. During June, July and August, a host of winged insect appears. These produce eggs without mating, which they lay on the underside of the leaves. The eggs are of different sizes : the smaller ones contain males, the larger ones females.

Within a short time, these eggs hatch to produce a new generation of wingless aphids, both male and female : these are the sexual aphids. The tiny aphids -whose stomachs cannot receive food- mate, the female lays a single egg and the sexed aphids die. This egg -known as a winter egg- is laid under the bark or in a crevice of a stake. In the spring, it hatches to produce a new type of non-sexual aphid.

If the vine infested with phylloxera consists of non-resistant plants, the aphids descend to the roots of the plants, which they bite into using their sucking mouth parts, causing blisters to appear. These aphids are the radicolle form : they moult 3 times and then lay without mating.

On resistant vine stocks, the aphids from the winter eggs primarily attack the leaves, which they bite on the upper surface. These bites produce a gall on the underside of the leaf in which the parasites enclose themselves to lay their eggs, hence their name : gallicole.

The radicolle and gallicole forms both come from the winter egg. They reproduce in the same way and lay -without mating- between 500 and 600 eggs after 3 moults, which hatch to produce new radicolle or gallicole aphids. During the winter, the aphids hide in the nooks and crannies of the roots, waiting to become active again in the spring. To ensure the survival of the species, sexual generations must be produced from time to time.

To achieve this, towards the middle of summer each year, a certain number of radicolle aphids undergo 5 moults instead of 3. After the 5th moult, a new winged variety appears, which produces the new sexual aphids, and so on.

All "*vinifera*" type vine plants can be destroyed by radicolle phylloxera, while certain American vine stocks are resistant to the bite of the insect. An extra pair of chromosomes or -according to some experts- a specific gene, ensures resistance.

41	<p style="text-align: center;">A LAYERED VINE STOCK</p> <p>This reproduction represents a layered vine stock treated with a phylloxeric dibber. Following the attacks by these aphids, reconditioning of the vines by layering was discontinued in favour of plantations using plants grafted onto American root stocks resistant to the bites of the parasites.</p> <p>The 2 jars contain the roots of a European vine stock attacked by phylloxera, and the leaves of an American vine stock containing galls.</p>
42	<p style="text-align: center;">THE HARVEST</p> <p>The harvest is the final stage in the vineyard's working calendar. Once the Lord's Representative had given authorisation, the grape pickers would -area by area- begin the harvest. They were followed by the Tithe Collectors, who would take the share owed to the Prince.</p> <p>Once the whole process was complete, the vineyards would be opened for progressive harvesting. The grapes were crushed in the vineyard and the full hods driven to the press on harvesting carts. There, they were pressed and barrelled.</p> <p>From that point, the winegrower's salary would be paid pro rata based on the amount of the harvest that could be barrelled. In order to be paid in cash, he would have to wait for the regional authorities to set the official sale price of wine during December, on which all winegrowing transactions in the region were based.</p>
43	<p style="text-align: center;">CAPPING MACHINE</p> <p>A machine dating from the late 19th century used for placing tin caps around the necks of bottles to protect the stoppers.</p>
44	<p style="text-align: center;">PRESSES</p> <p>Small ratchet presses.</p>
45	<p style="text-align: center;">BOTTLING MACHINE</p> <p>A machine used for filling bottles with wine.</p>
46	<p style="text-align: center;">BOTTLE WASHING MACHINE</p> <p>As it was customary to re-use bottles, they had to be thoroughly washed before they were filled.</p>
47	<p style="text-align: center;">CAPPING MACHINES</p> <p>A set of manual wooden capping machines from the late 19th century.</p>

DESCENDING STAIRS

48

LÉON PERRIN (1886-1978) - HARVEST SCENES AT LA BÉROCHE

This set of watercolours belongs to a series of works painted by LÉON PERRIN while he was staying at Sauges with the poet PIERREHUMBERT. They capture moments from the harvest, depicting the work of both male and female harvesters and *brandards* (carriers), the way in which the grapes were sorted before being crushed in the hods, and the horses used to carry the grapes, harnessed to the harvesting carts or wheeled barrels used to transport the wine.

Another watercolour evokes the atmosphere in the cellars during the harvest when the barrels were filled.

This artist also created the sculpture of the MONK CARRYING a clearing scythe found in the vineyard outside the Château. This symbolises the ancient belief that the vineyards were planted in the region by monks.

49

OLD PUBLICITY MATERIAL

A collection of publicity material from Neuchâtel wineries, with an original gouache by EDMOND BILLE for the PERRIER firm.

50

THE BLACK SPREAD EAGLE

A painted and gilt wooden sculpture dating from the 18th century, this emblem uses the Prussian eagle, evoking the memory of the Prussian kings who were suzerains of the principality of Neuchâtel from 1707 to 1848, excluding the period from 1806 to 1814.

VAULT

51	<p style="text-align: center;">THE LABEL COLLECTION</p> <p>The Museum has more than 2'500 Neuchâtel labels which can be searched using a computer in the room on the 1st floor. This room also houses some typical examples from winegrowing communes.</p>
52	<p style="text-align: center;">AN 1834 VINTAGE LABEL</p> <p>Of all the great years for viticulture in the 19th century, one is universally recognised throughout all the vineyards of Europe as the finest : the year 1834. In Champagne, wines from this year were classed as vintage, many labels were printed in German vineyards, it was the same in Switzerland.</p> <p>In Neuchâtel, the harvest took place on the 24th of September and the yield was acknowledged as both excellent and abundant ; the red wines were perfect.</p> <p>AUGUSTE L'HARDY from Auvernier gave this account "<i>In 1834, the yield from the vineyards was very high, particularly in the light lands & in the late & elevated vineyards of Villaret, Creux de Boudry, etc. The good vineyards in the low-lying rich soil areas produced less than the light land areas. There're several very low-priced vineyards, at 5, 6 or 7 Louis, or gold coins, per area of 342 m² that in 1834 yielded 25 %, others 50 % and some even 75 % of their capital ; however, this happens only very rarely, and there has never in living memory been such an abundant yield. There's wine, and then there's wine...</i>"</p> <p>However, the label that was adopted for the Neuchâtel vineyard -and which proudly heralded this vintage- wasn't designed in 1835 but some time after 1848, as indicated by the presence of the crest of the Republic and Canton of Neuchâtel.</p>
53	<p style="text-align: center;">THE OLDEST NEUCHÂTEL LABEL</p> <p>This is the one that was used by Dr HENRY-LOUIS OTZ. This physician -who was born in 1785 and died in 1861- belonged to a family originally from Ober-Balm which settled in Cortaillod in the middle of the 17th century. As well as practising medicine, a profession pursued by generations of the OTZ family, they also acquired a large winegrowing area in Cortaillod whose produce they would sell. From the 1820s, they used a particular label for the red wine they produced.</p> <p>Engraved on wooden plates in 8 copies and printed on sheets that had to be cut out before they could be used (almost certainly by a worker employed in one of the Indian textile factories in Cortaillod), this label reveals slight differences between the specimens made using a single plate, owing to the repetition of the engraving process. This label is interesting primarily for the image it shows : it depicts -after the fashion established by the Swiss vedutisti artists- a topographical view of Cortaillod.</p>

THE PARTRIDGE'S EYE (*ŒIL-DE-PERDRIX*)

In the canton of Neuchâtel, LOUIS BOVET, a vintner in Areuse, printed a special label for the 1861 vintage bearing the words *Œil de Perdrix* (Partridge's Eye). We can't be sure whether this is the oldest label to differentiate between the red wines produced by the various growers, nevertheless it does prove that the *Œil de Perdrix* tradition in the Neuchâtel region isn't a recent one, and that it stretches back to time immemorial, as friends of ROUSSEAU will attest.

The Partridge's Eye means a small painful corn on the toe, however in Switzerland it primarily denotes an extraordinary Neuchâtel wine produced from lightly fermented PINOT NOIR grapes, which prompted the COUNT OF ESCHERNY to say in a letter to JEAN-JACQUES ROUSSEAU "*In a good year, the wines of Cortailod are as good as the best wines of Burgundy*".

Nowadays, this remark seems completely out of place, and nobody with any sense would dare make such a comparison.

In the 18th century, however, this assertion would have been perfectly plausible. In 200 years, the art of winemaking has considerably progressed and tastes have changed. At the time, POMMARD and VOLNAY wines were very pale red in colour, and extremely light, like the red wines of Neuchâtel. And coming from PINOT NOIR grapes -as these wines all did- this was an understandable and justifiable comparison.

In Burgundy and Champagne, the name *Œil de Perdrix* was used in the 19th century -as demonstrated by some of the old labels- to denote rosé and light red wines, that's lightly fermented or unfermented red wines, and even reds mixed with PINOT BLANC, according to PIGEROLLE OF MONTJEU. Moreover, in some Burgundy wineries, during pressing, layers of straw and grapes were alternated on the press table to prevent the wine from becoming too red.

In Burgundy, red and white grape must was used to obtain *Œil de Perdrix* wine, while the practice in the canton of Neuchâtel was to use unfermented PINOT NOIR grapes. This wine was also known as *blanc de rouge*, literally "white from red".

Before it was capitalised and gained its letters patent of nobility in the Neuchâtel region, *Œil de Perdrix* was a pale red wine which, over time, developed a darker hue, the "Partridge's Eye", and -with further ageing- a deep red gold tone reminiscent of some Muscats.

FROM NEUCHÂTEL TO COLOMBIA

During the 19th century, with developments in transport, wineries began exporting wines around the world, primarily to the Americas. For instance, in a letter dated 11th of April 1850 sent from Mexico, a certain C. A. FORNACHON explains that there they are "*only familiar with wines from Bordeaux and Spain, which are at present very cheap, with those from Neuchâtel that aren't particularly alcoholic arriving spoiled and -in addition to poor sales because they aren't known- very expensive indeed, completely precluding them from competing with Bordeaux wines which have engendered a great loss due to their abundance. I'm expecting shortly for my personal use a case of white and red Cortaillod 1846 wine which I shall be glad to see arrive in good condition, however I'm not hopeful, as Burgundy wines are themselves also highly susceptible to spoiling, which is why we have stopped sending for them*".

This letter proves clearly that merchants did wish to establish an export trade for Neuchâtel wines. Another letter sent from Cincinnati, dated 25th of October 1872, suggests that the BELLEVAUX WINERY in Neuchâtel should try to sell wines to the USA.

These 2 examples attest the distribution of Neuchâtel wines throughout the world. Note that whites -thanks to their natural carbon content- travelled better than reds.

It's difficult to estimate the number of bottles that were shipped overseas, however one label gives an indication of the scale of exports. This bears the proprietary name "CALAME TUILLIÈRE & CIE", a geographic name for Cortaillod "CRATALUP", the country "SUIZA" and the merchant's trading name "MARCHAND & SANDOZ", above which is the inscription: "SOLOS AJENTES EN COLOMBIA" (sole agents in Colombia) and below it "BOGOTA".

This label was in fact reserved for bottles originating from the PORRET WINERY from Cortaillod and drunk in 1887 during the opening of a section of the Panama Canal !

CISTERN

56

This old cistern from the Chateau contains the vine stocks currently cultivated in the canton of Neuchâtel. art of the Museum's glass collection is presented in this old cistern: 18th century stemware, Doubs glasses, Festive glasses.

PRESS

This room has contained a press since the 15th century, according to documents. However, the one seen here wasn't from Boudry. It came from the MAISON DU TILLEUL in Saint-Blaise and dates from the 1st third of the 18th century.

The press was often the scene of impromptu parties. Press operators would often work 24 hours a day during the 2- or 3-week harvest period. The capacity of the presses wasn't as large as those of today, and it would take 4 to 6 men somewhere between 6 and 8 hours to press the contents of around 20 hods, taking turns to keep the crank rotating continuously. And as wooden presses with a central screw didn't have ratchets, after each 1/4 turn, the crank had to be removed from the nut and placed in the next hole. With the crank often weighing between 100 and 120 kg, the process would quickly become painful and tiring.

Once the screw had descended completely for the 1st time, the press had to be prepared for a 2nd pressing. Before removing the pyramid of beams that exerted the pressure on the plates, which were in direct contact with the grapes, the operators would have to carefully refit the screw in the nut, making sure it was well greased. They then removed the horizontal beam on which the screw's nut rested, and which is guided by the grooves in the side uprights of the press's frame. The beams were set aside, and the plates placed over a vat to collect any drops trickling from them. Marc cutters were used to break up and dry the compacted mass of grape stalks.

The entire press was then reassembled to restart pressing in order to produce the 2nd pressing wine. These operations had to be carried out at least 5 times to completely dry out the grape stalks. This all took time, which explains why press operators had to work continuously, as the picked and collected grapes couldn't wait long before being taken to the press.

For this reason, it wasn't uncommon to find 2, 3 or even 4 presses next to each other in a cellar, to ensure that work could continue without delay.

In days gone by in the town of Neuchâtel, most of the houses that make up the modern town centre would have had a press, so that during the harvest period, people could go from cellar to cellar in order to lift the morale of the men working the rollers that helped the cranks to turn. Cellars were places where people sang, danced and drank glasses of grape must. The higher the yield, the more intense the celebrations.

57	<p style="text-align: center;">ÉRIC DE COULON (1888-1956) THE DECORATIVE PAINTINGS OF THE NEUCHÂTEL CELLAR AT THE LAUSANNE NATIONAL FAIR</p> <p>ÉRIC DE COULON was commissioned by the Vintners Corporation in the early 1940s to paint 4 large canvases to decorate the premises used by the Corporation for the National Fair at Beaulieu. He produced 4 works depicting scenes of working life in the vineyards, using various locations in the canton as his backdrops.</p> <p>Hence, the <i>brandard</i> (carrier) is seen with the Château de Neuchâtel behind him. The working scene is set along the Route des Clos between Neuchâtel and Auvernier, whose port and berths are instantly recognisable, the Trou de Bourgogne can also be clearly seen. The planting of stakes and the appearance of the 1st leaves are set in Saint-Blaise, whose church spire is visible. The harvest itself is at La Béroche and takes in the view to the east, revealing the lake shore.</p> <p>These paintings are typical of the style of the painter who made a name for himself primarily as a poster designer ; they are painted with a boldness and spontaneity.</p>
58	<p style="text-align: center;">LABELLING MACHINE</p> <p>From manual devices through to these early labelling machines, the need for wines to be identifiable meant owners had to mark their bottles by applying specific labels to them.</p>
59	<p style="text-align: center;">18TH CENTURY PRESS</p> <p>The traditional press in the Neuchâtel region was a Roman type of press, with a central wooden screw inserted into a beam positioned above the table and supported by solid uprights. Presses were usually made from walnut or oak. In some of the larger cellars they were often placed next to each other. These presses were expensive to maintain. This example dates from 1731.</p> <p>Its constituent parts are :</p> <p>HE SCREW : a wooden component, later metal, which allowed the nut to be lowered</p> <p>THE NUT : a wooden component with iron fittings and a spiral thread, which exerts pressure on the other components of the press ; on old presses, a long wooden component, also with a spiral thread, which connected the top of the columns, often made from walnut.</p> <p>THE BEAMS : wooden members which were placed on the press's plank ; the beams press on the planks and are themselves pressed by the <i>poissons</i> (main beams) and the nut.</p> <p>THE "DRUNK" OR PLATES : a square or round plate split into 2 halves, placed directly onto the harvested grapes to be pressed and fitted into the press's body or cage.</p>

	<p>THE CAGE : wooden components which allowed the crushed grapes to be loaded into the press.</p> <p>THE TABLE : a wooden surface supporting the cage.</p> <p>THE CRANK : a beech beam or iron bar adapted to fit the press's "nut" or the head of the screw ; it's moved either by hand or by a winch and a rope.</p> <p>THE <i>PANSARD</i> : a large vertical winch on old presses, moved by horizontal crank levers and used to wind the rope attached to the crank.</p>
60	<p style="text-align: center;">THE <i>TRACASSET</i></p> <p>A motorised cart enabling the grower to transport equipment to the vineyard.</p>
61	<p style="text-align: center;">THE POT STILL</p> <p>A tool used mainly for distilling the marc.</p>
62	<p style="text-align: center;">DECANTING TAPS</p> <p>A set of wooden or brass taps used to decant wine from barrels.</p>
63	<p style="text-align: center;">THE <i>LOUVERNE</i> (special opening in the ceiling of winemaking houses)</p> <p>A system used to lift winemaking equipment or anything that needed to be stored indoors into the loft once the harvest was over.</p>

WINE CELLAR

64	<p>STOPPER STAMPING MACHINE</p> <p>The Museum has 2 stopper stamping machines, as well as a very large collection of French-language branded stopper stamps. The stoppers were branded by heating these components and rolling the stoppers onto them.</p>
65	<p>ÉDOUARD JEANMAIRE (1847-1916) THE NEUCHÂTEL FEDERAL AGRICULTURAL FESTIVAL</p> <p>This symbolic painting, produced in 1887 for the Federal Agricultural Festival held in Neuchâtel, serves as a kind of shop window for the local produce of the time.</p> <p>Warmed by the rising sun, the town awakes to the crowing of the cock, silhouetted against the lake. In the foreground, the artist has depicted all the produce for which the region was renowned (wines, cheeses, fruits, vegetables, honey). Between the mountains and the vineyards, his aim was to show all the products representing -both then and now- the wealth and the diversity of the Neuchâtel agricultural region.</p>
66	<p>GUSTAVE JEANNERET - THIRD TRIPTYCH</p> <p>Painted in 1915 in a much more decorative style akin to that of HODLER, this 3rd triptych has less of the naturalism of the 2 previous ones. Despite its relative unity, it depicts 3 distinct aspects of working life in the vineyard :</p> <p>ON THE LEFT, tillage using <i>oiseau</i> tools ; IN THE CENTRE, the new plantations ; ON THE RIGHT, work with the grape hoe.</p> <p>The whole work is more of a decorative ornament than an attempt to capture the detail of winegrowing work.</p>
67	<p>GUSTAVE JEANNERET - SECOND TRIPTYCH</p> <p>The 2nd triptych is without doubt the more elaborate, specifically in terms of its pictorial unity, with its background presenting a unified view of the winegrowing environment of the village of Cressier, despite the depiction of 3 separate instances in the vineyard.</p> <p>THE LEFT-HAND PANEL shows a scene of layering, with the grower renewing the plants in the plot in accordance with common practice before the appearance of phylloxera. During the peak season, growers would mark the vine stocks which appeared the most robust and productive, that's those of the best quality. During March and early February, they would dig holes, known as ditches -at the base of these stocks- into which a little manure would be placed. They would then plant the chosen vine stock in this ditch, taking care to leave 1, 2 or 3 shoots above the ground, which would produce new plants. This layering process enabled the vines to renew themselves.</p>

	<p>THE CENTRAL PANEL depicts a scene of groundwork in which the grape hoe is being used to dig the ditch created at the bottom of the plots to collect the soil from the gullies. Both men and women used <i>fossair hoes</i> with 2 blades to do this work, working the soil to a depth of 20 to 30 cm and taking care not to damage the parental roots. This tiring work took place from February until early March. We also see a woman bringing food to the workers.</p> <p>THE RIGHT-HAND PANEL shows how the stakes were planted when the 1st leaves appeared. Custom dictated that they were removed from the ground soon after the harvest and laid across each other on the ground for the whole of the winter. Their presence would have prevented any groundwork from being carried out, given that the vine stocks were planted very close together. In fact, stakes were only left in for young vines, which is why we can see a few of them in the centre part.</p>
68	<p style="text-align: center;">THE PLANING MACHINE</p> <p>A large, upturned plane in the form of a sloping bench over which the cooper would pass the edge of the stave to make it straight and smooth.</p>
69	<p style="text-align: center;">THE HARVESTING CART</p> <p>The traditional cart used during the harvest to transport hods full of crushed grapes from the plots to the press.</p>
70	<p style="text-align: center;">CORKING DEVICES</p> <p>Set of iron corking devices dating from the late 19th and 20th centuries</p>
71	<p style="text-align: center;">SIGNS</p> <p>The "HÔTEL DU RAISIN" (Grapes Hotel) was in Neuchâtel, opposite the TEMPLE DU BAS church. Nearby, in the narrow Ruelle Dublé, was "LA GERLE"(The Hod).</p>
72	<p style="text-align: center;">COPPER <i>TRACOULAGE</i> VAT</p> <p>Carrying out the <i>tracoulage</i> of the harvested grapes meant placing the crushed grapes -before pressing- either in a vat, leaving the must to run out via a tap, or in the body of the press from where the must would run out of the bottom via a hole and through a coarse filter. This copper version also enabled the must to be heated to encourage fermentation.</p>
73	<p style="text-align: center;">AN ELECTRIC CAPPING MACHINE</p> <p>As techniques evolved, electric machines came into use, such as this one for placing tin caps on bottles.</p>