THE THOUSAND CELLARS WINE-GROWING TRAILS

Two wine discovery walks on
the slopes of Strázsa Hill, Monor

WELCOME

to the Thousand Cellars Wine-Growing Trails created in 2009 by the Monor Region Wine Order.

The trails are located in the Strázsa Hill Cellar Village (Monor), which is home to nearly 1,000 wine cellars. A walk along the Bacchus and St. Orban Trails will give visitors an insight into Hungarian viticulture as well as the unique features of Strázsa Hill and many local traditions related to grape growing and wine production. We wish you a pleasant time and hope that you will gain memorable experiences in our cellar village where you are always welcome back.

János Bodor

Grand Master of the Monor Region Wine Order

CONTENTS

1st STOP

TRAILHEAD

USEFUL INFORMATION ABOUT THE TRAILS

Trail sign:

The St. Orban Trail offers an insight into Hungarian wine-growing traditions.

Length: 2 km

Walking time: 1.5 hours

Coordinates of the trailhead at St. Orban Green:

N: 47°22’08,54848” ..... E: 19°26’42,23219”

The Bacchus Trail presents the natural values of Strázsa Hill along with its history and architecture.

Length: 2 km

Walking time: 1 hour (+1 hour return)

Coordinates of the trailhead at Bacchus Field:

N: 47°21’33,34685” ..... E: 19°27’27,24195”

The trails are walkable all year long and the trailheads are easily accessible by car.

Wear comfortable clothes for the walk.

Please take care of the trail area.

2nd STOP

THE ORIGIN OF GRAPES AND WINE

During their wanderings, Hungarian tribes got acquainted with vine cultivation and wine production in the area between the Black Sea and the Caspian Sea, which is proven by the fact that many Hungarian words relating to grapes and wine originate from times before the Hungarians settled down in the Carpathian Basin, e.g. bor (wine), pince (cellar).

Archaeological finds in Transdanubia show that before the Romans, the Celts too grew grapes in the western part of today's Hungary. Later, these traditions were enriched by Walloons, Serbs and Germans.

As for the period before the Battle of Mohacs (1526), the development of wine production reached its peak during the reign of King Matthias (1458-1490). In the 16th century, southern Slavs fleeing from the Ottoman Empire brought Kadarka grapes to Hungary, together with the technology of red wine production. It was also during this period that the Tokaj Wine Region became well-known and the first Aszú (Tokay) wine was made.

At the end of the 1800s, the appearance of the vine pest phylloxera caused enormous damage to vineyards planted on compact soils. In order to mitigate the damage, after 1896 vine planting was encouraged by grants and tax allowances.

The boom seen in wine production at the beginning of the 20th century was stopped by World War II and the Great Depression. The Peace Treaty of Trianon left Hungary with two thirds of its previous vineyards but only one third of its grape and wine consumers, which lead to severe problems with wine sales. In order to counter the impact of the crisis, state-owned wine cellars and cellar co-operatives were set up.

In the 1950s, a grand plan was launched to reorganise and then reconstruct Hungarian viticulture. Over the following 15 to 17 years, carefully-planned vine planting increased the size of vineyard areas at an even pace to 247,000 hectares by 1965. Since 1970, the size of the area used for large-scale wine production has been constantly decreasing, with a particularly sharp fall in the first five years after the fall of communism. Today the total area of vineyards is less than 80,000 hectares.

3nd STOP

VINE PHENOLOGY

Grapevines are light-loving plants. They use both direct and diffuse light efficiently but do not like dark shade. Vines are normally cultivated in places with an annual mean temperature of 9 to 21°C. Hungary, therefore, lies on the northern border of the area used for producing grapes.

Vines need at least 450-500mm of precipitation per year and over 1,200 hours of sunshine during the growing season. Hungary's climate favours the cultivation of white grapes, but in the southern parts of the country, red wine varieties also produce uniformly good-quality grapes every year.

The life cycle of grapevines:

1. Bleeding

2. Bud Burst

3. Shoot Growth (3-4cm)

4. Shoot Growth (8-10cm)

5. Flowering

6. Berry Growth

7. Veraison

8. Berry Ripening

9. Colour Change of the Canopy

10. Leaf Fall

11. Dormant Period

4th STOP

VINE GROWING

The factors determining the quality of the grape, wine's one and only raw material, fall into three categories: environmental, genetic, and human.

The technology used for grape growing and the care taken by the vigneron have an outstandingly important role in terms of the ultimate quality of the grapes and the wine they are made into.

Vine cultivation involves the following work phases:

1. Pruning

2. Shoot Thinning

3. Trimming

4. Cluster Thinning

5. Leaf Removal

6. Crop Protection

7. Harvest

8. Preparation for the Winter

5th STOP

LOOKOUT TOWER

6th STOP

HUNGARIAN GRAPE VARIETIES

Nowadays Hungarian wine growers follow global trends and mainly focus on the production of internationally recognized grape varieties (e.g. Chardonnay, Cabernet Sauvignon). At the same time, however, typical Hungarian (Hungaricum) varieties are also gaining ground. These varieties have come into existence and spread in the Carpathian Basin either through natural evolution or deliberate grape breeding. The wines produced from Hungaricum grape varieties have been drunk by Hungarians for centuries. They reflect the knowledge, wisdom, and taste of the Hungarian nation and have become an integral part of our culture. That is why these wines might also be attractive to foreign visitors seeking something unique, something that has a close connection to Hungarian folk traditions.

Old Hungarian grape varieties fall under three categories:

- grape varieties native to the Carpathian Basin

(e.g. Ezerjó, Hárslevelű, Dinka Rouge)

- grape varieties naturalised in the Carpathian Basin

(e.g. Italian Reisling, Kadarka, Blaufränkisch)

- hybrid Hungarian grape varieties

(e.g. Csabagyöngye, Cserszegi fűszeres, Irsai Olivér)

Hungaricum grape varieties are known by various names in different parts of the country:

Ezerjó — Budai fehér, Korponai, Budicsin, Fehér bakator, Szadocsina

Kadarka — Fekete budai, Fekete Linka, Kadar,Törökszőlő, Csetereska, Jenei fekete

Furmint — Biharboros, Formont, Görgény,Tokay, Szigeti, Demjén, Szegszőlő

Based on a text by Edit Hajdu

7th STOP

CELLAR ROWS AND VILLAGES

Besides their different traditions of grape growing and wine production, Hungarian wine regions also have different types of buildings used for the storage of wine. As vineyards were often planted at a distance from settlements, vignerons built cellars and wine-storage buildings near them. In some areas, these buildings were not only used for the storage of wine but also as a temporary or even permanent place to live.

The cellars and press houses on vineyard hills were often built near each other, just like the streets of villages or towns. Buildings clustered together usually had a similar architectural style. The cellar rows and cellar villages designed in this way are of great architectural interest today.

8th STOP

THE WINE REGIONS OF HUNGARY

The Carpathian Basin has highly varied ecological characteristics. Soils now used for vine cultivation were formed on either volcanic, sedimentary, or metamorphic rock. Some areas are covered by a thick layer of loess while others are mainly sandy.

This region is the meeting point of three main types of climate. The dominant continental influence is modified by both Mediterranean and oceanic air masses. The microclimate of the various vine-growing regions is also significantly affected by the landscape, particularly the height above sea level as well as the angle and aspect of slopes.

The Carpathian Basin has been home to many different peoples. Each has had their own distinctive cultural and agricultural traditions, and their attitudes to grapes and wine have differed, too. As a result, today there are 22 separate wine regions in Hungary, each with its own special features. This unique system, in which relatively small wine regions (e.g. Nagy-Somló, Mór) exist in their own right, forms an integral part of Hungarian wine culture and has an influence on Hungarian wine consumption, too.

9th STOP

TRADITIONS WINE FESTIVALS

In the Monor area, the following grape and wine festivals are held each year:

St. Vincent's Day — 22nd January

St. Vincent is a well-known patron saint of wine-growers. It is believed that the grape crops will be good if the temperature is above freezing on St. Vincent's Day. On this day, pig's bladders used to be hung on the vines so that grape bunches would grow to be as big.

St. Orban's Day — 25th May

Orban is a medieval saint who protects vineyards against the weather and disease. Statues and chapels to him are found near many vineyards in Hungary. If Orban successfully protected the crops against frost, vineyard owners sprinkled his statue with wine, but if the crops were damaged by the frost they beat it with sticks.

Harvest Festival

The harvest has always meant much more than just the tasks associated with it. It has always been a festival for wine-growing communities to celebrate the results of the year's work.

St. Martin's Day — 11th November

St. Martin is the judge of the quality of wine. His day closes the period of the year's agricultural work, which starts on St. George's Day in April. This is the day when the wine made from this year's grapes is first tasted and the first fattened geese are killed. According to popular belief, people who do not eat goose on St. Martin's Day will starve all year long.

10th STOP

UNIQUE LANDSCAPE FEATURES ON STRÁZSA HILL

What are unique landscape features?

These are natural formations and man-made landscape features that are significant to society for historical, environmental, cultural, scientific, or aesthetic reasons.

DRAW WELLS

In the past groundwater in Monor was accessed by dug wells. Some of these have survived to date. As for the draw wells on Strázsa Hill, the bucket is drawn up by winding a chain around a wooden cylinder. The end of the chain is attached to the handle of the bucket. As the chain is wound around the cylinder it lifts the bucket. These wells are called 'wheeled wells' in Monor but have various other names in different parts of Hungary.

ROADSIDE CROSSES

Roadside crosses were erected in Hungary as early as the Middle Ages. Most of these crosses were erected as a symbol of gratitude or a pledge made and they were usually placed either at the far end of estates or at crossroads.

ROADS WITH LOESS BANKS

Banked-in roads are formed where the surface of a loess deposit is damaged, e.g. by the wheels of carts travelling on it, and then wind and rainwater widen and deepen this groove into a furrow.

THE STATUTE OF ST. ORBAN

According to folk tradition, St. Orban is the patron saint of grape growers; as the last of the Icemen, he ushered in the good weather. A statue of St. Orban was inaugurated at the foot of Strázsa Hill in 1993.

Based on a text by Attila Kiss

11th STOP

WINE-MAKING PROCEDURES

Grapes are wine's one and only raw material. For the production of high-quality wine, it is essential that this raw material is of a good quality, that the wine-making technology is selected and applied in a professional manner, and that the circumstances of production are hygienic.

At the beginning of the production process, the grapes are made into must, which then undergoes alcoholic fermentation and turns into wine. Before the wine is finally bottled, it is subjected to various treatments that are chosen depending on the desired final character of the wine.

The quality of the final product highly depends on the bottling and bottle-closing method.

OXIDATION TECHNOLOGY

Oxidation technology is used to make wine from overripe grapes. Wines aged with this technology are characterised by a darker colour, as well as the presence of primary aromatic compounds.The wine is aged in wooden barrels for a short or extended period of time.

REDUCTIVE TECHNOLOGY

Reductive technology is by and large used to make wine from aromatic grape varieties, where the main aim is to preserve the primary aromatic compounds. It is essential that the wine has no contact with the air, so it is stored in air-tight containers.

BARRIQUE AGEING

This is a special form of ageing for which new 225-litre oak barrels are used. During the ageing the wine absorbs pleasant aromas from the wood of the barrel (e.g. vanillin).

Barrique ageing is normally used with good quality red wines.

12th STOP

TOOLS AND EQUIPMENT

The cultivation of vines requires continuous care; each vine plant needs special attention. In order to ensure a good harvest every year, a caring vigneron virtually lives together with the vineyard looking after it scrupulously.

In the past, pruning was done with a pruning knife, but nowadays pruning shears are usually used. Thicker parts of the vine (arms and second-year wood) may also be removed with branch shears or a saw; for the pruning of head-trained vines a pruning axe is still used today. As for canopy management, the shoot is positioned either by manual tying or by using a special tying machine; the shoots are shortened with pruning shears, hedge shears or a grass hook. For pest control in smaller vineyards today manual or engine-powered sprayers are used.

The traditional tool of mechanical weed control is the hoe, of which many variants are known: the large hoe, the shallow-cutting scuffle, the square ravaging hoe, the Sümeg hoe, and the famous two-horned hoe used on rocky soils (e.g. in the Tokaj Wine Region). Today many vignerons use rotary hoes instead of traditional weeding tools. The harvest is one of the most labour-intense activities in the vineyard. The grapes must be picked within a short window of time whilst they are in the optimal state of ripeness for making the desired wine. The bunches are removed from the vines with knives or harvest shears. Traditionally the grapes are collected in buckets and then taken to the end of the rows of vines in a 'puttony', a wooden tub carried on the grape picker's back.

In large-scale vine cultivation, machines also play an important role. Machines are used for pruning, shoot tying, trimming, leaf removal, under-vine weeding, and the harvest, too. The advent of mechanisation has reduced the demand for human labour in the vineyards and made grape growing more economical. However, their effective use requires the careful planning and design of vineyard structure (field size, training method, support system).

Based on a text by Dr. György Lukácsy

13th STOP

THE FORMATIONS OF STRÁZSA HILL

Monor is situated on the border of two large geographical regions, the Alföld (Great Hungarian Plain) and the North Hungarian Range. Our town is located right where the slopes of the Gödöllő–Monor Hill Range levels out into the plain.

The average height of these hills is 150m in the Monor area. The highest point is in the Forrási-dűlő (Forrási Field): 218m. The base of the hills is made of Upper-Pannonian clay sediment, which the ancient Danube covered with a layer of sand. The surface of the hills is covered either by loess, a mixture of loess and sand, or blown sand. Strázsa Hill stands at 190 metres high. According to tradition, it earned its name (meaning 'guard') when during the Ottoman occupation of Hungary locals used it as a look-out post in an attempt to protect the village from marauding Turkish soldiers.

The geological exploration of the Monor area began with the drilling of a thermal well in the neighbouring village of Monorierdő in 1971. Then at the beginning of the 1990s exploratory oil drilling was carried out, resulting in the discovery of a small quantity of oil under Strázsa Hill originating from the Eocene Age (some 35 to 55 million years ago).

Sand and mud originating from the Ice Age (Pleistocene) was also found, pointing to the presence of a smaller watercourse at that time, probably a braid bar of the Danube.

According to current understanding, the Ice Age was not uniformly cold. In Hungary it saw an alternation of cool and dry periods with eras when the climate was warmer and more humid than today. The loess deposit covering large areas around Monor formed in the cooler periods, while layers of clay and soil originate from the warmer ones. The sand deposited along river banks during the last cold period was transported by the wind, resulting in blown sand formations.

Based on a text by Attila Kiss

14th STOP

HISTORY

The first people to grow crops in the Monor area were those of the Baden culture arriving here from Asia Minor in the middle of the 4th millennium BC. During the first centuries AD, the same lifestyle was continued by the Sarmatian, Celtic, Avar, and Magyar tribes settling in the Carpathian Basin. Magyars living in the Monor area only collected wild grapes at first, but then they cleared the forests on the southern slopes of Strázsa Hill and planted vines there. Later, vineyards were created on certain plains too, which were also called 'hills'.

In 1398, King Sigismund Zsigmond bestowed the Monor area (at the time called Monar, meaning fog in Khazar) to János Maróthy, whose son László bartered it away to the Chapter of Eger in 1446. As far back as the 15th century, the Chapter already had a cellar carved into the volcanic rock in the town of Eger, where viticulture had started as a result of Crimean and Caucasian influence. Thanks to the Chapter, the same influence later shaped wine-growing in Monor, too. As a result, the number of serfs and cotters living in the village gradually increased: 7 families lived here in 1696, 52 in 1715, 123 in 1728, and as many as 315 in 1760. In 1784, the total number of Monor's inhabitants reached 2,505 because the Chapter of Eger settled some German Catholics in the village. They had brought vines with them from the west and naturalised Rhine Reisling grapes in Monor.

In 1728, 375 'kapás' (an area unit of measure equalling 700 to 1400 square metres) of existing vineyard and 104 kapás of newly-planted vines were cultivated in Monor. In 1813, 307 tenants paid 30 'fillérs' of levy each to the landowner and in 1822, the Chapter of Eger's bailiff collected the levy from 371 tenants. The amount of rent paid depended on the land's location. The rent for one 'szőlőalja' (an area cleared of forest and rented out by the landowner to serfs for the purpose of wine-growing) varied from 40 fillérs to 80 fillérs – the highest premium being paid for land on the best south-west slopes of Strázsa Hill and the Forrás (Spring) area.

Based on a text by Dr. György Dobos

15th STOP

WINE AND CULTURE

THE CULTURE OF WINE DRINKING

Many scientific discoveries have proved the physiological benefits of wine. As far back as the Antiquity people already knew that wine was capable of improving human health. It was widely used to cure neurological illnesses and diseases of the digestive system, and to prevent anaemia.

Recent research has shown that moderate wine consumption boosts the immune system. Red wine, thanks to its high anti-oxident content, reduces the chance of developing heart disease.

In addition, wine also contains various vitamins, of which vitamin B and P are the most prominent.

THE HISTORY OF SODA WATER AND THE SPRITZER

According to legend, the Reform Age politician András Fáy invited the poet Mihály Vörösmarty and some of his friends to the harvest in his Fót vineyard on 5th October 1842. One of the guests was Ányos Jedlik, the inventor of soda water. Jedlik wished to use his fizzy invention to moderate the strength of wine. However, in order to be able to use soda water properly for that purpose he also needed to invent a special bottle out of which he could spray (or spritz) the water into a glass. When invited to the Fáy estate, Jedlik took with him the first soda water bottle in the world and prepared the very first glass of spritzer or 'spriccer' as he called it. Later the poet Vörösmarty, who did not like this German-sounding word, renamed the drink as 'fröccs'.

16th STOP

WINE CELLAR CULTURE

In the last third of the 18th century, the people of Monor stored their wine either in their dwellings or in small cave-like cellars dug into loess walls. This oriental form of storage was later gradually displaced due to the influence of

Western European viticulture brought to the area by immigrating catholic serfs.

In Transdanubia at that time, Roman-style press houses were becoming more and more widespread. Meanwhile in Monor, the cave-like cellars were being replaced by peasants' cellars 6 to 7 metres deep, 10 to 15 metres long and, on average, 2.5 metres wide. These, like their predecessors, were dug into the loess.

It was at the beginning of the 19th century that cellar owners began to build huts and later press houses in front of their cellars, this being made necessary by the advent of modern presses at the turn of the century.

The various shapes of press houses reflect the economic circumstances of the time, the architectural culture of their owners, and the functions they fulfilled. They were used to store the press, vats, and other wine-growing tools. They also functioned as temporary lodgings at the time of pruning and harvest. While pressing their grapes after harvest, vineyard owners used to visit one another at their press houses and discuss the of meaning life.

Since the beginning of the 20th century, press houses have become increasingly popular as places for family occasions and friendly get-togethers. These buildings bring nature, man, and culture together under one roof, which makes them a perfect place for local people and their guests to enjoy good wine.

Based on a text by Dr. György Dobos

17th STOP

KUNSÁG WINE REGION

The Kunság Wine Region is located in the Alföld (Great Hungarian Plain). It is the largest wine region in the country, comprising parts of Bács-Kiskun County, areas of Pest County along the River Danube, wine-growing settlements in the Tiszazug and Jászság regions of Jász-Nagykun-Szolnok County, and some areas surrounding the town of Heves. There are 96 settlements in the wine region and its total vineyard area amounts to 25,000

hectares. Due to its large size and diverse characteristics, the region is subdivided into eight grape-growing districts.

The first written record of grape-growing in the Kunság Wine Region is the Founding Charter of the Garamszentbenedek Abbey from 1075. In the charter, King Géza I bestowed the Felső- Alpár és Kürt vineyard hills to the abbey.

Kecskemét town's municipal documents dating from the time of Hungary's Ottoman occupation have references to grape and fruit growing. During the reign of Maria Theresa, blown sand caused a lot of trouble in the region. In order to solve the problem, the queen issued a regulation in 1779 to encourage the plantation of vines in the Alföld to bind the blown sand.

At the end of the 1800s, the American insect pest phylloxera appeared in Hungary, and inflicted enormous damage on vineyards planted on compact soils. It was, however, unable to harm vines on sandy soils because the insect was not able to create its burrows in the unstable sand. This boosted vine growing on sandy soils and increased the significance of the Kunság Wine Region.

It was during this period that the world-famous grape-breeder János Mathiász (1838-1921) moved to Kecskemét, and an important centre for Hungarian vine growing and wine production, Miklóstelep, was established.

White and red grape varieties are both grown. Its large area and wide variety of different wines well justify the region's motto: 'The Kunság has a wine for every day'. The good quality of the wines produced in the region is attested by the fact that one of its wine growers, János Frittman, was elected Wine Producer of the Year in 2007.

18th STOP

TRAILHEAD

TRAIL QUIZ

Read through this booklet to find the answers to the questions below:

1. Which pest inflicted enormous damage on Hungarian vineyards towards the end of the 1800s?

a) Downy mildew b) Phylloxera c) Grapeleaf blister mite

2. The production of which wine type is favoured by Hungary's climate?

a) White wine b) Rosé wine c) Red wine

3. What is the correct order of the following vineyard activities?

A) Cluster thinning B) Pruning C) Harvest D) Shoot thinning

a) B-A-D-C b) B-C-A-D c) B-D-A-C d) D-B-C-A

4. Which of these Hungarian grape varieties is a hybrid?

a) Ezerjó b) Kadarka c) Cserszegi fűszeres

5. Which of the following places has a cellar village?

a) Hajós b) Eger c) Tokaj

6. How many wine regions are there in Hungary?

a) 22 b) 20 c) 18

7. According to tradition, what do Hungarians eat on St. Martin's Day?

a) Pork b) Goose c) Duck d) Rabbit

8. Which of the following is not found on Strázsa Hill?

a) Roads with loess banksb) Draw wellsc) Statue of St. Vincent d) Crosses

9. Which technology involves the ageing of the wine in a wooden barrel?

a) Oxidation b) Reductive

10. Which tool was traditionally used for pruning vines?

a) Pruning shears b) Penknife c) Pruning knife

11. How high is Strázsa Hill?

a) 175 m b) 183 m c) 190 m

12. Who naturalised Rhein Reisling in Monor?

a) Turks..... b) Germans c) Tatars.....d) The French

13. What is a large spritzer?

a) 100ml of wine and 200ml of soda water

b) 200ml of wine and 200ml of soda water

c) 200ml of wine and 100ml of soda water

14. What is the average length of cellars dug into loess in Monor?

a) 6-10 m b) 10-15 m c) 15-20 m

15. Which monarch encouraged the plantation of vines in the Great Hungarian Plaint to bind blown sand?

a) King Matthias b) Maria Theresa c) Joseph II

Answers: 1-b, 2-a, 3-c, 4-c, 5-a, 6-a, 7-b, 8-c, 9-a, 10-c, 11-c, 12-b, 13-c, 14-b, 15-b

The following persons have contributed to the ceration of the information borads of the Thousand Cellars Wine-Growing Trails and this booklet:

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Hungarian and English publications related to the trails are available at **www.strazsaborrend.hu**

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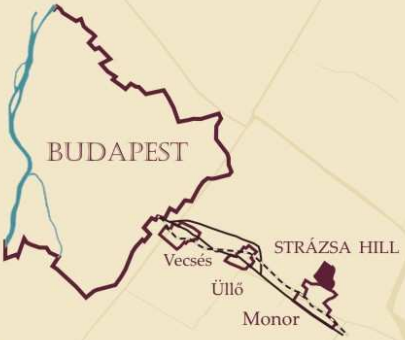

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Nyugati (Western) Train St. — Airport — Monor (35 mins)