

**“APPASSIMENTO” BY MASI**  
**THE AMARONE SCHOOL FOR NEW WORLDWIDE SENSATIONS**



Masi Technical Group

## **Introduction**

*By Sandro Boscaini*

Looking towards the past, the present and the future of the wines from the Venetian region, it's self-evident a continuity in the character of the wines - **the Venetian style**.

This style is determined by the peculiarities of the region itself, by its patrimony of local grape varieties, but mainly by the large use of ancient winemaking techniques like "appassimento", "double fermentation" and the vinification of over-ripened grapes.

Flagship of Venetian wines is Amarone. Its recent success lead to an expansion of the "Amarone experience", and the question was put: "what would happen if the appassimento technique looked for suitable applications outside its historical context, its usual grape mix, its centuries' old style and zone of origin?". The Masi Technical Group looked at this question with an open mind and without pre-conceptions.

Today, it's easy to analyse examples of new exciting Venetian products as well as wines inspired to the "appassimento experience" both from Italy and the rest of the world.

Amarone has always taught us something, and it continues to do so. This is the most significant factor in its success, more important even than its purely commercial viability.

The Masi Technical Group intend to comment technically and conceptually on what can only be described as a new category of wines. They will do it within the parameters of what the "**Amarone school**" teaches us, that means that all the wines should conform to a precise type:

- full-bodied and complex red wines that show smoothness and roundness even when relatively young.
- alternative wines, defined as different because of some unusual factor in their production or grape mix.

As a producer in the Valpolicella region who has been committed in recent years, both in human resource and in technical terms, to the rebirth of "modern wines with an ancient soul", I welcome those who have contributed and continue to contribute to this new Amarone-related wine category.

## **Chapter 1 – Analysis of “international taste” standards**

*By Masi Technical Group: supervisor dr. Lanfranco Paronetto*

Red wines of what might be called the “traditional” type have a glorious heritage. A heritage which is the foundation for their present-day fame.

But it can't be denied that there are still many red wines in circulation that suffer from historic defects, such as high acidity, obvious and not always pleasing tannins, and a harshness and bitterness on the palate that consumers are less and less willing to tolerate.

In fact, it is clear that the pattern of wine consumption (and the palate of the consumer) has changed radically in a relatively short time (10-15 years). Wine has become less and less merely something to drink, and more and more the starting point for a cultural exploration of the past, and a way of satisfying curiosity about the customs and habits of a bygone “peasant age” seen through the rosy glow of history.

At the same time, critical appreciation has changed in favour of what is called today, with obvious over-simplification, the “international taste”. Structure, weight and softness, together with a complete avoidance of any hint of harshness or bitterness, are the foundations of this international taste.

Here I can see some producers interjecting with comments about the dangerous uniformity that comes with the adoption of the international taste and prevents any sort of cultural influence being inferred from a wine of this type.

But “international taste” isn't and should never be the sole parameter by which a modern wine is assessed. It's the foundation block on which the quality and characteristics of today's wines are constructed. This is the solid base on which to construct different tipicities, and to express different origins and styles.

There is, however, a big problem with two crucial factors in the equation: the grapes themselves and the slowness of wine producers to adapt to new circumstances.

In Italy at least, we continue to suffer from the distinction made between viticulture and oenology, a difference that the co-operatives have unfortunately tended to exaggerate rather than ameliorate.

Thus it is that while we wait for changes in vineyard practice, we must look in the meantime to other means of “intensification” and of making the grapes suitable for the production of modern wines.

In Verona, winemaking traditions have given us an interesting and original way of reconciling “international taste” with increased typicality.

Instead of using concentrated must, grape sugar, or reverse osmosis to eliminate water, and instead of using cold concentration of wine and other techniques that are still legally permitted, we have successfully used one technique from time immemorial: grape raisining or appassimento.

In this way we compensate for certain viticultural deficiencies, and achieve the principal aim of combining complexity in taste with an enhanced sense of varietal and territorial typicality.

## **Chapter 2 – Appassimento methods**

Appassimento is not a new technique in Italy; and it’s usually used to make the grapes more suitable for the production of generally richer and more important wines.

In contrast to other viticultural techniques this is a reasonably safe method giving a reasonable amount of control over the perishability of the grapes, not to say an effective defence against “rivals” such as the birds and animals who regard the grapes as a potential source of nourishment.

When the grapes are picked the best bunches are laid out to dry for a variable length of time. Once there were nets hung down from the ceiling and the bunches were hooked into it, one by one, using a suitable protruding wing from each bunch; there was also a similar system using chains hung from the ceiling, too.

Often, the system was a simple one of reed mats laid out on the ground either in suitable indoor rooms or outside, depending on the weather. Straw beds were also used for the grapes to dry on (hence the French *vins de paille*).

All these appassimento techniques have been and still are used elsewhere in Italy, for example in the making of Vin Santo. And the Verona area is rightly proud of their use in the making of Recioto and Amarone wines.

The most widespread system consists in laying the grapes on stacks of cane-rack-trays set up in dry and well-ventilated rooms. Today, little by little, the cane racks are being superseded, for reasons of practicality and manoeuvrability, with stacks of little “plateaux”, each holding about 8-10 kg of grapes. The length of appassimento varies from 60-100 days, depending on the vintage.

The weather is of primary importance in the appassimento process. Temperature and relative humidity are crucially important in encouraging or discouraging the development of both the desirable noble Botrytis rot and its opposite, the common and destructive grey mould. Indeed, no matter how carefully the grapes laid out to dry in the “fruttaio” are picked over first, fungal rot easily develops. An overlying layer of humidity can easily affect the grapes, and any damage to their skins can lead to juice leaking out and hence ideal conditions for the development of mould.

Obviously, mild temperatures and low relative humidity are ideal states for successful appassimento, because they can also lead to a desirable attack of Botrytis. This helps develop tastes and aromas in the finished wine that show ripeness and intensity, but are structured and all enveloping too.

Rainy, wet years lead to less than healthy grapes and then the appassimento process runs the risk of leading not to Botrytis but to “grey mould”, which damages the grapes and leads to inferior quality wines. In this case, either the length of time allotted to appassimento is reduced or the appassimento method isn't used at all.

### **Chapter 3 – The effects of appassimento**

There aren't many studies or scientific research papers extant on exactly what happens during the appassimento period.

Studies do exist relating to late-picking techniques, often leading to desirable Botrytis attacks, while the grapes are still on the vine. These studies relate, however, to the category of sweet wines that range from Sauternes to the so-called late harvest wines.

There's little, however, on appassimento and red wines and the appassimento process after the harvest.

The only extant studies of the appassimento process and Valpolicella grapes were made by Usseglio Tomasset and colleagues during the years 1977 and 1978 and subsequently published in various journals after 1980.

The work was precise and examined principally the developments of weight and Botrytis fungal infection in relation to climatic conditions for the year in question, with respect to the three principal cultivars for Recioto and Amarone: Corvina, Rondinella and Molinara. The researchers then looked at the development of sugars, total acidity, tartaric and malic acid, glycerine, and gluconic acid.

Among the conclusions of this wide-ranging and thorough study, the only one available at this level, particular attention is paid to the fact that a long appassimento period for the three principal Veronese varieties doesn't only lead to a concentration of the sugars without a major increase in acidity, but also leads to a change in the composition of the grapes themselves with respect to the development process for mould or rot, a change that is shown particularly with a notable production of glycerine.

Available results show us that, in general, appassimento leads to:

- Sugar concentration (elimination of water)
- Concentration of other substances (elimination of water)
- Increased aromatic, colouring and phenolic substances in the must (activation of enzymes)
- Transformation of aromatic substances from simple to complex
- Development of phenolic substances with consequent disappearance of "rustic grassiness", and bitterness and increase of "smooth and rounded" tannins
- Possible developments by either version of rot, either desirable Botrytis or undesirable "grey mould":
  - \* Creation of glycerine
  - \* Consumption of malic and tartaric acid
  - \* Degradation of varietal aromas
  - \* Production of glucouronic gluconic acid and various colloids, such as glucans.

- \* Production of enzymes capable of destroying polyphenolic substances and colouring materials (anthocyanins).
- \* Production of enzymes capable of destroying varietal aromatic substances and fermentation aromas.

All these processes interact amongst themselves and give an idea of the changes that happen to the must, and of how completely different wines made with the appassimento process are when compared to wines made with fresh grapes.

## **Chapter 4 – Appassimento outside Verona**

The appassimento of red grapes with the aim of making a great red wine with the attributes of a high level of alcohol, full body and powerful structure, a floral nose and

aromas of “cherries preserved in spirits”, is an almost unique process to the Verona area with few established rivals anywhere in the world.

The wine market is constantly searching for wines that are both “authentic” and full-bodied and well-structured. This suggests that this curious process called appassimento could be used to improve and develop other wines, too.

In fact, the quality and success of Amarone have encouraged other Italian producers to experiment with appassimento applied to their wines. And it seems that the results are very encouraging.

So it is that, little by little, appassimento is being introduced into other areas of Italy and used with completely different grapes to the classic varieties from Verona.

At the 1998 edition of Vinitaly, it was Masi itself that presented the results of appassimento experiments on various classic Italian grape varieties and the oenological consequences in terms of quality and tipicity of bringing a “new style” to the resulting wines. The grapes experimented on were Sangiovese, Croatina, Barbera, Cabernet, Ancellotta, Refosco, Raboso and Montepulciano.

Preparing the grapes and vinifying the wine in a similar fashion to Amarone in Verona, led to some reasonably predictable results:

- \* diversity of product compared to the benchmark of Amarone

\* development of interesting characteristics strongly related to the variety used and enhancement of certain characteristics typical of the variety in question while increasing aromatic complexity.

## **Chapter 5 – From appassimento to over-ripening – The Masi experience**

As we have seen, the appassimento process is important as an “improvement” process for grapes; it makes them more suitable for making bigger wines in terms of alcoholic content and aromatic complexity.

Traditionally, this technique is used to make “special” wines (passito wines, vin santo etc...), or “big” wines in temperate climate vineyard areas where, despite generally good conditions for winemaking, it’s difficult to grow grapes with enough ripeness to make a top quality wine. This is man’s clever way of making up for the climatic deficiencies in nature.

Wines from Verona are a good example. Recioto and Amarone have a size and structure that mere Valpolicella, good though it is, could never approach, even in the best years. In alcoholic content alone, it’s difficult for a Valpolicella to reach 12° of natural alcohol, while Amarone must achieve a minimum of 14° and not uncommonly reaches 16°.

There are, however, both in Italy and abroad, warmer and decidedly sunnier vineyard areas where the sufficient ripening of grapes to make bigger and more structured wines is not a problem. In this case the raw material is potentially richer and it should be much easier to make full-bodied, powerful wines. But even here, things can be improved.

A full appassimento, in the traditional sense, is not needed here; a few weeks’ controlled “over-ripening” can be enough. Without interfering with varietal tipicity, an aromatic complexity added to “natural structure” can lead to a marked change in taste with an individual and yet characteristic style.

A few weeks or a few months of appassimento, carried out with the necessary care and attention, can give surprising results, opening up the possibility of powerful, complex softness in wines together with exciting aromas. This is Verona’s achievement.

### Masi experiments

Masi's huge experience in making Amarone, and the research made on various grape varieties, and general considerations about how to add a touch of class using Veronese techniques, have led to two different projects:

In Italy: **Grandarella** – brief appassimento using an interesting grape variety, the native grape from Friuli called Refosco.

In Argentina: **Corbec** and **Passo Doble** – our first experiment into “over-ripening” and the blending of Corvina with Malbec.

These projects arise as applications of many years long experience of Masi with appassimento and double fermentation wines, which are internationally recognized for their quality and personality, like Campofiorin and Brolo di Campofiorin.

## **Conclusion**

What we have said so far doesn't mean that Veronese winemaking techniques can be blithely and blindly applied everywhere else in the world. Amarone is a very special wine made in a very special area, and there is no intention of touching the reputation of a wine that is respected all over the world.

That said, appassimento is a method that leads to an increase of quality by creating desirable attributes of structure and softness in a wine. Perhaps it is possible in the case of certain wines that would otherwise remain merely "interesting" rather than seductive and sought-after, to enhance their overall elegance, make them more attractive on the palate, and give them more complexity on the nose using this technique.

Verona style is a force for change in the world.