

EVALUATION AND SCORING METHOD

THE LOGISMA OF THE FRUIT-GRADE OF WINE

The value of any food just coincides with the analytical essence's virtuosity of its composition, the pleasantness pure and prime of its taste-aroma. The taste of any kind of food and/or beverage is indeed the universally perceived revelator of its index of chemical/analytical/technical quality.

If in the wine's composition there is no improper or altered substance, meaning no defect, the greatest it will be the pleasantness revealed at the taste. The taste's vices of any kind of food or beverage are indeed originated by deteriorated improper constituents, unbalancing, contaminating the taste aroma of the fruit and/or of the correct product of its transformation. Pure and prime pleasantness organoleptically detected and physiologically dictated: pleasant is what pleases the sense of sensation because it universally gratifies the human body's functioning. So it is finally the progressive coming closer of the wine's composition to its greatest constituent purity, to its greatest physiological utility, to guide naturally, steadily, intuitively our senses in appreciating the taste-aroma of what feeds us.

The quality of a wine is the pleasantness of its taste, meaning its fruit-grade.

Premise it becomes axiom.

Basic Axiom*:

Wine is pleasant when its taste recalls in a true way (Consistent, balanced, integer) the taste of the fruit from which it has been obtained.

From this it follows that if we are searching to give a substantial evaluation of the quality (pleasantness) of a wine, we must evaluate its fruit-grade.

Logisma of the fruit-grade of wines:**

The fruit-grade of a wine is directly proportioned to the consistency, Balance and Integrity of its taste.

* An axiom is a principle/statement whose truth cannot be demonstrated because it is true for its self evidence.

** A logisma is a principle/statement logically deduced from an axiomatic premise.

From this we deduce that, for the wine:

$$\text{Index of Quality/Pleasantness/Fruit-grade} \\ = \text{Consistency} + \text{Balance} + \text{Integrity}$$

$$IQ/P = C + B + I$$

THE THREE FONDAMENTAL ORGANOLEPTIC PARAMETERS

There are three organoleptic parameters common to all wines, which determine their Index of Quality/Pleasantness/Fruit-grade

1. Consistency 2. Balance 3. Integrity

These parameters are intended as follows:

Consistency

The “consistency” is the totality of substances that compose a wine, its extract. The total dry extract of a wine is the sum of all its constituent components, excluding water, alcohol and those substances that evaporate with heat. It is obtained by subjecting the wine to evaporation, and thus it corresponds to the weight of the fixed residue, measured in grams per litre (g/l).

A wine of high consistency is rich in colour, aroma and taste, and has a dense, viscous texture (the reverse is true for wines of scarce consistency).

The consistency thus determines the quantity of sensations produced by a wine.

The greater the consistency of the grape employed, the greater the consistency of the wine obtained. The greater the quantity of grapes produced by a single vine, the lesser will be the consistency of the wine obtained (and vice versa).

The consistency of a wine is thus a rare parameter mainly because it's costly to obtain.

Balance

A wine is balanced when its taste satisfies the basic equation of the balance of taste:

$$\begin{aligned} & \textit{Sweet-Tasting Substances} = \\ & \textit{Acidic Substances} + \textit{Bitter Substances} \\ & \textit{Therefore} \\ & \textit{Bal if STS} = \textit{AS} + \textit{BS} \end{aligned}$$

A wine is balanced when the sweetness (or roundness) of its taste is equal to the sum of its acidity and bitterness (if any). It is unbalanced when any one of these three sensations prevails. A balanced wine has a round, harmonious taste, while an unbalanced one is acidic (unripe), flat (over-ripe), or bitter (too high a degree of tannins: over-tannic). In the first case, an acidic wine will taste dry and lemony; in the second case the flat and/or oxidated wine will taste dull, and lack fragrance. In the third case, a bitter wine will taste over-tannic, or rhubarbary or liquoricy.

The balance thus determines the quality of the sensations produced by a wine.

The less ripe the grapes used, the more acidic or bitter a wine will be. The greater the quantity of grapes a single vine produces, the more difficult it will be for the fruit to ripen.

The balance of a wine is thus a rare quality mainly because it's risky and costly to achieve.

Integrity

The taste of a wine is integer, is intact, when the flavour of its compositive fruit is perceived in its cleanliness and its newness (freshness).

The cleanliness of the wine consists in the absence of taste-aroma which are not primarily owned by the compositive grape and/or don't belong to the correct product of its œnological transformation. The concept of cleanliness can be associated with the ideas of "purity".

The five œnological defects of transformation are: sulphureous, vinegarish, lactose, vanished or over-woody taste/aroma.

The newness of a wine consists in the absence of oxidated taste-aromas (rancid, caramel, Marsala) which are not present in the fruit at the moment of its picking from the vine. How fresh, how new is the fruit in the wine under evaluation? Is it fragrant or oxidated?

The integrity thus determines the quality of the sensations produced by a wine.

The more technically careful and rapid the process of production, the higher the level of the integrity of the wine. The integrity is thus a rare parameter mainly because it's very difficult to manage the oenological transformation process.

GENERAL OBSERVATIONS ON THE THREE BASIC PARAMETERS WHICH DETERMINE THE INDEX OF QUALITY (PLEASANTNESS/FRUITE-GRADE) OF A WINE

1) The three fundamental parameters are not only theoretic or sensorially estimable, but they are analytically measurable.

2) The three fundamental parameters are independent in commensuration among themselves, but are partially correlated in the relieving (defects in integrity lower the balance in taste).

3) Every one of the three fundamental parameters concurs in an identical way (1/3) to determining the global Index of Quality (Pleasantness/fruit-grade) of a wine.

None of the three parameters on its own determines the excellence Index of Quality of a wine. A wine is pleasant (it has high fruit/grade) if it is at the same time consistent, balanced and integer.

4) The level of each of the three fundamental parameters is given once and for all by the producer at the final bottling of the wine.

5) With respect to the original consistency, balance and integrity of the taste of a wine, the passing of time causes the diminishing of its consistency and integrity, while the balance remains essentially unchanged. In general terms, with the passing of time the fruit-grade (Index of Quality/Pleasantness) of a wine progressively goes down.

METHOD OF EVALUATING THE FRUIT-GRADE OF WINE

Practical Application of the method:

A) The overall evaluation of the Index of Quality of a wine (pleasantness/fruit-grade) is made by giving a mark out of 100 after tasting it. A mark of 100 cannot be awarded: it is the perfect wine, which will never at any stage be designated because there is always and there always will be the possibility of tasting or producing a better wine than any yet tasted or produced. So that 99 is the highest mark awardable: this is the wine which shows the maximum evidence of consistency, balance and integrity. The wine is the very incarnation of fruit, of pleasantness itself.

IP MAX= 99 POINTS

B) This mark (the Index of Quality) is obtained by giving points from 1 to 33 to the consistency, to the balance and to the integrity, and then adding up the three given partial marks.

IP MAX 99= CONSISTENCY 33+ BALANCE 33+ INTEGRITY 33

(It is advisable to ponderate the level of consistency, balance and integrity according to the Reference chart for marking shown on the next page).

Information on the points system

1. The higher the mark out of 100 awarded, the higher the wine's Index of Quality (Pleasantness/fruit-grade).
2. Wines of equal Index of Quality may have different degrees of consistency, balance and integrity.
3. Those wines marked 74/100 and more for their fruit-grade, that is, for their pleasantness, are definitely recommended for purchase.
4. From 84/100 upwards there is very strong evidence of the constituent fruit. Beginning from this threshold the fruit-grade (pleasantness) of the wine in question is superior. From this mark on, the wines are genuine Fruit-Wines, capable of genuinely recalling their constituent fruit in terms of substance, balance and integrity. These Fruit-Wines will be indicated in the Lm publications by the registered logo indicated below.

GUIDE TO THE USE OF THE METHOD

Tasting a wine means estimating its index of quality (its fruit-grade, or its pleasantness). In order to do this it is necessary to evaluate the intensity of three parameters, which are independent from each other: consistency, balance and integrity.

Thus it is necessary to ponderate, during the tasting: which are the consistency, balance and integrity of the wine's taste?

In responding systematically to these questions, the taster will find the logisma of the fruit-grade of wines demonstrated by the wine itself, and will learn the two laws by which it is regulated:

1. only a wine with a consistent, balanced and integer taste will recall the fruit from which it is made (the grape);
2. the more a wine is capable of recalling its constituent fruit (the grape) in a consistent, balanced and integer way, the more it is pleasant.

Requirements for tasters

In order to evaluate the fruit-grade/pleasantness of a wine, the following are necessary:

1. method (tasting with no application of a method does not allow the memorization of the wines' profiles);
2. applied knowledge of the method: experience;
3. attention (only the attentive taster has precise perception and therefore right evaluation);
4. honesty and deductively in the evaluation and in the description of the sensations perceived;
5. synthesis, pregnant and simplicity in describing the sensations perceived.

User's manual - Rules & basic principles

1. In order to well apply the method, it is necessary to evaluate basic parameters one by one. First the consistency, then the balance and finally the integrity. Evaluating the consistency the taster must not consider either the balance or the integrity; each parameter is a separate matter. You have to stay vertical on the single parameter (do not ponderate the adjoining parameter).

2. The same quality of a wine cannot qualify two basic parameters, nor can a specific defect penalise two basic parameters; each parameter is a separate matter. You have to stay vertical on the single parameter (do not ponderate the adjoining parameter).

3. The consistency is evaluated mainly with the mouth, and so is the balance too. The integrity, otherwise, is a parameter pertaining to the nose.

4. A note revealed by the last of the wines tasted may serve to attribute a correct evaluation of one of the three basic parameters of the first of the wines tasted. Thus each of the marks assigned to the basic parameters of any wine in the tasting can be corrected up to the point when the tasting is finally concluded. (The re-evaluation is sign of attention, meaning quality of application)

5. In order to well evaluate the three basic parameters, it is necessary to determine the reflects of each (consistency, balance and integrity) on sight, smell and taste of the wine under examination.

6. In order to well evaluate the consistency, it is necessary to bear in mind the consistency of the richest wine ever tasted, and compare it with that of the wine under examination. The same goes for the balance and the integrity of its taste.

7. In order to well evaluate the consistency, it is useful to compare that of various wines under examination with each other; the same is true for balance and integrity.

The order of the tests to which the wine under examination should be put

1. Evaluation of consistency by sight;

2. Evaluation of consistency by smell;

3. Evaluation of consistency by taste.

Mark between 1 and 33 for consistency.

4. Evaluation of balance by sight;

5. Evaluation of balance by smell;

6. Evaluation of balance by taste.

Mark between 1 and 33 for balance.

7. Evaluation of integrity by sight;

8. Evaluation of integrity by smell;

9. Evaluation of integrity by taste.

Mark between 1 and 33 for integrity.

10. Sum of the partial marks assigned to the consistency, balance and integrity = final mark out of 100= index of pleasantness of the wine tasted

11. Report of sensations perceived, illustrating the performance of the wine under examination with respect to each of the three basic parameters.

CONSISTENCY - NATURE AND EVALUATION

1. The consistency of a wine determines the quantity of sensations experienced, meaning the intensity of sight, smell and taste. The greater a wine's consistency, the stronger its colour, its smell and its taste (and the more dense its texture in the mouth).

2. Consistency is a macro-parameter: the persistence of taste and the potential longevity of a wine are direct functions of its consistency.

3. The consistency of a wine is a direct function of the consistency of the grapes employed.

4. The consistency of a wine is evaluated by measuring the intensity of the coloration, the quantity and the density, and above all the tactile sensation of the wine on contact with the tongue. A wine of scarce consistency has a diluted texture, like that of water, whereas a wine of consistency has a texture that tends to the more dense and viscous quality of fruit juice.

The texture of a wine is evaluated by introducing a small quantity of it into the mouth and patting it between the tongue and palate.

5. Above certain levels the consistency generates saturation of the senses (reducing the drinkability of the wine).

Effects of the level of consistency on sight, smell and taste

Sight: intensity of colour, visible density of the liquid, jams on the glass.

Smell: intensity and density of the aromas.

Taste: intensity of taste, tactile quality of the liquid (dense or diluted), persistence of the flavour after swallowing.

Notes on consistency

a) differences in intensity of coloration between two white wines indicate a difference in levels of consistency only between wines of the same year and produced according to similar procedures. Oxidation (due to wood or age) also causes an increase in colour in white wines.

b) between two wines with the same consistency, the more balanced (rounder) one will feel denser and more viscous to the touch.

BALANCE - NATURE AND EVALUATION

1. The balance of a wine determines the quality of sensations experienced.
2. Balance is a macro-parameter: only a balanced wine produces harmonious and therefore complex olfactory and taste sensations. If there is not balance in the taste there will be monotonous excess of the sweet, acidic and/or bitter sensations. The excess of sweetness (sweet wines) generates pleasantness even if it does not include sensorial complexity.
3. The balance of a wine is a direct function of the maturity of the grapes employed, an inverse function of the quantity of grapes produced by each vine.
4. The balance of a wine is evaluated by analyzing the shades of coloration, the quality and “shape” of the aromas perceived, and above all the balance between the rounder and the acidic and bitter aspects of the flavour. An unbalanced wine has angular and acidic-bitter aromas, and a sour or sour-bitter taste.
5. The balance of a wine is evaluated by tasting a small quantity of it and evaluating the harmony or imbalance of the flavour, evaluating the performance of the wine’s taste in respect to the basic equation of the balance of the taste:

$$\text{BAL} = \text{STS} = \text{AS} + \text{BS}$$

Effects of the level of Balance on sight, smell and taste

Sight: shades and reflections of the coloration.

Smell: soft or hard (acidic/bitter) aromatic tendency; aromatic “profile” either angular, acute or round.

Taste: harmony or imbalance of the flavour (that is, balance between the sweet, and the sum of the sour and bitter taste sensations).

Notes on balance

a) Sweet wines (those with a residue of unfermented sugar) do not satisfy the equation for the balance of taste: the substances with a sweet taste outweigh the sum of those with acidic or bitter taste. This, however, is the only type of imbalance that remains pleasant; in fact, it is by sweetness that pleasantness is measured, whereas acidic, saline and bitter sensations are measures of unpleasantness.

b) The richer a red wine is in tannin, the more strongly perceptible the acidity will be; tannin precipitates saliva, which therefore no longer softens the acidity of the wine.

c) Acidity is evaluated while the wine is still in the mouth, before swallowing (opening the mouth slightly and assessing the flavour); the bitterness is evaluated from the moment of swallowing.

d) In comparison with unbalanced wines, the balanced one may seem to have no aroma; in reality it is merely lacking defective, negative, acute peaks.

INTEGRITY - NATURE AND EVALUATION

1. The integrity of a wine determines the quality of sensations perceived.

2. Integrity is a macro-parameter: only a wine with an integer taste produces linear and fresh and therefore complex sensations; only a wine bottled with no oxidation has a good potential longevity.

3. The integrity of a wine is a direct function of the care and brevity of the process by which it was produced.

4. The integrity of a wine is evaluated by analyzing its appearance, the cleanliness and freshness of the smell and of its taste. A wine lacking integrity has defective and musty aromas, and an unclean and oxidated taste. A wine that is intact has no defects of cleanness, and is not oxidized.

5. The integrity of a wine is therefore evaluated in terms of two factors:

a) **CLEANLINESS**: the absence of unpleasant and defective aromas and flavors, not proper to the constituent fruit of the wine, but derivate by improper process of oenological transformation. The principal defects in this regard are:

I. Sulphureous: taste/aroma of sulphur, bringing pungent, rude, smoky, rotten egg notes to the nose. To the taste the same are noted, along with a sensation of roughness and bitterness on swallowing.

II. Vinegarish: an acetic taste/aroma, bringing vibrant, piercing notes of vinegar to the nose, suggesting similarities to synthetic substances, enamel paint and varnish (in red wines: notes of resin). The same are noted in the taste, along with a sensation of vibrant, acetic 'heat' on swallowing.

III. Lactose: milky taste/aroma, bringing notes of yoghurt and sour milk to the nose. The same are noted in the taste, along with a tart or sour sensation in swallowing (in red wines, due to the more or less tannic and oxidated substratum, the analogy is to soft caramel).

IV. Vanished: a dully sweetish taste/aroma bringing notes of olives, beet and wax to the nose. The same are noted in the taste, along with a brassy undertaste. The vanished is proper of wines that have been opened the day before.

V. Overwoody: excessively spicy and toasted taste/aroma, deriving from the wine's period of ageing in wood. The excess of wood produces unnatural analogies to vanilla, spices, smoked foods or lacquer nail polish hairspray. The same are noted in the taste, along with bitterness on swallowing.

b) **NEWNESS**: absence of oxidation. Oxidation is the deterioration of the original aroma and taste of the fruit, caused by improper methods of vinification and/or excessive ageing of a wine. There are three progressive phases of oxidation:

1st phase: alteration and increase in the intensity of reflections and chromatic content (in white wines, accentuation of golden tones, in red wines, orange tints appear). In the smell and taste there is an increase of the sweeter notes: the wine is dull, cloying, soapy, sweetish (but not really sweet).

2nd phase: onset of rancidness. White wines take on a brownish tint, red wines become brick-red. To the nose the rancidness brings notes of amaretto, almonds, or rancid butter; in red wines the caramel notes increase. The same effects are noted in the taste, along with the bitterness of old wines in white, and the caramel flavour and rancid bitterness in red wines.

3rd phase: madeirisation. White wines have turned to brownish, red wines are completely orange-garnet. There are no longer any fresh notes to nose and taste, the taste/aromas are those of Madeira and Marsala. There is a metallic taste, something like rust, with both sweetish and bitter aftertastes on swallowing.

Effects of the level of Integrity on sight, smell and taste

Sight: absence of cloudiness and of oxidated shades of the coloration.

Smell: clean and fresh aromas.

Taste: clean and fresh flavour.

Notes on integrity

a) A wine rarely presents a single defect in integrity; a defective wine usually suffers from more than one vice.

b) We can imagine integrity as a barrier that is more or less evident, transparent and distorting, placed between the taster and a wine's consistency and balance: C B **I** I (wine of low integrity); C B **I** I (wine of medium integrity); C B I (wine of high integrity).

CONCLUSION

By applying the method which derives from the logisma described initially in the way that has been set out, we are able to measure the Index of Quality (or the Index of Pleasantness) of any wine. Only by assessing different wines by this same method can we obtain an objective scale of their fruit-grade (or pleasantness).

Wine tasting, therefore, consists in:

- 1) the numerical evaluation of the level of the three basic parameters which determine the wine's fruit-grade (or pleasantness);
- 2) the adding up the sum of the three partial marks to obtain the final mark out of 100 expressing the wine's Index of Pleasantness;
- 3) the description of the sensations experienced in subjecting the wine to examination by our senses.