

A Theory on the Balance between Flavour and Mouthfeel in Wine.

The side of the truck said -"Feel the taste of Munchies".

This is quite right, and it could also have said "Smell the taste of Munchies", because taste, whether food or wine, has these two sensory aspects.

This will come as a surprise to most people, although on reflection it will appear obvious.

Even wine professionals use the word "palate" for taste and mistakenly interpret that to mean only its mouthfeel, whilst contrariwise foodies have a habit of regarding anything that goes into the mouth as having "flavour". Each is half right.

Taking wine as an example, we appreciate the aroma in the glass and then we place it in the mouth where the water soluble part (extract) interacts with the lining to give varying impressions of sweetness, acidity, bitterness, warmth etc. and the volatile part wafts away and is drawn up as you breathe out, past the nasal sensors.

Hence there are two almost concurrent sensory experiences but people appear to talk and write as if it is one.

The mouthfeel balance or "Suppleness Index" (Peynaud; "Knowing and Making Wine", p15ff) is well known. It is the perception of sweetness (alcohol plus sugar) against sourness (acids) plus bitterness (tannins). But what of the balance between mouthfeel and flavour?

If we can reexamine that simple act of tasting a glass of wine, frame by frame as it were, light could be shed on the relationship between mouthfeel and flavour and how we have misunderstood them.

When a wine is sniffed in the glass one can concentrate on just this sensory experience. Whereas in the mouth there is competition for our conscious attention between the palate and nasal experiences.

Wine is a mixture and when it hits the tongue etc., the sensors send their messages to the cortex to be organised and interpreted. In particular the awareness of balance.

This introduces the First Principle of the Senses - "first in, best dressed", or, where the wine first touches in the mouth wins the race. So, a wine will feel softer if it first touches the front rather than the middle of the tongue. As well the front of the tongue, used to being primed by food, can send a message to the nasal sense to get ready. Hence the best way to experience the palate of a wine is to place it at the front of the mouth.

The flavour journey is different and takes a few seconds longer (hence the expression "mid palate flavours" i.e. the flavour arrives after the mouthfeel in the cortex). In the 37 degree environment the volatiles move out of the wine to the back of the mouth where they are sucked up through the nasal passage in the breathe out part of the cycle (nothing is perceived when breathing in- thus the perception of flavour actually pulses).(See WIJ Nov-Dec 04 p11)

The data from the nasal sensors goes to the fore brain (olfactory lobe) specialising in detecting and processing smells, where there can be words, likes/dislikes and memories attached. THEN it sends a message to the cortex for integration with the already arrived mouthfeel signals.

Our consciousness is easily overloaded; try reading a book as you listen to the radio or having a conversation while watching TV.

There can be individual variations; as we age the ability to 'focus' with our senses diminishes and women have a better ability to 'multitask' (i.e. concentrate on more than one thing at a time.)

So here we have two sources of sensory data competing for your awareness; mouthfeel gets there first, and suppose it is particularly strong? It is reasonable to assume that beyond a certain point flavour will not be noticed in heavy mouthfeel wines, i.e. imbalance. The expression "fruit driven" thus refers to wines with strong aromas and little mouthfeel or afterflavour, as in many NZ sauvignon blancs. Also an example of imbalance.

A balance between flavour and mouthfeel would have BOTH being perceived, and a long afterflavour and afterfeeling being the indicators of quality.

I have noticed how heavy bodied wines in barrel have an amazing ability to 'absorb' new oak flavours. Consider too the aroma in the glass and how it seems to 'disappear' on the palate with big wines, despite the 15-20 degree temperature increase in the mouth that you would expect to enhance volatiles.

It is understandable that the 3-7-10 Show system in practice has awarded the 10 to mouthfeel, despite this not being the intention of the originators, and is out of step with how our sensory system deals with wine. (WIJ May-June 06 p75ff)

What then are the enologist's and viticulturist's contributions?

Simply, the enologist's responsibility is to create a balanced structure without losing the fruit flavours, and perhaps enhancing them with oak and yeasts. The viticulturist delivers the quality fruit that determines, in the main, the flavours. i.e. the real quality.

So, it is possible to say "This is a well made wine, but it is not a good wine". i.e. the wine is balanced and has structure, but it lacks flavour.

Our Industry needs diversity and new directions. Understanding the role of aroma/flavour is a way forward to both improve the enjoyment, and to give more options in the making of wine, for a new generation of wine drinkers.

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