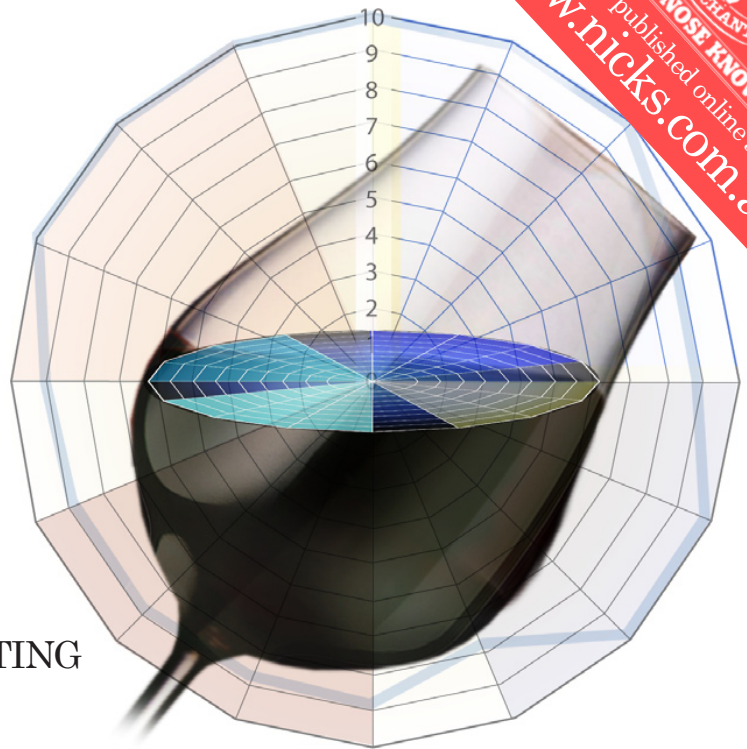


The Winespider System

"CONGRATULATIONS ON CONSTRUCTING
THE CRÉME DE LA CRÉME
OF WINE RATING SCALES!"

- Dom Cicchetti, Ph.D. Senior Research Scientist and Biostatistician, Yale University School of Medicine.



By means of a tasting note, a numerical rating and a Winespider graph, Nicks Wine Merchants endeavour to provide a complete portrait of every wine tasted, and remain the only wine merchant in the world to employ a transparent wine rating methodology. First developed in 1996 by Nick Chlebnikowski, the Winespider system has sparked both critical acclaim and controversy from winelovers internationally. This booklet offers an abridged introduction to the system, preceded by a discussion of some of the fundamental issues surrounding wine evaluation. These include the following:

1. The basis of the language of wine descriptors.
2. Using numbers to rate wine quality.
3. The pros and cons of contemporary approaches to wine evaluation.
4. Is an 'objective' wine rating system possible?

The Language of Wine.

One of the first attempts to describe wine in English was by a Scottish Doctor, Alexander Henderson (1780-1863), as recorded in his book "The History of Ancient and Modern Wines" 1824. ⁽¹⁾ Henderson relates a familiar problem - how to find words to convey flavours? Little has changed since Henderson's time, except perhaps our ability to state the problem more elegantly. "We tasters feel to some extent betrayed by language", wrote the contemporary French oenologist, Emile Peynaud, concluding, "It is impossible to describe a wine without simplifying and distorting its image." ⁽²⁾ A tendency towards simplification is understandable, given how complex wine can be, and frustrated wine writers with a fetish for being trendy have often tried to 'deconstruct' it. Their results sometimes remind one of the very worst Dadaist poetry, whereby a barrage of random words are melded together to create an absurd kind of 'anti-tasting note':

"...Monolithic, fearless, even rude...Pencil shavings and patchouli compete with Mister Kleen and those socks there piled up in the corner. There's sweetness later on, much flowers and making up, and somewhere mid-swallow there's a perceptible tong sound which rings on for several minutes. Subtle overtones of toothpaste, orange juice, coffee and bacon".

Unfortunately, wine professionals and Master's of Wine have being just as culpable. One visiting English M.W., confronted with an Australian Shiraz, described earthy aromas as "...fresh droppings from a Suffolk lamb on a summer's day in a Sussex lane". No less imaginative is English wine writer, Michael Broadbent, noticing "...the smell of schoolgirls' uniforms" ⁽³⁾ in a wine. And not to be out done, the late Auberon Waugh, in his wine column for Britain's Tatler, detected the aroma of "...a dead chrysanthemum on the grave of a still-born West Indian baby" (no, he wasn't fired, but he and his editor, Tina Brown, were brought before the Press Council to answer charges of insensitivity)". ⁽⁴⁾

In a seminal study of the subject from 1976, "Wines: Their Sensory Evaluation", Maynard A. Amerine and Edward B. Roessler, sought to relegate the obfuscations of wine critics to a "Romantic" tradition. As professors at the University of California at Davis, an important center for the study of wine, they wanted to introduce some scientific foundation into the business of tasting. This study built on earlier work, when together in 1959, the pair had developed "The University of California at Davis 20 Point Scale System Organoleptic Evaluation Scoring Guide For Wine"

as a method of rating the large number of experimental wines that were being produced at the university. Designed when making defect free wine was of primary concern, the systems intent was to expose flaws in wine rather than identify virtues, and although it is still used, its criteria is now widely considered obsolete: Wines with no faults could generally receive scores in between 17 and 20 points. Nevertheless, the system is noteworthy as one of the first scientific attempts to broach the language of wine, encouraging critics towards a less passive approach.

In the Viticulture and Enology department of the same university, another effort to introduce methodological rigor to wine tasting lexicon was being instigated by sensory scientist and flavour chemist, Ann C. Noble. The result was the development of the now famous "Wine Aroma Wheel". Created in 1990, the wheel consists of three circles of increasingly specific descriptive words, all based on real-world smells: the most general descriptors such as fruity, vegetative, nutty, caramelized, woody, earthy, chemical, pungent, floral, and spicy are located in the inner tier. In the middle tier are 29 more specific categories including citrus, berry, tree fruit, tropical fruit and dried fruit. The outer circle offers 94 still more precise descriptors, allowing for such subtleties as strawberries vs strawberry jam. Noble maintains a disdain for words like "harmonious," "fragrant," and "dense," which she says have no exact meaning in relation to wine. Not surprisingly, she believes that, "winemakers favor fuzzy terms for a reason...The labels are for marketing an image".⁽⁵⁾ The Australian Wine Research Institute has since created a similar wheel based upon Red Wine Mouthfeel.⁽⁶⁾

While the pioneering work at U.C. Davis helped to shift the language of wine reviews away from sheer poetic fancy ("*this wine reminds me of my first kiss*") and vague anthropomorphic similes ('*masculine*' or '*feminine*', '*noble*' or '*common*'), it was not until more recent research into the matching of smell and taste sensations with their assigned chemical compounds, that Nick Chlebnikowski's own concept of creating a wine rating methodology began to crystalise. As he charted these correspondences the rationale of wine and food descriptors based on vocabulary supported by science began to unfold, begging the question: "*What is it that we are really smelling and tasting?*"

To describe an Australian Shiraz in terms of "liquorice", "plum" and "black pepper" still bemuses many wine lovers. Some interpret it to mean that these substances have actually been infused into the wine, in much the same way as one might infuse botanicals in neutral spirit to create Gin. That we can recognise a 'liquorice' characteristic in a wine at all is only because wine actually contains chemical compounds which correspond to those found in fruits, vegetables and other elements of our environment. If we wanted to be technically correct, we could describe the aroma and flavour of an Australian Shiraz as having notes of benzylbutanoate, phellandrelul dipenlene, followed by a touch of 2-methyl-3-buten-2-ol - that is plum, black pepper and aniseed. As absurd as this might sound, it illustrates the reality that "...some of the most commonly observed fragrances in wines-toast, butter, vanilla, citrus, apples, cherries, pears, honey, herbs-are there because of volatile organic compounds that were either in the grapes themselves or that seeped into the finished juice."⁽⁷⁾

What to the layman has long appeared to be a rather fanciful use of descriptors, has in fact a basis in science, supporting the approach that most respected wine critics today have in the main adhered to, despite ongoing mockery from a cynical public: That is, to simply describe the specific aromas and tastes as they are experienced with as much brevity and precision as possible. And to their merit, it must be added "*Given that most flavour descriptors have been established [by wine tasters] in ignorance of their molecular grounds, it is astonishing what competent analysts wine tasters have turned out to be.*"⁽⁸⁾



Professor Ann Noble and her 'Wine Aroma Wheel'. Noble was one of the earliest proponents of a 'no-nonsense' wine vocabulary.

Sensory Chemistry

Some examples of the chemical compounds common to both food and wine are listed below, as identified by Dr Leigh Francis, sensory research manager at the Australian Wine Research Institute.

Tropical fruit, especially passionfruit - [*thiols, sulphur containing compounds*] - found in Sauvignon Blanc.

Cut grass / vegetal - [*hexanols*] - found in Sauvignon Blanc & Semillon.

Capsicum / Asparagus - [*isobutyl-methoxypyrazine*] - found in Cabernet Sauvignon, particularly unripe examples.

Black pepper - [*rotundone*] - found in cool climate Shiraz.

Raspberry - [*beta ionone*] - found in Cabernet Franc & Pinot Noir

Blackcurrant - [*Dimethyl sulfide*] - found in Cabernet Sauvignon

Butter / butterscotch - [*Diacetyl*] - found in Chardonnay, especially those which go through malolactic / barrel fermentation.

Lychee / confectionary (Turkish delight) - [*cis rose oxide (a monoterpene)*] - found in Gewurztraminer.

Citrus fruit / flowers - [*linalool (a monoterpene)*] - found in Riesling.

Vanilla / coconut - [*oak derived / oak lactone*] - Oak matured red & white wines.

Kerosene - [*TDN trimethyl dihydronaphthalene*] - found in diesel fuel and experienced in some old Rieslings.

Tasting by Numbers

The linguistic difficulties associated with describing a wine in 'three dimensions' in part explains why a growing number of people - from producers and retailers to wine writers and consumers - are now relying on numerical rating systems to describe wines in conjunction with tasting notes.

Without conducting a detailed survey of all the available judging systems in Australia and abroad, there are several assumptions implicit in any numerical rating scale for wine. The first is that a wine's qualities are quantifiable in the first place. In theory, this is achieved by reference to a scale, whereby a taster arrives at a figure by quantifying the intensity of a given sensation (i.e. taste, smell etc.) Scales are calibrated against "neutral" sensations, the most apt being "water", therefore, a red wine with a brilliant purple / crimson colour is judged a more intense sensation than that of a dull brown colour and so rated accordingly. Likewise, an aroma that resembles a fine perfume, is judged a more intense sensation than a liquid with an almost indiscernible primary note, and a palate that exhibits complexity and mouth filling flavours, is judged more intense than a wine with a dilute flavour profile, and so on. While intensity of sensation is one of the physiological realities which the brain works with, 'intensity' alone is not only a reductive approach but a completely undemocratic way to determine a wine's quality. While Shiraz wines from any new world country might consistently rate 90+ points, varietals like Gamay (i.e.-Beaujolais), that produce naturally lighter wines simply cannot. The critics themselves have acknowledged this alleged 'glass ceiling' : *"When asked which varietals might get scores above 95, Tanzer and Matthews [prominent U.S. critics] listed the same ones: Cabernet, Pinot Noir, Syrah, Chardonnay and Riesling. Matthews added that the best Nebbiolos and Sangioveses from Italy might score that high. Both said Beaujolais could not. And while Sauvignon Blanc is widely popular, Matthews could think of only one Sauvignon Blanc-based wine worthy of 95 points: Chateau Haut-Brion Blanc, which sells for more than \$200 a bottle".* ⁽⁹⁾

It is not surprising then, that wine writers like Hugh Johnson, have argued that the quality of a wine is altogether too subjective to be assigned a numerical rating with such a high degree of implied precision as "89 points". Sensation and perception are self-evidently subjective. But the question remains, to what extent? It is not unreasonable to suggest that, as with all sensory experiences, a common culture can enable a degree of calibration of perceptual representations to occur, as actually seems to be the case amongst professional wine critics.

Accepting that a wine's qualities are measurable (albeit imprecisely), the second assumption is that its scale anticipates an ideal wine - (i.e. a 100 point score). But what determines the criteria for such a wine?

At the most basic level the criteria must be dictated by human physiology.

There is no sense of 'indulgence' in bitter tastes or 'off' aromas, rather we have a predilection towards those sensations which enhance life, and we tend to crave them. Preferences exist, but there is an underlying commonality to be found among them. Indeed, what remains is the remarkable degree of consensus that exists amongst wine critics internationally: *"...there is near-universal accord about what attributes a top wine should have-appealing aromatics, ripe fruit, good structure, a sense of harmony in the mouth and a long finish."* Indeed, *"...the critics tend to agree about wines a lot more than they disagree..."* ⁽¹⁰⁾

The most controversial and influential numerical rating system currently in use is that of American Wine Critic, Robert Parker. His "100-point" system was first devised along with his friend, Victor Morgenroth, in order to counter what Parker believed to be confusing or inflated ratings of other wine writers. The system was introduced to Parker's now famous publication "The Wine Advocate" in 1978. At the time, most reviewers didn't use a scale, preferring prose that could 'politely mask' a wine's shortcomings, if need be. As imitation is the sincerest form of flattery, the major U.S. wine magazine, Wine Spectator, later adopted Parker's model in 1985 and other reviewers have since followed suit. These scales actually rank wines from 50 to 100 points (not 1-100), on colour and appearance, aroma and bouquet, flavour



Robert Parker, the world's most influential wine critic and one of the earliest advocates of a numerical wine rating system. He continues to publish wine reviews via his magazine, "The Wine Advocate" (see: www.robertparker.com). Some believe the subsequent proliferation of numerical wine ratings has been detrimental to the world wine trade.

and finish, and overall quality level or potential. (Australia's James Halliday is an exception, working on a 75-100 point scale).

Several prominent English reviewers refrain from the 100 point system, preferring instead a system out of 20 points (three points are allocated for colour and condition, seven points for nose, and ten points for palate), as in the cases of Jancis Robinson and Clive Coates.

In preference for one or another system, it could be argued that a score out of three or seven is more difficult to assign than a score out of ten,* and that small scales allow for only a very narrow spread of criteria. This means limited scope for detail in accounting for a wine's total profile. While these are valid criticisms, they ignore the common fault of all numerical rating systems currently in use: **Whether the criteria are spread over 20, 30 or even 100 points is immaterial, if little or no detailed account as to how a score is arrived at is ever given in the first place.**

A typical breakdown of a 100 point scale from one of America's most prestigious wine review magazines illustrates this:

- * 95-100 = Classic: a great wine
- * 90-94 = Outstanding: a wine of superior character and style
- * 85-89 = Very good: a wine with special qualities
- * 80-84 = Good: a solid, well-made wine
- * 75-79 = Mediocre: a drinkable wine that may have minor flaws
- * 50-74 = Not recommended

Parker is no more illuminating: for him, an 80-89 point wine is *"a barely above average to very good wine displaying various degrees of finesse and flavour."*⁽¹¹⁾ Yet this is so vague an explanation that it could easily be describing most of the wines in the world. Exactly what criteria make for a 95 point wine as against a 65 point wine? Even more contentiously, why does a given wine score 89 points and not 90? Was it the colour, the aroma or the palate that failed to impress, and in what respect?

When such questions arise, they usually remain unanswered, and any perception of 'scientific rigor' suddenly disappears. We are left to conclude that the rating is arrived at 'intuitively': The taster is experienced and exposed to many different wine styles, varying in their method of cultivation, vinification, maturation, age and origin, so over time, assigning a mark to a wine becomes 'second nature'. Publications like Wine Spectator would no doubt defend this approach, maintaining *"... great efforts to ensure consistency from its critics. Wines are tasted blind, but each tasting includes a non-blind, previously scored wine to set the scale. Also, the magazine gathers its critics once a year to taste wines together and calibrate their individual scales"*.⁽¹²⁾

While intuitively established ratings do not necessarily lack value, they're generally considered without any concern for whether the results would be replicated the next day and are largely impervious to academic, professional or consumer scrutiny with regard to how the numbers were arrived at. Tim Atkin, taking this very issue to task in his article 'Tasting by Numbers' *"...challenged [a professional wine critic] to blind taste 30 wines he had already scored in his book to see if he could replicate the numbers. [Atkin] issued a similar challenge to the well known American taster Steve Tanzer at a wine fair in Washington a few years ago. Neither took me up on the offer"* he says. He concluded that the reason was that *"They [the critics] know as well as you and I do that scores, like wines, vary from day to day and taster to taster. Today's 87 is tomorrow's 91."*⁽¹³⁾ David Shaw of the Los Angeles Times tried to test Robert Parker's consistency, which Parker touts as his greatest asset, by asking him to do a tasting of six wines twice over consecutive days. *"Tellingly, Parker refused, saying, 'I've got nothing to gain and everything to lose'."*⁽¹⁴⁾

The 100 point scale is now so firmly entrenched in the most influential wine markets around the world that it is demanded by consumers everywhere wanting to reduce their risk of purchase. Quite simply, whatever an individual's wine knowledge, they understand immediately that a 95 point rating is a good thing and a 75 not so



America's popular Wine Spectator Magazine which followed in Parker's footsteps by adopting a 100 point scale.



The UK's Jancis Robinson works on a 20 point scale, similar to the Australian Show Judging System.



Australia's most famous wine writer, James Halliday, prefers a 75-100 point scale.

* The human being has two hands of five fingers, a total of ten units, and more often than not learns to count using them. It's the basis of our digital numerical system.

The Australian Show Judging System

In the 1998 Royal Melbourne Wine Show Catalogue of Results, the "Notes on Wine Judging" are worth scrutinizing, because they reflect the basis on which some awards are given out. Exhibits in all Australian Wine Shows are judged on a comparative basis, i.e.. all the entries are judged at the same time. The other method used in Varietal classes in Adelaide is the International system where the wines are judged and pointed individually. Exhibits are judged on a point score with a maximum of 20 points. On the judging sheet this is divided into:

3 points for colour and condition; usually wines with poor colour are rejected for defect on both nose and palate.

7 points for nose.

10 points for palate: a wine with an excellent nose may fall down on the palate due to excessive acidity or tannin defects. Conversely, some wines with only a fair nose may have excellent balance on the palate.

Medals are awarded for the following points:

18.5-20 - Gold Medal

17.0-18.4 - Silver Medal

15.5-16.9 - Bronze Medal

All exhibits are judged "blind". Judges do not handle the bottles. In Melbourne the judges are arranged into four groups, each with three judges, with a Chairman of judges who arranges the group of judges, divides the classes to be judged between four groups, gives guidance and occasionally resolves disagreements. Each class is set up and poured by associates for the wine judges. The judges assess the wines, point them, and then collaborate on the medals awarded. The points listed in the results section represented the total of the three judges assessments. Judges are generally selected from those who work in or are connected with the wine industry. Potential judges are recommended to the Royal Agricultural Society of Victoria and are given experience as associate judges. New judges are selected from the best performers.



good "almost viscerally". The wider impact that the popularization of these systems has had on international wine markets, wine prices and styles is seen as twofold:

1. A positive contribution of point systems has been to jettison the elitist wine jargon of times past, and destroy the 'feudal system' which continually rewarded only those vineyards on the most prestigious sites - both factors that could too easily veil quality from the consumer. In this respect, Parker as pioneer and consummate consumer advocate, "*...earns his legitimacy at least in part by being an unimpeachable champion of the proletariat drinker, a poor pleb who knows himself too often beaten into submission by the grand tradition and price of wine, but who is also keenly aware of his own limitations in that vast world*". Consequently, "*Parker's wine credentials turn out to be no less moral than oenological*".⁽¹⁵⁾ Small and large vineyards around the world now occupy a meritocracy where equal opportunities for high ratings exist, so encouraging indifferent winemakers to innovate and improve overall quality.

2. Detractors of the 100 point system say that it limits the spectrum of wines that sell well, and that winemakers have become sycophantic servants, fashioning wines only to cater for the palates of high profile critics in order to achieve big scores and quick sales. This is epitomised by a consultancy service in the U.S., 'Enologix', which uses chemical analysis to "*assist winemakers in...boosting average national critics' scores*".⁽¹⁶⁾ Inevitably, this is leading to a homogenization of wine, in which terroir or regional distinctiveness is becoming increasingly irrelevant. Many in the French Wine Industry already consider Parker to be the embodiment of globalization, one reason why he is reportedly now unwelcome in Burgundy.

Conclusion

An overview of current approaches to wine evaluation serves to illustrate the controversy surrounding efforts to quantify wine quality. Clearly, any serious methodology must take all the issues into consideration. Accepting 100 points as the International standard, we must also realise the potential complexity of wine, and make no apologies if our rating systems reflect this reality. The challenge remains to create a comprehensive and transparent way of both representing and 'rating' the qualities of a wine, that is reproducible and accountable, and based upon scientific vocabulary, yet one which also allows mere mortals to participate and analyse the positive and negative qualities of a wine with confidence. Nick Chlebnikowski's response to this rather daunting challenge was to develop the 'Winespider' system, which is the remaining subject of this booklet.

Overview of the Winespider System

Everyone knows that to be a "critic" is to be a reviewer or judge. However, in clarifying a correct approach to any given subject the etymology of a word is often more illuminating than its definition. 'Critic' comes from the the Greek word '*kritikós*' ("able to discern"), which is in turn derived from the word '*krités*', meaning a person who offers reasoned value judgment, interpretation or observation. These qualities not only imply that a degree of experience, knowledge and understanding are brought to a critic's evaluations, but they also assume that a critic approaches their role with a degree of seriousness. Not the kind which looks out from under knitted brows and pursed lips, but rather a seriousness that recognises that every object presented for their professional attention deserves the compliment of being accepted as a 'best effort', and so warrants criticism against the very highest standards.

For a critic working in the visual arts, the forms resulting from certain relationships between elements of repetition, harmony, contrast and unity etc, are essentially identical with the forms in the arts of music, poetry, literature and dance, produced by similar combinations. These forms have the same basic character and accomplish similar effects. The difference lies in the medium in which they are materialised and the in the time element in which they exist. Regardless, at the most basic level, standards for the evaluation of art are determined according to success or failure of the organisation of these fundamental elements. Something similar is true of wine. (Whether or not one considers great wines to be works of art is immaterial here). All wine can be reduced to four 'elements' which are the building blocks of wine's structure as it is represented to us by the brain:

1. SIGHT 2. NOSE 3. PALATE 4. FINISH

The winemaker's materials and techniques are naturally very different from the artists. He or she is building what is primarily a chemo-sensory creation from the fermentation of fruit, the implementation of oak or a myriad of other techniques. We can continue to breakdown each of the four elements of wine according to the 'dimensions' they take in the glass, then in the mouth:

1. SIGHT consists of four categories:

- (a) colour
- (b) viscosity
- (c) brilliance
- (d) depth

3. PALATE consists of four categories:

- (a) complexity
- (b) concentration
- (c) fruit
- (d) length

2. NOSE consists of four categories:

- (a) aroma
- (b) faults
- (c) variety
- (d) intensity

4. FINISH consists of four categories:

- (a) aftertaste
- (b) balance
- (c) tannin / phenolics
- (d) acid

These categories have not been arbitrarily selected, rather, each has a specific or general relationship to wine quality. Categories, like 'aroma' or 'concentration' will be familiar to wine lovers and intuitively accepted as given. The validity of judgements with either positive or negative hedonic connotations, such as the intensity of a pleasant sensation or of extreme bitterness is also self evident, though grounds for the support of many such standards have been demonstrated. These and other categories have also been accounted for in discussions of wine quality in 'Vintage School' (see note below). For example, we know that there are characteristics in wine that are universally agreed upon as faults - cork taint, cloudiness in young wine etc; as we also know that a certain colour in young Shiraz is indicative of the presence of a pH level essential to its longevity and the development of desirable tertiary flavours. Explanations of each category follow below.

(Note: The following account relates to the evaluation of Young Red Wines. Although the illustration will be similar for other wine styles, certain aspects will necessarily vary in order to accommodate the idiosyncrasies of Fortified Wine, Sparkling Wine, Red Wine & White Wine. This account refers to some of the ground covered in previous chapters of 'Vintage School' [a free online wine course - see www.nicks.com.au] and we direct readers back to the relevant chapters for more detailed discussions).

1. Sight

(a) Colour - The acidity of a wine is critical in maintaining colour, particularly in red wines. The normal range of pH in Australian wines is between 3.0 and 4.2. As acidity decreases in reds, the anthocyanins lose their colour and may even turn blue. In addition, oxidation is inversely related to acidity. The less acidic, the higher the degree of oxidation a wine will undergo turning the colour brown. If the wine is still young, a brownish hue indicates the wine has either uncharacteristic pH due to bad viticulture / winemaking, or has oxidised or being exposed to long term heat. (Whereas a wine cellared at 14°C might reach its peak in 10 years, should that wine be stored in temperatures as high as 50°C, the wine would show the same colour and flavour as a 10 year old wine in a matter of months). After a little practice, and actually recording the pH value of the wines at tasting (pH values are often stated on back labels or on producers websites) one can quickly develop a mental colour map that can adequately determine the pH of a wine, and thus project its potential longevity.

(Note: The human eye is most sensitive to differences in the tint of colour in the green region of the spectrum. The apparent colour can be modified by the background light, and thus, it is important to view colour under hospital grade lights. These can come in fluorescent tubes that give the maximum expression to tint and saturation of colour).

(b) Viscosity - (Perceived): Ethanol (alcohol) concentration which is demonstrated via viscous tears on the glass walls is indicative of a wine produced from fully ripened fruit, a natural byproduct of which is higher alcohol content. It should be noted that 'tears' or 'legs' in themselves have no bearing on glycerol content of a wine but merely demonstrate that wine contains more water than alcohol, and the principle that alcohol evaporates faster than water.

(c) Brilliance / Clarity - Brilliance or brightness refers to the characteristic of reflecting light, while clarity, lack of which nowadays is always considered a fault in young wines, is important in that it can also provide insight into a wines condition and stage of development. Alternatively, a slight haze may indicate that a wine has been left unfiltered in order to maximise flavour, as is often the case with Pinot Noir.

(d) Depth - Assessed red wine quality is often directly correlated to colour density and hue (the proportion of red "ionized" anthocyanins). These factors indicate that wine is well made (at an appropriate pH, low in SO₂ and at an adequate ethanol concentration) and probably highly flavoured.⁽¹⁷⁾ The grounds supporting this observation are outlined in the Vintage School chapter 3.3, and have to do with viticultural practices controlling compounds in red wine grapes.

2. Nose

(a) Aroma - Aroma in young red refers to the complexity and harmony of primary and secondary aromas. Each grape variety has a primary group of aromas which will depend on the level of ripeness of the grapes at the time of picking. The Primary fruit aromas are described through a variety of ripeness levels in Vintage School chapters 2.2 - 24 (Profiling the Major Grape Varieties). Secondary Aromas are due to the wine maker's influence and can include the use of various types of oak, yeasts, fermentation techniques amongst other variables. Tertiary aromas develop with time and are the result of bottle age. Young red wines are highly unlikely to have any tertiary notes. (For a detailed list of descriptors refer to the Aroma and Taste profile charts).

(b) Faults - Potentially there are many 'off' odours that can be experienced in wine including sulphur, mercaptan, mustiness, oxidized characters and many more. Some are caused by bacterial contamination, bad wine making, bad handling or bad storage.

(c) Variety - Varietal characteristics are comparable to, and sometimes overlap the primary fruit aromas mentioned above, however, varietal aromas refer specifically to the degree to which a wine exhibits the classic traits intrinsic to the grape variety or varieties it is produced from. For example, a Cabernet Sauvignon which is dominated by a strawberry fruit character (as opposed to blackcurrant) would be considered an unusual but poor expression of the varietal. Lack of varietal character can also be due to the wine being swamped by secondary aromas (e.g. oak) in which case the wine has been overworked by the wine maker.

See Vintage School chapter 2.2 for typical aroma profiles related to each varietal.

(d) Intensity - The intensity of aroma is self explanatory. These can vary greatly depending on factors such as terroir, viticultural practices (esp. watering regime), ripeness levels, cropping levels, pre-fermentation treatment of grapes, types of yeast used, fermentation temperatures and techniques. See section 2 on winemaking for a discussion of these variables.



3. Palate

(a) Complexity - An exceptionally complex wine can leave a permanent impression that becomes a benchmark by which one identifies less complex examples. As a very general guide, the degree of complexity increases depending on the category of wine. For example, from the relative neutrality of cask wine we move on to commercial wine or vin de pays, then on to more exciting examples beginning with good commercial wine (e.g.- appellation controllee status; complex / village / site specific wines; very complex / single estate or multi regional wines; multi layered, artisan wines / classified growths and finally, exceptionally complex, memorable wines such as would be equal to French First Growths from great vintages. In the book "Wines, Their sensory Evaluation" Maynard Amerine and Edward Roessler summarise complexity in a way that is totally satisfactory: *"Like fine art, fine wines are made by impeccable workmanship plus a clear concept of the aesthetic standards by which they will be judged... The components must complement one another synergistically and excite our aesthetic appreciation. A great wine should have so many facets of quality that as we sample it we are continually finding new ones. It is this complexity that enables us to savor such a wine without losing our interest in it."*⁽¹⁸⁾ The most ambitious winemakers go out of their way to create complex flavour profiles, employing several clones of one grape variety, sometimes from different districts, multiple picking dates and the inclusion of components of complimentary grape varieties to form a blend. Creative winery techniques are almost endless and include variation of fermentation techniques, different barrels (by type, size and age), different yeasts, racking schedules, minimal or no filtrations and so on.

(b) Concentration - Flavour concentration is primarily the viticulturalist's concern being directly related to terroir and vineyard yield. The great growths of the world all yield at less than 3 tonnes per acre and more often between 1½ and 2 tonnes per acre. The berry sizes are small, the ratio of skin to juice is high and the resultant wines are highly concentrated. In extraordinary cases the levels of concentration can be compared to a purée of the juice of the freshly crushed grapes, however the degree of concentration is relative to grape varieties - a Beaujolais would not be expected to match a Australian Shiraz for concentration.

(c) Fruit - The quality of the fruit from which the wine has been made from is related to its degree of ripeness. The wine should not be over-ripe nor under-ripe, either extreme bestows overstated (jammy, porty) or undesirable flavours (green, herbaceous) to red wine. As with varietal aromas, fruit character on the palate can also be overwhelmed by the winemaker to the point where the wine is so overworked that the fruit is totally masked. See Vintage School Section 2 on Making Wine for a discussion of these variables.

(d) Length - Length is the persistence with which the wine's flavours linger. To an extent, length and aftertaste work as a pair and a wine may have length, but little aftertaste and vice-versa. The length of flavour is also related to the degree of concentration of fruit, so it is unlikely that a wine will have long palate length if it is delicate or watery in the mouth.

4. Finish

(a) Balance - Balance refers to the juxtaposition of the wine's component parts and of their harmony and ability to co-exist in a way that leads to the 'greatness' of a wine. Fruit, oak derived flavours, acid, tannins and texture should all be present in such a way as to create an overall impression of flavour harmony. If one component is present in a dominant manner, it's likely that the wine will be out of balance and remain so for the duration of its bottle life. Emile Peynaud in his book "Knowing & Making Wine" suggests a definition of balance according to a "Suppleness Index", which he defines as the perception of sweetness (alcohol + sugar) against sourness (acids) + bitterness (tannins). Thus he connects 'balance' with a balance between the basic taste sensations. However, balance, or lack of, is also concerned with mouthfeel sensations, such as degrees of astringency, heat (from alcohol) etc. working in combination with the basic taste sensations.

(b) Tannins / phenolics - Tannins are complex organic compounds that are imparted into the final wine from the skins, stems and pips of grape bunches as well as from oak casks during maturation. Tannins act as a preservative, and are necessary if a wine is to be cellared for any length of time. A wine with excessive tannin will not precipitate the tannins at a faster rate than the maturation of the wine's other components; hence, if the wine is out of balance in youth, it will remain out of balance forever. There are varying degrees of tannins, based on the tannin compound; some are hard and others appear very soft and indiscernible. Tannin also delivers particulate sensations and so is largely concerned with mouthfeel, especially astringency which, with red wine in particular, can be perceived in excessively negative forms from drying, grippy or abrasive, to positive forms such as soft, fine grained or silky. At the negative extreme, 'puckering' occurs as a reflex action of the mouth surfaces being brought together and released in an attempt to lubricate the mouth due to an exceptionally tannic, drying wine. A wine with silky tannins, on the other hand, augments a pleasant mouth coating sensation of a film which adheres to the mouth surfaces, and falls from the mouth surfaces with time. Phenolics (which include procyanidins) are tannins and colour compounds.

(c) Acid - Acid levels are indicated by the tartness or sharpness of the taste of a wine, usually experienced at the back of the palate. The two main types of acids in wine are tartaric and malic. A wine with low acidity will taste flat whilst a wine with excessive acidity will have a very 'sharp' or 'sour' taste. Consequently, acidity needs to be in balance with other components of the wine.

(d) Aftertaste / After-Flavour - Because taste relates to stimuli that are only experienced on the tongue, cheeks, lips, gums etc, whereas after-flavour refers to the summation of the total smell and taste experience, the latter term, though less commonly used, is more accurate and so preferred. After flavour is also often referred to as 'the farewell', yet another term used to describe the sensations that remain in the mouth after swallowing a wine. Like length, after-flavour is measured in time.

A Note on the Significance of Education & Experience

During the interaction between ourselves and wine, the impression we form is an experience that involves a synthesis of information from at least four different senses: Smell, taste, touch (or mouth-feel) and sight. However, by dividing the activity of wine tasting and focusing on its component parts, it is easy to forget that sensations from these parts must at some stage become unified then 're-presented', and it is the brain which provides us with the final, unified tasting experience. Some commentators have taken this observation to an extreme, arguing that, *"The [wine] critic is actually describing a conscious representation of their interaction with the wine, and therefore the score or rating is a property of that interaction and not of the wine itself."*⁽¹⁹⁾

Here is an invitation to philosophy which we will not pursue too far. Suffice to realise that wine is a natural beverage to which the mind contributes to it moulding forms, possibly as much as wine contributes by its stimuli. Our perception of flavour must be to a degree specific to ourselves, but it is unreasonable to think that when we judge a wine we are in fact examining ourselves and that the wine itself has nothing at all to do with it.

The very activity of applying concepts to smells, tastes and flavours as opposed to merely perceiving them, is an unusual one. As any novice quickly discovers, finding the right words to associate with our perceptions of wine is the difficult pleasure of tasting. Most beginners do not go beyond describing mouth feel sensations – e.g. this wine is 'smooth' or 'harsh', or else they describe one or more of the basic tastes – e.g. this wine is 'sour' or 'sweet'. Professional wine tasters take a less passive approach.

Research suggests that the conscious effort of recall required to associate smells and tastes with descriptors means professional tasters are employing developed brain processes different to those of novices. This does not mean that we can't have a shared experience when we taste the same wine – only that shared appreciation generally arises from a similar degree of experience, effort, understanding and possibly even cultural background. As Dr. Jamie Goode comments: *"With wine tasting, our sharing of experience through a common culture of wine enables a degree of calibration of perceptual representations to occur. In particular, we develop a language for sensory terms – a way to encode and share our representations... By possessing an extended vocabulary for taste, smell and flavour sensations, we are able to approach wine tasting in a structured fashion and in a way that generates a detailed verbal description of the wine being analysed."*⁽²⁰⁾

Is an 'Objective' Wine Rating System Possible?

Absolute 'objectivity' is of course just as impossible to achieve in relation to wine evaluation as it is in the evaluation of works of art, due to the differences and limitations in individual physiology, education and language. Proponents of 'cultural relativism' would argue this point to an extreme, however, I think it's going too far to suggest that we cannot point to, describe and evaluate the elements that make for a great wine, in the same way we do point to and describe the elements that make for a great work of art.

We can move towards objectivity, insofar as this is possible, by working with an instrument of calibration. 'Intuitive' descriptors are replaced by offering a scale, a measure or marks for one's sensations from which a hierarchically structured vocabulary of sensations emerges. Wine is complex, variable and changing. To reflect this reality, each sub-category has degrees. By means of illustration, these are outlined overleaf in relation to Young Red Wine as they are employed in the Winespider Evaluation system.



EXAMPLE: Standards for the Evaluation criteria of Young Red Wines.

Sight

COLOUR

10	Purple, Mauve, Crimson
9	Crimson, Mauve, Dark Red
8	Brick red
7	Deep Brick Red
6	Brownish Red
5	Brown
4	Deep Sienna Brown
3	Tawny Deep
2	Tawny Light
1	Onion Brown

VISCOSITY – (Perceived)

10	14%+ Alcohol (approx.)
9	13%
8	12%
7	11%
6	10%
5	9%
4	8%
3	6%
2	5%
1	1%

BRILLIANCE / CLARITY

10	Brilliant & Crystal clear
9	Bright 90% (approx.)
8	Bright 80% (approx.)
7	Bright 70% (approx.)
6	Bright 60% (approx.)
5	Clear
4	Flat / Dull
3	Hazy
2	Cloudy
1	Very Cloudy

DEPTH

10	Opaque / black
9	Semi Opaque
8	Very Dark
7	Deep (Saturate)
6	Medium deep (approx. 90% saturate)
5	Medium (approx. 75% saturate)
4	Light (approx. 50% saturate)
3	Very light (approx. 20% saturate)
2	Semi transparent
1	Transparent

Nose

AROMA

10	Exceptionally distinct & complex Primary/Secondary
9	Very distinct and Complex Primary/Secondary
8	Distinct Complex Primary / Complex Secondary
7	Obvious Primary & Secondary
6	Subdued Primary & little secondary
5	Very subdued Primary
4	Commercial
3	Simple
2	Almost Indiscernible
1	Neutral

FAULTS

10	No Faults
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Possible faults : Take 1 point off for each fault

Take 2 points off for bad faults.

High volatility 4 parts/million+
Volatility/Excessive Sulphur/Mercaptan
Musty/ mildly Corked/Fusel/Baked/Cooked
Jammy/Geranium/Hydrogen Sulphides
Mousey/Sauerkraut/Rubbery/Oxidized
Goaty/Medicinal/Plastic/Pomase cidery?
Putrid/Weedy/Unripe / Badly Corked

VARIETY

10	Exceptionally powerful varietal character
9	Very strong varietal character
8	Strong varietal character
7	Moderate varietal character
6	Subdued varietal character
5	Very subdued varietal character
4	Light
3	Barely distinguishable
2	Bland
1	Neutral / varietal character absent

INTENSITY

10	Penetrating / Perfumed
9	Very powerful / Pungent
8	Powerful / pronounced
7	Aromatic
6	Mild
5	Subdued
4	Light
3	Frail
2	Very frail, bland
1	Indiscernible, neutral

Note - 1. Numerals preceding the descriptors denote the point score. 2. The term 'commercial' used throughout refers to an 'entry level' wine - one that despite having no faults, thoroughly fails to excite the senses. The French would term such a wine "Vin de pays". Similarly the term "cask wine" denotes a wine of even less distinction and quality. We suggest a comparative tasting of a cask wine, a commercial wine and a quality table wine as an inexpensive exercise to illustrate the differences between the three.

Palate

COMPLEXITY

10	Exceptional complexity / seamlessly integrated
9	Multi-layered complexity
8	Very complex
7	Complex
6	Good commercial wine
5	Average commercial wine
4	Commercial wine
3	Poor commercial quality
2	Bland / insipid
1	Neutral

CONCENTRATION

10	Exceptionally concentrated
9	Very concentrated / powerful
8	Concentrated, very mouth filling
7	Mouth filling but not extraordinary
6	Commercial wine concentration
5	Average
4	Dilute
3	Very dilute
2	Thin / almost watery
1	Watery

FRUIT

10	Voluptuous / perfectly ripe fruit
9	Abundant ripe fruit
8	Very young / ripe fruit emerging
7	Restrained
6	Subdued
5	Overripe
4	Jammy
3	Porty
2	Green/unripe
1	No fruit, neutral

LENGTH

10	20+	Length in seconds
9	15-20	
8	10-15	
7	8-10	
6	5-8	
5	3-5	
4	2-3	
3	1-2	
2	0-1	
1	Neutral	0

Finish

BALANCE

10	Perfect
9	Near perfect
8	Well balanced / supple
7	Approaching balanced
6	A little out of balance but will come together over time
5	Tannins / acid / oak / alcohol / fruit out of balance (i.e.- one or more of these components out of balance).
4	Tannins / acid / oak / alcohol / fruit strongly out of balance
3	Tannins / acid / oak / alcohol / fruit very strongly out of balance
2	Extreme astringency and/or excessive acidity and slight bitterness.
1	Extreme astringency and/or extremely excessive acidity and bitterness

TANNINS / PHENOLICS

10	Super fine / silky
9	Very fine and velvet smooth
8	Fine / soft
7	Fine / dry
6	Firm / Chalky
5	Firm / grainy
4	Very firm / grippy
3	Aggressive, very dry, abrasive
2	Very aggressive / exceptionally dry / harsh
1	Excessive / causing pucker

ACID

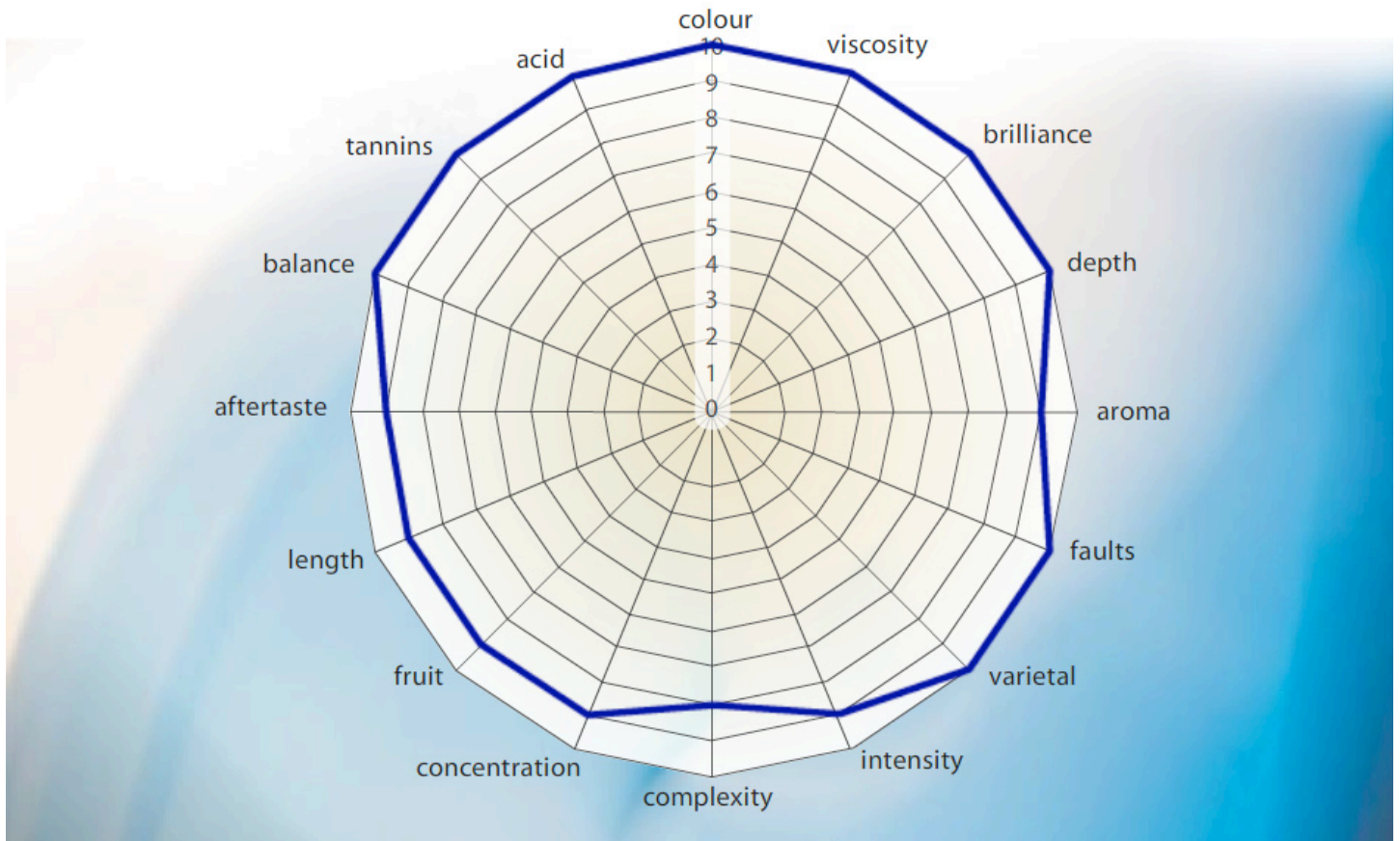
10	Perfect acid level
9	Near perfect acid level pH 3.4 + / -
8	Sufficient acidity pH 3.2 + / -
7	Sufficient acidity pH 3 + / -
6	Crisp acidity
5	Austere acidity
4	High acidity (steely)
3	Very high acidity (tart, sour)
2	Insufficient acidity / Neutral acidity
1	Extremely high acidity pH 2

AFTERTASTE / AFTER-FLAVOUR

10	Memorable	20 ++	Length in seconds
9	Multi-layered	15-20	
8	Very complex	10-15	
7	Complex	8-10	
6	Good commercial wine	5-8	
5	Commercial wine	3-5	
4	Ordinary commercial wine	2-3	
3	Cask wine	1-2	
2	Less than cask wine	0-1	
1	Neutral	0	

A Visual Demonstration of the Winespider Evaluation Process.

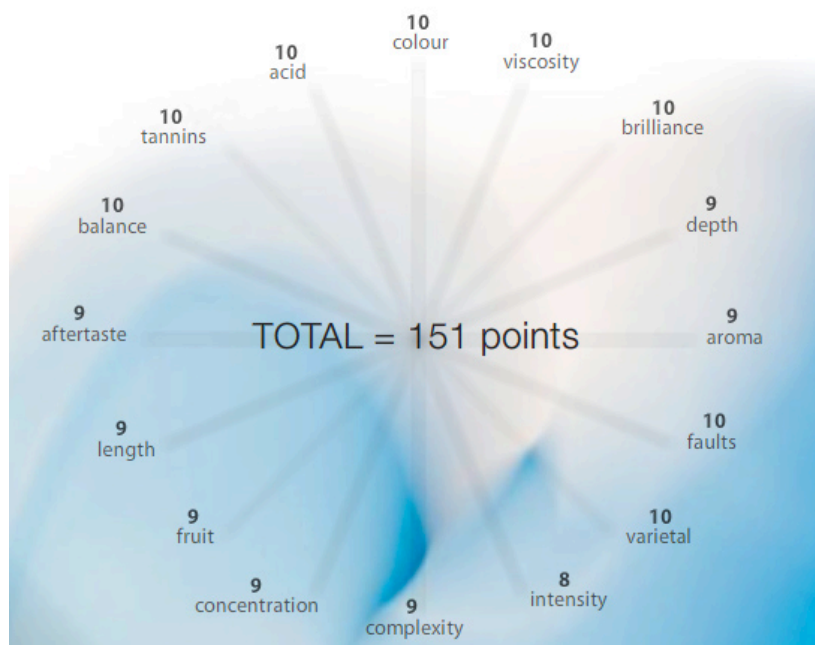
In the development of the Winespider Wine Evaluation System, 'units of measurement' evolved into 160 pre-defined criteria for each of the main wine styles: Fortified Wine, Sparkling Wine, Red Wine & White Wine. Represented by words and numbers, the aggregate forms a score out of 100 which in turn is represented by a 'web-like' graph (from which the title 'Winespider' transpired). The complicated facade which Winespider initially presents actually conceals a relatively simple system that does not require much more introduction. Below is an example of the system in action which demonstrates its simplicity.



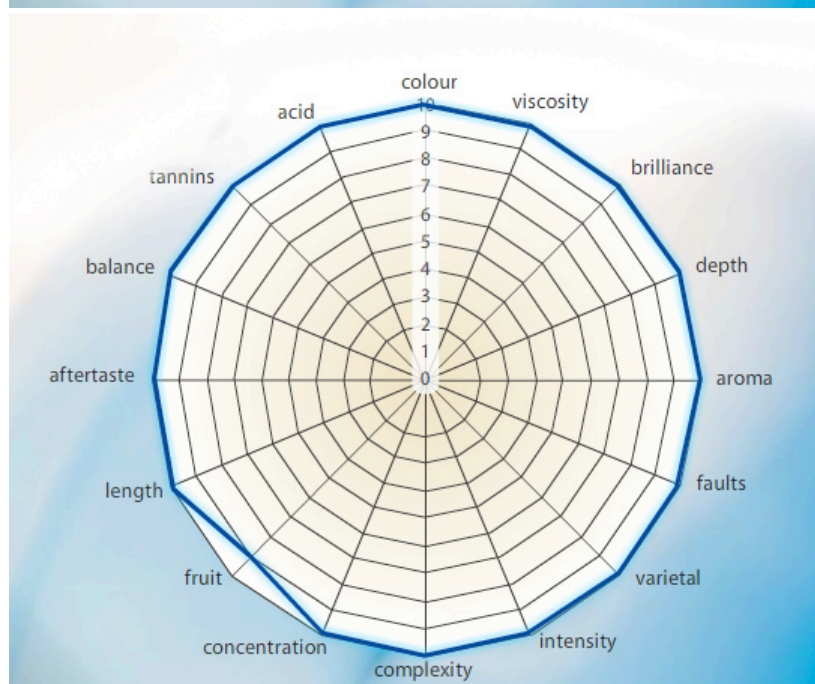
1. In tasting line-ups the Winespider system evaluates like with like, so that wines are rated according to their varietal nature or 'genre', rather than by broad terms such as 'Dry White table wines' or 'Light-bodied Reds'. For example, a Shiraz from anywhere in the world will be assessed on the desirable qualities of the varietal and on how it has been developed and expressed as a result of terroir and winemaking - not by an arbitrary 'Group' classification.



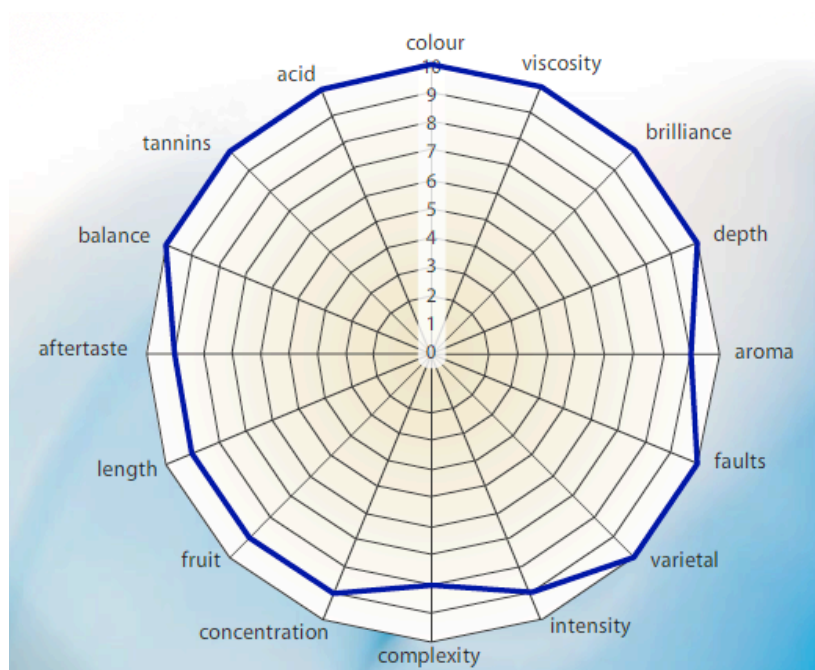
2. In the actual evaluation process, each of the sixteen categories are marked out of a total score of ten giving a wine a total potential score of 160.



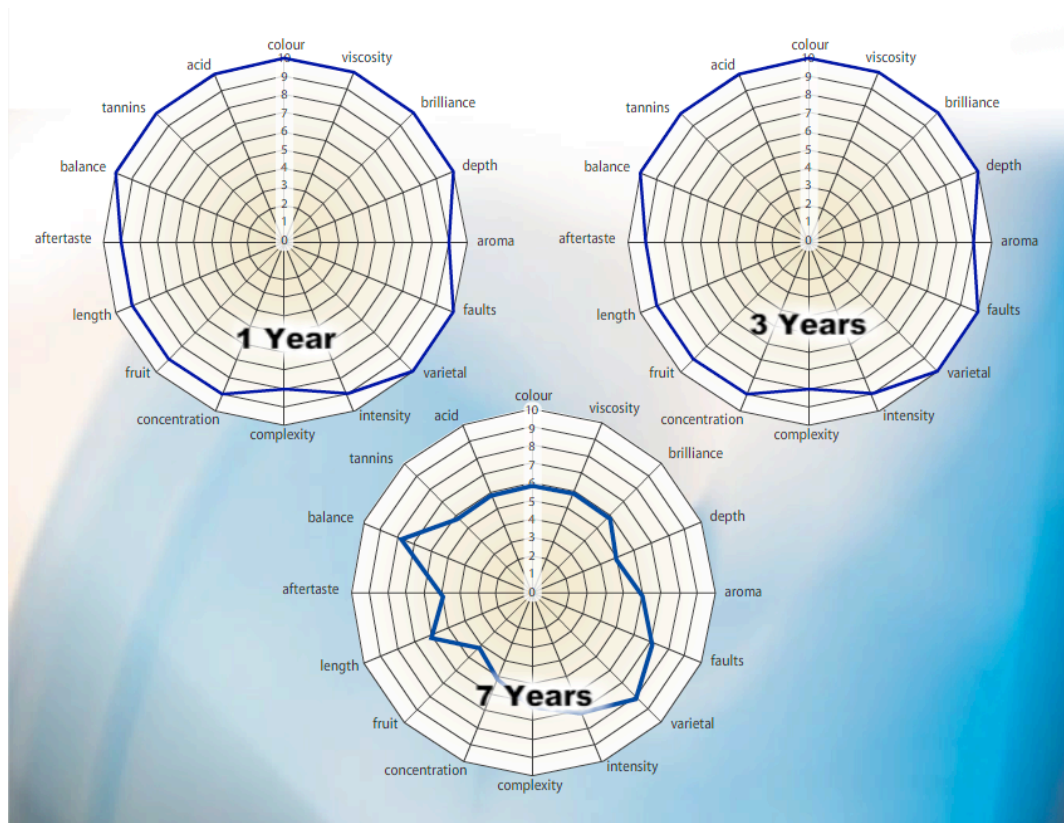
3. For ease of comprehension, the computer automatically re-calculates scores to a figure out of 100 and generates a Winespider graph.



4. The full spectrum of a wine's subtleties are effectively expressed in the Winespider graph. A round profile following the outer limits of the web is indicative of a great wine - a 95 to 99/100 - complete and balanced in every way.



5. A wine with a similarly shaped graph, but with only average concentration, intensity and length for example, while rating 'highly', is nonetheless lacking in some important aspects - namely the palate.



6. The graph reflects a wine's profile at a point in time, so retasting at a later date will produce a different profile. This system allows the history of a wine's development to be graphically recorded.

Thus, following the Winespider system, the final score of a wine is always dependent on the sum of its parts - the qualities of which, however, may vary greatly. Consequently, minor discrepancies in scores between similar wines can mean significant differences in quality.

This is especially the case with wines once they attain scores of 90 and above in which the combination of qualities that are achieved is beyond the ordinary, and reflect a rare culmination of viticultural skills, vintage conditions & winemaking flair. An analogy may be formed with Olympic race times in which competitors are often separated by mere milliseconds- yet it is this same hairs breadth difference that distinguishes a world record from a silver medal.

The key benefits of the Winespider system include ease of use and comprehension, coupled with a level of accountability and transparency in wine evaluation that has up until now not being available.

"CONGRATULATIONS ON CONSTRUCTING THE CRÈME DE LA CRÈME OF WINE RATING SCALES!"

- Dom Cicchetti, Ph.D. Senior Research Scientist and Biostatistician, Yale University School of Medicine.

So concluded the authors of a recent study published in the International Journal of Wine Research 2009. Titled "Wine rating scales: Assessing their utility for producers, consumers, and oenologic researchers", the authors studied seven wine rating scales judged to be useful for the wine producer, consumer, or oenologic researcher: (1) My Wine Rating scale; (2) the Amerine and Roessler (1983) wine rating system; (3) the redwinebuzz.com rating system; (4) Robert Parker's wine rating scale; (5) the Wine Spectator scale; (6) the Stephen Tanzer scale; and (7) the Chlebnikowski Winespider evaluation system.

The authors commented "...The Winespider evaluation system is more comprehensive than any of the aforementioned scales... [and] is unique among wine rating scales in that it can also be used to track whatever changes may occur in any of the 16 wine characteristics, as the wine, a living organism, changes over time". You can download the full article at www.winespider.com and access thousands of Winespider reviews free of charge.

Some Common Observations...

Using 160 criteria to evaluate a wine might at first seem overwhelming, but after a certain amount of experiment (and inevitable error - none too unpleasant and all forgivable), certain patterns begin to emerge. The most obvious of these is a considerable degree of repetition in one's observations and ratings. In fact, most of one's observations will remain confined to criteria in the 7-10 point range meaning that only a minority of wines will ever rate below 80 points.

Given the comprehensive advances in education, viticulture, viniculture and science, fueled by international criticism and increased competition, this fact is not so surprising. In fact, wine quality has increased to such an extent that serious faults are rarely encountered nowadays. Out of approximately 20,000 wines reviewed and posted on the Vintage Direct / Winespider site between 1996 and 2008, 1777 wines have scores between 70-80 points (approx. 9% of wines tasted), 148 wines have scores between 60-70 points (less than 1%), 16 wines have scores between 50-60 points and the single wine that scored 50 points was well and truly passed its used by date at the time of tasting anyway. Conversely, 7200+ wines rank between 90-100 points with 9500+ wines falling between 80-90 points, making up the majority of wine reviews on the site.

These patterns are reflected in the rating statistics of other wine reviewers. For example, the prolific American wine writer, Robert Parker, has not scored a wine below 70 points since 2000. Just 3.6% of all wines listed at his website, erobertparker.com, have ratings lower than 80 points. His highest rated wine in the first issue of *The Wine Advocate* (1977) was the 1974 Sonoma Vineyards Alexander's Crown Cabernet Sauvignon at 91 points.⁽²¹⁾ Since then, *Wine Advocate* scores have trended upwards suggesting to some commentators that the 'goal posts have moved'. Parker himself has responded to this, writing: "...wine quality is dramatically better today...and there are at least several thousand producers making very good to outstanding wines that were...1. Not even producing wine 15-25 years ago...2. their fathers or mothers or some third party was producing industrial / innocuous swill...I suspect few even remember how appalling much of the wine world's products were in the '70's."⁽²²⁾ Having begun my professional tasting career at almost exactly the same time as Robert Parker, I can only sympathise with his reminiscences of 'the good 'ol' days' of wine.

A second pattern that has become apparent is that the Winespider system seems to consistently rate wines slightly higher than other critics. This is largely due to the fact that Winespider places greater emphasis on the colour of wine, especially that of red wines. Studies by Dr. Chris Somers* have demonstrated that wine colour (particularly that of red wine) is related to a wine's pH level, which is indicative of a wine's cellaring potential. In the evaluation process, it is assumed that the winemaker's intention is to allow for some degree of tertiary flavour development in the wine.

* See his book "The Wine Spectrum", in which Dr. Somers explores the wine spectrum as an index of red wine quality. He proposes that the ultimate aims of oenology - the best possible wines from the vintage, a measure of a wine's potential for development, and an index of red wine quality - can be attained by examination of the UV-V spectrum.

Despite all of the variables involved, the colour of wine can tell us something, particularly in the context of other information. In order to establish a reference standard for describing colour in dry red and white wines, certain descriptors have been generally agreed upon by winemaker education institutions. These are the colours outlined in Vintage School 3.3 (see www.nicks.com.au), and refer to the colours visible in the curved upper surface of the wine in the glass, which should normally be transparent. This is the thinnest layer of wine available for viewing in the glass and its colour may indicate varietal type, winemaking techniques and the age or aging potentials of the wine.



The Benefits of the Winespider System

1. Ease of use.

With familiarity of the Winespider system and with a little practice, using Winespider becomes a bit like painting by numbers. Presented with a series of shapes, we colour in the prescribed colours to form a final picture. So with Winespider, even a novice can fill in the numbers which co-incide with their sensations to produce a profile of a wine which can then be 'hung on the wall', so to speak, and scrutinized by others.

2. Transparency & accountability.

The transparent manner by which a wine's rating is arrived at is arguably Winespider's most distinctive strength and separates it from the pitfalls associated with other wine evaluation systems.

3. Universality.

Where language may sometimes form insurmountable barriers between cultures, a graphical and numerical representation does not - the Winespider 'web' is 'transportable' across national and international boundaries, and to our knowledge, proposes the first universal wine evaluation technique.

4. Tracking a Wine's Development.

The Winespider graph offers the potential to visually compare changes in a wine's profile over time, for example, prior to bottling, immediately after bottling and some time later again, with the view to creating a visual map of how the component parts are tracking. The system proposed is also a dynamic one and offers the possibility of documenting the evolution of the wine over an extended period.

5. Buying Tool.

In a restaurant or wine shop with little opportunity or time to read detailed tasting notes, the Wine Spider web has also proved to be most effective in making buying decisions quickly. To a lesser extent, in terms of matching wine and food, a visual examination of the Wine Spider can reveal a wine's major strengths and weaknesses and help to establish compatible wine and food pairings.

6. Accommodates Regional Individuality.

Regional differences are important, and should be recognized as such and encouraged. Wine Spider does not promote the concept of universal wine making by formula; rather, that the component parts that are common in all great wines are observed without prejudice or influence and considered in a learned manner.

By means of a tasting note, numbers and a Winespider web we provide a complete portrait of a wine. On this neutral ground of reason the beginner and the expert may meet and exchange mutually helpful ideas. It's hoped that the structure of Winespider will assist tasters in their interpretation and use of terminology with regard to describing wines and that the standards communicated here should help to assist students, consumers, wine industry personnel and researchers of different cultures to better communicate their responses to wine quality. ■



The Winespider wine evaluation system was created by Nick Chlebnikowski. This abridged overview of the system was written by Nick & Yuri Chlebnikowski and was originally published online at www.nicks.com.au © Copyright. This article may not be circulated or reproduced without the above statement being prominently acknowledged.



Nick Chlebnikowski (1946-2009).
Architect, artist & Wine Merchant.

You can visit his website at www.fractalpainting.com

Photo courtesy of Nick Sherman A.C.S. www.nsherman.info

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