Beyond the Wine Aroma Wheel: '*Wine Aroma Matrix'* pairs Olfactory with Vision

by Randy Cunningham

The *Wine Aroma Matrix,* ***WA-trix*** for short, represents an innovative new type of aroma chart that groups wine aromas by the color of the substance that is responsible for creating the aroma. All of the black fruit aromas are found grouped together on the same color row. Similarly, the listings of red fruit aromas and brown spice aromas are shown on their corresponding color rows. As structured the Wine Aroma Matrix uses both our olfactory and visual senses to help identify wine aromas. In contrast the outline structure of the classic wine aroma wheel only engages the olfactory sense in support of aroma identification.

'Color Impressions' Offer Aromatic Stepping Stones

My observations of spontaneous 'color impressions' while tasting wine began years ago. The first color impression that really caught my attention was when the word "blue" jumped into my consciousness after taking the first sip of a Cabernet. Almost immediately I found my thoughts of the color "blue" transitioning to "blueberry aroma". After continued repeated experiences of color impressions, I began to wonder if this pattern was unique to my own way of tasting wine or if perhaps it might be rooted in how our minds work to recall and identify aromas. At some wine dinners I found myself just looking for color impressions from the wines without needing to go further and identify specific aromas. In short, when I find a cabernet with black fruit and brown spices, I'm a very happy oenophile. At more structured tastings when I'm focused on component analysis I've noticed that a color impression can function as a very helpful stepping-stone on the way to identifying a specific wine aroma. In large part, color impressions can really help by narrowing down the full set of wine aromas to just the wine aromas listed on the corresponding matrix color row.

While more experienced oenophiles endeavor to identify the 'specific' wine aromas, the goal of identifying color impressions in a wine may be a down-to-earth way to better engage and appeal to new and amateur wine tasters. Often times, the highly specialized esoteric language of wine descriptors has presented a fairly enduring obstacle that discourages people from learning more about wine. I believe the pattern of looking to identify color impressions could function as a non-intimidating way to engage new and amateur wine tasters on their journey towards understanding wine aromas and learning the language of wine.

The Science of Cross-Modal Association

As I continued development of the Wine Aroma Matrix charts I couldn't help wondering more about my propensity to notice a link between colors and wine aromas. After joining the *Sensory Evaluation* group on Linked-In I felt compelled to post a question asking, "*Has color been shown to aid in aroma sensory recall / component identification?*"

While not totally surprised, I can say that I was both relieved and excited to see the affirmative responses begin to post on the thread. Group members responded with multiple links to research papers showing the connection between color and aroma recall. From those research papers I learned that in Neuro-science they refer to the simultaneous use of both olfactory(aroma) and visual(color) senses as "cross-modal association".

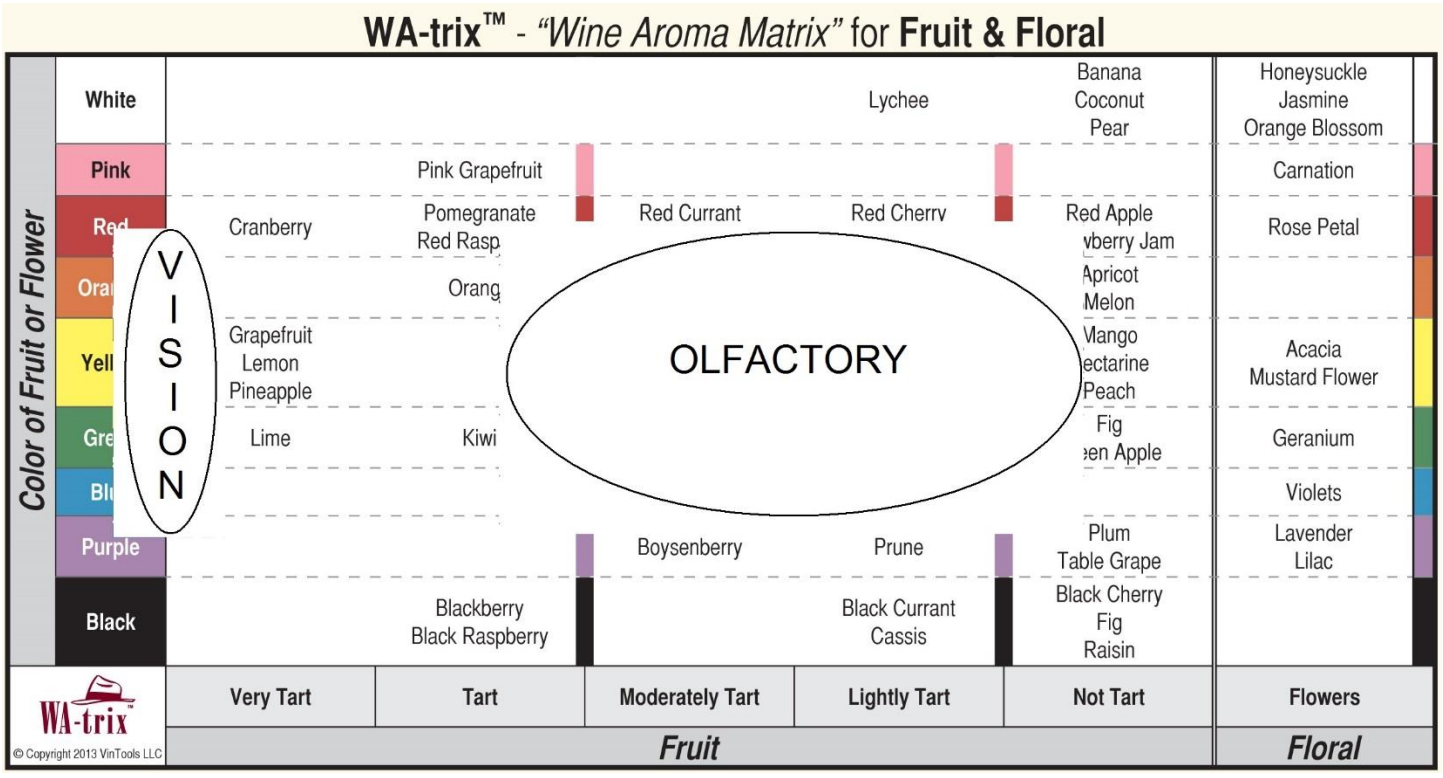
In essence, research has shown, for example, that the first time a person smells the sweet pungent spicy aroma of cinnamon their brain automatically remembers the color brown and immediately builds a type of neural linkage between the aroma memory of cinnamon and the color brown. In turn, one should not be surprised noticing the color impression of brown when tasting a wine displaying a new oak layer of cinnamon spice.

An 'Ergonomic' Future for Assessing Wine Aroma

While Wine Aroma Wheels have successfully supported sensory research, component analysis, and wine education since 1984, the format of the wheel is based on the olfactory sense only. In contrast the structure of the Wine Aroma Matrix charts, incorporating cross-modal association, supports component analysis efforts by the engagement of both olfactory and visual senses. In some ways the Wine Aroma Matrix may be viewed as an 'ergonomic' aroma chart since the structure of the matrix charts closely aligns with how the human brain naturally learns, remembers, and recalls aromas.

For the vast majority of wine enthusiasts efforts to identify specific wine aromas represent a non-trivial challenge. The Wine Aroma Matrix with aroma organization based on color offers wine enthusiasts a new paradigm for approaching component analysis of wine aromas. The new paradigm of 'color impression as a stepping stone' opens new possibilities for how wine enthusiasts might approach that non-trivial challenge of wine aroma identification.

The full set of wine aromas are included on the two matrix charts: the Fruit & Floral matrix and the Earth & Spice matrix. As designed each Wine Aroma Matrix chart contains the relevant wine aromas for both red and white wines. For those interested exploring a new paradigm in wine aroma identification the Wine Aroma Matrix, WA-trix for short, smart phone mobile app is available for free on both Apple and Android app stores. For those preferring the printed option, hardcopies are available at www.vinochapeau.com/watrix.html .



The Fruit & Floral matrix above shows wine aromas listed on color rows where the color corresponds to the color of the fruit or flower that created the aroma.