

PTO 69-Wine Magic

by John L. Smith

Number 69 in a series of opinionated articles about grapes and wine.

There have been many methods and gadgets invented to “improve” wine; and some of them even work! Many young wines have excess tannins, which can make them bitter or very astringent (“puckery”), and over the years, people have sought ways to make these wines more drinkable, usually focusing on “aeration,” or bringing oxygen to the wine to accelerate the process that occurs over years in the bottle. Decanters, venturis (devices that swirl the wine to aerate it), and even pouring out one glass then shaking the bottle have been used to accomplish this, and to varying degrees, they all do. Recently, however, perhaps in keeping with the rise of mysticism and naturalism, devices with uncertain methods and even less certain science behind them have appeared. Some of them have even described with hype that would have made the legendary cable-TV pitchman Billy Mays blush.

Magnets Galore

Magnets have always held a mystical appeal—they have a force we can’t see, but can feel, and people have for centuries attributed special abilities to them. An application to wine is called the “Wine Clip,” and as the name implies, simply clips around the neck of a wine bottle.



According to the Wine Clip website, "When a conductive fluid (in this case wine) passes through a magnetic field, an electrical charge is created. That charge effects [sic] the molecules that are suspended in the fluid. These loosely bonded and larger molecules are broken down into smaller molecules. With The Wine Clip, a wine's impurities and tannins are broken down during the pouring process. There is absolutely no chemical change and nothing is introduced or taken away from the wine. It's the physical change which accounts for the enhanced flavor and bouquet. The taste of many small molecules is smoother than the taste of fewer large molecules."

In fact, when a conductive fluid passes through a magnetic field, there may be a miniscule electric charge created, but nothing strong enough to do anything to the tannin molecules in wine. The statement that “there is no chemical change” is almost certainly correct, even though it is at odds with the chemical change described (breaking down molecules is one of the fundamental chemical — not physical — changes that *could* occur). Finally, the reason an older wine is less tannic is that the *smaller* molecules (which have a harsher taste and impression) group into *larger* molecules, which have much less impact on the taste, just the opposite of what’s described as happening with the device.

Another magnetic device that requires even less user interaction is “The Perfect Sommelier,” which contains a strong magnet on which the bottle is placed.



The way it works is described: “The Perfect Sommelier® creates a true magnetic field in which the molecules of the wine being treated follow the flux path generated. Tracking the flux path the molecules of the wine travel elliptically continuously and gently ‘decant’ without the violence of the decanting process. In doing so, the tannin chain is lengthened axiomatically making the wine less aggressive.”

They did get the description of tannin chemistry right, if not the physics. What remains to be explained is how the molecules of the wine follow the “flux path” when there’s no movement or flow of the liquid, to elliptically, but gently, decant the wine. It’s also a little unclear how this effect might “axiomatically” lengthen the tannin chain.

Magic Wands

No magic show is complete without both a magic wand and magic words. Both are provided by the next item, the “Wine Wand.”



The Wine Wand is a hollow glass tube that has a large cut-glass knob at one end and contains a rattling handful of pierced faceted balls that look like costume jewelry beads. A small wand that fits in a wineglass sells for \$325, with a travel case. A larger version for a bottle is \$525, also with a case. Philip Stein, a creator of “luxury products permanently imbedded with the natural frequency-based technologies,” explains the principle of operation this way: “Wine Wand has been created to accelerate the aerating process of wine by replicating the natural frequencies of air and oxygen, and infusing them into the wine.” The only problem is that molecules like air and oxygen, if they actually have natural frequencies, are not likely to have them captured in glass beads inside a glass wand, no matter how upscale the product is.

The Base Clef

One that claims a basis in science is called “Clef du Vin,” contains an actual metal disc that is said to serve as a catalyst to speed up wine aging, and is described as “replicating key elements of the wine aging process at an accelerated rate one year per second.” This one actually received a United States Patent that is touted as proof that it works, but in truth a patented device is only required to be novel, useful and unobvious, and not to actually do what it claims — millions of patents have been awarded for devices that their inventors thought (or hoped) worked, but actually didn’t.

The catalyst is described as being “95% copper, 3% gold and 2% silver,” which might provide a basis for an actual chemical effect. It’s available in a small version for as little as \$29.99, or a wood-cased set of four for about \$300.



Harold McGee, writing in the New York Times “Wine & Dining” section on January 13, 2009, tells how he recruited Andrew Waterhouse, Professor of Wine Chemistry at UC Davis, and Darrell Corti, one of the best-known wine retailers in California, and who possesses a legendary wine palate, to evaluate this device and the Wine Wand above. Their conclusion is that the metal disk *could* have an effect on sulfur compounds, which are present in small amounts in wine but have strong aromas. Dr. Waterhouse, however, maintains that no brief treatment could convert the tannins to less astringent, softer forms, probably not even an hour in a decanter. He feels that the likely effect of decanting a wine is on those volatile sulfur compounds that are at least partly responsible for our perception of harshness in a young wine.

They were able to detect some small differences between treated and untreated wines, but it was not clear that any of them were important differences. Besides, as Darrell Corti pointed out, “You can buy a lot of good wine for the price of that wand.”

(Author’s note: before you write to say you’ve tried one of these amazing devices and IT REALLY WORKED and I’m obviously prejudiced and wrong, please remember that I already admit to being opinionated, and that with the knowledge of both wine and science I’ve acquired over almost forty years of making one and over fifty years of studying the other, I’m even more close-minded on this subject than you could imagine. So save the effort and just fume silently to yourself, knowing what an arrogant and insufferable fool I am for not considering the alternative.)