

## MATERIAL MORSELS

Reviews with a materials angle.

Merrilea J. Mayo, with contributions from Altaf "Tof" Carim, presents a review of Legal Seafoods, a restaurant located within an easy walk of the Hynes Convention Center, site of the MRS Fall Meeting in Boston.

## Legal Seafoods

26 Park Plaza  
Boston, MA 02116  
617-426-4444

Mon.–Thurs., 11:30 a.m.–11:00 p.m.  
Fri.–Sat., 11:30 a.m.–midnight  
Sun., 11:30 a.m.–10:00 p.m.



Legal Seafoods, like McDonalds, is an American icon. It is dependable and has had an enviable nucleation and growth history that shows no sign of saturation—airport mini-restaurants seem to be the latest mode of Legal expansion. Its New England clam chowder has been served at every presidential inauguration since 1981. Unlike McDonalds, Legal Seafoods is actually worth visiting for reasons more sublime than the use of their clean restrooms.

Legal Seafoods knows how to cook its fish. I have *never* had fish here that exhibited any of the common failure modes: still frozen in the middle (LN<sub>2</sub> dewar fish), cooked to a rubbery conclusion (cross-linking experiment gone bad), or

cultivated for medicinal purposes (the exquisite 4-nines-pure reek of NH<sub>4</sub>OH from, e.g., old swordfish).

Certain Legal Seafoods establishments are better than others. The ones at the Copley Place Mall/Hynes Convention Center—where most conventiongoers congregate—are very good, about average for Legals, but not worthy of writing down in the ol' lab notebook. The one in the Park Plaza Hotel, however, was for years a statistically significant cut above. This was Legal's flagship restaurant. It still is, theoretically, even though it has since moved to 26 Park Plaza, about six blocks away from the Westin Copley Place Hotel/MRS Fall Meeting. Though

not quite as excellent as before the move, it is still worth the walk. Once inside, you will discover that the ambiance is more elegant here, the seafood casserole has more lobster in it, the list of available fish is more extensive, and the sauces on some of the dishes are actually a different recipe than in other Legals, despite having identical names on the menu.

The downside to the Legal Seafoods Park Plaza is that you will have to make reservations, since a large number of Bostonians also prefer this site.

One last thing: You must try the bluefish paté. It is a signature dish offered nowhere outside of the Legal Seafoods establishments: an awesome combination of salty, sweet, smoky, and buttery flavors. Add a few deciliters of Chardonnay, and you may collapse in a small bubble of heaven, conveniently forgetting that you still have to prepare your talk for the next day and review five papers.

For those taking a side trip to the Massachusetts Institute of Technology: The Legal Seafoods at Kendall Square is also worth a visit.

*While sipping wine rarely elicits thoughts of solid-to-liquid transformations, chemical sensing, or other materials science phenomena, it is true that wine flows from solid grapes and its aroma tickles the senses. Therefore, we step beyond our usual coverage to present a moment of repose and examine the finer points of wine. Dessert is the finishing touch of a quality meal. A double-chocolate mousse lingers in our stomach for hours and hips for decades. A quality dessert wine ensures improved digestion and long-lasting memories.*

*Stefan Estreicher reviews one option: (red) Portuguese ports.*

## Materials for Dessert

True port wines are Portuguese—often copied, never equaled. The vines grow and the wine is made in demarcated regions in the upper Douro, a contraction of *Rio do Ouro* ("river of gold"). The terraced vineyards, on spectacular steep and rocky hills, stretch for ~70 miles up to the Spanish border. Early in the fall, the grapes are harvested, pressed, and the juice macerated. When the alcohol concentration reaches ~6%, the must is run off into casks containing *aguardente*, a grape brandy at 77% (aguardente-to-must ratio 1:4). The alcohol kills the yeast in the must, which stops the fermentation and preserves the natural sugar: ports have ~20% alcohol and ~10% residual sugar. In the spring, the new wine is transported to Vila Nova de Gaia, on the south bank of the Douro, across Porto. It spends two years in wooden casks, then its fate is decided. The two broad categories are *tawny* (mahogany color, soft,

delicate) and *ruby* (brilliant red, intense, powerful). The latter never spends more than six years in wood. Starting with the best, the categories are as follows.

**Tawnies:** *Colheita* ("harvest" or "crop") is a tawny from a single vintage, aged at least seven years in wood (often longer). Aged *tawnies* are blends of many (dozens) of wines. The label shows the average age of the blend: 10, 20, 30, or *over 40* years. Wood-aging allows more contact with air than bottle-aging, which softens the wine. There are many common tawnies, and their quality varies. The best ones are aged over seven years in wood; the cheapest ones are blended with white port to produce the tawny color.

**Rubies:** *Vintage* requires a "declaration of vintage" by the Instituto do Vinho do Porto. Shippers request a declaration only in excellent vintage years, and at most 2% of the port becomes *Vintage*. The wine is bottled between its second and third year and ages in bottles. This minimizes contact with air (only through the cork). *Single-Quinta Vintage* is from a specific vintage

and estate (e.g., Dow's *Quinta do Bomfim* or Warre's *Quinta da Cavadinha*). The wine spends 2–4 years in wood and ages in bottles. *Vintage Character* (rare) is a blend of several vintage years but bottled late, often just as the tawny color begins to show. *Late-Bottled Vintage* (LBV) is from a single vintage and spends 4–6 years in wood. Most LBVs are bottled ready to drink. The best, labeled "traditional," are not filtered and continue to age in bottles. There are many common rubies. Their quality varies.

*Garrafeira* is a port from a single vintage, aged two years in wood then 20–40 years in 5-liter or 10-liter glass demijohns. It has deep fruit and color, but is soft and silky.

Port is served in a small, footed tulip-shaped glass: 1/3 for wine, 2/3 for flavor. First swirl, smell, fill your lungs. Then have a fair sip, making sure that you take equal amounts of wine and air in your mouth. Chew the port, keep it under your tongue and around your gums, then gently swallow. Notice how long the flavors remain in your mouth. Then, talk about it. □