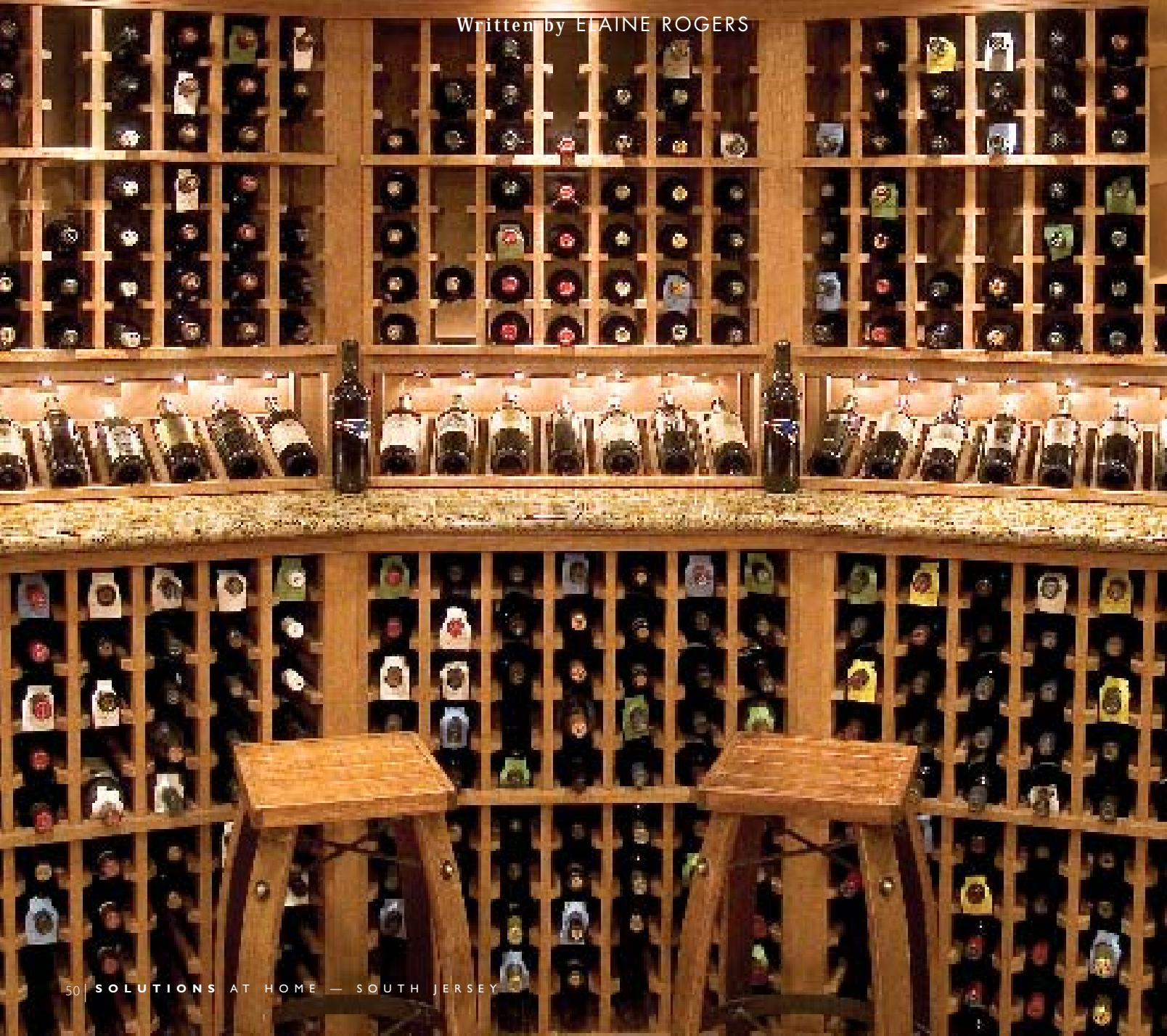




# WINE APPRECIATION

Storing and showcasing your favorite vintages

Written by **ETAINÉ ROGERS**





A wine cellar is much more than a refrigerated room. Besides the varied designer touches that add to the ambience, elements like proper insulation, humidity controls, vapor barriers and proper venting are essential. Photos courtesy Vigilant, Inc.

Perhaps it's all those medical studies touting the high levels of antioxidants in red wine. Or maybe the exposure to wine appreciation from movies like "Sideways" got more folks passing on the Miller Lite. But within the span of just a few years, Americans have discovered the benefits and beauty of fine wine.

As our affinity for vino has grown, so has the popularity of wine rooms and cellars in residential settings. Custom home builders are including ornamental wine rooms in their kitchen floor plans, and wine enthusiasts are installing specialty wine refrigerators in their wet bars and outdoor living areas. True oenophiles have even dedicated portions of their basements to wine cellaring.

"Wine is becoming part of our culture, much like the way it is in Europe," says Laurie Forster, a wine educator. "What would a dinner party be these days without wine? People want to share, taste and discuss their favorite wines with friends. Having a place to properly store these wines is critical."

For wine aficionados, not having a proper spot to store favorite vintages is often an annoyance, but for the serious collector, it can spell financial disaster. And wine experts warn that homeowners attracted to the notion of building either a wine room or cellar

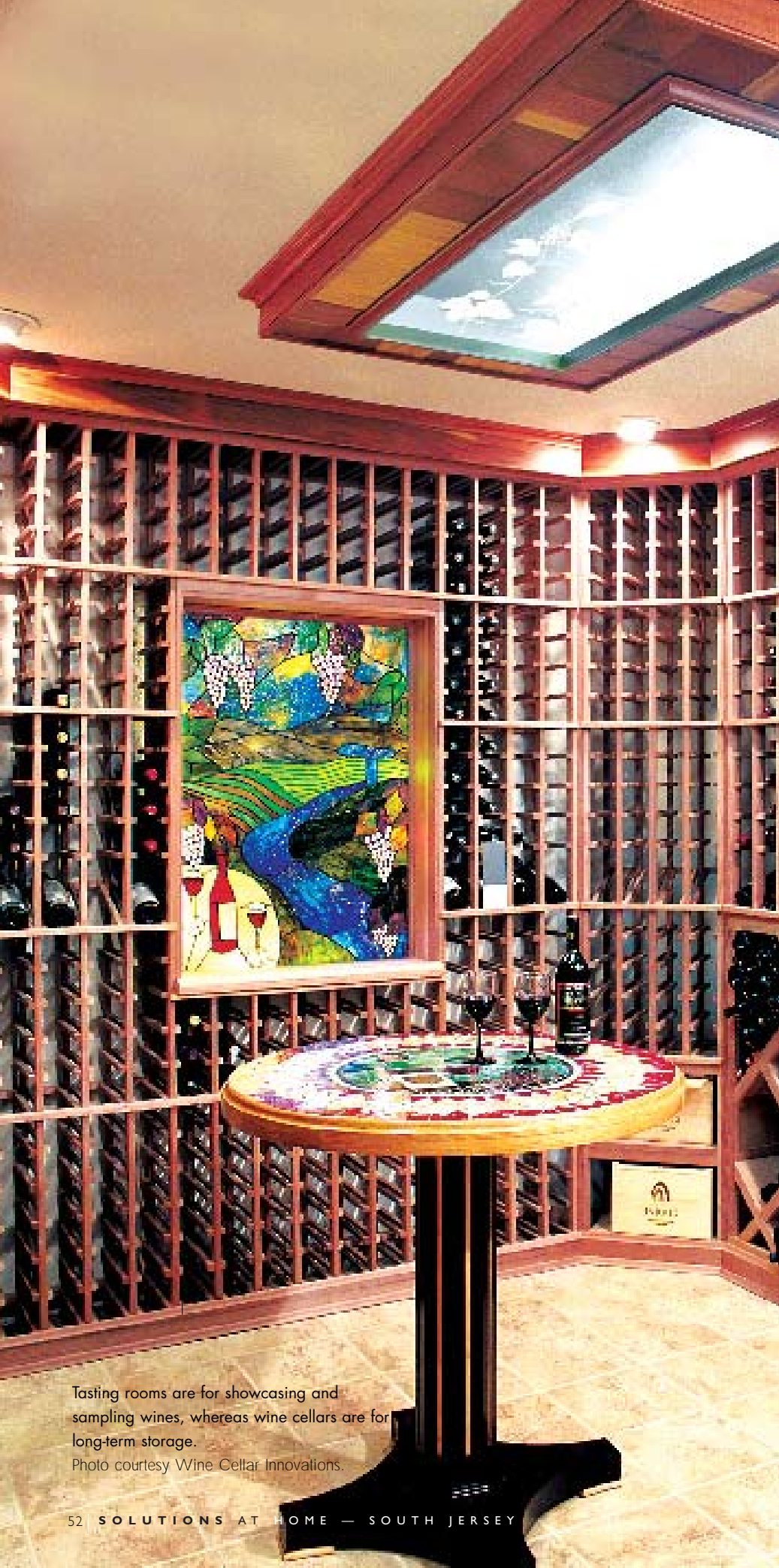
should be very clear on whether their goals include long-term storage or short-term showcasing, since the difference between the two is extreme.

### KEEPING IT COOL

Industry insiders say consumers sometimes make the mistake of assuming a wine cellar is simply a room that's kept colder than other rooms. However, with climate-controlled features, insulation and moisture barriers in place, these hiding places actually rely on a few basic laws of physics.

"The most crucial element is the temperature and humidity of the cellar itself," says Tom Devine, district manager for Apex Wine Cellars. "And that, of course, is maintained by a customized cooling system."

The best environment for wine is 53 to 57 degrees with an ideal humidity range of 65 to 70 percent. And although wine doesn't need refrigeration if it's consumed within a year, if a bottle is allowed to get too warm, even for just a short time, the aging process accelerates and the wine will turn to vinegar. Humidity is also an essential component of proper wine storage for its role in keeping corks moist. Dry corks shrivel, allowing air to seep in and spoil the



Tasting rooms are for showcasing and sampling wines, whereas wine cellars are for long-term storage.

Photo courtesy Wine Cellar Innovations.

wine. And although wine requires oxidation to mature, excessive amounts cause wine to become bitter — just as if it was left in a glass overnight.

Wine cellar specialists have seen cellars in all shapes and sizes, including converted closets or tiny spaces under the stairs. But proper installation is a must, with vapor barriers and cooling systems firmly in place.

“From the humidity to the ventilation, there’s a detailed checklist of the crucial elements you’ll need to create a proper wine cellar,” says Stephen Del Duca, custom cellar designer for Wine Enthusiast. “The science is pretty straightforward, but it has to be done right and follow a clear-cut set of specifications or you’re going to have problems.”

One of the challenges is the reality that colder air cannot hold as much moisture as warm air. Cooling units are designed to chill the air just enough to remove excess moisture but not so much as to allow corks to dry. The challenge is that when the cellar is closed and cooling units are on, humidity levels will increase as condensation forms, possibly allowing mold and mildew to form on bottles and walls. On the flip side, if the room isn’t sealed, warm air seeping into the cellar from the house may cause cooling units to work overtime, creating excess moisture in the process.

Specialists are quick to discuss the wine cellars they repaired over the years and the lost investments that resulted from spaces that weren’t adequately equipped to protect or ensure the proper aging of expensive wine collections. Unfortunately, recognizing whether or not a wine cellar is properly constructed is a difficult task for homeowners, with problems typically going unnoticed until someone spots mildew on a wall or mold on a cork — and the wine may be tainted.

“Most of the time, you won’t know you’ve got a problem until the mold appears,” Del Duca says. “And, by then, it’s not just a minor problem. It’s a big deal.”

Although it’s certainly possible for homeowners to build what Del Duca calls “passive caves” by setting up cool, humid



spaces in basements that meet wine cellar criteria, he says the possibility depends on the age and structure of the home, and he suggests that it's far less likely in newly constructed residences. Fortunately, companies like Wine Enthusiast and its California competitor, Vintage Cellars, market cubic walk-in cellars that Del Duca says make the cellaring process "idiot-proof."

### A PRICY PROPOSITION

Price is definitely a deciding factor when it comes to wine storage. A framed and insulated 8x8-foot cellar, for instance, is likely to house an individually designed cooling unit and enough racks for 1,000 bottles. If you add a solid-core wooden door, costs easily hit the \$10,000 range — and that's without all those fine bottles of wine inside.

For custom-built cellars, a common size is about 8x10 feet, roughly the size of a small guest bedroom, with storage racks configured to accommodate single bottles, double depth bottle storage, magnums (1.5 liters) and even crates. Wine experts note that spaces accommodating 1,500 to 2,000 bottles and ranging in price from \$10,000 to \$15,000 may sound like a lot to people who

**ABOVE** With the increasing popularity of wine, refrigerators equipped with bottle-sized shelving and glass doors allow homeowners to show off their favorites and keep them chilled to the perfect serving temperature. Photo courtesy Sub-Zero.

## CELLAR BASICS

Whether you focus on function or flash, a proper wine cellar design addresses the six basic issues of temperature, humidity, darkness, vibration, cleanliness and angle of storage. Temperature is the most important factor, with an acceptable range of 41 to 64 degrees and an ideal of 55 to 58 degrees. But that's just the tip of the proverbial iceberg.

- A cellar that varies from 55 to 68 degrees between seasons is adequate, although, theoretically, wine will age twice as fast at the higher measurement. But if temperature fluctuations occur daily or weekly, wine will expand and contract in the bottle, affecting the integrity of the cork and allowing the wine to "weep" around it.
- Humidity also affects cork life, with an ideal of 70 percent and an acceptable range from 50 to 80 percent. Excess humidity causes labels and cardboard boxes to rot, while insufficient humidity allows corks to dry out and air to enter the bottle.
- Cool temperatures and high humidity within a wine cellar demand that special attention be paid to condensation control. Typically, this requires a system of vapor barrier protection, with the use of water-resistant gypsum board (green board) and the sealing of all concrete and masonry surfaces. If recessed light fixtures are used, only use fixtures that allow proper sealing against moisture penetration.
- Since wine cellars are designed to mimic a "cave environment," darkness and calm are important attributes. Higher levels of indoor lighting can affect the quality and taste of wines, and white and sparkling wines are especially sensitive to light damage. Ultraviolet light will penetrate even dark green glass, contributing to premature aging of its contents. Experts suggest installing lights with timer switches in cellars and storage rooms in case the light is left on by mistake.
- Vibrations from machinery or road traffic are also harmful to wine, especially to the sediments in red wine. Caution should be taken to avoid locating a cellar next to a laundry room or large air-handling units. And in the case of an active family, a location under the stairs is often not the ideal location.
- With each wine bottle weighing about 3 pounds, shelving is an important consideration. Watch for units constructed to accommodate a logical distribution of both hefty magnums and 750-milliliter bottles.
- In addition to keeping your wine cellar free from dirt, debris and insects, avoid wine exposure to the bacteria and smells generated by fruits, vegetables, cheese and other foods capable of fermentation.



Dressing up a basement, a mahogany wine cellar features a slate floor and backsplash with wall-mounted oak half barrels for stacking wine bottles. Room designer: Peter Salerno. Photo courtesy NKBA.


the insulation, it is simply a place to show off wines and drink them rather than a place to store and age them.

“The reality is that a wine cellar isn’t the best place for wine tasting, because it’s cold and dark in there,” Del Duca says. “It’s not a particularly comfortable place to linger.”

Often, new builders position wine rooms near the kitchen to provide a natural extension of dining and entertaining activities. But some experts warn that this might not be the most ideal placement given the fact that the kitchen is typically the hottest room in the house, as well as the most popular.

“You want no vibrations. If you have a kitchen or a hallway next door, that’s a lot of foot traffic,” says Jim Gallagher of Gallagher Custom Wine Cellars.

Under-counter wine refrigeration units are a popular indulgence and are particularly convenient for scaled-down wine storage in butler’s pantries and wet bar areas. Differing from regular refrigerators, wine storage refrigeration units range in price from several hundred dollars to several thousand and run the gamut from counter-height, single-depth units for 100 bottles to 6-foot, double-depth and double-wide models accommodating up to 500 bottles.

To finish out the look of both wine rooms and cellars, specialists frequently market decorator options like murals, hand-painted tiles, custom-etched glass doors, wood ceilings and decorative wrought-iron fixtures. These extra touches add to the livability of the spaces and go a long way toward bringing the wine room home. 

simply like wine, but it’s on target for collectors who have invested considerably more in their favorite bottles.

Usually, the rooms are built using cedar or redwood because these woods help keep the room dark and damp. “We recommend no satin or stain on the woods,” says Devine, adding that the chemicals can affect the fragile balance in the room. “The most popular these days are redwoods and Malaysian mahogany. It’s a nice, natural look.”

For flooring, tile is attractive and makes spills easy to clean, although it should be noted that dropped bottles will suffer a crashing fate. Hardwoods also work, but experts advise leaving a 1-inch gap around the room edges to accommodate swelling in response to elevated humidity levels. And because ultraviolet light causes wine to deteriorate, wine storage areas should be kept dark.

## THE TASTING ROOM

For simply enjoying wines tagged for imminent consumption, the ambience of an unsealed wine room is a realistic option. Without

## RESOURCES

Apex Custom Wine Cellars  
[www.apexwinecellars.com](http://www.apexwinecellars.com)  
732-537-9900

Wine Cellar Installations, LLC  
[www.winecellarinstallations.com](http://www.winecellarinstallations.com)  
908-334-3899

Wine Cellar Innovations  
[www.winecellarinnovations.com](http://www.winecellarinnovations.com)  
610-721-9698