

6 Steps to Designing a Modern Wine Display



VINTAGEVIEW®
MOVING WINE STORAGE FORWARD

VintageView Wine Storage Systems

4690 Joliet St.

Denver, CO 80239

Tel: 303-504-9463

Fax: 866-650-1501

Toll-Free: 866-650-1500

Email: info@VintageView.com

Web: www.vintageview.com

©2019 VintageView. The material contained in this course was researched, assembled, and produced by VintageView and remains its property.

Purpose and Learning Objectives

Purpose:

Design-focused wine displays are becoming increasingly popular in amazing residential and commercial properties throughout the world. Top design/build professionals are using stylish wine racks and other premium materials to create wine cellars that are too beautiful to hide in out-of-the-way places like dusty basements. This course explains why wine cellars have become so popular and the key aspects of designing an appealing modern wine cellar, broken into six planning steps that should be considered during pre- or early-construction phases.

Learning Objectives:

At the end of this program, participants will be able to:

- identify the elements that affect wine storage, and explain their influence on the wine aging process
- compare the three main design styles of wine cellars
- determine a wine cellar project's goals in terms of style, location, and capacity
- specify suitable materials for wine storage, and select the appropriate racking options for the intended design
- define passive and active storage, and identify key construction considerations when building a wine cellar, and
- discuss budget considerations for a wine display/storage project.

Introduction: Wine cellar demand



Introduction: What's Driving the Modern Wine Display Trend

The wine cellar has become a major design element in homes and restaurants over the last decade. From small wine walls to massive rooms that can hold thousands of bottles, creating visual wine displays is something both casual and serious wine drinkers seek.

Understanding the demand for well-designed wine cellars will help your efforts to specify and plan them for clients. Here's why display-oriented wine rooms are so popular:

- the constant growth in US wine consumption
- the value they bring to homes
- their versatile design applications, and
- the engagement they provide in restaurants.

And before you get too far into planning, it's important to understand that wine needs the proper environment to age, be it long or short term.



This glass shrine to wine in Orange County, created by Michael Fullen Design and Brandon Architects, features a 189-bottle cellar and label-forward wine racks in a triple-deep configuration.

US Wine Consumption on the Rise

The wine market continues to grow in the United States, which means the demand for storing all those bottles—from fine vintages meant to cellar for decades to easy-drinking selections created to enjoy in the next year—is on the rise.

- The total dollar value of the US wine market in 2018 was \$70.5 billion, the largest in the world.¹
 - Per capita wine consumption has increased to 2.94 liters—up 46% since 2000.²
- 2017 was the 25th year of growth for US wine sales.³
- Premium wine sales increased 5.2% in 2018.⁴
- Younger demographics are joining. Largest wine-consuming generations:
 - Millennials lead the category with 36%
 - Baby Boomers are 34% of the category
 - Gen Xers 19%⁵



^{1,2,5}Thach, Liz. "The US Wine Industry in 2019 – Slowing but Steady, and Craving Innovation." *Lizthachmw.com*, February 3, 2019.

³Thach, Liz. "Overview of the US Wine Industry in 2018: Stable Growth Forecasted – Based on 2017 Stats." *Lizthachmw.com*, January 31, 2018.

⁴McMillan, Rob. "State of the Wine Industry Report 2019." Silicon Valley Bank Financial Group, n.d

Adding Value and Function in Homes

With smart design, early planning, and a firm understanding of traditional wine cellar considerations such as cooling needs, top design and build professionals are finding it easier than ever to specify wine cellars into any room of the home. Behind glass, on wet bar walls, and more, wine displays are every bit form and function that bring enjoyment to the homeowner and value in the resale market:

- 31% of homeowners with an annual income of more than \$150K rate a wine cellar as the most desired home amenity.¹
- Zillow, a leading real estate firm, reported in 2019 that 31% of homes with wine cellars sell for above expected values.²



¹Hansen, Kristine. "Raise a Glass to Wine Cellars, a Luxury Amenity Many Buyers Demand." *realtor.com*. National Association of REALTORS® and Move, Inc., March 24, 2017.

²"Homes with Chef-Inspired Kitchen Features Sell for Up to 34 Percent More; Yet Millennial Buyers Pay Premiums for Pizza and Wine." *Zillow*, April 4, 2019.

Versatile Design Applications Case Study

This Newbury Park, California, home design shows off the emerging under-the-stairs wine cellar trend, utilizing a space that many homeowners can never figure out what to do with.

The 260+ bottle project was designed by seasoned wine cellar company Cellar Masters. The clients sought to take advantage of an underutilized space while working around the angles to maximize storage.

To achieve the final result, designers strategically maximized storage by mixing metal display racking that followed the angle of the stairs and traditional wood bins.



Cellar Masters, Newbury Park, California

Providing Engagement in Restaurants

In restaurants, wine displays have become a signature design element, evolving into a focal point of interior architecture that builds the culinary experience. Not only do they carry immense design appeal, but also more visible displays can generate improved wine sales.

In high-end restaurants, large display cases feature thousands of selections in climate-controlled conditions. In more casual eateries, smart wine wall concepts put curated selections in front of the customer, essentially saying, “Ask us about a bottle.”

In most modern restaurant wine cellars, designers use label-forward displays to make the bottles and brands visible to diners. This helps customers connect with the list and adds to the artistic appeal.



Cellaring Basics: Wine storage tips



General Wine Storage Tips: Temperature

Recommendations for storing wine for months, years, or decades are blind to wine color. The *ideal* temperature is 55°F. The lower the temperature, the slower the aging.

Avoid storing wine below 45°F or above 70°F. Also avoid proximity to heating vents, lights, or appliances that give off heat (e.g., stove, fridge).

Fluctuations lead to the expansion and contraction of the bottle, introducing oxygen from the surrounding room into the bottle.

Although wine breathes through the cork and requires oxidation, excessive or uncontrolled oxidation will negatively impact the aging process.



General Wine Storage Tips: Bottle Position and Humidity

Bottles with natural cork enclosures require constant moisture; laying a wine on its side will allow for longer aging. Bottle position is not important for wines with screw caps, or glass or plastic corks.

The ideal humidity level is around 70% with a target range of 50% to 85%. Controlling humidity is a much more important consideration for cellars/rooms in desert or tropical climates and for collections that will store wine for 10 or more years.

The proper humidity level will help keep natural cork from crumbling.



General Wine Storage Tips: Vibration and Direct Light

Vibration affects the aging process, expediting chemical reactions and advancing maturity, undermining the benefits of long-term aging. Wine should be stored away from potential sources of vibration such as mechanical rooms and appliances.

Energy from natural light sources can also accelerate chemical reactions, causing premature aging. UV-ray (from the sun) exposure in particular prematurely ages wine; indirect natural light or no natural light at all is best. Household lights don't cause notable damage, but they do emit heat, which needs to be accounted for. LEDs are preferred.



General Wine Storage Tips: Cork Forward vs. Label Forward

Cork forward is the traditional method of storing wines in a cellar and is named simply after the element of the bottle seen when the bottle is in its cradle.

Label-forward displays put the wine on its side with the label art facing out, creating increased interaction between the user and the bottle of wine. This can also make it easier to find specific bottles.



Designing a Modern Wine Display: Planning

A wine cellar or wine display is often a last-minute add-on to commercial and residential building projects. When the design of a wine storage area is left toward the end of construction, the pitfalls can include inadequate space to store the wine collection, difficulty in venting the cooling units, and going over budget.

The remainder of this course discusses six main design steps for creating a wine cellar that meets your client's present and future needs.

If all steps are accounted for in preplanning, their order is not important.



Step 1:
Pick the
design style

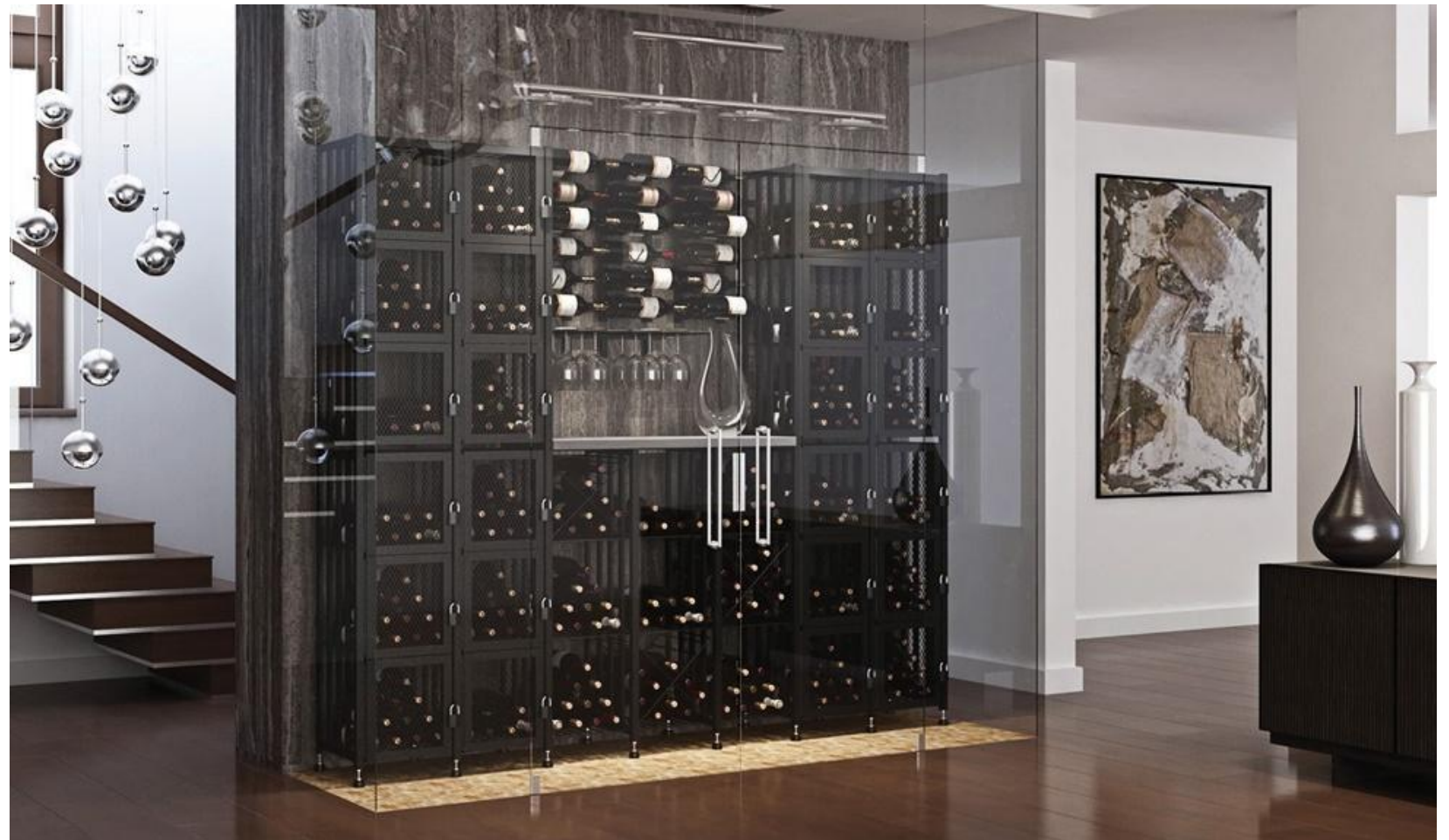


Step 1

Pick the Design Style

The process of designing a modern wine display often begins with picking the design style, as this shapes the scale of the project, where the display will fit, and what costs/budget may be required.

The three main styles of wine displays follow other aspects of interior design. They are contemporary, traditional, and transitional.



Step 1

Contemporary Wine Cellars

Contemporary wine displays are open and airy spaces. Design of the display can often be more important than bottle collecting. These eye-catching displays are usually located in entertaining zones of the residence or building. The storage may be active (cooled) or passive (ambient).

Label forward is the most common wine racking configuration.

TREND: Glass enclosed “jewel box” displays with metal racking are popular since they showcase a wine collection and are visible from just about every corner of a room.



Step 1

Contemporary Case Study: De Sola Terrace

Located in Corona Del Mar, Orange County, California, this private residence designed by Patterson Custom Homes showcases how a wine display can serve as a focal point through two stories of a residence. The glass “jewel box” holds 912 bottles, features balanced bottle spacing, and utilizes label-forward metal racking on both sides of steel supports. A glass floor separates the two stories, and the upper section of the wine display touches the kitchen and dining room, while the lower section is connected to a wet bar.



Step 1

Traditional Wine Cellars

Inspired by 19th-century European design, traditional style is perfect for those who want to pay homage to old-world wine heritage. Traditional-style wine cellars are commonly located in the actual cellar or basement of a residence or building where there is little or no natural light.

They are often large projects that feature a mix of bin and label-forward wood and metal racking in dark tones. Décor enhancements such as reclaimed wine barrels, wooden staves, and riddling racks are common.

TREND: Blending metal and label-forward racking gives new life to the old style of cellaring.



Step 1

Traditional Case Study: The Stave Cellar

This traditional-style wine cellar in Sonoma was designed by Wine Racks America and uses staves from oak wine barrels for the ceiling and walls. The metal wine racking holds the bottles label forward, while wooden diamond x-bins are used to store wines cork forward. Backlighting in the walls is used to give the entire space a glow and create an old-world style. This room holds more than 700 bottles.



Step 1

Transitional Wine Cellars

Perhaps the most trending style of cellaring wine, transitional wine displays blend classic, old-world sensibility with the chic style of modern design. They feature airy design with glass viewing areas and display-style racking blended with craft millwork.

A typical transitional wine cellar will blend label-forward metal racks with bins and cubbies created from wood and other natural elements. Transitional wine cellars are commonly located in entertaining zones such as remodelled basements. This wine cellar holds more than 900 bottles.

TREND: Using reclaimed wood on the wall and spacing out the racking to allow it to be visible is a major component of this stylish design niche.




Step 1

Transitional Case Study: Trophy Room

This wine room anchored an award-winning show home located outside of Minneapolis. The display features a glass viewing wall adjacent to a home bar area that is perfect for entertaining. The cellar features label-forward metal wine racks and lattice-style wood racking. The warm tones of the surrounding décor blend easily with the soft lighting in the wine room.



Review Question



Why is the transitional wine cellar such a popular style in cellaring wine today?

Answer

Transitional wine displays are popular because they blend the classic, old-world sensibility with the chic style of modern design practices.



Transitional wine cellars are warm rooms with natural tones. They feature wide open design with glass viewing areas and display-style racking.

Step 2:
Identify what
will fit (and
where)



Step 2

Determine Capacity

Determining the goals of a wine cellar project requires considering your client's style beyond what was covered in step 1. Capacity goals are important in identifying space to ensure the project expectations are reality. Knowing how many bottles the client has (or plans to have) coupled with their approach to storage (are they a minimalist or maximalist?) will dictate what areas can meet the goals.

Bottle capacity needs will vary greatly by the client's current collection size and/or desires to grow it. It's easier to plan for more bottles and leave a few racks empty than try to retrofit a cellar with more racking after build-out.

The weight of the wine is also a factor. With each bottle weighing about 3 lb, a 1,000-bottle collection will weigh a ton and a half, so structural elements may require consideration in large cellar design.



Step 2

Determine Capacity



Uber minimalist



Minimalist



Balanced



Maximalist



Uber maximalist

Minimalist wine storage displays hold 2+ bottles per square foot and put a premium on design over bottle count. Label forward is most prevalent. Both column and peg systems can be spaced in minimalist fashion.

Balanced-capacity wine cellars blend the need for increasing bottle count with design focus as well. They hold 4+ bottles per square foot. Label forward is most prevalent. Both column and peg systems can be spaced in a balanced fashion.

Maximum-capacity wine cellars prioritize bottle count over design. Maximum-capacity wine cellars can store 8+ bottles per square foot. Label and cork forward are mixed. Column systems are combined with bulk storage options, e.g., crates, cases lockers, and x-bins.

Step 2

Capacity: Minimalist Case Study

This fully conditioned wine display with a glass viewing wall is a focal point in a dramatic Denver, Colorado, kitchen. It stores 92 bottles mounted to a textured wall treatment.

Wine pegs are staggered higher up to enhance the look with column racking below to improve capacity.

Single-pane, frameless glass was chosen to maintain the minimalist appeal.



Step 2

Capacity: Balanced Case Study

This clean and chic, label-forward wine display in a private residence in Eagle, Idaho, uses a column layout of metal wine racking pegs in a double-bottle-depth configuration.

The wine cellar and its full-view glass viewing wall blends seamlessly with the entertaining room's contemporary open floor plan. It is every bit the focal point of a beautiful room.

It can store up to 120 bottles in a small space.



Step 2

Capacity: Maximalist Case Study

The commercial, climate-controlled wine cellar at the Cibo Wine Bar is the center of the restaurant in South Beach, Florida.

Using a 20-foot, floor-to-ceiling steel mounting system, it holds more than 3,500 bottles, many of which are pressed against glass in full display to the dining room. Capacity was maxed out by installing racking on both sides of the frames (5 total bottles deep).

Adding to the Miami flair, acrobatic wine angels twist and flip as a harness system lifts them to retrieve one of 800 worldly selections when bottles are ordered.



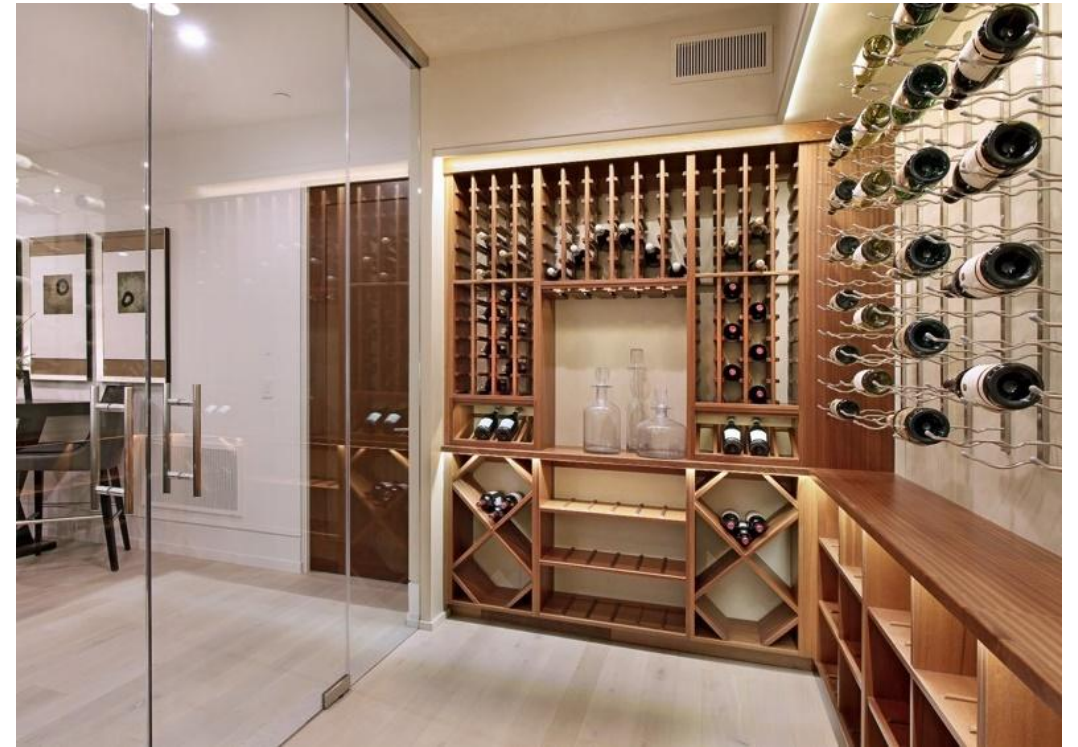
Step 2

Determine Location (Residential)

With bottle capacity settled, the function of the wine cellar is the next determinant for location. If the wine cellar is to be a showpiece for wines clients drink quickly, look for rooms or walls near kitchens, wet bars, and other entertainment zones.

When storage is the primary focus, your client may be best served by finding a cool, humid place somewhere out of the way, like a basement room. If your client wants something that will provide both reliable, long-term storage and connectivity to main-floor living, consider adding cooling and other climate-controlling elements to allow wines to age properly.

PRO TIP: Clients who entertain often want the wine display closer to the party. Consider locations that have quick access to the areas of a home where people gather.



Step 2

Determine Location (Commercial)

Restaurants are increasingly using visual displays as a sales tool, which means placement near guests is important. Common locations include host stands, bar areas, and the dining room.

Picking label-forward displays help guests connect to wines they may know by sight and takes intimidation out of voluminous paper lists. While cork-forward displays don't offer the chance to read the labels, they still help put wine on the forefront of guests' minds, leading to enhanced wine list engagement with servers. But location isn't just important to drive sales. More so than in residential design, careful consideration needs to be given to how servers will access the wines while in service.

The location of wine storage featuring high-turn selections should be near the service area. In cases where the display itself is taller than an average reach (more than 8 feet), it's important to plan for what bottles will go in arm's reach and how other bottles higher up will be accessed.





Step 3:
Pick the proper
racking

Step 3

Racking Styles

There are several racking styles found in modern wine cellar design.

They include:

- column racking
- peg systems
- floating displays
- freestanding wine bookcases, and
- secure lockers.

With the proper design process, each of these types of wine racks can be designed to meet the style, bottle, and location needs identified earlier in planning.

This section covers most of the styles along with case studies to drive inspiration.



Step 3

Racking Styles: Column Racking

Wall-mounted column racking creates wine walls with linear spacing. Label-forward configurations showcase the wine with the racking, wall treatments, and other aspects taking a back seat to bottles. Column racking can be used to show a few bottles or thousands. To change a maximum-capacity display to a minimalist one, widen the spacing between the bottles and consider a different bottle depth.

Column racking can be mounted to a range of wall surfaces, including drywall, wood, and concrete. It is easy to install with only a handful of anchor points needed for up to 36 bottles (three cases).

Column racking is often the most cost effective, starting at below \$3/bottle of storage.

PRO TIP: Ensure the correct anchors are used for the mounting surface and measure the wall twice! This sounds like a basic step, but if you don't measure the space for your wine wall, it's easy to install racks without the proper spacing to accommodate bottle necks.



Step 3

Racking Styles: Column Racking Case Study

This wine wall serves as a brand showcase for Fidelitas Wines in Benton City, Washington. The winery actually changed its bottle design to allow the name to be legible when the bottle is stored on its side.

The balanced spacing and brushed nickel finish of the metal racking achieves an industrial look. The winery matched this display design in its satellite tasting room in Woodinville, about 30 minutes outside of Seattle.

This display holds 432 bottles.



Step 3

Racking Styles: Peg Systems

Peg racking systems feature slim rods jutting out from the wall, allowing bottles to seemingly float on air. The pegs for each bottle are anchored separately, allowing for staggered layouts or artistic layouts. Peg systems can accommodate cork-forward or label-forward storage. While maximum-capacity storage is possible, these systems are often used for projects that call for balanced- or minimalist-capacity needs.

Peg systems can be mounted to a range of wall surfaces, even drywall. Installation is easy but time consuming (more mounting holes). Custom wood or acrylic panels can be used to add style and simplify installation. Premium pricing may apply, e.g., \$13/bottle—consult individual manufacturers for details.



Step 3

Racking Styles: Peg System Case Study

This elegant, yet fun, wine cellar was crafted as part of a beautiful interior design job by Marc-Michaels Interior Design. This wasn't a home for a big Walt Disney fan, but rather a high-end residence created in the Four Seasons Private Residences, Orlando, at Walt Disney World Resort.

Cork-forward pegs were used to create "wall art" and incorporate Mickey Mouse ears into a wine cellar's design. The passive storage wine cellar holds 92 bottles and is a bold visual and conversation statement that can be seen from the residence's foyer.



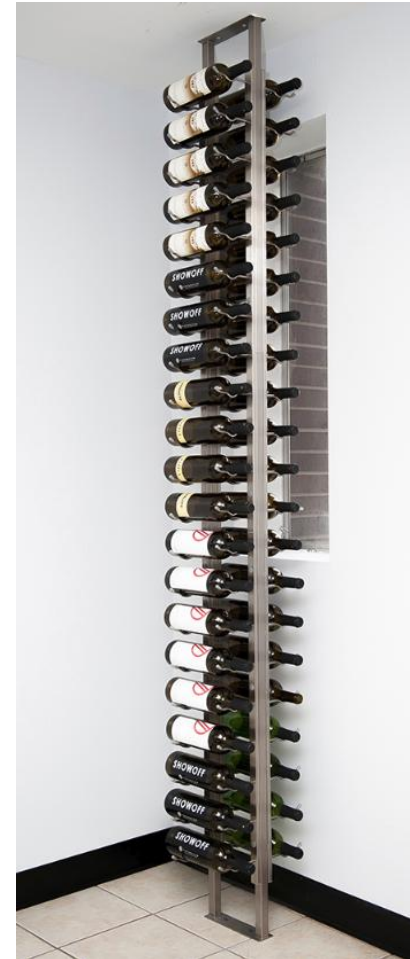
Step 3

Racking Styles: Floating Wine Walls (Framing Systems)

Floating wine displays are created by using framing systems that can attach from the floor to the ceiling or from the floor to a wall.

Floor-to-ceiling frames are important accessories for many modern projects. These designs can be one- or two-sided and often use glass walls or tile products that require mounting from the floor to the ceiling. In general, standard products will allow metal wine racks to be mounted from a floor to a ceiling that is up to 12' high. Custom products and accessories that work for different heights and allow for installation into angled ceilings or other unique design applications may be available from some manufacturers.

These products are not commonly used in full-wood cellar designs. They typically add \$3–\$5 per bottle of storage on top of the racking.



Step 3

Racking Styles: Floating Wine Wall Case Study

This private mansion in Newport Coast, California, features a full wet bar backed by an active (cooled) glass wine wall. Steel frames hold the racking on both sides.

The bottles are spaced widely enough for ample light to pass through and for the texture of the stone wall behind them to be visible.

This wine wall holds 420 bottles.



Step 3

Racking Styles: Freestanding

Regardless of medium (metal, acrylic, wood), there are plenty of freestanding standard and custom options.

The advantage of freestanding displays is that no consideration to wall type and support ratings is required. Just be sure to follow manufacturer guidelines for securing top-heavy, taller options to a support.

Because of the overall need for material—wood or metal, or both—freestanding displays tend to cost more per bottle than wall-mounted options. Pricing begins around \$10 per bottle. This category of wine racking also includes tabletop racks, which can be used as an accessory in the design of a full room.



Step 3

Racking Styles: Freestanding Case Study

This freestanding acrylic wine case in a private residence in Miami, Florida, is climate controlled, has glass walls on two (opposite) sides, and holds 486 bottles.

The wine bookcases sit perfectly as a room divider, connecting the wine collection to two rooms. It's worth noting that the display was arguably the easiest portion of the wine room build.

The spacing between the wine rack rows lets light pass through the wall, allowing uninterrupted sightlines.

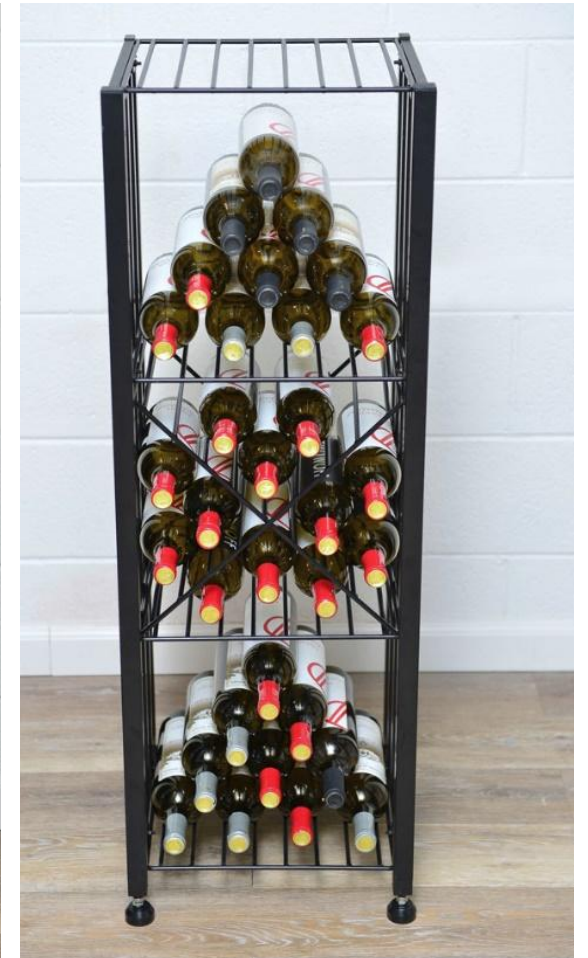


Step 3

Racking Styles: Lockers and Bulk Storage

Wine lockers provide unique ways to increase bottle count per square foot and add additional security measures if needed. Bins (no doors) can add a unique design accent to display racking and increase bottle capacity. X-bin inserts in a locker or a bin can help with organization.

In residences, wine lockers can be used to store valuable wines to ensure they don't get consumed by accident. In commercial applications, wine lockers can be used in rental programs where regular customers are given locker spaces (rented or with minimum purchase requirements) where they can store wines procured from the restaurant. These are offered at a discount from the menu prices and often include access to off-list bottles. When dining, they can request the wines right from their lockers.



Step 3

Racking Styles: Lockers and Bulk Storage Case Study


This 3D rendering concept shows how a restaurant design can show off its locker program.

The glass viewing wall with narrow steel frames provides guests with an impressive visual of the cellar that has a 1,152-bottle-capacity.

With 48 individual cubes, this concept would allow a large locker rental program while also increasing the interaction between all guests and the wine list.




Review Question



*What type of racking is best
for long-term storage?*

Answer



It doesn't usually matter. Each racking system can be designed for just about any storage use.

Step 4:
Select the
materials



Step 4

Which Material Is Best?

There is literally no right answer here. If the material is of good quality, durable, and suitable for a humid environment, there is no advantage to choosing one material over another. The final decision will usually come down to client preference based on some combination of:

- design aesthetic (contemporary, transitional, or traditional)
- project cost (compare projects on a per bottle of storage basis for greatest accuracy), and ultimately,
- the recommendations of the designers or installers.



Step 4

Wine Rack Materials: Metal

Metal has only recently become a popular material in wine cellars. It is the most popular material in contemporary designs.

Key metal wine rack attributes:

- The strength of metal allows for thinner wine cradles in more free-flowing designs, including label-forward options.
- Metal wine racks can be powder coated or plated to achieve a variety of finishes.
- While metal wine racks are infinitely configurable and customizable, these alterations are generally produced by the manufacturer, not the installer.
- Common metals used in wine racks include aluminum and steel.
- Metal tends to be, by the bottle, more cost effective than custom millwork wine rack options.
- Metal racks have strong industrial aesthetic potential.
- Common metal wine racks include wall-mounted systems that can hold up to three cases of wine per unit, or peg systems that start with one-bottle configurations and install directly to a wall or a backer board.



Step 4

Wine Rack Materials: Acrylic

For the most minimalist projects, acrylic has become an increasingly popular element.

Key acrylic wine rack attributes:

- The invisible effect of acrylic allows the bottles to take center point of the display.
- LEDs can be incorporated into the design.
- Most acrylic displays integrate an element of metal since it is very difficult (strengthwise) to use this plastic product to hold much more than one bottle of wine per rod or pin.
- Common acrylic displays include thicker panels that serve as backers or side panels for metal.



Step 4

Wine Rack Materials: Wood

Wood has been featured in wine cellars for centuries. Wood diamond bins, slatted racks, and other products have been dominant in the wine cellar category.

Key wood wine rack attributes:

- There are numerous wood options, including: premium redwood, all-heart redwood, mahogany, pine, fir, red oak, and cedar.
- Overall, wood is a very durable material.
- Wood can be customized by most installers/mill workers/carpenters.
- There are dozens of manufacturers to choose from.
- Wood is natural and traditional, and has the design potential to mirror the history of wine.



Step 4

Material Selection

In addition to selecting the material for the wine racking, materials must be selected for every component of the wine cellar. Material selection will depend on style as well as the steps and considerations discussed in this course.

Wood cabinetry, leathered natural countertops, and walls covered in tile, reclaimed wood, drywall, and wallpaper are on trend. Floors may be covered in hardwood, cork, vintage wine barrel, stone, or porcelain tile. Carpeting and vinyl should be avoided.



Step 4

Mixing Materials

One of the biggest trends in cellar design is the mixing of materials. This can be any combination of the materials previously mentioned. This allows for versatility in design and incredible customization of any project.

Very simply:

- wood racking can make metal wine racking more traditional in design, and
- metal wine racking can make wood racking more contemporary in design.

Common examples of mixing include:

- wood or acrylic sides with metal rods holding the wine bottles
- one wall featuring wood racking, e.g., diamond bins and lattice holders, and another wall using label-forward metal racks, and
- metal racks framed in wood cabinets, bookcases, etc.





Step 5:
To cool or not?

Step 5

Consideration: Passive vs. Active

Another decision in planning wine storage is deciding if your client should invest in a climate-controlled display or rely on room temperature to do the trick. There are several considerations that can drive this decision, the most important being the types of wines your client plans on storing.

Passive wine cellars/rooms have no additional climate control functionality; they use ambient temperature rather than conditioned air. This simply means the room's conditions are not changed to benefit the wine. Ideal locations for passive cellars include places in a home or restaurant that are naturally cooler, such as basements, closets, or areas that only receive indirect sunlight. Selecting naturally cooler locations keeps swings in temperature moderate and seasonal, minimizing damage to the wine.

Active (or cooled) wine cellars are typically fully climate-controlled areas that use technology to bring the wine to the optimum conditions. With the proper systems and insulation in place, a cooled wine cellar can be set to the perfect storage temperature and humidity level to ensure wine ages in ideal conditions. There is more flexibility in terms of location for these types of cellars.



There are a number of factors to be considered when deciding which option is best:

- How long are wines being aged?
- What is in the collection?
- What is the collection turn rate?
- What are the long-term collection goals?
- Where is the display space and what is its climate?

For inexpensive or moderately priced ready-to-drink wines that will be consumed quickly, long-term storage considerations are not nearly as important. They are ideal candidates for passive cellars. Everyday drinking wines don't age as well and are often drunk within the first year of purchase (or sooner).

If premium wines are being collected and years (perhaps decades) of aging are planned, it's strongly encouraged to spend the same type of planning and care in the storage of the wine as with the wines themselves, as improper storage conditions can adversely affect the aging process and ruin the taste of the wine. A cooled cellar with optimal temperature and humidity control is the best way to protect that investment.

Step 5

Passive vs. Active

Regardless of what is in the collection, if the turn rate is very quick and long-term storage is not a concern, then a passive cellar will be an adequate solution. If the cellar is currently only storing everyday wines but the owner has plans to become a fine wine collector, consider expanding the wine storage plans so the wine buying habits can grow into the room.

Key items to deliberate to this end:

- Overall project budget: Adding a cooling system and the requisite insulation can add thousands of dollars to a project.
- Access to the insides of walls: If the walls are already finished, proper insulation of a climate system could require ripping out the drywall or other materials; starting from bare studs makes this process easier.

The climate in the chosen display location is key. Maintaining a constant temperature over time is more critical than the actual average temperature level. If temperature fluctuations are a common occurrence in the chosen location, then a cooled cellar should be considered.



Step 5

Creating a Passive Cellar: Construction Considerations

Since these cellars/rooms don't have any additional climate conditioning, choosing the proper location is of utmost importance. Even if wine is being stored on a short-term basis, there is still the chance for the wine to be ruined. Avoid direct natural light and keep passive displays away from areas that are typically warmer than other rooms in the house.

Basement-level passive cellars permit cool temperatures from the ground to permeate into the room. They also allow heat to escape up into other floors. Passive cellars are often installed into finished walls for a quick, cost-effective installation.

Freestanding wine displays are easy to integrate into passive spaces as well.



Step 5

Creating a Passive Cellar: Construction Considerations

If possible, plan for the future, especially if there is access to the insides of the walls. It is easier to upgrade the space now to make it ready for a cooling system down the line than to rip open walls to make the upgrades at a later date.

Consider installing:

- Proper wall insulation: Recommendations are minimum R-19 in the walls and R-30 in the ceiling. Options include fiberglass batts, Styrofoam® or foil-faced rigid insulation, sprayed foam, or blown-in insulation.
- Vapor barrier: A vapor barrier on the warm side of cellar walls helps maintain consistent humidity while preventing condensation and associated moisture and mold issues.
- Plywood backing: This is an easier surface to work with for most wall-mounted installations.



Step 5

Creating an Active Cellar: Construction Considerations

If drywall is the material chosen for the wall, moisture-resistant drywall must be installed and be finished with a moisture-resistant interior wall paint.

Wall and flooring materials must be able to withstand the high-humidity environment of the wine cellar. Marine grade plywood may be a required substrate on walls and floors to attach the finishing material (e.g., tongue and groove) to.

Any doors into the space should be exterior grade insulated doors with weather stripping, and have a threshold and door sweep.

Double- or triple-pane glass will be the most efficient for a cellar with a cooling system. In humid environments, insulated glass may be required to prevent condensation. If a cellar gets direct sunlight, the glass must be rated to fend off UV rays.



Step 5

Creating an Active Cellar: Cooling Units

Each cooling unit has a BTU rating (same as air conditioners). Factors that determine the load needs of the unit are:

- the total cubic square feet of the room
- the number of “cracks,” e.g., doors, windows, and other elements that result in heat loss
- the insulation value in the walls (min. R-19 is recommended) and ceiling (min. R-30 is recommended), and
- the heat value of the lights.

The wine room has to be built as a separate environment from its surroundings. The choice of cooling system should take into account the heat or cold that may transfer through any adjoining wall, floor, or ceiling, especially when they are directly connected to the exterior of the home. Each cooling system has a specific rating of how much it can cool the outside temperature.

NOTE: Undersizing a cooling unit can lead to premature failure and/or prevent the system from reaching the desired set temperature.

Creating an Active Cellar: Cooling Units

Self-Contained Units

They are the noisiest, but also the most economical and easiest-to-install option. Generally, these are wall-mounted units that include an exhaust to push heat out of the room into an adjacent area.

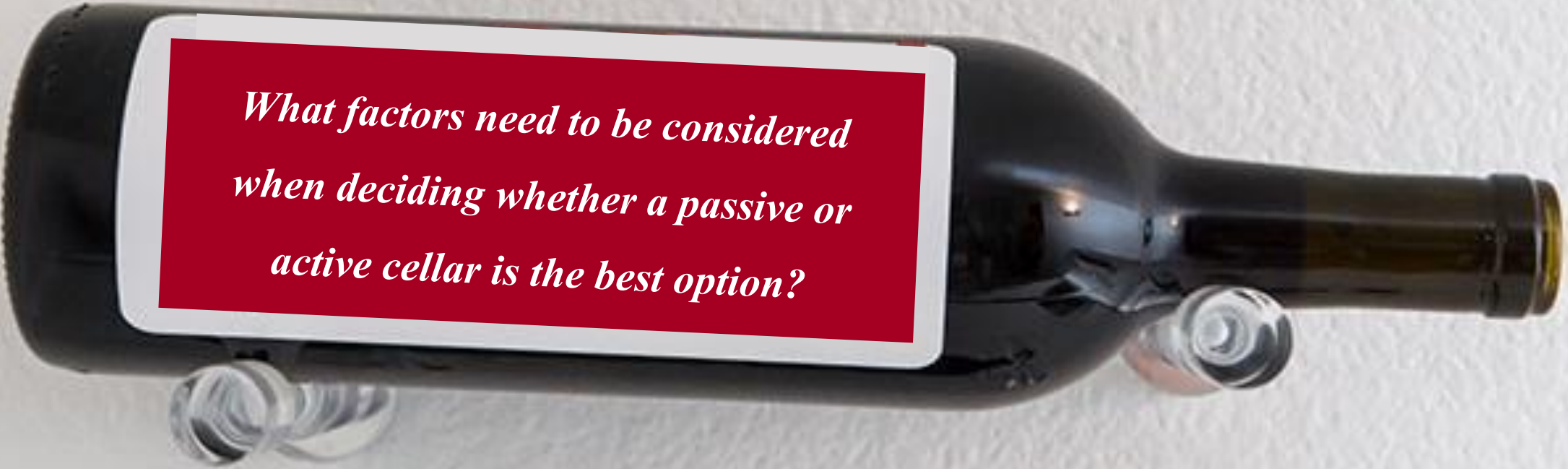
Ductless Units

The evaporator is located inside or near the wine room; the condenser, which is the noisy part of the unit, is located in another space that dissipates the noise. The units are connected by line set, which allows easier installation into projects like remodels where there might not be access to ceilings for ductwork.

Ducted Units

Ducted systems can be self-contained or split systems. Much like the furnace, these systems can be housed in a mechanical room and require ductwork to push air into and out of the wine room, exhausting to the exterior of the home. These are common for wine cellar installations in new builds where the installer has access to install ductwork.

Review Question



What factors need to be considered when deciding whether a passive or active cellar is the best option?

Answer



Passive or Active?
5 factors to consider

How long
are wines
being
aged?

What is
in the
collection?

What is the
collection
turn rate?

What
are the
long-term
collection
goals?

Where is
the display
space and
what is its
climate?



Step 6:
Develop a
budget

Step 6

Costs Associated with Wine Cellar Projects

Listed here are some examples of the costs associated with a wine cellar project. All costs are approximate. Consult individual manufacturers about the costs of their products and design services.

- Wine racks are often the least expensive item of a wine cellar project. Racking systems range from \$3/bottle to \$20/bottle.
- Simple, installed passive wine walls may cost \$500 and up, depending on the scale of the project and the materials selected.
- Cooling systems may begin at \$2,500 prior to installation. A professionally installed active wine cellar usually starts at \$15,000. Many of these rooms fall into the \$25,000 to \$40,000 range—a good budget point to begin discussion with your client. Elaborate projects with custom work and larger bottle capacities will cost more—it's possible for a customer to spend six figures.



Step 6

Costs Associated with Wine Cellar Projects

Factors that can increase the budget from the primary range include:

- Size of the project (amount of racking)
- Custom design elements (e.g., cabinetry)
- Furnishings and finishes for wine-tasting areas
- Glass walls
- Lighting
- Electrical work
- Upgrades to the walls, floors, and ceilings (e.g., concrete to tile)
- Temperature and humidity controls
- Overcoming challenging design elements (angled ceilings, ductwork, etc.) and environmental conditions (e.g., exposure to excessive heat)



Step 6

Additional Costs to Consider: Who to Hire

A wine cellar builder (WCB) is a person or company that specifically creates wine displays, from concept to completion. They can source all materials from the racking to the glass and the cooling equipment. They plan the project and oversee the installation.

A general contractor (GC) is responsible for the day-to-day oversight of a construction site, management of vendors and trades, and the communication of information to all involved parties throughout the course of a building project.

Most WCBs are licensed general contractors. Not all general contractors are experts in wine cellar design. Consider using a WCB if the wine cellar requires cooling and/or glass walls. Hire a GC for simple passive cellar construction projects and wine walls.

For cooling projects that need ducted or ductless systems, a heating, ventilation, and air conditioning (HVAC) professional is likely to be required. Be sure that the HVAC professional understands refrigeration and air conditioning principles. These systems will also need a licensed electrician to set up power for the cooling units.

Step 6

Return on Investment (ROI): Residential

The next few slides provide some points to consider when determining the ROI on a residential project.

How expensive is the total wine cellar project?

A wine cellar will add \$1,000 or more to the value of the home. In some applications, it can be a dollar-for-dollar investment, but as with most home remodel projects, there is a cap on the dollar-for-dollar return. For example, a \$5,000 wine cellar might recoup \$5,000, and a \$20,000 cellar might also recoup \$5,000.



Step 6

Return on Investment (ROI): Residential

What is the value of the real estate?

Wine cellars are often considered to be a required amenity in the luxury housing market, generally defined as the top 5% in value in any given market. In the midrange housing market, whether the wine cellar adds value to a residence will be buyer specific.

Where is the home located?

Residences with proximity to wine regions and rich food cultures, such as San Francisco, typically install a wine cellar. Homes outside of wine country and those where the food and wine culture is not as vibrant may not wish to invest in a wine room.

Step 6

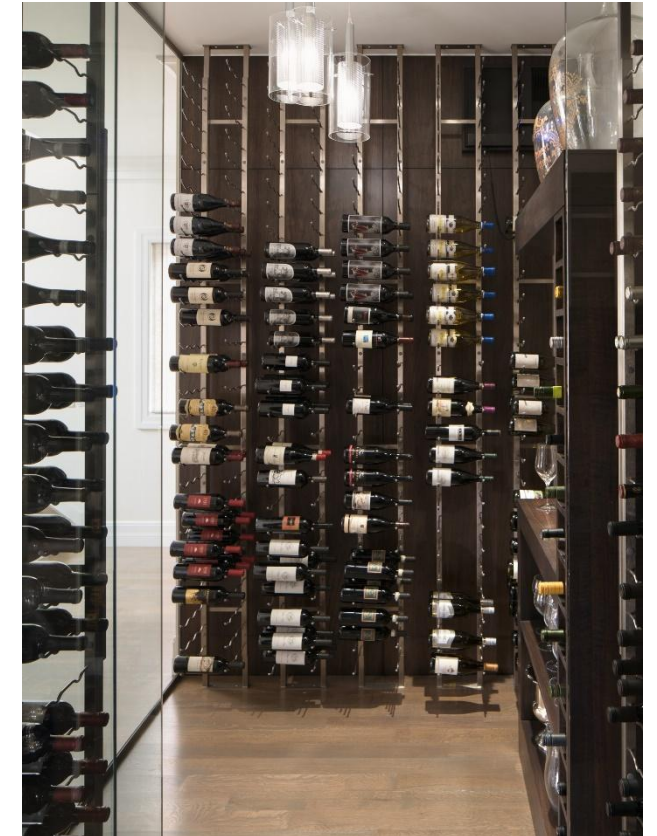
Return on Investment (ROI): Residential

“In Arizona, it’s a rarity not to see a wine cellar in a high-end home. It’s almost a must for resale.” (Jamie Dunjey, owner of Heritage Vine Custom Wine Cellars in Arizona)¹

“With wine consumption and appreciation on the upswing, in-home wine rooms will become an increasingly popular trend.” (Kevin Rosinski, senior vice president of home builders Toll Brothers Arizona Division)²

“For \$1.5 million and up, [a wine room] is usually expected. Wine rooms hold their value in the homes we build and sometimes could be a reason that someone does not buy a home if there is not one.” (Ray Stadler, Stadler Custom Homes)³

For starter homes purchased primarily by first-time buyers, listings mentioning “freestanding tub,” “pizza oven,” or “wine cellar” sold for more than expected. This could reflect the lifestyle millennial homeowners want to live and the needs of young families.⁴



¹ Davis, Lisa Selin. “Luxury Wine Cellars Rise Up.” *The Wall Street Journal*. Dow Jones & Company, Inc., Oct. 16, 2014.

^{2,3} Hansen, Kristine. “Raise a Glass to Wine Cellars, a Luxury Amenity Many Buyers Demand.” *realtor.com*. National Association of REALTORS® and Move, Inc., March 24, 2017.

⁴ Homes with Chef-Inspired Kitchen Features Sell for Up to 34 Percent More; Yet Millennial Buyers Pay Premiums for Pizza and Wine.” *Zillow*, April 4, 2019.

Step 6

Return on Investment (ROI): Commercial

Restaurants use wine displays for two primary reasons:

- They are used to enhance the décor, much like an open kitchen.
- They are a tool for the front-of-house staff to sell more wine.

Here are the findings of a 2017 survey of restaurants with wine displays visible to the dining room:

- 86% of restaurants said it encouraged guests to talk about wine.
- 100% said it improves the guest experience.
- 84% said it is a key design element.
- 91% said they have met or exceeded wine revenue goals.



Step 5

Return on Investment (ROI): Commercial

Designer Jacqueline Bonanno, Bonanno Concepts, incorporates label-forward racking into her restaurant projects. “Not only is it a practical room divider, it gives you that visual where this is the place where the wine is amazing.”

“When people first walk in the door, they see the wine room. It’s a very stunning view. The view of the wine room puts it out there; it gets the discussion going right away.” (Todd Rocchio, wine director at Guard and Grace, Denver, Colorado)

“It’s absolutely crucial just having all the labels on display. It creates this discussion and brings this life to the program. It invigorates the wine program as a whole and certainly helps our sales.” (Amy Weidig, Beverage Director, Cibo Wine Bar, South Beach, Florida)





**Summary
and
Resources**

Course Summary

It is important to understand your client's needs at the early stages of the project to make sure the wine cellar's design creates the most stunning display possible and meets the needs of the wine collection. By following the five design steps discussed in this course, you'll be able to design a cellar that meets your client's present and future needs.

- **Step 1:** Pick the design style (traditional, contemporary, or transitional?)
- **Step 2:** Identify what will fit (and where) (determine capacity—minimalist, balanced, or maximalist?)
- **Step 3:** Pick the proper racking (column racking, peg system, floating wine wall (framing system), or freestanding wall?)
- **Step 4:** Select the materials (metal, wood, or acrylic racking? what materials will cover the floor, ceiling, and walls? is a seating area required? accessories?)
- **Step 5:** To cool or not? (passive or active cellar? ask the right questions)
- **Step 6:** Plan a budget (consider ROI and who to hire)

When the wine cellar design is constructed, the designer's job is done; however, the restaurant owner should not rely solely on the display to sell. Industry news and social media are two important strategies promoting a wine collection.

Resources

Davis, Lisa Selin. "Luxury Wine Cellars Rise Up." *The Wall Street Journal*. Dow Jones & Company, Inc., Oct. 16, 2014. <http://www.wsj.com/articles/luxury-wine-cellars-rise-up-1413469511>. Accessed June 2019.

Dunje, Jamie. "How Custom Wine Displays Drive More Wine Sales in Restaurants." *Heritage Vine*. Heritage Vine Custom Wine Cellars, n.d. <http://www.heritagevine.com/how-custom-wine-displays-drive-more-wine-sales-in-restaurants>. Accessed June 2019.

Hansen, Kristine. "Raise a Glass to Wine Cellars, a Luxury Amenity Many Buyers Demand." *realtor.com*. National Association of REALTORS® and Move, Inc., March 24, 2017. <https://www.realtor.com/advice/home-improvement/wine-cellars-luxury-homes>. Accessed June 2019.

"Homes with Chef-Inspired Kitchen Features Sell for Up to 34 Percent More; Yet Millennial Buyers Pay Premiums for Pizza and Wine." *Zillow*, April 4, 2019. <http://zillow.mediaroom.com/2019-04-04-Homes-with-Chef-Inspired-Kitchen-Features-Sell-for-Up-to-34-Percent-More-Yet-Millennial-Buyers-Pay-Premiums-for-Pizza-and-Wine?mobile=No>. Accessed June 2019.

"Infographic: The ROI of a Visual Wine Cellar." *Food Newsfeed*. Journalistic, Inc., May 1, 2017. <https://www.foodnewsfeed.com/content/infographic-roi-visual-wine-cellar>. Accessed June 2019.

McMillan, Rob. "State of the Wine Industry Report 2019." Silicon Valley Bank Financial Group, n.d. https://www.svb.com/globalassets/library/images/content/trends_and_insights/reports/wine_report/svb-2019-wine-report. Accessed June 2019.

Phillips, James. "Wine Cellar Adds up to £15,000 to House Value." *Decanter*. TI Media Limited, August 7, 2006. <http://www.decanter.com/wine-news/wine-cellar-adds-up-to-15000-to-house-value-93640>. Accessed June 2019.

Thach, Liz. "Overview of the US Wine Industry in 2018: Stable Growth Forecasted – Based on 2017 Stats." *Lizthachmw.com*, January 31, 2018. <https://lizthachmw.com/tag/2018-us-wine-statistics/>. Accessed June 2019.

Thach, Liz. "The US Wine Industry in 2019 – Slowing but Steady, and Craving Innovation." *Lizthachmw.com*, February 3, 2019. <https://lizthachmw.com/2019/02/03/the-us-wine-industry-in-2019-slowing-but-steady-and-craving-innovation/>. Accessed June 2019.

Conclusion



©2019 VintageView. The material contained in this course was researched, assembled, and produced by VintageView and remains its property.