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Essays:

Vineyard, Field, and Orchard: Landscapes of Drink

3

Laurie Olin: *The Terroir of Bacchus:
The Landscape of Wine*

Barbara Marinacci: *California's Vinescapes
and Winescapes*

Hugh Johnson: *An Oenophile's Personal
Observations on Historic Landscapes
of Viticulture*

Gaye Wilson: *Beverages for the Table
at Jefferson's Monticello*

Kenneth Helphand: *Grids and Garlands:
The Landscape of Hops*

Suruchi Mohan: *Viticulture's Promised
Land: A Brief History of the Napa Valley*

Place Maker

20

Elizabeth Barlow Rogers:
Molly Chappellet and her Vineyard Garden

Book Reviews

22

Cynthia Zaitzevsky: *Community
By Design: The Olmsted Firm and the
Development of Brookline*

By Keith N. Morgan, Elizabeth Hope
Cushing, and Roger G. Reed

Contributors

23



Letter from the Editor

So important is wine in the history of humankind that the ancient Greeks included in their Olympian pantheon Dionysus, patron of wine-fueled festivals of religious ecstasy. The Romans, renaming him Bacchus, celebrated his liberating influence in ritual Bacchanalia as well.

In art Bacchus is often depicted with a cluster of grapes in hand and a coronet of grape leaves encircling his brow. In this issue of *Site/Lines*, Laurie Olin pays homage to the god in “The Terroir of Bacchus,” tracing the transformation of numerous native landscapes into vineyards throughout the Mediterranean and beyond.

Long after the fall of Rome, spurred by Christianity’s symbolic association of wine with the blood of Christ, grape cultivation increased throughout Europe and, over the centuries, the use of wine at table fostered the development of discriminating palates. No one is better qualified to discuss the distinctive characteristics of vintages

and the conditions of soil and climate relating to the cultivation of varieties than Hugh Johnson, the world’s leading wine expert. We are proud to publish his article, “An Oenophile’s Personal Observations on Historic Landscapes of Viticulture,” in this issue.

In “California’s Vine-scapes and Winescapes” Barbara Marinacci carries the story forward in her narrative of that state’s grape cultivation from the time of the Franciscan friars to the “wine revolution” that began in the 1960s. Also focusing on California, Suruchi Mohan discusses some of the figures responsible for the growth of Napa Valley’s viticultural presence from the nineteenth century to the present day.

But vineyards are not the only landscapes devoted to the production of alcoholic beverages. Eager to improve not only his own cellar but also the agricultural economy of America generally, Thomas Jefferson repeatedly experimented with producing cider, malt liquors, and wine, a topic Gaye Wilson discusses in “Beverages for the Table at Monticello.”

In “Grids and Garlands: The Landscape of Hops,”



Kenneth Helphand writes about the production of this flavoring agent in beer and the resulting “agritecture” of hopyards – trellised landscapes that by harvest time have become three-dimensional grids of garlanded arcades.

I hope that as you read further you will raise a glass of your favorite drink to

these authors, not forgetting that *Site/Lines* is supported entirely by donors and that to continue its publication we need your contribution, either in the enclosed envelope or online.

With good green wishes,

Elizabeth Barlow Rogers
President

A row of staked grapevines, Napa Valley.

On the Cover:

Chappellet Vineyard, view from boulder garden toward Lake Hennessy. Photograph by Molly Chappellet.

Vineyard, Field, and Orchard: Landscapes of Drink

The Terroir of Bacchus: The Landscape of Wine

Of all the human endeavors attempted throughout history, including the building of cities, roads, factories, and mines, agriculture has had the greatest impact on the surface and ecology of the earth. Fields of wheat, rice, and corn, the three great cereal grains – and by far the largest arable crops – have transformed prairies, plains, and steppes on several continents. The cultivation of grapes, however, began in the hills and valleys, taking root in the terrain where the grapevines had already evolved.

The three important crops that shaped the economy and landscape of the ancient world surrounding the Mediterranean Sea were wheat, olives, and grapes. Although vessels with labels denoting wine of different vintages and regions have been found buried with Egyptian pharaohs, undoubtedly for their use in the afterlife, the oldest surviving record that discriminates among various wines appears in Book II of Virgil's *Georgics*, an agricultural narrative in verse. This lengthy list of localities, grapes, soils, and terrains, which was read to Caesar Augustus as he entered Italy after defeating Mark Antony at Actium, reveals how much was known to Romans of the first century about the different grapes cultivated around the Mediterranean and further east toward the Caucasus:

Grapes that hang

From our Italian vines are not the same
As those of Lesbos that Methymna harvests.
Thasian vines there are and white Mareotic;
These like a richer, those a lighter soil.
Psithian is best for raisin-wine, Lageian
Subtle, to test the legs and tie the tongue.
Precocious wines and Purples and – but how,
Rhaetic, can I do justice to your merits?
Yet even so, beware of challenging
Falernian cellar, Aminnëan vines
Produce a wine uncommonly full-bodied:
Tmolian and even imperial Phanaean
Stand in its presence; while the Lesser Argite
Finds no competitor for sheer abundance
And lasting quality. Nor must I fail
Rhodian to mention you, acceptable
To the Gods and with dessert, nor you Bumastan
With clusters well endowed. But numberless
Are the varieties and vintage-names,
And why attempt to count them?¹

Two millennia later, vast tracts of land throughout Europe and Africa, and even in Australia and North and South America, are covered with the corduroy texture of staked and trimmed grapevines. Row upon row, they march up and over sunny slopes, growing in virtually the same manner seen in Roman mosaics. Whether on the broad flood plain of the Rhone, the gentle hills alongside the Garonne, the slopes and terraced shelves of the Moselle, the clay hills of the Val D'Orcia, or the sun-drenched valleys of northern California and eastern Washington, the routines that shape the land are similar. The grapes and wines that result, however, are diverse, debated, discussed, and manipulated. Enjoyed by millions, they are also the basis of a vast international industry.

A number of grapevines are native to the Italian peninsula. But many of the vines that became classics in Western Europe and later migrated to America and lands without native grapes – New Zealand, Chile, Australia, South Africa – originated in the Caucasus and the Balkans, where wine appears to have been made as early as 6,000 BCE. Greek settlers spread some of these vines eastward, and Etruscan and Roman farmers encountered many grapevines that had arrived with travelers in earlier times. The agricultural historian K. D.

Chateau Sentout,
Bordeaux Superior grapes.
Drawing by Laurie Olin.

White remarks that “The Roman vintner of historical times had at his disposal such a great variety of vines and

methods of planting them that he could plant in almost any soil, in areas subject to great variations of temperature and rainfall – in all conditions, in fact, except those of extreme cold or heat.”²

The husbandry of grapes has changed little in the two millennia since classical times. Grape-bearing plants begin as vines, and are happy to go on that way, extending, twining, climbing, and sprawling about, as long as they have sufficient nutrients, water, and room to grow. Early on, however, they were deemed unmanageable when left to their own devices, and people began to cut them back and train them upon supports to limit their proclivity to extend themselves onward and upward. Growers discovered that skillful pruning would encourage the plants to become woody and develop a firm trunk with a few key branches. Annual shoots from these branches would produce a profusion of leaves and fruit.

By the first century CE, Roman agronomists had catalogued nine different methods for the cultivation of grape-

¹ Virgil, *Georgics*, trans. L. P. Wilkinson (London: Penguin Classics, 1982), 80. There have been editions and translations from Virgil into English for centuries. One of the oldest to be reprinted in the late twentieth century is the 1697 translation by Dryden. Modern versions include those of C. Day Lewis, R. C. Trevelyan, S. P. Bovie, and, most recently, a version by K. Chew (Indianapolis and London: Hackett Publishing Company, 2002) that puts Virgil into a contemporary idiom that is as compelling as it is interesting.

² K. D. White, *Roman Farming* (Ithaca: Cornell University Press, 1970), 229.

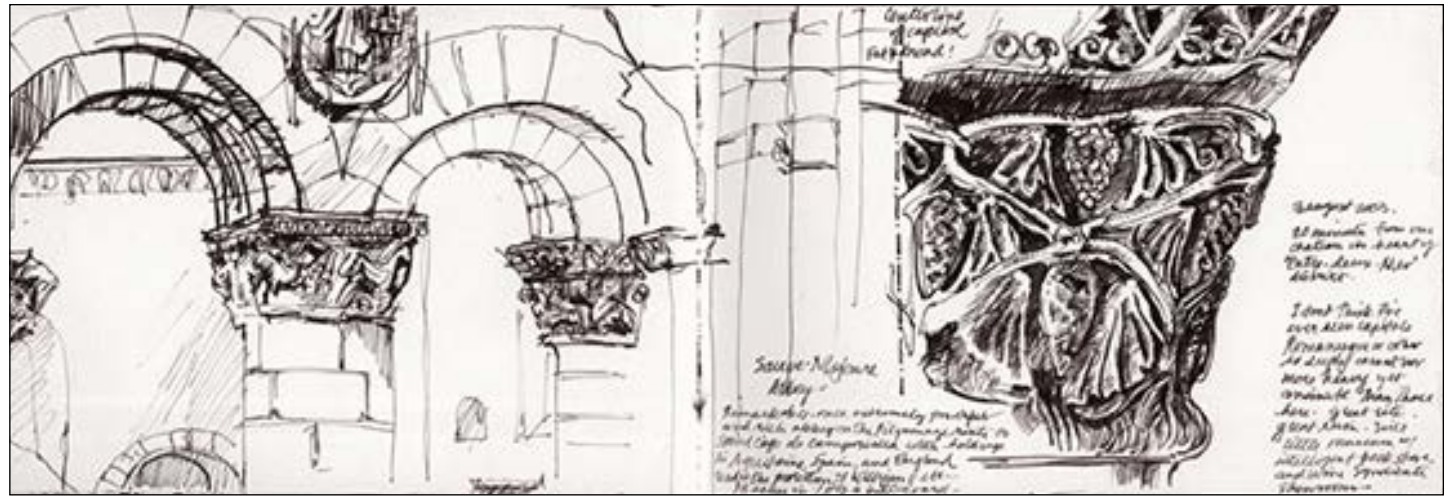


vines. One option was to simply let the vines spread along the ground or climb adjacent trees – most commonly olive or elm. On many Roman farms, wheat was planted and tilled between rows of olives. Grapevines planted at the base of the olive trees weren't negatively affected, and to a degree benefitted from the tilling. The grapevine was restricted to the olive's trunk and lower limbs, so as to not interfere with the tree's production of leaves and fruit; this also made it easier to harvest the grapes. With this method, subsistence and low-production farmers could provide all three staples. As recently as the mid-1970s, farmers in the upper Tiber valley of Umbria were still practicing the technique. Likewise in Campania, north of Naples, where lines of trees separated the fields like hedgerows, splendid garlands of grapevines hung in catenary arcs from their branches, ghosts of ancient agricultural practices.

Another method the Romans used to cultivate grapes – a technique still used today – is to grow vines on a pergola or overhead trellis, whether of lath, timbers, or wire. This method is used rarely for wine grapes, but rather for table grapes or simply shade and ornament. Anyone who has visited the countries bordering the Mediterranean has undoubtedly had the pleasure of sitting and dining in the shade of a canopy of grapevines. Similar grape arbors have been found in American gardens since colonial times as well. It is hard to imagine a more apt plant to associate with dining al fresco than the grapevine with its ancient associations with Bacchus and Dionysus. Indeed, a number of commercial nurseries market ornamental grapevines – superbly scarlet and bronze in the fall – especially for kitchen gardens and outdoor dining terraces.

However, the most common method of grape growing today is not trellising but staking, with or without cross-pieces. These techniques were known in Roman times as *vitus pedata* and *vitus iugat* or *canterinata*.³ In each case, the vine is supported by a vertical stake to a height allowing a man to trim its leaves and pick its grapes. Year after year, the vine puts out new shoots, only to have most of them cut off. Eventually, as the vine ages, the stem becomes thick and woody, supporting itself as a small trunk or “standard.” The stake is often supplemented with a crosspiece; also common are one or more wires tied from one stake to another, acting as a guide and support for the vines. With old woody vines, however, the stake is frequently no longer needed, and rows of stumpy plants march across the field.

Vines pose numerous challenges. Too much or too little water, too much or too little heat at particular times, will ruin



Grape clusters carved on Romanesque capitals of the Abbaye de La Sauve-Majeure. Drawing by Laurie Olin.

sun particular vines will receive, thus suggesting the amount of leaves that need to be removed or left so as to protect yet encourage the grapes to swell. Rains and dry spells suggest when to add water and how much. Near Bordeaux, a farmer explained that he was keeping a certain set of vines close to the ground to have those particular clusters of grapes benefit from the heat of the earth at night; their slope and aspect necessitated it. Elsewhere on the estate, on a slope facing a different direction, the vines were trained to keep the grape clusters nearly half a meter higher. Several hundred meters away, however, the distinction was invisible; one simply saw the fuzzy green rows and thin strips of chocolate-colored earth modeling the shape of the hills.

Many of the best vines prefer to be well drained, even to the degree of being planting in droughty soil. Some Tuscan farmers blast holes in the rock of their hills with dynamite, fill the resulting craters with the shattered fragments and gravel, and plant each with a vine; despite the apparent lack of soil and nutrients, the vines prevail. If there is any gen-

the fruit. The aspect of a slope, whether southeast-, south-, or southwest-facing, combined with prevailing winds, will dictate how much shade or

eralization one can make it might be that a number of fine wines have come from regions with volcanic soils – that is, soils composed of quantities of weathered volcanic debris and ash. This may account in part for the great success of Greece, Sicily, Italy, Washington, California, and Oregon, which are among the most fecund wine-growing regions. It doesn't, of course, explain northern and western France, Germany, and the regions of Eastern Europe.

Thinning and removing leaves is still carefully done today by hand with a sharp, hook-shaped tool nearly identical to that described by Virgil and Pliny. Examples can be seen in first- and second-century mosaics such as those displayed in a small museum at the Roman site of Cherchel in Algeria.⁴ Virgil describes the anxiety-producing activity of trimming, as well as the ceaseless repetition and labor required to produce these vast and fruitful landscapes:

The farmer's labor is a treadmill:
All year round he treads in his own tracks.
At the very moment that the vine has shed
Its latest leaves and the north wind has shaken
The glory from the woods, at that same moment
The lively husbandman projects his thoughts
Into the coming year, with Saturn's hook
Goes after the vine just left, to shear and shape it. . . .
Twice in the year the shade
Threatens the vines, twice weeds and undergrowth
Sprawl over the ground, both causing heavy labor.⁵

³ White, *Roman Farming*, 231–32.

⁴ White, *Roman Farming*, plate 53.

⁵ Virgil, *Georgics*, 90. Chew, page 67, translates this in part:

Yet more work is there in the care of vines,
Work is never enough done.
All the soil, every year, three times and four
Must be ploughed over; forever and again.

The fruits of all this labor are gathered at different times of year in different places. In the expansive fields of southern Spain, Algeria, and Tunisia grapes mature in early August; in Italy and France, it isn't until September that one sees tractor-drawn carts heaped with mounds of grapes heading to co-ops and wineries and experiences the haunting smell of must when visiting farms and estates that still press their own vintage.

As the Romans extended their empire, wherever they could they introduced the crops they depended on – especially grapes and wheat, which grew in a wider range of climates than olives did. For example, Birdigala, a Roman port on the estuary of the Garonne River, now known as Bordeaux, was a center of agriculture and successful wine production by the second century CE. They also attempted to stabilize the political situation in their colonies, in order to maximize the production and export of crop yields to Rome. They rarely interfered with local agricultural practices, however; this meant that the wheeled plow, for example, a superior device that the Germans were using as early as the first century, wasn't taken up in other regions for another thousand years or so.

After Constantine's decision in the fourth century to shift the state religion of the Roman Empire to Christianity, however, monasteries and convents were established throughout Europe, and these became de facto research and development centers for viticulture – especially in Italy, Spain, France, and Germany. Plant breeding and propagation, along with chemistry and distilling, were pioneered and developed in a number of monastic centers set within fecund agricultural territories. In France, the heavy grape clusters carved on the Romanesque column capitals of the once-powerful Abbaye de La Sauve-Majeure, 29 kilometers inland from Bordeaux, testify to the enthusiasm for and importance of vine cultivation in that region.

If, as Arthur Danto points out, “Gregory the Great spoke of the carved capitals in the Romanesque basilica as the Bible of the Illiterate,” one might ask how representations of grapes contribute to the lessons intended by the clergy.⁶ The viniferous capitals at Sauve-Majeure suggest biblical exhortations to the faithful to be fruitful, recalling references to vines and husbandry in the sayings of the prophets and the parables of the Old and New Testaments. The evangelist John has Christ say, “I am the true vine, and my Father is the husbandman. Every branch in me that beareth not fruit he taketh away:

and every branch that beareth fruit, he purgeth it, that it may bring forth more fruit.”⁷ In addition, the abbey's ornamentation references the persistent use of wine as a metaphor for the spirit of divinity in the Holy Communion service and echoes its antecedents in Hebrew, Dionysian, and earlier rites.

Throughout the landscape of France one finds prompts regarding the heritage of viticulture. One summer, while walking across a sun-baked valley filled with vineyards, not far above Avignon, I wandered into the small village of Sainte Victoire le Coste. After a refreshing lunch in a local café, I perused the châteaux and monuments on the square. In addition to a World War I memorial to the village dead, I discovered an obelisk. On it was an odd combination of *memoria* commemorating disparate things: a topographical survey of 1887–88; the establishment of standards of measurement in the prefecture; dedicatory inscriptions to Galileo, Newton, and the town councilors; and, unexpectedly, a tribute to Baron Le Roy de Boiseaumarié. It was he, together with a couple of friends, who invented the appellation system that standardized the wine industry, first in France and eventually around the globe. His motive was to protect the value of his estate and its product, Châteauneuf-du-Pape. As I left

the somnambulant square, serenaded by the rising pitch of cicadas in the heat, I noticed yet another plaque in the shade of the plane trees, which proudly declared, “Place Baron Le Roy, Fondateur, Des Vins A.O.C. Cotes de Rhone.” Wine and its commerce have helped shape this valley ever since Augustus sliced it neatly into farms to reward the veterans of his Legions.

⁶ Arthur C. Danto, *What art is* (New Haven: Yale University Press, 2013), 155.

⁷ John 15:2. Authorized (King James) Version.



Cotes de Rhone vineyard between Ribas and Sainte Victoire le Coste. Watercolor by Laurie Olin.



Two 19th-century chateaux in the Entre-Deux-Mers region of Bordeaux. Watercolor by Laurie Olin.

The list of local wines in Italy, where nearly every valley and hill has been cultivated since antiquity, is almost

infinite, and it is hard to imagine a more productive or attractive landscape than the border between Tuscany and Umbria. Whether as a result of the collapse of the medieval papal court in Avignon or some more recent whimsy, one of the nicer wines produced in the region is that of a vineyard named Avignonese. Nearby is Montepulciano, with its *Vino Nobile*. To the east in Umbria are Cortona, Todi, and Orvieto, the source of a formerly legendary wine, *Est!Est!Est!* To the northwest are Pienza and Montalcino, the source of Brunello and the superb wines of the Val d'Orcia. Beyond lies Siena and some of the heartiest of the Chiantis, as well as San Gimignano and its delicious straw-colored product, Vernaccia.

Commerce resulting from the production of grapes has shaped the land and towns of many places throughout Europe – significant portions of France famously so. A visitor to St. Emilion learns that there are 90 Grand Cru class wines produced nearby, many of them by family-owned vineyards that average only 7 hectares – roughly 17 acres of vines. The resulting patchwork of fields – some with the rows of vines running up and down the hills, others with vines running parallel to the contours – is separated by hedgerows and scrappy patches of woods and dotted with “châteaux” not infrequently visible to each other. Many are nineteenth-century confabulations, with turrets and towers, shiny roofs of glistening slate, terracotta-capped walls, and faux battle-

ments, built by the era’s *nouveaux riches*. In many ways, these great houses are the forerunners of the Spanish and Provençal mansions and wineries that have sprung up in the Napa, Sonoma, Portola, and Carmel valleys of California in the last thirty years – some owned by parvenus from Silicon Valley and Bay Area moguls and others by international corporations.

Considered in its entirety, the landscape of wine includes not only the vineyards themselves but also the wineries and the architecture of the villages and towns surrounding them. These are often freighted with cultural or symbolic associations. Particular portions of historic Mediterranean landscapes have become familiar in the popular imagination due to their pervasive use in advertising, whether for marketing and sales or tourism. Many well-known California vintners (Mondavi, Chateau St. Jean, Beringer, etc.) have carefully built their contemporary wineries, caves, and tasting facilities in a manner reminiscent of this Mediterranean architecture, particularly that of Italy and Spain.

So too, in Europe, new wineries are careful to operate in a manner redolent of the past, evoking rural *bastides*, monasteries, and villages. A superb recent example of this is Señorío de Arínzano, a winery complex designed by the modernist architect Raphael Moneo near Pamplona in Spain, with its elegant and knowing use of tile and stucco. The new stone *fattoria* structures present dramatically bold forms with traditionally small apertures, heavy wooden doors, and timber roofs, set

beside an aging stone residence and a small pavilion evoking a village chapel. The entire ensemble is set amid olives, lavender, woods, and vineyards. Although absolutely contemporary, this estate in Navarre appears to be as timeless as the landscape of wine itself.

If the look of the land sometimes feels eternal, the taste of the product is not. The historian Paul Lukacs claims that the wines of today are not really very much like those of the past – even the recent past of the eighteenth and nineteenth centuries. This has little to do with the grapes and much more to do with how they are processed and stored after picking, in part a result of changing technology and procedures and in part due to changes in taste and purpose.⁸ Suffice it to say that the wine mixed with

pitch and honey by the Greeks or diluted with fresh spring water and doused with herbs by the Romans tasted nothing like the Cabernet, Pinot, Riesling, Champagne, or Syrah that we have today.

Much has been made in recent years in the popular press about the importance of *terroir*, which refers to the particularity of a place – its soil, climate, topography, smell, and feel – as these influence the grapes and wine that can be produced there. Despite a certain amount of wishful mumbo jumbo, there is a lot of truth to the notion that *terroir* shapes wine. But the degree to which a wine served frothy and young from pitchers in the autumn sun tastes light and refreshing or opens more fully and warmly after years aged in bottles is also in no small part dependent upon practices undertaken in the vineyard as the vines grow. This is not to deny the magic that takes place in wineries once the grape has been pressed – only to say that clever vintners need good materials to work with. Other influences may include the addition of pine pitch; the amount of fermentation before or after picking; the container; the cork; and the blending of different grapes.

The mysteries and vagaries of *terroir* persist, and the fashionable tastes and technologies of wine making will continue to evolve. Still, after long centuries of human endeavor, the diversity of peoples and cultures, and the continuous trade of ideas and goods around the globe, grapes and their vineyards remain among the most ancient, economically important, and aesthetically rewarding of all cultural landscapes created in the course of Western civilization. – Laurie Olin

⁸ Paul Lukacs, *Inventing Wine* (New York: W. W. Norton & Company, 2012).

California's Vinescapes and Winescapes

Of all fifty American states, California has the most varied landscapes: tall, rugged mountains with verdant bottomlands below; valleys and plains that stretch as far as the eye can see; rolling hills covered with golden grasses and studded with dark green oaks; parched, sandy deserts with struggling vegetation; dense forestlands and scrubby, wind-blown coastal slopes. Rainfall, temperatures, and soils are highly variable, but almost everywhere summers are dry, with a Mediterranean-like climate. Wine grapes thrive in almost all of the state's widely differing environments.

California has long enjoyed great success with farming. It produces plants used for fiber, livestock feed, and food – especially tree crops like oranges, plums, peaches, avocados, and almonds – and much of this bounty is exported. Increasingly, though, one kind of productive plant predominates: *Vitis vinifera* – the species name for “wine-bearing vine.”

In the past fifty years, great spreads of picturesque vineyards have replaced ranchlands where grazing cattle once roamed; formerly dense woodlands and inhospitable deserts; and farmlands previously planted with orchards, row crops, and grains. On a smaller scale, many suburban residents have “pocket” vineyards in their backyards or larger ones on slopes beyond their homes where they raise prized varietal grapes to convert into homemade wine or to sell.

A landscape devoted largely to commercial vineyards becomes a “vinescape.” When it produces grapes used in wine making but also features structures connected with that activity – including visitor centers that welcome customers – it can be called a “winescape.” This kind of cultural landscape proliferates in California localities where wineries are tourist attractions, luring people from cities, which often – like Silicon Valley's San Jose – were themselves built over fertile farmlands, including vinescapes.

Out of California's estimated 100 million acres of land, almost 900,000 now accommodate vineyards, with about 600,000 bearing wine grapes. (The remaining viticultural acreage produces table and raisin grapes.) The portion devoted to wine grapes keeps rising as more Americans buy California-produced wine and more wine is exported. Today California wines account for two-thirds of U.S. wine sales, including imports, and the state's grapes go into about 90 percent of all wine produced in this nation. Additionally, its wine gets distilled into brandy, some of which is used to fortify high-alcohol wines like sherry and port. Wine may be an ingredient in packaged foods and sauces, and acetic acid bacteria convert it into wine vinegar.

Statistics tell the story of wine's triumph in California. In 1940 there were 474 commercial wineries in the state, declining to 232 in 1965; by 1980, the number had grown to 508 – then rose to 1,450 in 2000. Now in 2014, their number

has reached 3,762. (That's 47 percent of the nation's wineries.) No wonder, then, that wine-growing vineyards dominate many of the state's landscapes, which are viewed by passersby in cars, trains, and buses; by tourists taking the hot-air balloon rides popular in “wine country” regions; and by airline passengers flying far above.

This great spread of vineyards and wineries is traceable to the Wine Revolution, which took off in the early '70s – two hundred years after the first European grapevines were planted in California soil.

Vines & Wines in California: A Very Brief History

The native inhabitants of Alta California didn't farm, but during the late-eighteenth and early-nineteenth centuries, agriculture began to transform the natural landscapes around Spain's twenty-one missions there. The Mission grapevine, originally from Europe and easily propagated from cuttings, made grapes an important crop. The wine produced from Mission grapes, though – basically for use in the Mass but also served at padres' dinners – dismayed visitors familiar with better vintages. Meanwhile, on the eastern side of the continent, *Vitis vinifera* was repeatedly felled by pests and incurable diseases. Some healthy native grape species could be used to make wines, but connoisseurs disliked them.

Before California joined the U.S. in 1848, a few Californios, Americans, and Europeans with vineyards were making wine, especially in the Los Angeles pueblo and Sonoma and Napa valleys north of San Francisco Bay. But as the Gold Rush brought in some hundred thousand new settlers, many more vineyards were planted around the new state to supply grapes for eating and wine making. It quickly became apparent that European grapevines that couldn't survive back East prospered in California's drier climate. Slowly, superior varieties began replacing the Mission grape. By the 1870s, California wines were being shipped in bulk on the new transcontinental railroad for bottling and sale in Eastern markets. Although Southern California produced the most wine for some time, San Francisco became the main storage and shipping center. Prosperous winegrowers nearby, especially in Napa Valley, built mansions and wineries on vineyard estates, some of which are still in use.



Korbel vineyard, Guerneville, on a foggy November morning. Photograph by Frank Schulenberg.

In the 1860s and '70s, when the phylloxera infestation began killing off Europe's prized vineyards, California seemed poised to become the world's major wine producer, but then its vineyards began succumbing too. (Finally the problem was solved by grafting European grapevines onto resistant American rootstock.) Though economic downturns periodically shrank vineyard planting and wine production, the greatest threat came from the temperance movement. In 1920 the Eighteenth Amendment banned production, shipment, and sale of alcoholic beverages. A few wineries stayed open, making sacramental and medicinal wines. Ironically, though, vineyards expanded. Grapes could be legally sold in bulk to homeowners, who converted them into wine. Thus a profitable national market quickly developed for California grapes. Traveling in railroad boxcars on long journeys, they had to be durable. New vineyards planted "shippers' grapes" – large and juicy, with tough skins. In established vineyards, better-quality grapevines were grafted over. Wines made from the dark red grapes proved to have an intense flavor and strong color that endured even after bootleggers diluted them with water.

Wild mustard and dormant vines. Early spring in Sonoma County.



The end of the disastrous Prohibition years came in 1933, during the Great Depression that followed the 1929 stock

market crash. Old wineries resuming work were joined by new ones. All needed wine grapes, but now most vineyards grew only inferior ones. Furthermore, the thirteen "dry" years had reduced the number of experienced winemakers. Most Americans didn't drink table wine anyway, unless their families had made it during Prohibition. Now they could buy inexpensive jug wines, made from fruit picked by displaced and exploited migratory workers, like those portrayed in Steinbeck's *The Grapes of Wrath*.

Head-pruned vines, The Donum Estate & Stemmler Winery, Sonoma County. Photograph by Marit and Toomas Hinnosaar.



Growers had no economic incentive to plant higher-quality grapevines since only a small national market existed, primarily for good-enough wines produced by a handful of wineries. Most people who drank alcoholic beverages favored cocktails, beer, sweet fortified wines, or hard liquor like gin and bourbon. As for true oenophiles, accustomed to the best European vintages, they doubted that Californians could ever produce superior grapes or high-quality wines.

One significant development for the wine industry began during the discouraging Depression years after Prohibition's repeal; persisted during World War II with its agricultural restrictions and shortages; and then gained momentum in the postwar years: this was the focus on research and education in viticulture and enology at the University of

California's campuses in Berkeley and Davis – especially at the latter. These institutions' practical investigations involved constant exchanges with vineyardists and winemakers, and these, in turn, coincided with positive cultural changes that began strongly influencing wine growing and wine selling in California and elsewhere.

The Wine Revolution Arrives

During the later 1960s, California's vineyard acreage began expanding. More high-quality grape varieties were planted, with French names like Petite Sirah and Sauvignon Blanc. However, wines with a named varietal on their labels were routinely blended – "stretched out" – with others made from low-cost grapes grown in the Central Valley (like Thompson Seedless, with its highly productive vines). But now a dramatic change occurred: Americans began paying rapt attention to wine quality. Newcomers imbibing "fine wines"

to develop sophisticated palates were joined by wine-savvy people who were familiar with European vintages but willing to try California's as well. Eager consumers – whether affluent or prone to splurge – increasingly bought "dry" (not sweet), well-crafted varietals. High-priced wines, in both still and sparkling forms, were desirable, status-confirming commodities. Wine drinkers compared and rated vintages; looked for new favorites; even guessed at a wine grape's geographic origin or terroir.

Much of this avid new interest in wine came from adroit marketers who publicized wine-contest winners at county fairs and highlighted special awards and vintages judged supreme by experts at trendy publications. These tactics were amplified by winery tours, wine and cheese tastings, wine clubs, wine festivals, wine auctions, wine books, wine-appreciation courses, and radio programs focused on wine. Above all, wine tourism was promoted in wine-growing territories. Tasting rooms within or alongside wineries, rare in earlier years, were announced on billboards along major highways and scenic country roads. Visitors might sample wares at a historic stone château, former hop kiln, revamped garage, or street-side café. Wineries located amidst vineyard landscapes boosted local economies: their employees needed housing, and their customers patronized restaurants and motels.

The resounding commercial success of this vibrant new wine culture was buoyed by personable and articulate entrepreneur-vintners. Robert Mondavi launched his own handsome winery in 1965, and younger, hands-on winemak-

ers with purist principles founded “boutique” wineries, using craft secrets learned from acknowledged masters like André Tchelistcheff. At first they were mostly based in Napa and Sonoma counties, but the efforts to produce a “Great Wine” quickly spread elsewhere. Connoisseurs even began believing that California might someday make outstanding wines. Proof came in 1976 with the now iconic “Judgment of Paris.” In a blind, international tasting, two California wines, a Cabernet Sauvignon and a Chardonnay, earned the highest marks from six highly respected, French wine judges.

Meanwhile, viticultural capabilities increased thanks to scientific and technological improvements. Through dogged persistence, even states far from California began successfully growing good wine grapes, whether *Vitis vinifera* or native/*vinifera* hybrids. Also an important step was taken in 1983 to improve quality control and honest labeling: the Treasury Department initiated the American Viticultural Area system. It assigns “appellation” designations to vineyard-containing areas within certain boundaries – usually regions sharing similar features like soil and climate, and preferably some grape-growing history. Rules require that 75 percent of the grapes in a wine sold as a varietal must be that variety; 85 percent must come from any AVA named on a label as the primary source. Wineries are subject to inspections during harvesting and shipping, with heavy fines exacted if rules are violated. (Currently there are 206 AVAs in the U.S., with 76 in California.)

California’s Contemporary Vinescapes and Winescapes

Inevitably, many changes have taken place in the cultivation of wine grapes since California became a state over a century and a half ago. Modern earthmoving equipment has made it possible to reshape landscapes drastically, making them suitable for vineyards. (Wildlife is often displaced by these efforts, however, and slides and erosion on near-vertical slopes impact water sources and cause problems with neighbors.) There are still some traditional vineyards in which individual grapevines are seven to ten feet apart, and field disking is done in both directions. Vines growing without support from stakes, let alone trellises, are “head pruned” in winter, when last year’s growth is removed from the thick trunk. In early springtime, short spurs emerge, quickly becoming long canes from which leaves and finally grape clusters appear. These vineyards (often old Zinfandel ones) are picturesque, especially when their gnarled old vines – dark and dormant, even sculptural – are surrounded by golden mustard blooms.

Malibu Rocky Oaks Estate
Vineyards, Malibu. Photograph
by Shannon Veerkamp.

Most contemporary vineyards look quite different. Lengthy rows of trellises run in parallel lines, stretching across flatlands or climbing hillsides to a vanishing point. Grapevines grow up and around the wires to which they are anchored. There is considerable variation in the trellis structures, their distance from each other, and the spacing of the vines. Trellises enable the rapidly-growing plants to be readily accessed – to be pruned and trained, and later have their leaf canopy trimmed to let in sunlight, assuring better grape quality at harvest time. Drip-irrigation lines attached to the lower trellis wires deliver water to young vines – and to all vines if needed during droughts. (In the past, vines would receive water through irrigation furrows or overhead sprays, but often the latter caused mildew.)

Though notoriously capital-intensive and risky, the wine business remains compelling and prestigious, resulting in the creation of more vineyards. Competition among wineries for status and income is fierce. Premium wines are now mind-bogglingly numerous, and often available in supermarkets. In favored areas, wherever one looks there are vinescapes – and winescapes too. Buildings accommodate tastings, storage, offices, and equipment. Wines are sold at full retail price – not discounted as they are for wholesalers and restaurants. Conference rooms and outdoor spaces are rented out for meetings and private parties. Some wineries are even concert venues. In high-traffic locations like Napa

Valley, where real estate is extremely valuable, wineries may display token vineyards for atmosphere, but truck in most grapes from distant locations. Conversely, wine making, aging, storage, and shipping may be accommodated elsewhere, in facilities that provide custom crushing and other services. Wineries may operate tasting rooms in popular towns either for convenience or because they were denied permits for such accommodations on-site; the vineyards may be visible only in the distance, an atmospheric flourish.

Responsible grape growers and winemakers are using environmentally friendly and sustainable tactics. Pesticides, fungicides, and herbicides known to harm humans, animals, and beneficial insects are eliminated; chemical fertilizers replaced with organic ones; and winter cover crops grown to prevent soil runoff and add nutrients to the fields when plowed under. Increasingly, solar energy is generated to power wineries, and water, used more sparingly than in the past, may be recycled. In a state prone to serious droughts, water conservation has assumed paramount importance. (Intensive grape growing in areas such as Paso Robles has badly diminished formerly abundant groundwater.) “Dry farming” may improve wine grape quality by intensifying juice concentration. In areas where water from distant rivers and reservoirs is transported via canals and giant conduits, the usual supplies to some vineyard locations have been denied recently, causing their removal from production.

Vines in other vulnerable places may die, if future rainfall proves insufficient.

Elsewhere in the state, however, vineyards are still expanding in places both long-settled and new. Wine making will surely remain a mainstay of California’s agricultural economy, and panoramic vinescapes and winescapes will continue to rank among the state’s most scenic features.

– Barbara Marinacci



An Oenophile's Personal Observations on Historic Landscapes of Viticulture

Oh, not another," our youngest daughter would wail, hiding her eyes and curling up on the back seat whenever the road ahead of our family car opened out into what used to be called A Fine Prospect. Luckily, the rest of the family shared my penchant for views, so I would pull up, we would get out, and I would point out the rivers and hills, villages and church spires that we could see for miles around.

Jay Appleton, a professor emeritus of geography at Hull University and still the dean of English landscape theorists, maintains that such a reaction is not only predictable but profound. In his classic work *The Experience of Landscape*, published in 1975, he propounds his theory of prospect and refuge. He says that the desire for information about our surroundings is linked to our most primitive instincts. Deep down, we are all hunting and hunted creatures; we need a vantage point to see what opportunities and threats lie ahead. And equally we need the sense that, if the threats grow serious, we have somewhere to hide.

Even today, he argues, we read a landscape for the information we can glean from it. What opportunities does it offer? What challenges does it pose? Do we need a place of security? Gathering and processing this information gives us satisfaction: the more information we can glean the better, and the more knowledge we bring to it, the more we can understand what we are seeing.

Appleton goes on to apply his theory to man-made landscapes. To a great extent, the manifest pleasure afforded by a well-sited temple or gazebo – or, indeed, by the traditional placement of a cottage, its chimney smoking suggestively, in the comfortable landscape paintings that once hung on many walls – stems from our deep desire for both prospects and refuges. In the theory's widest application, it could even account for what any picture gains from a frame: the sense that your vantage point is at one remove – and thus sheltered – from what you are observing.

I had no notion of such theories when I started to write travel articles fifty years ago. I wrote for the *Sunday Times* in London, for

Condé Nast magazines in New York, and later for the *New York Times*, and my job was to open the eyes of newspaper and magazine readers to little-travelled parts of the world. I remember sitting on a quayside in then-remote Dalmatia, trying to work out exactly what my contribution might be. One approach would be to take detailed notes of my experience, maybe interview a fisherman. A quite different one would be to see where my impressions and associations led me. Didn't Wordsworth do that: "emotion recollected in tranquillity?"

I tried sketching the ancient harbor before me, to commit it to memory. Certainly this breakwater, the slipway, the bobbing boats, and the smell of frying fish were part of its essence, and always had been. In the end, I tried to think of the landscape itself as a story: How, since the Phoenician galleys of three thousand years ago put into the bay, had the activities of this little economy shaped the place and its people?

It didn't take me long to discover that vineyards are a regular feature of desirable places to visit, very often found in the neighbourhood of a church or castle, and a hospitable inn. Vineyards are also storytellers that make unambiguous statements about the culture and economy of a place. They thrive in a temperate climate; they demand intensive, intel-

ligent labour. Their produce forges links with other cultures, and they can survive for centuries. As a writer I found myself homing in on these welcoming and often beautiful places.

Throughout history many landscapes have been, and still are, shaped by their economies. The rice paddies of Bali make a memorable picture; so do the tea gardens lining the roads between Osaka and Kyoto. Plantations of all sorts impose rhythms on the land; even the small-scale and short-term stitching of a just-germinating field of wheat. (Were a landscape artist, an Andy Goldsworthy or a Richard Long, to invent the notion of sowing broad acres with a single plant we would call it high art.) No crop, though, calls for more constant attention than the vine. It dictates not just the appearance but the culture of the county – in some cases for millennia. "The peoples of the Mediterranean," Thucydides wrote in the fifth century B.C., "began to emerge from barbarism when they learnt to cultivate the olive and the vine."

The Greek colony of Massalia (now Marseille) was established around 600 B.C., but it was a thousand years before the tide of vines lapped up the Rhône Valley. Later, the Romans brought the practice of grape-growing westward, across the Cevennes watershed, to the propitious Atlantic-facing valleys of Aquitaine. How did they know where to plant vineyards? Virgil's advice in *The Georgics* was "vines love an open hill."

The old mantra "where plough can go no vine should grow" probably had its Latin version, too. For quality wine, you planted vines on the high, stony ground, if you could. And serious producers, of course, also needed customers – so a local market, or at least a route to one, was part of the equation.

The most celebrated and long-lived Roman vine plantation was in Burgundy, on the long, scrubby, unimposing, east-facing escarpment now called the Côte d'Or. Why there? Because there



In the tiny principality of Castell in Bavaria, hillside vineyard and hilltop oak forest tell their ancient story. Photograph courtesy of Prince Castell.

was an important town, Augustodunum (today Autun) in the hinterland and a major road nearby, running spear-straight up the Sône valley (you can still see it). We have to believe the wine was good, because when the emperor Constantine visited on his way north in 312 AD, the tax-paying vigneron complained that their fields were exhausted. “We’ve been cultivating this narrow strip between the forest and marshes for so long that our harvests are miserable,” they said. “And besides, the empire should pay to mend our worn-out road!”

This planting pattern was repeated all over Roman Gaul, as far north as the German Moselle, and probably in Britain, too. We see stony hills planted along the Rhône at Tain and Vienne, along the Loire at Sancerre and Chinon, at Reims on the Marne, and further north at Laon. Trier on the Moselle was for a while the capital of the Western Empire, its steep slate slopes (at least the ones catching the sun) entirely planted with vines.

The clearest evidence of the value put on fully ripe grapes and the full-strength wine they make is the terracing of difficult hills. Parts of the Moselle valley and its tributaries have eighty-degree slopes. The only way the soil can be supported is by building terrace walls. Along the Moselle and parts of the middle Rhine, along the upper Douro in Portugal, in the Valais in Switzerland, and on the sea coasts of Croatia you see handkerchief-sized plots of vines supported by stone walls in such inaccessible spots that the idea of climbing to prune and weed the vines, let alone actually build the walls, seems utterly daunting. In fact, vine-planting on the Douro now starts with explosives, and the river canyon is a sapper’s nightmare, with its endless terraces, bulwarks and bastions, salients and scarps, reentrants and revetments. Together, these interventions form a colossal monument to the power of the grape.

While writing *The World Atlas of Wine*, I became acquainted with vineyards wherever grapes will grow, from unlikely crags to monotonous plains reaching as far as the eye can see. Now a practised observer, I can often read the telltale detail and guess at what variety is being grown, even how its wine will taste. In Europe, the commonest format for vines is a low hedge, which is intended to provide shelter from wind, trap warmth near the ground, and provide the intense root competition that yields limited crops and higher quality. In California and Australia, vines are grown taller, their leaf canopies protecting the fruit from scorching in the sun.

Tall vines on strong trellises enable mechanical harvesters to strip the fruit. In the Tyrol and Madeira, they use pergolas;

the fruit hangs above families chattering as they pick. Along the Moselle, each individual vine is tethered to a tall stake, its two branches tied down to form the shape of a heart. In Spain, most vines are grown as individual bushes on a short trunk; in Italy, within living memory, vines were trained high up into elms or poplars and harvested, with some peril, from a ladder. Each method has persuasive reasons rooted in history and topography, and these factors contribute to that elusive essence known as *terroir*. Terroir is not soil, or climate, or technology or culture: it is all these things. When the Burgundians recently made the case that their slopes should be designated a World Heritage Site, the arguments became quasi-mystical. The individual plots known as *climats* and classified as yielding *Villages*, *Premiers Crus*, or *Grands Crus*, have been cultivated under minute scrutiny for twenty centuries. Their track records are documented, and their yields consistently different.

I have only planted one vineyard in my life; perversely enough, I did so where no one had before, and where I was told the odds were against me. It was a stony slope, all right; a clearing in France’s greatest oak forest, Tronçais, in the *département* of the Allier. The combination of vines and oaks has a deep appeal; the hilltops of the Côte d’Or are oak woods, and so are the hilltops of my adopted wine region, Tokaj, in Hungary. Similarly, the little hilltop town of Castell in northern Bavaria is, for me, a jewel of a Ruritanian principedom; its prince rules over a domain entirely given to vines and oakwoods (and, of course, hunting). The landscape encapsulates an idealized central European culture going back to the Romans.

My wine in the Allier surprised us all. It was a sharpish white, very fresh but improving over as many as ten years. My primitive methods paid off. From my bench at the top of the vineyard, in the shelter of a spreading oak, I could see a vast landscape stretching southwards to the Auvergne. The farmer’s dams glistened in the valley below. In the steep fields around, ringed with pollard oak – the immemorial landscape known as *bocage* – I could count the cattle, and glimpse the occasional deer. I could see five church towers and two ruined châteaux. I could read the history of *la France profonde* as in a textbook. Prospect and refuge made me a happy man.

– Hugh Johnson

Beverages for the Table at Jefferson’s Monticello

Thomas Jefferson admitted to enjoying a glass or two – or, on occasion, three – of wine daily, as long as it was a light and flavorful vintage reminiscent of France and Italy rather than a glass of “ardent spirits,” the term he applied to wine that was laced with brandy. Although wine was definitely a favorite, remarks made by Jefferson and his guests make clear that it was always joined on the Monticello table by malt liquors and cider. In fact, the home production of wine, ale, and cider was integral to Jefferson’s plans for his principal farm and became a life-time pursuit. The importance he attached to these beverages went well beyond the pleasures of the table.

Jefferson felt strongly that whiskey was detrimental to the nation as a whole. He railed against its “loathsome and fatal effects,” which he believed responsible for “destroying the fortunes, the bodies, the minds, and morals of our citizens.” He argued instead for affordable wines and malted liquors, saying of the latter, “I wish to see this beverage [beer] become common instead of the whiskey which kills one third of our citizens and ruins their families.” He acted upon these convictions, experimenting with the production of wine, malt liquors, and cider, and was very open to sharing what he learned. In this sense, the grain fields, orchards, and vegetable garden at Monticello sustained not only his own household but also his vision for a strong and stable nation.

Central Virginia’s Piedmont region, at the foot of the Blue Ridge Mountains, was the site of Jefferson’s estate. He owned approximately five thousand contiguous acres in the region, mostly inherited from his father. He chose to place the seat of this estate on an 867-foot mountain that he gave the name “Monticello.” The house, also called Monticello, was built at its crest, with the vegetable garden and orchards placed in proximity along the south and northeast sides of the mountain.

When Jefferson began building his house and developing the mountaintop in the 1770s, the warmer southern slope was chosen for the first plantings of vegetables and fruit trees. Both garden and orchards evolved over the years, and in 1806 he ordered a major undertaking, the leveling and terracing of the vegetable garden. By 1812 it was an impressive thousand feet long and approximately eighty feet in width – a level plateau carved out of the mountain, divided into plots, and supported by a stone retaining wall that was twelve feet at its tallest point.

Below the vegetable garden was the south orchard that Jefferson sometimes referred to as the “fruitery.” These six to eight acres contained a variety of fruit trees as well as square

plots for berries that were placed in the center section of the orchard. To either side of the berry plots were the vineyards. Even figs were able to grow in the warmth reflected from the stone retaining wall, and Jefferson was frequently pleased that in the early spring his fruit was spared the frosts that settled into the bottom lands as the warmer air rose to his mountaintop. The orchard located on the north and easterly side of the mountain was not as varied as the “fruitery” and was planted more on the order of a typical farm orchard, with rows of apple and peach trees.

Fields of tobacco, grains, and other crops stretched down and away from the mountaintop and to either side of the Rivanna River, which ran through the property. Despite its size, Jefferson’s farm manager of sixteen years, Edmund Bacon, commented that overall, “It was not a profitable estate; it was too uneven and hard to work.” The mountainous terrain was not ideal for growing tobacco and wheat, but the mountain top produced an abundance of fruits, berries, and vegetables. Jefferson’s property, with its advantages and challenges, became his laboratory for plant cultivation, home brewing, and wine making.

Making Cider

The two apples that Jefferson favored for his cider were the Hewes crab (more often listed in his records as the “red Hughes” or the “Hughes crab”) and the Taliaferro (pronounced “tolifer”), sometimes called the Robinson. Both were native to Virginia and acclimated to the temperate climate on Jefferson’s mountain. When asked to compare the two, Jefferson recounted that the “Hughes crab” had been a common apple along the James River and preferred for Virginia cider as long as he could remember. The Taliaferro had been cultivated in Williamsburg by Major Taliaferro from a seedling found in Mr. Robinson’s field – thus the dual name. Jefferson pronounced it superior to the Hewes, with more body and less acid, and declared that it produced a cider “more like wine than any liquor I have ever tasted which was not wine” and “nearer to the silky Champagne [sic] than any other.” The Hewes crab was planted almost exclusively in the north orchard. The favored Taliaferro could also be found there, but was sometimes included in the south fruitery as well. Unfortunately, the Taliaferro is no longer believed to be in cultivation, even though Jefferson personally shared cuttings with friends and neighbors. The taste of this favorite remains a mystery.

“Mr. Jefferson was very particular about his cider,” his overseer Bacon observed, recounting how his employer gave



instructions that every apple was to be carefully cleaned, one by one, and that any rot was to be cut out. Per his directions, when the “red Hughes” in Monticello’s north orchard were “mellow” and some were beginning to rot, they were ready to be made into cider and then bottled. According to Bacon, the process took two weeks in March of each year: “Dear me, this was a job.”

1793 was a particularly bad year for cider at Monticello. That June, Jefferson received a letter in Philadelphia from his eldest daughter Martha in Virginia. “I have a terrible account to give you of your cyder,” she reported. Of the one hundred forty bottles processed that year, she estimated that only about a dozen remained. The cider had exploded. Some bottles that had not been corked well simply blew the stopper,

Monticello’s restored vegetable garden and pavilion. The restored south orchard and vineyard are just below the vegetable garden, to the left. Photography by Skip Johns, courtesy of the Thomas Jefferson Foundation.

while others burst the glass. “It flew in such a manner as to render it dangerous going near them,” Martha wrote, adding that “the havoc is incredible.” Apparently this dramatic incident was unique, however, and cider production at Monticello

continued. During his many years in Philadelphia, and then in Washington as president, Jefferson ordered Virginia cider from commercial suppliers and usually specified a “Hughes’s crab cyder.” He was very proud of the quality of Virginia cider – his own included.

Brewing malt liquors

Jefferson used wheat for brewing, as he did not raise barley. Wheat took the place of tobacco as the main cash crop on his Monticello plantation and was rotated through the fields along with clover, corn, and vetch. The main harvest took place in late summer and early fall and was a major event on the plantation, requiring the entire workforce. Most of the crop would be ground into flour and shipped to the market in Richmond, but after 1812 some would have been set aside for the fall and spring brewing of malt liquors.

The earliest mention of beer brewed at Monticello appeared in the household accounts kept by Jefferson’s wife, Martha. She specifically referred to her brew as “small beer,” which would suggest it was a type with a low alcohol content, often made in home kitchens. Jefferson had planned a space for brewing and beer storage in his initial plans for Monticello, but the war, his wife’s failing health and early death in 1782, and his own long absences due to political obligations all interfered with his brewing schemes. His accounting records reveal that malt liquors were purchased periodically rather than produced at home. It was during his presidency, when Jefferson was looking ahead to his final retirement, that he demonstrated a renewed interest in brewing by purchasing Michael Combrune’s *Theory and Practice of Brewing*, published in London in 1804. Subsequently he lent the book to a neighbor, but requested its return after a fortuitous meeting with Joseph Miller, a brewer by trade, in September 1813.

Miller was an Englishman who had arrived in the United States to claim an inheritance in Norfolk and establish himself in Virginia. When his plans became legally entangled due to the War of 1812, Jefferson offered him a temporary residency at Monticello in exchange for training his slave, Peter Hemings, as a brewer. Jefferson felt confident that Hemings possessed the “great intelligence and diligence” needed to be a successful brewer, as he had already proved himself as

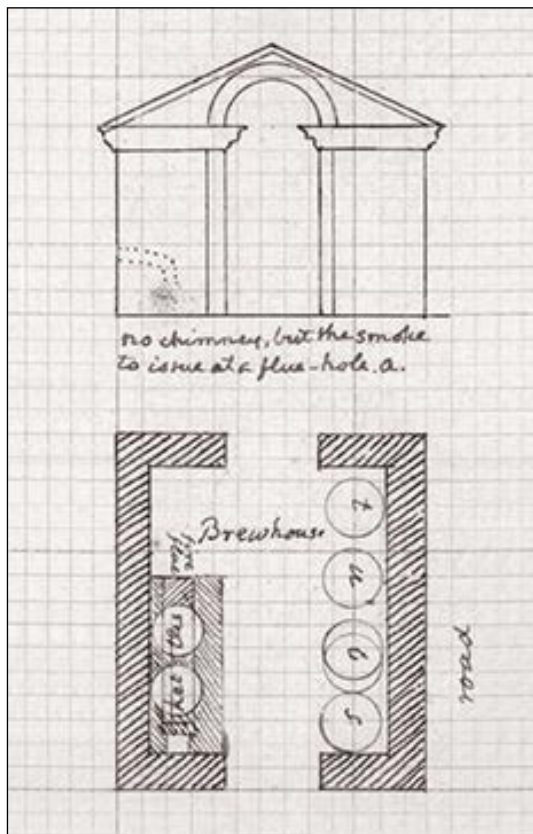
Monticello's head chef and had mastered the art of French cooking.

After a year of experimentation with Hemings, Jefferson claimed in the spring of 1815, "I am lately become a brewer for family use," acknowledging his debt to Joseph Miller, "an English brewer of the first order." Despite his success with wheat in brewing, Jefferson was curious about the possibilities of malting corn, having heard that Virginia brewers along the James River had used corn almost exclusively during the Revolutionary War. At least one batch with corn malt was attempted at Monticello – which Jefferson reported to Miller might have been quite good had it not been "spoiled" by "over-hopping" – but this experiment was never mentioned again, and in 1821 Jefferson noted that he used only wheat in his brewing process.

Apparently, brewing at Monticello continued to improve, as a houseguest in 1821 wrote requesting the recipe for the ale he had been served at dinner. Jefferson cautioned that he had no written recipe for brewing and that relying upon a recipe alone would require the sacrifice of two or three brewing trials. Although Jefferson believed that *Combrune's Theory and Practice of Brewing* was perhaps best for written instruction, he suggested that a better plan would be to send a very capable slave to Monticello to participate in their fall brewing season, which began in late October or early November. He explained that he and Peter Hemings supervised the brewing of one hundred gallons of ale in the fall and three hundred gallons in the spring. Jefferson claimed that his own brew was superior to the "meager and often vapid" ale from the public breweries. He attributed this to the latter's custom of producing fifteen gallons from one bushel of wheat, whereas his ratio was only eight gallons per bushel.

Hops were planted in the Monticello garden first in 1794

Jefferson's drawing for a Palladian-inspired 'Brewhouse,' c. 1813-14. Currently there is no evidence that it was ever built. Courtesy of the Massachusetts Historical Society.



and then again in 1812 and 1813, the years Jefferson began establishing his brewery in earnest. But the homegrown harvest was frequently supplemented with hops that were purchased locally and appear to have been bought primarily from slaves, based upon the names entered in the ledgers. Some names are recognizable from the Monticello enslaved community, while others are associated with neighboring farms, such as "Lewis's Davy" and "Hickman's Bob." These purchases appear as early as the 1770s, when Martha Jefferson was brewing her small beer, and continue through 1820. Perhaps it was from a slave that Mrs. Jefferson negotiated, according to her household accounts, the purchase of "7 lbs. of hops with an old shirt."

In Jefferson's book *Notes on the State of Virginia*, he included "Wild hop. *Humulus lupulus*" in his list of esculent plants native to Virginia. This raises questions as to whether the hops purchased from slaves were cultivated in their small kitchen gardens or gathered in the wild. Apparently hops were plentiful locally and priced low enough that Jefferson was not compelled to produce all he needed in the Monticello vegetable garden.

Attempts at Wine

Although cider remained a staple beverage on the Monticello table, and Jefferson clearly had some success with his brewery, he was not so fortunate in his attempts to produce wine – the beverage that he pronounced "a necessary of life to me."

After he returned to the United States in late 1789, following a five-year term as minister to France, he began importing wines that he had discovered in Europe, primarily those of France and Italy. His wine orders continued throughout the rest of his life, even when he faced mounting debts. In one attempt at economizing, he included in his 1825 order a cask of *vin ordinaire*, hoping that, if mixed with a small amount of water, it might prove as inexpensive as ale or cider. What interested Jefferson far more, however, was the possibility of establishing his own



vineyard at Monticello, and he always supported and encouraged the idea of an American wine industry.

Restored vineyards on Monticello's south slope. Photography by Skip Johns, courtesy of the Thomas Jefferson Foundation.

In 1774 the prospect of Virginia wines looked promising. That year Phillip Mazzei arrived from Italy, with eleven indentured Italian workmen, to establish vineyards in the American colonies. Jefferson encouraged Mazzei to remain in the Monticello neighborhood by giving him a parcel of adjacent land and then engaging the Italians to lay out his first serious vineyard on the southeastern slope at the top of the south orchard. The workmen planted thirty vines, a mix of the European *Vitis vinifera* and native grapes, while Jefferson carefully noted the details in his Garden Book: the spacing, depth, and width of trenches for vines and water; the use of manure; and the replacement of soil. With this record, Jefferson had a viable formula for planting. Over the years he experimented with many varieties of grapes, both domestic and European, but never with positive results. In 1782 he recorded in his Garden Book that seventeen bushels of winter grapes produced forty gallons of vinegar, but no wine was mentioned.

Despite repeated setbacks, Jefferson began to make plans for refurbishing his vineyards after retiring from public office in March of 1809. While president, Jefferson had

received a gift of wine made from American grapes that he found comparable to the “red Burgundy of Chambertin,” and so he wrote the vintner, John Adlum, requesting vine cuttings. Adlum’s was a red, identified today as the Alexander Grape. After so many disappointing attempts with the European grapes, Jefferson proposed, “I think it would be well to push the culture of that [native] grape, without losing our time & efforts in search of foreign vines, which it will take centuries to adapt to our soil & climate.” Expressing his intent and optimism, he signed his letter, “a brother-amateur in these things.”

The cuttings from Adlum were delayed in transit and were very dry by the time they reached Jefferson. Unfortunately, they did not survive after planting. In 1816 Jefferson wrote Adlum again, requesting more cuttings, but meanwhile he had come across another grape that he wished to try as well – a variety of the golden muscadine called the Scuppernong that grew in southern Virginia and the Carolinas. He held great hopes for this grape and wrote, “that as good wines will be made in America as in Europe the Scuppernon [sic] of North Carolina furnishes sufficient proof.” He tried his own hand at raising the Scuppernong, recording on April 4, 1817, “planted 15. Scuppernon [sic] vines in lowest terras of Vineyard,” but there was no follow-up record of any wine being produced.

Despite his enthusiasm for the Scuppernong grape, Jefferson had reservations about the vintners who used it. He observed that “the makers of this wine have fallen into the barbarous practice of dosing their wine with brandy,” which would not only adulterate the fine flavor but, even worse, turn the wine into “ardent spirits.” Jefferson chose to blame this “singular coarseness of taste” on British influence.

This was where good wine entered into Jefferson’s larger vision for the American Republic and the improvement of its culture and its citizens. The “antidote to the bane of whiskey” was an unadulterated and affordable wine. He maintained that “No nation is drunken where wine is cheap: and none sober, where the dearness of wine substitutes ardent spirits as the common beverage.” He included the malted liquors in his calculations and supported his assertions by serving home-produced cider and malt liquors at his own table, even though he continued to import his wine. Still, Jefferson never gave up the belief that wines produced in this country could one day rival those of Europe. This day took considerably longer to dawn in the United States than its former president might have hoped, but he would undoubtedly be pleased with his country’s growing role in wine making in the twenty-first century. – Gaye Wilson

Grids and Garlands: The Landscape of Hops

The geographer John Fraser Hart has noted that all forms of agriculture are ordering systems that create a characteristic “look of the land.” Each agricultural activity leaves an imprint; some are relatively permanent, like field patterns, orchard grids, irrigation channels, and terracing, while others reflect the ephemerality of seasonal growth. That “look” is the product of the intersection of the place, plant, and people. Its patterns, forms, materials, and spaces, while pragmatic in practice, are often also aesthetically pleasing. There is art in agriculture, and the growing of hops is no exception. But today, for many, this product brings with it no mental image of the landscape that produced it. Across the United States, it has become common to hear beer drinkers referring various microbrews as “too hoppy,” or “not hoppy enough,” and yet few of these aficionados are knowledgeable about either the plant or the striking arrangements in which it is grown.

What are hops? The hop (*Humulus lupulus* – literally, wolf of the woods) is a climbing perennial with separate male and female plants. It is the female flower, also called the cone, that is cultivated for use as a flavoring agent in brewing beer, the cone’s oils providing the beverage’s aroma and the resins its distinctive, bitter flavor. Hops have antiseptic properties as well, which serve to improve the stability of the beer. While the viticultural term *terroir* is not used for hops, they come in a multitude of varieties, and local conditions determine many of their properties – acidity levels, for instance. Hops can give off scents as varied as grass, grapefruit, chocolate, pepper, mint, apricot, and tangerine. The smell and taste of any given beer is determined, in part, by the varieties of hops employed in its manufacture.

Hops have been cultivated since the eighth century and used in brewing for a millennium. They were first grown in Germany, still the world’s largest hops producer. And although the acreage devoted to hops in England has dramatically

declined – from a peak of over seventy thousand acres in 1885 to fewer than three thousand acres today – hops retain a hold on the English imagination. An English drinking song (c. 1757) extolled their virtues with nationalist fervor:

*The French with their vineyards and meager pale ale,
They drink from the squeezing of half-ripe fruit;
But we, who have hop-yards to mellow our ale,
Are rosy and plump and have freedom to boot.*

In the United States, hops have been cultivated in all parts of the country. They need sufficient water, but with irrigation can flourish in a wide variety of soil conditions. In the nineteenth century, New York was the leading growing area. Commercial production is now centered in Washington and Oregon, in the Pacific Northwest, although microbrewing and home brewing have encouraged growers throughout the nation. The term for a field of hops is a “hopyard,” although the term “hop garden” was in use as early as the ninth century and “hop ground” was employed in sixteenth-century England. Another term in current use is “hop farm.” Hopyards vary in scale from small domestic spaces of less than an acre to commercial enterprises of over two hundred acres.

The unique appearance of hopyards is the consequence of the dramatic architecture of their agriculture – what might be called their “agritecture.” Agritecture includes all small-scale elements that support or protect growing plants: stakes for beans and tomatoes; arbors for grapes; posts supporting sagging apple branches; cloches and nets covering growing plants. In the scope of their use of poles, wires, twine,



Poles and wires of a hopyard in the spring. Corvallis, Oregon. Photograph by Kenneth Helphand.

and stakes, hopyards present one of the most recognizable examples of agritecture.

Hops grow along the ground until confronted with an object they can climb. Although commonly called vines, they are technically bines. Vines attach to surfaces by suckers or tendrils, while a bine climbs by twisting around a support in a helix, much like DNA. The first step in establishing a hop yard is therefore the building of a trellis to support the growing plants. Hops, which can grow up to twenty-five feet per year, are trained to grow vertically to maximize the production of the cone.

The ideal trellis design creates a microclimate favorable to that production. Thus, the spacing of the trellis and plants is chosen to maximize yield, thwart disease, and ease the task of harvest. The selection of hops variety also influences the calculation.

Hopyards can vary in their geometry. Contemporary yards are laid out in a regular grid of poles spaced about 25 feet apart. The distance between poles is determined by the profusion of the vine's growth and the space needed to allow workers and machines to pass through the yard. Before trellises became popular, hops were grown on poles set atop small mounds of the planted hops seeds.

When England was a center of hops production, its agricultural literature was replete with advice on proper practice; the descriptions suggest vividly the look of the land. Thomas Tusser's 1573 *Five Hundred Pointes of Good Husbandrie* advised three poles per hillock planted "as straight as a leveled line of the hand." Reynolde Scot, in a 1574 treatise, *A Perfite Platform of a Hoppe Garden*, recommended placing three to four fifteen-to-sixteen-foot-high alder poles on each hill and planting the hills nine to ten feet apart. John Warius Wilson, in his 1852 *The Rural Cyclopedia: Or A General Dictionary of Agriculture*, noted that hop grounds in Kent and Sussex in South East England had between twenty-four hundred and three thousand poles per acre! Accompanying woodlots were essential to hops production.

Much of the wood came from coppices, thickets of small trees growing (and regrowing after being cut) mainly from shoots or suckers rather than seeds. Coppiced chestnuts as well as willow were the desired species for poling. The coppiced wood is known as underwood. Supports ranging from twelve to eighteen feet in height were favored, although poles as high as twenty-four feet might be used. Poles were sharpened and tarred before being placed at a slight outward angle in holes bored in the ground. Creosote, introduced in 1862, extended the life of the poles.



Garlands of hops before harvest. Willamette Valley, Oregon. Photograph by Kenneth Helphand.

One British author thought of poling as "one of the nicest operations in hop cultivation – perhaps because of the aesthetic pleasure of setting poles on the carefully aligned hills and admiring the symmetry that resulted." The hills were typically in rows, but occasionally in the triangular pattern of a quincunx. Christopher Smart, in his 1752 Georgic "The Hop-Garden," advised the gardener to construct

The quincunx with well regulated hills.
Soon from the dung-enriched earth, their heads
Thy young plants will uplift, their virgin arms
They'll stretch, and marriageable, claim the pole.

John Worlidge said that the quincunx planting was "more beautiful to the eye and better for the hop." His books *Systema Agriculturae* (1668) and *Systema Horticulturae* (1677) (on agriculture and gardening, respectively) are a reminder of the pragmatic and the aesthetic bonds between agriculture and garden design.

Wiring systems in the nineteenth century gradually replaced traditional poling. Harvesting was easier and, despite the added cost of wire, the need for fewer poles meant a substantial cost saving. Over the years, growers have experimented with many layouts in search of the greatest efficiency and economic viability. In the umbrella system, wires are trained in triangles between poles. The result is a series of pointed green arches forming a passageway. In the Butcher system, vertical wires are strung between lower and upper cross wires. When one walks between furrows, it is as if the hops that have covered the wires are half of a sloping green

roof. Yet another system, little used, enables harvesting at the level of a standing worker. Noncommercial trellises can take the form of flagpoles, cobwebs, clotheslines, arbors, or even arboreal yurts.

In recent years in England, a "hedgerow" system has been employed that facilitates mechanical harvesting. It uses posts, wire, and a net to support the plant. This method produces eight-to-nine-foot walls of hops – fences of green, self-training bines. In current practice, wires are strung at right angles between poles. On one acre, there can be between seventy-five and over three hundred poles. Fir and cedar are preferred in the Pacific Northwest, lodgepole pine in the East. Large, angled posts surrounding the hopyard are anchored and clamped, stabilizing the poles and keeping the overhead wires in tension. A single acre can be entwined with over a mile of cable, supporting up to twenty tons of vines per acre, and there can be as many as one thousand plants per acre, planted in small mounds between seven and nine feet apart.

In early spring workers ride through the hopyards on raised platforms drawn by tractors and drop lines of twine that are tied to the trellis wire and staked at each plant. The twine, known as "coir," is made generally from the fiber of coconut husks, although twine from treated paper has also been used. Amazingly efficient workers can tie the strings

Postcard of families picking hops in the Willamette Valley, Oregon. Courtesy of Oregon Hops Brewing Archive, Oregon State University Library Special Collections & Archives.



ambidextrously as they are driven through the yard. A traditional method of stringing, still practiced in England, uses a long pole known as a “monkey.” In an earlier era, perhaps the most picturesque of rural crafts was hop stringing, performed by workers marching through the yard on stilts.

In May the growing vines are tied around the twine by hand – a process known as “twiddling” in Britain. Over the next months, the yards are weeded, sprayed, and pruned. By the late summer harvest, the hops have wound up the twine and across the strings connecting the poles. The result is a dramatic trellised landscape, a three-dimensional green grid with garlanded arcades. The swags hanging from the grid recall the fact that garland making was one of the *artes topiaris*, an area of expertise required of Roman gardeners. Scenes of such garlands strung between columns are found in the *topias* (wall paintings) of the ancient city of Pompeii, a center of the flower trade.

Harvesting is done by pickers, known as hoppers. Before the use of trellises, the poles were stripped (“de-vined”), dismantled, and stacked in pyramids, awaiting their use the following season. Today each bine is cut from its trellises below and above. An acre of hops produces twelve to twenty tons of biomass, equaling one ton of dried hops.

In the past, harvests required large numbers of seasonal hoppers. In many areas of this country, schools were closed at harvesttime and whole families joined seasonal workers camping in the fields. Hoppers also included migrant workers and the unemployed during the Depression. At the end of World War II, German prisoners of war in Oregon were drafted for the work. Workers were paid by the pound; the most accomplished could pick two hundred pounds of hops per day. The best were “clean pickers” – those who could pick cones without stems or leaves.

A century ago pioneering sociologist Anne MacLean – only the second woman to be granted a Ph.D. at the University of

Chicago, in 1898 – decided to research hop pickers in Oregon as a participant-observer. She answered a want ad seeking a thousand pickers for a site outside of Independence, Oregon (still a hops-producing area). Focusing on the benefits rather than the labor, the ad offered “perfect accommodations,” as well as “dances five nights a week, evangelists on Sunday and a hell of a time!” Although MacLean discovered that “a hop field is a beautiful sight with its

harvest of blossoms hanging in enticing clusters on the wire trellises,” she found that poor conditions greeted the women workers, who included shop girls, factory workers, waitresses, housewives, nurses, cooks, and students.

In England, where special hopper trains once brought workers to hopyards from London, the situation was not much better. George Orwell picked hops for a week in 1931, joining other East London families who had described the work as “a holiday with pay.” But he wrote that

hop-picking is far from being a holiday, and, as far as wages go, no worse employment exists. I do not mean by this that hop-picking is a disagreeable job in itself. It entails long hours, but it is healthy, outdoor work, and any able-bodied person can do it. The process is extremely simple. The vines, long climbing plants with the hops clustering on them in bunches like grapes, are trained up poles or over wires; all the picker has to do is to tear them down and strip the hops into a bin, keeping them as clean as possible from leaves. The spiny stems cut the palms of one’s hands to pieces, and in the early morning, before the cuts have reopened, it is painful work; one has trouble too with the plant-lice which infest the hops and crawl down one’s neck, but beyond that there are no annoyances. One can talk and smoke as one works, and on hot days there is no pleasanter place than the shady lanes of hops, with their bitter scent – an unutterably refreshing scent, like a wind blowing from oceans of cool beer. It would be almost ideal if one could earn a living at it.

Orwell also observed that the living conditions were “worse than stables,” and the employers unscrupulous. “What keeps the business going,” he concluded, “is probably the

fact that the Cockneys rather enjoy the trip to the country, in spite of the bad pay and in spite of the discomfort. When the season is over the pickers are heartily glad – glad to be back in London, where you do not have to sleep on straw, and you can put a penny in the gas instead of hunting for firewood, and Woolworth’s is round the corner – but still, hop-picking is in the category of things that are great fun when they are over.” The need for these masses of temporary employees is long past. Hopyards currently employ one worker per fourteen to twenty acres in the spring and twice that at harvest time. Mechanical pickers perform the work previously done by about thirty workers.

After picking, hops are dried. The kilns used for these purposes are known as “oast houses” or “hop houses”; the word “oast” is an inheritance from the Dutch, who introduced hops to Britain in the sixteenth century. With their columnar bodies and high, peaked roofs like witches’ hats, oast houses are a characteristic architectural form in Kent, in southern England. In the United States, oast houses, sometimes called drying kilns, have signature ventilating cupolas spouting from their rooftops. Inside the kilns, the hops are laid on slatted drying floors that allow heated air to circulate from below. Once dry – a process that takes less than two days – they are compressed into dense bales for transport.

Agricultural landscapes are the visible evidence of the craft of agriculture, the honed and artful skill employed to ensure the best production. Crops such as grapes and hops demand such hand-crafted landscapes. Even before planting, the hopyard’s lattice of poles and wires has aesthetic associations. In its complexity and transparency, it can recall early generations of wire-frame computer models. For others, it may bring to mind Sol Lewitt’s linear drawings, the abstract wire sculpture of Richard Lippold, or even the land artist Michael Heizer’s *Lightning Field*. The elaborate wires and poles suggest the engineering of bridges or a hypostyle hall of slender columns.

Traditionally, the completion of a harvest was often followed by a celebration. Into the mid-fifties in England, it was reported that on the final day of the harvest the “pullers” caps and hats would be decorated “with rosettes, dahlias, asters and sprays of hops.” Then, bearing the day’s “last and best pole,” they would lead a procession of all the workers to a farmhouse feast. Such celebrations no longer occur. Still, every beer hoisted to satisfy one’s thirst or toast one’s friends is, in a sense, a salute – a glass raised to this hop landscape made liquid. – Kenneth Helphand

Viticulture's Promised Land: A Brief History of Napa Valley

Two hours north of Silicon Valley lies a pastoral landscape that at first glance appears a throwback to the nineteenth century – cows and sheep grazing on expansive fields of grass. Then, without warning, a large bronze statue mounted on a stone platform comes into view: a fifteen-foot sculpture of a man, his right foot pressed against the deep barrel for extra leverage, turning the crank of a grape crusher. This is Napa Valley. Very quickly the landscape changes, its hills and hollows now scored by row after row of grapevines. The sun casts a warm and mellow golden light on the plants and, before the harvest, bunches of grapes in hues of deep red, blue, and black hang ready for the picking.

An area about thirty miles long and five miles wide, Napa Valley lies roughly between the Mayacama Mountains to the west and the Vaca range to the east. The City of Napa, the county seat, lies immediately north of Carneros, the valley's southernmost region. To its north lie Yountville, Oakville, Rutherford, St. Helena, and Calistoga.

Between the towns, buildings are relatively scarce; unlike its neighbors to the south, Napa Valley has strenuously resisted development. As the bronze sculpture suggests, this region has built its economy not only on the grapes it presses and ferments but also on the rural landscape that vine production preserves. Both agriculture and tourism are important businesses in the valley.

For more than a hundred and fifty years, people have come here from all over the world to make wine. Some had made vast fortunes elsewhere and invested in vineyards for years without turning a profit. Others of more modest means simply grew grapes or set up a wine press, in an effort to make a living. The region's early history as a vintner's promised land came to an abrupt end, however, at the turn of the nineteenth century, when Napa, like many rural communities across America, faced repeated threats and hardships. What has made its evolution unusual is that its peculiar mix of constituencies and its boom-and-bust history eventually served to preserve its agricultural character rather than destroy it.

When gold was discovered in the Sierra foothills in 1848, the first grapes had already been planted in Napa Valley for ten years. In 1834, when the governor of California ordered Mariano Vallejo, then a young lieutenant in San Francisco, to secularize the missions, George Yount, a native of North Carolina, made himself useful to Vallejo. The lieutenant subsequently became a general, and Yount, in exchange for his services, received 12,000 acres in what now constitutes the heart of Napa Valley. He planted the first grape cuttings,

which he acquired from Vallejo, in the dormant season of 1838 to 39. They were mission grapes and, although not the best for producing wine, their cultivation changed the valley's landscape forever.

Napa was favorably situated, not far from the sheltered harbors of Oakland and San Francisco to the south. The weather was temperate and the valley largely unpopulated; its former local inhabitants, the Wappo Indians, had been almost entirely wiped out by smallpox and cholera. As soon as the new frontier opened up, settlers from the East Coast rode in to lay claim. With the Gold Rush, the valley became a popular recreational destination for miners – in fact, the first public building in Napa was a saloon – but its appeal for farmers also quickly became evident. Cognizant of the opportunities around him, Yount continued planting into the 1850s, eventually becoming one of the leading wine producers in the area. His wealth made him famous, and after his death in 1865, the town where he lived took his name.

Many of Napa's early settlers were from the East Coast like Yount, but others came from Europe. Germans, with their strong wine making tradition, were particularly attracted to the region. In 1858, a highly enterprising Prussian named Charles Krug came over from Sonoma and made local history by producing 1,200 gallons of wine using a borrowed cider press. In 1861, after receiving hundreds of acres of land in Napa as part of his wife's dowry, Krug began planting his own grapes. More important, he built his first crude cellar and produced his own wine, using grapes imported from Sonoma. This became the first commercial winery in Napa Valley. Another pioneering winemaker, Jacob Beringer, came to California from Germany in 1869. After working for Krug, he went into business for himself, building his own winery in 1877.

The 1860s were good for winemakers. Wineries increased in number and new vinifera from Europe found their way into California soil. Wheat, oats, and fruits were the main local crops, but grapevines had been planted on more than 2,000 acres of land by the end of the decade. Chinese laborers were hired to sow grapes and build structures. A telegraph line was laid in Napa and extended subsequently to Calistoga, at the northern end of the Valley. And as wineries developed and their owners gained influence, railroad tracks were set down to serve them – not only to carry their fruit and

wine out to the world but also to bring visitors to their wineries. Thus began the Napa Valley Railroad, which later connected Napa to the rest of the country. (The track continues to be used by the Napa Valley Wine Train to this day, although freight ceased long ago.)

In a sense, the towns in Napa Valley were similar to those around the country, with a central square, library, post office, and then a high school, their gradual expansion determined by the needs of the population. More and more people came into town with wine-making dreams, tilling the land for grapes, building wineries if bank balances allowed, or using the facilities of others to make their wine. From the very early stages, however, the fact that so many of the settlers' livelihoods depended on the soil helped to preserve the rural nature of the valley.

In the 1870s a German immigrant named Christian P. Adamson took his savings from years of seafaring and working in the mines around Napa and bought a sprawling farm on which he grew grapes and grains. As the success of his grape-selling business grew, he devoted more acreage to the fruit. Then in 1884, with the help of Hamden McIntyre, a

native of Vermont, he built a wood structure known as the Red Barn, in which he housed a gravity-flow winery. The design was sheer common sense: grapes were hauled to the third floor to be crushed, fermented on the second floor, and aged in barrels on the first floor.

Like Adamson, McIntyre, a veteran of the Civil War, had tried his hand at several disciplines before arriving in Napa. Trained as a piano and organ maker, he was also a winemaker and a civil engineer. McIntyre built several other gravity-flow wineries along the same principles as the Red Barn, and he is credited with popularizing this design in the valley.

Typically, the footprint of one of his wood structures would measure 120 by 60 feet. Some of them were quite grand, others merely functional.

In 1886, McIntyre designed a winery on the 280 acres of Eschol Ranch. At the time, about 150 acres were under grape cultivation. The planting style – long, parallel blocks separated by sixteen-foot avenues – gave Napa its distinctive look. The layout, not unusual in wine-growing regions, was nevertheless new to Northern California, as wine making had been a Southern California activity.

Another commission came from McIntyre's former employer, Gustav Niebaum, to build Niebaum his dream winery. A Finn of towering ambition and exceedingly deep



Gustave Niebaum

pockets, Niebaum had earned millions running the Alaska Commercial Company. Now he was ready for a new enterprise. He bought Inglenook, in Rutherford, in 1880 and, against the backdrop of Mt. St. John, set out to build both a winery and a home in which to raise his family. During this period, California wines were known for their fraudulent labeling and adulteration practices. Niebaum was determined to make a California wine under hygienic conditions that could measure up to or even surpass European standards.

Work on the winery, which was made of hewed stone, began in 1883 with the help of McIntyre and William Mooser, an architect, and was completed in 1888. Grapes at Inglenook, unlike those at Eschol, were planted in high density to lower yield and enhance the quality of the wines. To the unpracticed eye, the landscape would look the same, but the closeness of the vines was an attempt to rival the growing trends of France. Niebaum, with his love of fine things, also designed a Victorian-style garden around the mansion. It comprised a vast stretch of lawn, a pond, gravel pathways, and a rose cottage, all of which incorporated the mature oaks that had come with the estate.

As the wine-making business grew, it began to attract a different sort of entrepreneur – men like Niebaum, who had already made their initial fortunes elsewhere. Just as Inglenook was nearing completion, another man from New England entered the Napa wine enterprise a few miles to the north. Having found success in his cordage business in San Francisco, Alfred Tubbs, a native of New Hampshire, bought 254 acres of land at the northern end of Calistoga to build a winery and a mansion for his family. (Tubbs' winery would eventually become Chateau Montelena.) In 1888, work started on the winery, which resembled an English Gothic castle, complete with slivered windows, merlons, embrasures, and an arched doorway – a substitute for a portcullis. The winery's cave, with its fieldstone walls, was built into the hillside to keep barrel temperatures regulated naturally.

Stone structures, more expensive than wood buildings, were popular among businessmen who wanted to try their hand at something new and had the means to use the best – and most impressive – materials. In 1888 William Bourn designed Greystone, a 2.5-million-gallon wine and brandy facility

in St. Helena, which was completed the following year. It was built entirely of stone quarried locally and, like so many wineries of the time, relied on gravity for the production of wine. The thick walls kept the temperature steady at 57 degrees. “The first wine people were often wealthy men, frequently Germanic, hoping to live the grand life of European nobility,” says historian Lin Weber. “The next generation of immigrants were generally poorer.”

Napa's wineries were unique in that they combined in a single property a place for the fermentation of wine and brandy and its storage. “The great estates we see on the labels of European wines were not production facilities,” the historian Charles Sullivan has pointed out. “They were magnificent residences which might have had a fine cellar for the owner.” No other place in the world, he explained, “has such an abundance of grand production facilities.”

The high point of the decade was the 1889 World's Fair in Paris, at which several Napa Valley wineries, including Niebaum's Inglenook and Adamson's winery, won prizes. Of the more than thirty awards won by California wines and brandies, twenty went to Napa wineries. It appeared that a new era in the reputation of American wines was dawning.

But even as vintners were refining their rootstock and expanding their properties, phylloxera, a root louse that had devastated Europe's vineyards, was gaining ground in California. In the following decade, vineyard after vineyard fell victim to its ravages, and by the turn of the century, the acreage under grapes had fallen to one-fifth of the levels seen in the 1880s.



Even so, the wine-making business in Napa might have eventually recovered from the phylloxera outbreak if a series of other misfortunes hadn't followed in quick succession. In December 1917, the U.S. House of Representatives passed the Eighteenth Amendment, which prohibited the manufacture, sale, and transportation of alcohol. Two years later, in January 1920, Prohibition became a federal law.

Prohibition threw wineries into disrepair: Most stopped production, and owners, facing ruin, looked to other means of survival. Then, by the time it was repealed in 1933, the Great Depression was under way. It was not until the 1960s – when vines planted after the end of the Second World War had matured, old equipment had been replaced, and the political situation appeared more stable – that the valley was once again poised for a renaissance, more than fifty years after the phylloxera blight. Since 1966, the acreage in grape cultivation has grown steadily to its present level of 45,000, representing 9 percent of the 504,000 acres in the county.

As the wine business in Napa Valley saw an upswing, a consortium of vintners became concerned about the possibility that developers would find a foothold. The catalyst was the state highway commission's proposal to run a freeway bypass through the valley; suddenly, Napa's environmental future looked precarious. Alarmed by the population growth and runaway development that was transforming the agricultural landscape in neighboring counties, not just the vintners but

The Culinary Institute of America at Greystone, St. Helena. Courtesy of The Culinary Institute of America.

Inglenook Wine Cellar, c. 1888, Rutherford.

also other residents wanted the county to change its zoning laws. Some farmers disagreed, considering their ability to sell their land to the highest bidder a constitutional right – one they were hoping would guarantee a comfortable retirement. In the end, the winegrowers prevailed by acting together, and in 1968 the county passed the Napa Valley Agricultural Preserve, a zoning ordinance designed to safeguard the rural nature of Napa by designating land that must be maintained as open space.

The success of the legislation in spurring the growth of grape farming in Napa Valley led to the establishment of the Land Trust of Napa County in 1976, which receives conservation easements from landowners guarding against development of their land. In exchange, the owners receive tax breaks. Overall, various laws protect 444,000 acres of Napa land. And through further legislation, county voters have limited the population growth of Napa Valley to 1 percent per year.

As the wine business flourished once more, new entrepreneurs moved in and bought the old, boarded-up properties. The Trefethen family acquired the historic Eschol winery that now bears their name and set about restoring the building and vineyards. Around the family home, they built a beautiful English garden, with dogwood, redwood, and citrus trees. A long driveway to the tasting room is lined with maples and olives, and visitors may encounter a cypress covered in climbing roses. At Chateau Montelena, new Chinese owners threw zigzagging bridges across Jade Lake to connect to the pavilions; even today, long after they have moved on, golden bamboo and peonies continue to define the landscape. On the site of a well-known nineteenth-century vineyard, Robert Mondavi established a new winery whose architecture is reminiscent of Spanish Colonial-style missions.

In 1975 Francis Ford Coppola and his wife, Eleanor, bought a part of the Inglenook estate. They moved with their children into Inglenook, restoring the property and the quality of the wine, both of which had suffered in the intervening decades. Several years later at Frog's Leap the Red Barn was rebuilt, using 80 percent of the original wood that C. P. Adamson had employed with such pride. The new construction, however, included a barrel room and a tasting room which were insulated with denim and T-shirt scraps to keep them cool. Greystone ceased to be a winery at all, housing instead the Culinary Institute of America, which makes use of the fresh produce grown at the Charles Krug winery across the street.

Napa might have had a longer road to recovery had not the Tasting of Paris in 1976 confirmed its position as a pre-

mier wine-making region. In a blind tasting, two California wines – Chateau Montelena's Chardonnay and Stag's Leap's Cabernet Sauvignon – won first place.

In the last quarter century, more players have come into the business, bringing with them a variety of artistic predilections. The eclectic mix of their wineries' architectural styles continues to shape the landscape of Napa. William Turnbull built his winery in the late 1970s with a low building for a tasting room and a barn – complete with vented cupolas reminiscent of wood buildings from McIntyre's time – housing a permanent collection of photography by famous artists. The Groth winery is Spanish Colonial; Domaine Carneros is a replica of a French chateau; and Clos Pegase blends postmodern architecture with Mediterranean influences. As the twentieth century gave way to the twenty-first, other styles shifted Napa's appearance away from a European paradigm. In 2004 Darioush, a modern-day Persepolis – complete with tall pillars marking the entrance and a dazzling reception area – added Persian grandeur to the mix.

New trends and technologies continue to emerge. Solar-energy panels increasingly rebuke fossil fuels; energy-efficient buildings are gentler than their predecessors in their environmental impact; and winemakers use new techniques to extract more flavor from their grapes.

In 2012 wine-grape production in Napa was valued at more than \$650 million, a 55 percent rise from the previous year. In 1960, only twenty-five wineries operated in Napa Valley. Currently, there are 430 physical wine buildings and 800 licensed producers. The Napa Valley Agricultural Preserve currently protects roughly 38,000 acres, up from 23,000 acres when the legislation was first passed. The Land Trust protects 55,000 acres.

Trefethen Family Vineyards, Napa.
Photograph by Andy Katz, 2013.

Napa has moved beyond simply producing and storing wines and catering to the private fantasies of wealthy investors. Today many wineries are open to the public, offering art galleries, concerts, food and wine pairings, as well as picnic areas with stunning views of vineyard-braided hills. Anyone who can afford to participate in a wine tour can get a taste of the good life – if only for the afternoon.

Although some people complain about how the valley has become a domain for the wealthy, it is perhaps more striking that so many vintners have managed to act in concert to preserve the region's agricultural identity. Now they are facing the region's gravest challenge in decades, the aftermath of August's earthquake. Early reports paint a grim picture of the devastation: thousands of gallons of wine pouring through broken barrels and crushed glass. Some wineries have been hit especially hard, and it is too early to predict their future. But, given Napa's history, the contemporary players have always been aware that complacency is dangerous. In the end, a rural economy depends on both natural and economic forces that can wreak havoc at a moment's notice. Although the valley's stakeholders cannot control such crises, they appear determined to work together to rebuild what they have lost. – Suruchi Mohan



Place Maker

Molly Chappellet and her Vineyard Garden

Last May, when spring had woven the landscape into a leafy green tapestry of row upon row of meticulously staked burgeoning grapevines, I drove through the Napa Valley to meet with Donn and Molly Chappellet – leading members of the first generation of American winemakers to compete successfully with French vintners in international wine tastings. My motive in arranging this visit was to see the highly original gardens Molly had created on their Pritchard Hill vineyard estate.

As we sat in the living room of the Chappellets' pleasant, rambling ranch house, Donn explained that Napa Valley has the ideal *terroir* for growing grapes. "To understand why this is so," he continued, "you have to go back 150 million years, when the collision of the lithosphere's North American and Pacific tectonic plates caused a great deal of volcanic activity in this region." The subsequent erosion of the lava; the mineral sediments deposited by the periodic encroachment of San Pablo Bay; and the flooding and movement of the Napa River all combined to produce more than one hundred unique soil types that still cover Napa's hillsides and valley floor today.

Donn went on to tell me how, in 1967, when he was considering starting a winery, he had consulted with the renowned Russian winemaker André Tchelistcheff. It was generally understood that the soils on the valley floor were richer and had more depth than the thinner, rockier soils of the hillsides, but Tchelistcheff explained that the latter, while less fertile, could produce varietals of more complexity, with highly concentrated color and flavors.

Acting on Tchelistcheff's advice, the Chappellets purchased a 320-acre, amphitheater-shaped property on Pritchard Hill in St. Helena. What they did not realize when



Molly Chappellet in a field of naturalized *Romneya coulteri*.

they bought this stunning site for their vineyard was that buried in the gravelly soil were thousands of boulders, large and small – dubious gifts from Mount Konocti, a volcano some fifty miles distant. Like many other viticulturists in the valley, the Chappellets had to perform the Sisyphean task of excavating multiton boulders and piling them into mammoth mounds whenever they wished to expand the acreage they had in cultivation.

The next question, of course, was what to do with the stupendous harvest of boulders from the fields. For the Chappellets as well as other Napa Valley winemakers, this mammoth labor, which involves dynamite, cranes, bulldozers, and flat-bed trucks, might be seen only as an expensive headache. Molly Chappellet, however, was awestruck by "the magnificent grandeur" of the Pritchard Hill stones. To her eye, they were objects of found art ready to be culled and arranged so that family and visitors could "enjoy and revere them in their natural habitat."

"Our first use of rocks in this way was at the head of our entrance drive," she told me. "Instead of installing a conventional gate, we took a dozen boulders from five feet to ten feet in diameter given to us by our neighbor, and rather than arranging them in an obvious way, we scattered them so as to make them appear as in nature." Other massive stones, which were unearthed when the terraces were originally cleared and planted, found a home in the center of the lower vineyard. Here they act as both sculpture and megalithic architecture while also functioning as a reminder of the mineral qualities they impart to the soil and grapes.

"Unlike the tractor driver, I was quite excited every time I heard the clanging of a rock interfering with the machine and cried when one got away and rolled down the terraces," Molly recalled. "Even a dozen or so medium-sized, three-to-five-foot boulders introduced into our meadow acted like outdoor furniture, making the area more inviting." The Chappellets also situated their pyramidal-shaped winery so that its entrance faces a striking lichen- and moss-covered boulder.

In Molly's view, these boulders provide context and "punctuation marks" for a series of gardens she has created over the years. But plants, both native and nursery-bred, also play a significant role in the landscape. Like other gardeners with a strong design sensibility, she appreciates and has benefitted from the advice of outside professionals. Edward

Huntsman-Trout, the distinguished designer of many prominent residential and institutional landscapes in Southern California, was her first consultant. At Pritchard Hill, the scope of his commission was considerably more modest than for his Hollywood clients. This is partly explained by the fact that, while many of the subsequent owners of vineyards in the Napa Valley built large mansions, Molly and Donn chose to put the profits from their business into their winery and its surrounding vineyards rather than into a new home for themselves. "All we therefore wanted was for Mr. Huntsman-Trout to help us decide which trees to plant to get more shade around the house, which otherwise gets very hot in the summer from the strong California sun," she explained. "We also had very practical needs. When we first moved here, the nearest grocery store was an hour and a half away, and since there were six children to feed we needed to be as self-sufficient as possible. Other than trees and the few natives Mr. Huntsman-Trout selected for us, there was a small, twelve-by-fifteen-foot vegetable patch just outside my bedroom, so I could listen for the new baby when I was working in the garden."

As is the case with all true gardeners, Molly has always treated her gardens as works in progress, revising spatial arrangements and plant combinations over the years. Continuing her narrative of growth and change on Pritchard Hill, she said, "A few years after creating our first garden, we hired Leland Noel, who suggested that we move the vegetables to a larger space on the other side of the house. With his graceful plan and better sun exposure, the garden flourished. It was the first

Molly's Boulder Garden.



thing visitors saw as they entered our driveway.” The only difficulty with the new site was that it was extremely rocky. “Then our teenage daughter Lygia and her friends gave me courage as they began to create retaining walls from the thousands of fieldstones they unearthed. The rocks, while first a menace, were now essential in holding our earth and creating curvilinear forms.”

As the Chappellet winery prospered, the original vegetable garden, which had been essential to the economy of the immediate family while the children were growing up, was altered to serve the palates the vineyard’s expanding family of employees, many of whom are Hispanic. “We began to plant different types of vegetables, such as onions, tomatillos, and cilantro,” Chappellet said, adding, “It is the entire array of plants serving many purposes – commercial, culinary, sensory, aesthetic – that constitutes the garden, rather than any particular area within it.”

As I continued to familiarize myself with the vineyard’s rolling landscape, it became apparent that Chappellet’s eye for form, pattern, and color; her gardener’s command of a broad horticultural palette; her background as a weaver; her talent for cooking and entertaining friends; and, not least of all, her long love affair with the Pritchard Hill boulders had produced a *gesamtkunstwerk* – a total work of art. There are no discernable boundaries between the borrowed scenery of the mountains in the distance, the middle ground of Lake Hennessy, the textured fields of grape vines, and the garden itself (see cover). To ensure that the landscape rather than architecture dominates the view, she has insisted that the vineyard’s structures – the winery and the new 30,000-square-foot barrel chai (wine storage facility) – be sited so as to blend harmoniously with their surroundings. Here, as in the domestic garden on its hillside ridge, the boulders are treated as friends. For instance, the pyramidal roof of the winery is echoed in a pyramid of piled boulders that partially conceals the horizontal lines of the adjacent barrel chai.

A flowing fabric of plants knits the stony forms of the boulders into the landscape. In addition to abundant drifts of flaming orange California poppies (*Eschscholzia californica*), there are native shrubs such as the California lilac (*Ceanothus*) and the toyon (*Heteromeles arbutifolia*), a perennial shrub that is sometimes called Christmas holly because of its bright red berries, and bigleaf maples (*Acer macrophyllum*), which turn the hillside beyond the vineyard into a backdrop of golden yellow in the fall. Among the other important native tree species Chappellet has integrated into the garden landscape are the madrone (*Arbutus menziesii*), with its rich, caramel-toned, peeling bark, and the manzanita (*Arctostaphylos*), which can be



distinguished by its beautiful, burnt-sienna-colored trunk. Within this framework, she has arranged chairs, usually in pairs, and benches supported by massive oak logs, all positioned to take advantage of stunning views.

The most recent addition to the landscape adjacent to the house is called Molly’s Boulder Garden (its name distinguishing it from a boulder garden Chappellet created in a field below for guests and employees). For this new garden, she deliberately chose plants that foster a quiet, meditative atmosphere. Here she has used a ground cover of black grape seeds and, to contrast with the dense canopies of the nearby oaks, planted a few *Ailanthus altissima* trees – an unconventional choice since the ailanthus is generally considered a weed tree. As we sat in the boulder garden, eating a sandwich in the shade of one, she said in its defense, “I needed something fairly airy with a more open canopy as a contrast with the oaks and other trees we have here. My son Jon-Mark argues about the nomenclature. I prefer the common name for ailanthus, “Tree of Heaven,” but he calls it “Tree from Hell” because it self-propagates so prolifically and comes up everywhere. But it’s not so hard to weed out young saplings, and we do need a variety of textures in this area.”

The boulders in Molly’s Boulder Garden are another extension of family life. For the grandchildren they provide a natural jungle gym, and for adults they offer seats on which to perch. Having arranged them in a visual dialogue with one another, she thinks of them as family members as well as outdoor furniture. Some even have names. “We call the

Chappellet’s bound bundles of twenty-foot-long pruned grapevines dance in a meadow.

reclining boulder over there The Chaise Lounge,” she told me. “The beautiful Tristan and Isolde you see nearby are

the pair that could not be separated. And the tall vertical rock anchored five feet into the ground is known as Potato Head by the grandchildren – because of the pockmarks that resemble the eyes on a potato.”

In addition to such artistically inspired place making, Chappellet is also a sculptor. Her chosen medium is scrap salvaged from the vineyard. Since vine rows occasionally need replanting, she is never at a loss for materials. Old vines, along with support wires and metal stakes, are bulldozed into giant piles and burned, leaving behind soot-tarnished wire, twisted metal, and charred grapevine remnants. Working with claw-equipped machines, she directs their operators to push, pull apart, tear, and lift the cast-off materials to create massive new forms, later to be positioned in an open field. Once these are in place, she surrounds them with a straw ground cover or a mat of blackened grape seeds.

Other creations are designed to emphasize surrounding landforms or echo far distant shapes. Mounds of metal trellising, varying in size, create a welcoming note as the entrance drive from below crests the ridge where the hillside vineyard begins. An undulating wall of redwood stakes echoes the rhythm of the distant mountains. Elsewhere on the hillside, a “vacant teepee village” made of ten-foot-tall vineyard end posts climbs up and down, outlining and accentuating the hilly terrain. Bent, twisted, and rusty pipes emerge from steep terraces to form whimsical, Seuss-like characters. Wattles, used to control erosion in the vineyards, are heaped and kneaded until new forms are created.

Explaining her approach as an artist, Chappellet said, “Working with the land, emphasizing its contours, assembling individual objects in repetition, creating rhythms – the landscape dictates the music. All I do is listen and try to interpret. What I make depends on what I am given. The key is to get the materials before they are discarded or destroyed by burning or other means.” More than in her own sculptures, however, it is in the boulders that Chappellet finds both an aesthetic and spiritual resonance. In her book, *A Vineyard Garden*, she writes, “When I see the way the rocks and we live together every day, I understand what the Bengali poet Rabindranath Tagore meant about ‘wooing the earth.’ In fact, the earth has wooed us – and we will be friends and lovers for life.” – Elizabeth Barlow Rogers



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Book Reviews

**Community by Design:
The Olmsted Firm and the
Development of Brookline,
Massachusetts**
Keith N. Morgan,
Elizabeth Hope Cushing, and
Roger G. Reed

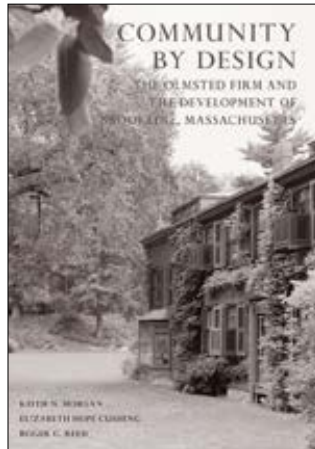
Amherst: University of Massachusetts Press in Association with Library of American Landscape History, 2013.

Residents of Brookline, Massachusetts, take pride in their historic, progressive, and beautiful community. This is as true today as it was in 1841, when Andrew J. Downing wrote, “The whole of this

neighborhood of Brookline is a kind of landscape garden, and there is nothing in America, of the sort, so inexpressibly charming as the lanes which lead from one cottage, or villa, to another. . . . and the open gates, with tempting vistas and glimpses under the pendant boughs, give it quite an Arcadian air of rural

freedom and enjoyment.”¹ Birthplace of a martyred president, workplace of the country’s first landscape architect, and home to a clutch of distinguished Boston architects, the town has always attracted high-achieving individuals from a wide variety of vocations.

Naturally, Brookline is no longer as Arcadian and rural as it was in Downing’s day, yet the place is remarkably well preserved. A glance at a map of Boston and its surroundings shows why. Bos-



ton consists of a central business district and several outlying residential neighborhoods. Brookline is squeezed between two of the most westerly of these, Brighton and Jamaica Plain. It sticks into

the city proper almost like a splinter, the result of the town’s vote in 1873 to reject annexation, chosen by all its close neighbors with the temporary exception of Hyde Park, which voted for annexation in 1904. In 2014, Brookline remains politi-

cally independent, governed by a board of selectmen and a representative town meeting rather than a “strong” mayor and relatively powerless city council, as is Boston. Day-to-day affairs in Brookline are supervised by a full-time town manager.

The Olmsteds’ impact on Brookline was considerable. Between 1879, when Frederick Law Olmsted laid out the grounds of the Barthold Schlesinger property at 278 Warren Street and 1936, when Frederick Law Olmsted Jr. relocated to California, the firm designed about 170 properties in Brookline. This was perhaps a record – not only for Olmsted-designed landscapes in Brookline, but also for their work in any other town of comparable size. Indeed, it is difficult to imagine the development of either the place or the practice without the other. *Community by Design* is the story of the first two generations of the Olmsted firm and its projects in the remarkable town that became its home base.

In 1881, Brookline joined with Boston to commission Frederick Law Olmsted to design the Muddy River Improvement, a linear park. Its central feature was a narrow, slow-moving stream, which straddled the two communities, forming the second link in the Boston park system after Boston’s Back Bay Fens, then under

construction. Increasingly, from this time onwards, the firm’s other projects – including numerous private commissions and work for the Boston Park Commission – were located in Brookline and neighboring Boston. In 1883, Olmsted decided to move both his home and his office from New York, buying an existing farmhouse in Brookline, which he named Fairsted. He laid out the grounds – slightly under two acres – with the help of his stepson, John Charles Olmsted, and added a rambling office wing that expanded over time as the firm acquired more work and more employees.

Multigenerational firms are rather rare in any profession, with the possible exception of the law. For a firm of architects or landscape architects to launch a successor firm that survives for more than a generation, several things need to happen. First of all, the firm must be led by a strong artistic personality, often an extrovert with a dynamic manner who can both inspire and dominate his employees, as well as “sell” his ideas to his clients. Frank Lloyd Wright, for instance, is a prime example. By contrast, Olmsted

was an introvert. And yet he had unusual powers of persuasion, both with members of his firm and clients, although his manner was low-key, never flamboyant. I believe that Olmsted was able to convince his clients that his ideas were theirs, which may have been the secret of his striking success, in spite of periodic, painful setbacks, as the leader of an infant profession. Secondly, in order to maintain the same office address over an extended period of time – a decided advantage – the firm should own its own real estate: the building itself and, in the case of a suburban or rural location like Olmsted’s, the land around it. Thirdly, the successor firm must include a member of the founder’s family, in this period nearly always a son but, very occasionally, a son-in-law. The Olmsted firm fills the bill on all three counts, contributing two sons to the enterprise, although both John Charles and his half brother Rick had initially planned other careers.²

The backgrounds of the authors of *Community by Design* are complementary. Keith N. Morgan is professor of art history and director of architectural studies at Boston University, and the author, coauthor, or editor of several books, including

Charles A. Platt: The Artist as Architect (1985) and, with Richard M. Candee, Naomi Miller, and Roger G. Reed, *Buildings of Massachusetts: Metropolitan Boston* (2009). Elizabeth Hope Cushing, an independent scholar, is the author of several cultural landscape reports and the book *Arthur A. Shurcliff: Design, Preservation, and the Creation of the Colonial Williamsburg Landscape* (2014). Roger G. Reed is a historian for the National Register of Historic Places and the National Landmarks Program, who previously served first as the chief architectural historian for the Maine Historic Preservation Commission and then in the same capacity for the Brookline Preservation Commission. Few people know Brookline’s history and architecture in as much depth as Reed. His books include *A Delight to All Who Know It: The Maine Summer Architecture of William R. Emerson* (1990).

Of the eight chapters in *Community by Design*, Cushing wrote two, both biographical in nature: one an overview of Olmsted’s life and career before he came to Brookline and the other a summary of the life of Charles Sprague Sargent,

¹ A. J. Downing, *A Treatise on the Theory and Practice of Landscape Gardening*, Adapted to North America (New York: A. O. Moore, 1859), 40. The first edition was published in 1841.

² John Charles Olmsted had two daughters and Frederick Law Olmsted Jr. had one. Neither had a son.

chairman of Brookline's park commission and director of Harvard's Arnold Arboretum. Reed contributed a valuable chapter on the town's planning context. His detailed discussion of the numerous subdivisions, large and small, designed by the firm in Brookline under the direction of both the elder Olmsted and Frederick Law Olmsted Jr., is particularly useful. Because they are highly vulnerable to economic cycles, subdivisions are rarely completed as part of a single building campaign. They are generally planned and the first stages of construction begun in a boom period but are often either still-born or truncated during a bust period. Yet previous discussions of the Olmsted firm's work in subdivision planning have focused on those few examples where an entire, discrete community of considerable size was the result, including Riverside near Chicago by the senior Olmsted and Forest Hills Gardens in Queens, New York, by Olmsted Brothers. The lion's share of this book is the work of Morgan, who wrote the remaining five chapters, an introduction, and a conclusion. The nine appendices are unattributed.

With so much emphasis on context, the main thread of the narrative could have been obscured, but that did

not happen. My one quibble with this fine book concerns the cut-off date. Although 1936 seems a reasonable point to break off, it is not quite the end of the story. Yes, Frederick Law Olmsted Jr. relocated to California, but it was not to go into full retirement. Rather, he was still working with the firm on the layout of the Palos Verdes Estates, located on a spectacularly scenic peninsula that thrusts into the Pacific south of Los Angeles. Here Olmsted had his West Coast home, although he frequently returned to the Brookline office to monitor ongoing projects. There, he met and sometimes worked with a new landscape architect, Artemas P. Richardson, who had joined the firm shortly after World War II in part because Olmsted Jr., who was colorblind, could not design planting plans.³ After Olmsted's death in 1950, Richardson changed the name of the firm to Olmsted Associates. In a second edition of *Community by Design*, a brief discussion of the third and last generation of the Olmsted firm would be desirable, perhaps as a tenth appendix.

– Cynthia Zaitzevsky

³ Cynthia Zaitzevsky, conversation with Artemas P. Richardson at Olmsted Associates (Fairsted), ca. 1972. Joseph M. Hudak joined the firm somewhat later but left a few years before Richardson.

Contributors

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Hugh Johnson, OBE, and an officer in the French *Ordre nationale du Mérite*, is widely considered to be the world's best-selling writer on wine. His books include *The World Atlas of Wine* (1971), *Hugh Johnson's Wine Companion* (1983), *Vintage: The Story of Wine* (1989), and an autobiography, *A Life Uncorked* (2006). His *Pocket Wine Book*, first published in 1977, appears annually in fourteen languages. A noted botanical and garden writer as well, Johnson is the author of *The International Book of Trees* (1973), *The Principles of Gardening* (1979), and *Trees: A Lifetime's Journey*

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Barbara Marinacci, writer and editor, has authored or coauthored ten books, edited many more, and written numerous articles. During 2010–13, she produced *Eden*, the quarterly journal of the California Garden & Landscape History Society. California's wine-growing history became an interest when she lived for almost twenty years at a historic vineyard in the Santa Cruz Mountains. With her mother, Eleanor Ray, she published *Vineyards in the Sky: The Life of Legendary Vintner Martin Ray*. She later wrote "Vinaceous Correspondents," a series available on *Wayward Tendrils Quarterly's* website. She lives in Pacific Palisades, Los Angeles.

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Laurie Olin, professor of landscape architecture at the University of Pennsylvania and founding partner of OLIN, a landscape architecture firm in Philadelphia, is the author of *Across the Open Field: Essays Drawn from English Landscapes* (1999) and a coauthor of *La Foce: A Garden and Landscape in Tuscany* (2001) and *Vizcaya: An American Villa and its Makers* (2006). The designer for the transformation of Bryant Park and Columbus Circle in New York City, the grounds of the Washington Monument in Washington, D.C., and the new Getty Center in Los Angeles, he received the American Society of Landscape Architects Medal for Lifetime Achievement in 2011.

Gaye Wilson, Shannon Senior Historian at Monticello's International Center for Jefferson Studies, writes on topics relating to

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Cynthia Zaitzevsky, Ph.D., a historian of architecture and landscape architecture, formerly taught the history of American and English landscape architecture in the Radcliffe Seminars Landscape Design Program (now part of the Boston Architectural College). Her books include *The Architecture of William Ralph Emerson, 1833–1917* (1969), *Frederick Law Olmsted and the Boston Park System* (1982), and *Long Island Landscapes and the Women Who Designed Them* (2009). She is also the author of the site-history sections of several cultural-landscape reports for the National Park Service, including one for the Frederick Law Olmsted National Historic Site in Brookline, Massachusetts.

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