STAG'S LEAP CELLARS

Napa Valley, California

Javier Barba, 2000–2005

"Winemaking is a fusion of art and science, intuition and the senses, plus a rational process—and we tried to express that poetically," is how assistant winemaker Julia Winiarski explains the complex of cellars that were dug into the hill below her father's winery. They discovered that the rock was diorite—probably from the core of an extinct volcano—which made their task harder, but guaranteed that the tunnels would remain stable without reinforcement.

After rejecting a basic grid plan as too factory-like, they started playing with different lengths of tunnel to provide storage for fruit from different lots and curving them to achieve a sense of surprise and to reflect the natural curvature of the hill. Five tunnels converge on a circular area, the symbolic heart of the caves; a piazza at the center of the subterranean labyrinth. The goal was to create a sense of place—for visitors and the people who worked there—and climate-controlled storage for 6000 barrels. The caves have a constant temperature of 62 degrees Fahrenheit and humidity of 95 percent or higher—ideal for aging red wines. Fortuitously, the cellar plan also resembles that of Napa Valley, with its central river flanked by two highways that are linked by connector roads.

Warren Winiarski, who founded Stag's Leap Cellars, sought an architect to complete the project, and chose Javier Barba after seeing a photograph of the earth-roofed villa he designed for Lord Rothschild on Corfu. The Barcelona-based architect had built nothing in the United States, but he proved an ideal choice. Barba remembers his first glimpse of the excavation: "It looked like the entrance to an abandoned mine. It was a brutal space, but I loved it!" He designed an arcade of sloping concrete ribs clad in rammed earth that wrap around the hillside, linking two entries to the cave. They suggest flying buttresses supporting the exposed rock, which is stabilized by copper mesh and ornamental bosses wrapped over steel rods that are driven 20 feet into the ground. Winiarski was delighted. "You can see the rock crumbling, and bits of root from the trees growing above," he observes. "You can observe the process that creates our soil. I wanted this structure to tell that story, and it does."

Barba created a Great Room, with a kitchen, for entertaining, sealed off at either end with massive, hand-crafted redwood doors. The room is separated from the caves as a museum lobby is separated from the art galleries, to preserve the integrity of both. It's paved with quartzite and the barrel vault and walls are sprayed with Shotcrete and plastered with flecks of feldspar to give them a sparkle. The room is lit from wall sconces: pierced copper cones that suggest bubbles rising in a champagne glass. Rock erupts from one corner of the room.

Beyond, a curved tunnel leads to the rotunda, where Barba has used the same materials and lighting. A Foucault pendulum shows that the earth is rotating on its axis. "We think of this as the beating heart of our cave and the movement is a metaphor for the passing of time and aging of our wines," says Winiarski. Barba has strengthened that reference to the earth turning