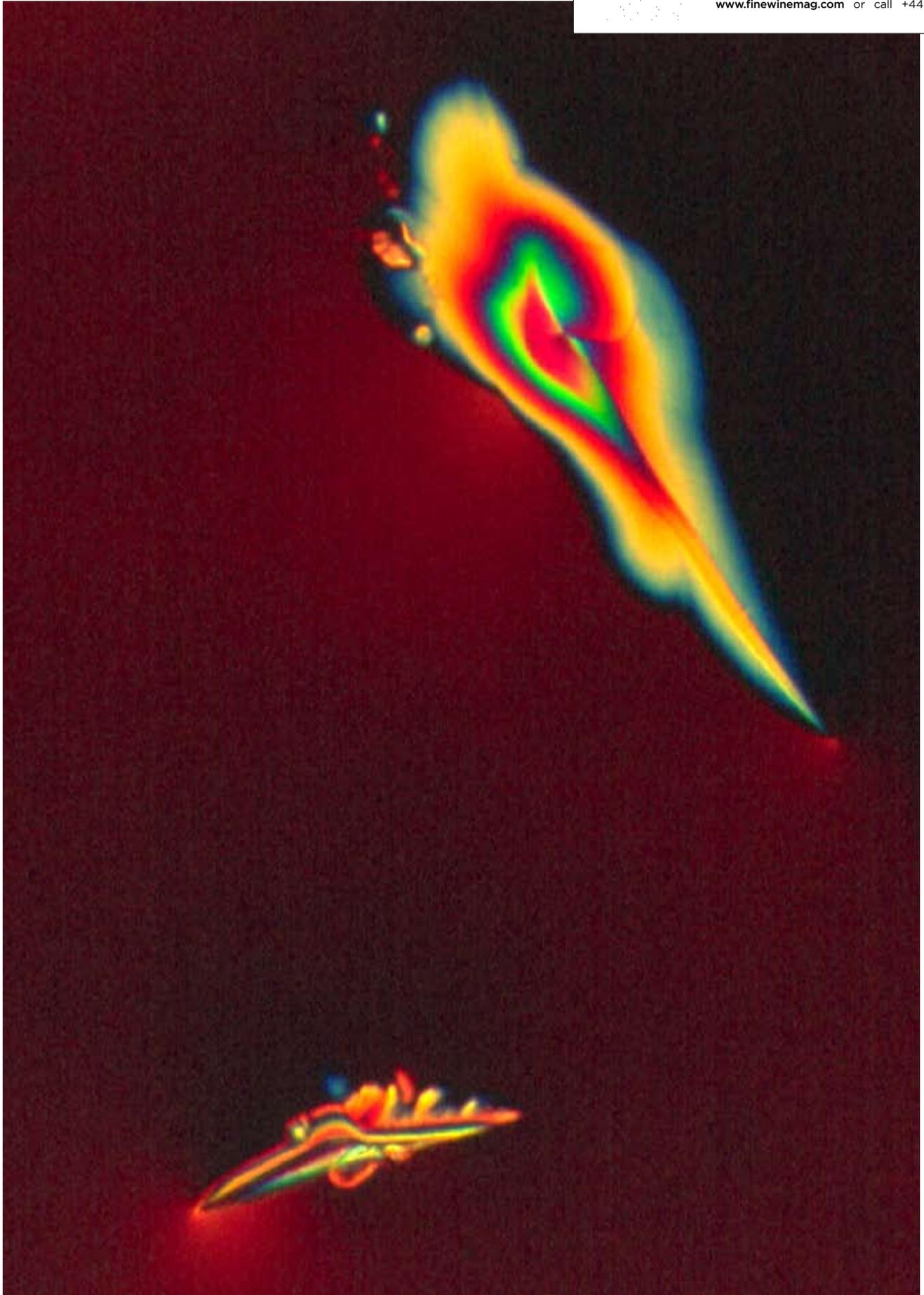


(palette)



This article by *The World of Fine Wine* may not be sold, altered in any way, or circulated without this statement.

Every issue of *The World of Fine Wine* features coverage of the world's finest wines in their historical and cultural context, along with news, reviews, interviews and comprehensive international auction results. For further information, and to subscribe to *The World of Fine Wine*, please visit www.finewinemag.com or call +44 1795 414681.



WINE'S INNER BEAUTY

As well as affording arresting images, can a photograph of a wine reveal anything about its maturity, personality, and taste?

Dr Sondra Barrett believes it can—and she's not alone

Molecular photography captures a world invisible to the naked eye. It opens the mysteries to molecules and cells. It is art based on reality, not an artist's imagined representation. Images tell a story or act as a portrait. They may even communicate scientific information visually so it is more easily understood, then it becomes a teaching tool.

John Naisbitt, *High Tech, High Touch: Technology and Our Search for Meaning*

You could say that I fell in love with wine from the inside out. Creating photographs of wine became an unexpected obsession of mine more than two decades ago. It all began when I took a break from my research lab at the University of California Medical School to visit the Academy of Sciences in Golden Gate Park. An exhibition of photographs of brain chemicals taken through a microscope showed compellingly beautiful imagery indistinguishable from abstract art. Little did I know then that these pictures would change my life.

Up to that point, the microscope was basic technology I used to uncover distinctive features of normal and malignant cells. My goal was to improve diagnosis and clinical management of human leukemias. But after seeing that inspiring exhibition, I began using the microscope to photograph not only blood cells but minerals, vitamins, food, and drugs as well. A wine-loving colleague fell in love with these “other-worldly” pictures, and before I knew it I was artist-in-residence at Sterling

2002 Domaine Georges Roumier Bonnes-Mares Grand Cru at four years old

Vineyards in the Napa Valley. When the winemaker saw a photograph of his wine—a 1978 Sterling Merlot—he said the picture looked like his wine tasted. I was intrigued that an abstract image could convey such meaning.

A two-year “apprenticeship” to the art of winemaking brought together my three passions: science, art, and wine. With the vineyard manager I'd walk mountaintop and valley vineyards to taste grapes and explore the ever-changing seasons. The winemakers posed technical questions to discover whether the microscope could show differences useful for winemaking. I'd also visit wineries throughout Napa and Sonoma, gathering samples, learning, and tasting.

Since that apprenticeship more than 25 years ago, I've photographed hundreds of wines. To me, the photographs have come to represent a wine's soul, its “inner terroir.” The images reflect the sum of all that goes into a wine's creation: growing conditions, harvest, fermentation, the winemaker's hand, and magical molecular alchemy.

Photographs are taken with a 35mm camera attached to an interference light microscope equipped with two polarizers. The “molecular collaborations” within wine create the shapes; the colors are generated by a combination of polarizing light and refraction of light by the wine. At the low magnification used (less than 40x), yeasts are barely visible.

My passion and inquisitive nature to track relationships between microscopic forms and function led me to explore whether the patterns and shapes in wine could shed light on style, age, or anything beneficial to the winemaking or wine-drinking process.

(palette)

There was an unequivocal finding: Increasingly larger and more complex structures are revealed as juice matures into wine. When a wine gains years, its microscopic appearance changes. A few—such as the 1976 Lafite Rothschild reproduced here, with its “fallen forms”—even show a loss of physical dimension or light refraction when they begin to lose vitality. From a chemical perspective, in general, wine acids are angular shaped; pure tannic acid appears prickly and briary, while aged tannins exhibit elaborate and embellished forms.

The images provide visual hints to “personality,” taste, and texture. Many wines display exquisite expressions, while others are not so appealing. Chardonnays that have undergone malolactic fermentation typically show more complex and softer structures than those that have not been through the process. Angular aggressive wines often show a sharp character distinctly different from that of a soft, voluptuous wine.

Dr Jamie Goode wrote in *The Science of Wine*: “What we are doing with our tasting notes is using a ‘code’ language that gives information about a number of aspects of wine. We should take ourselves a little less seriously when we are attempting the difficult job of describing wine in words.” For me, wine portraits give us another symbolic or graphic language with which to explore and enjoy wine. People have even described the images as wine Rorschach.

British wine writer and critic Pat Simon wrote that he remembered and judged wine by formulating mental images. He used seven distinct shapes for following a wine’s development. Although *Harpers Wine and Spirit Weekly* ridiculed his approach, some tasters reported that they found them useful. Perhaps the microscopic wine shapes can help tasters enhance their skill, memory, and pleasure. Further scientific explorations could provide practical knowledge as to ageability, taste, and other qualities hidden in wine. Certainly, the inner world of wine conveys a compelling story of life.

I am fortunate to live in the heart of California wine country and to see and taste its bounty. My visual excursions have ranged from the legendary 1941 Inglenook Cask Cabernet, still vital at 44 years old, to the youngest fermenting barrel samples, and everything in between. I plan to assemble an even more extensive collection of some of the world’s greatest wines and vineyards, ranging from French Bordeaux, Burgundy, and Rhône, to Napa’s cult Cabs, aged German Rieslings, Spanish Rioja, and Italian Brunello. I continue to work with wineries, designing gallery exhibitions and multimedia wine tastings, while putting the finishing touches to a book. *The Soul of Wine* embraces the scientific, sensual, artistic, and what is, at least for me, the sacred expression of wine. ■

For further information, visit www.SondraBarrett.com

This page, top to bottom: 1941 Inglenook Cabernet Sauvignon Reserve Cask, Napa Valley at 44 years old; 1976 Château Lafite Rothschild, Pauillac, at ten years old; 2002 Jadot Chambertin Clos-de-Bèze Grand Cru at four years old. Opposite page, left column, top to bottom: 1997 Trimbach Cuvée Frédéric-Emile Riesling, Alsace, at nine years old; 2002 Domaine de la Romanée-Conti Grands Echézeaux Grand Cru at four years old; 2004 Heidi Barrett La Sirena Moscato Azul, Napa Valley, at one year old.

Opposite page, right column, top to bottom: Quintessa 2001, Napa Valley, at three years old; 2000 La Mondotte St-Emilion Grand Cru at five years old; 1982 Sterling Sauvignon Blanc, Napa Valley, at one year old.

