



CHILE

**Get to Know Chile-
Fernando Pavon
Part Two**

1000 Km

EMILIANA

ORGANIC  VINEYARDS

WINE PRODUCTION IN CHILE

117.559 Has

.....
88.703 Has / red

.....
28.856 Has / white

.....
Estimated Production: 1.200.000MM litres

EMILIANA WINE PRODUCTION

Emiliana	842 has 8.5MM Kg
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Producers (13)	532 has 4.0MM Kg
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Total	1374 has 12.5MM Kg
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First Chilean winery in adding the variety on the labels.

First Chilean winery and 7th worldwide to receive the **ISO 14001** certification. Our organically grown grapes are certified by IMO Switzerland.

Gê was the first wine in Latin America to be certified biodynamic by **Demeter** Germany.

10 years of sustainable viticulture.

IMO Fair For Life certifies Emiliana's fair trade practices.



1986

1988

1998

2001

2003

2005

2007

2008

2009

2011

"Viñedos y Bodegas Santa Emiliana S.A." was founded.

Beginning of organic & biodynamic agriculture implementation.

The company changes its name to "Viñedos Emiliana S.A."

The first organic wines are introduced in Chilean market: COYAM & NOVAS.

COYAM

COYAM 2001 (1st harvest), obtained "Best in show" & "Best Blend" in the First Annual Wines of Chile Awards.



IMO For Life certifies Emiliana's Social Responsibility, good working conditions and a transparent and fair organization.

"Los Robles" estate receives Carbon Neutral certification.



COYAM becomes the second biodynamic certified Chilean wine.

ELQUI

LIMARÍ

CHOAPA

ACONCAGUA

CASABLANCA

SAN ANTONIO & LEYDA

MAIPO

CACHAPOAL

COLCHAGUA

RAPEL
VALLEY

CENTRAL
VALLEY

CURICÓ

MAULE

ITATA

BIO BIO

MALLECO

PACIFIC OCEAN













WINE FERMENTERS

- ◆ **Oak**

Vinification in oak can produce woody, toasty or vanillin aromas that are not desirable in every case.



- ◆ **Stainless Steel - Inox**

Making wine in stainless steel, meanwhile, can deprive it of the bouquet and tannin-ameliorating effects of a measured oxygen exposure, sometimes obliging winemakers to use artificial micro-oxygenation.



- ◆ **Concrete**

The porous clay-cement walls allows for natural oxygenation without oakiness.



CONCRETE FERMENTERS

- ◆ **History**

The ancient “Georgian” (8.000 BC) practice of fermenting and aging wine in “Kvevri” (earthenware/pottery) never left. Then the Romans during the Etruscan civilization used cement containers (280 BC) with the same purpose.



EGG-SHAPED CONCRETE FERMENTERS

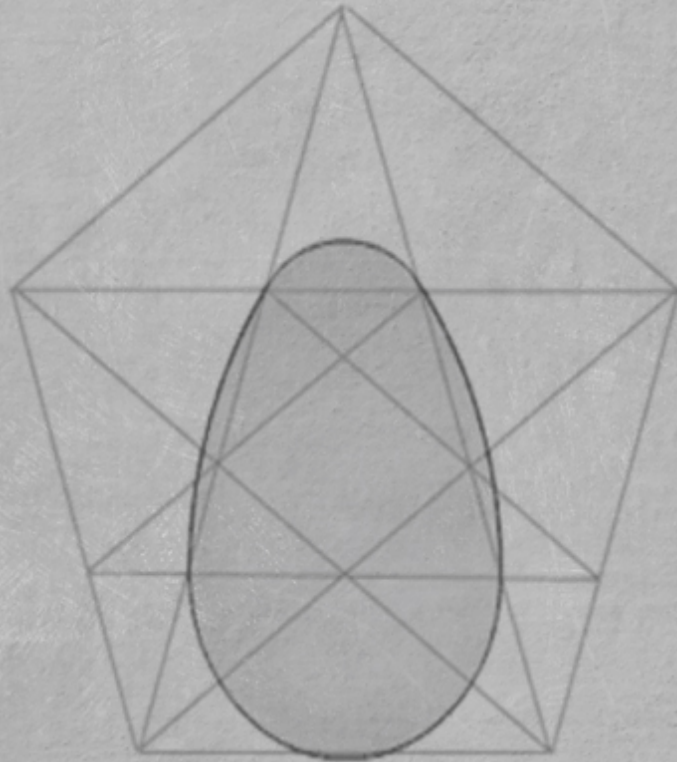
- ◆ **The Rebirth**

The first egg-shaped, concrete fermentation vessel was commissioned in 2001 by Michel Chapoutier, following discussions with French vat manufacturer Marc Nomblot, whose company has been making concrete wine vats since 1922. Chapoutier asked Nomblot to produce a prototype for him based on two years of research.





EGG-SHAPPED CONCRETE FERMENTERS



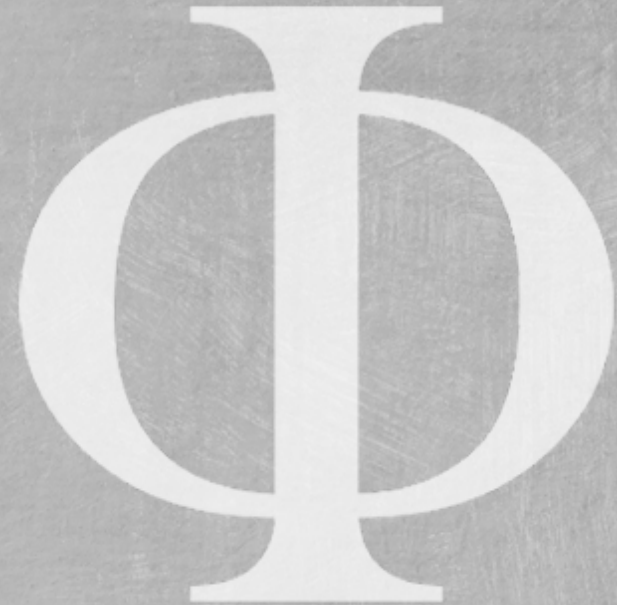
The Creation

- ◆ The egg vessels are made following the regulating lines of the golden number, 1.61803 a 'precious jewel,' the astronomer Johannes Kepler (XVII century).
- ◆ Using the number of gold Ptolemaic reiterates the perfect geometric shape egg: $\tau = \frac{1}{2} (\sqrt{5} + 1) = 1.618033989$

EGG-SHAPPED CONCRETE FERMENTERS

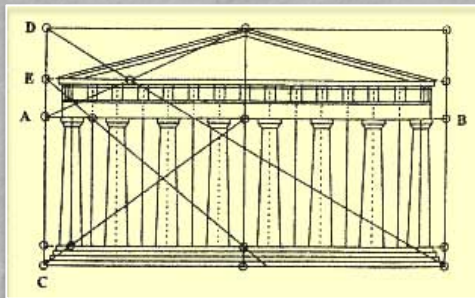
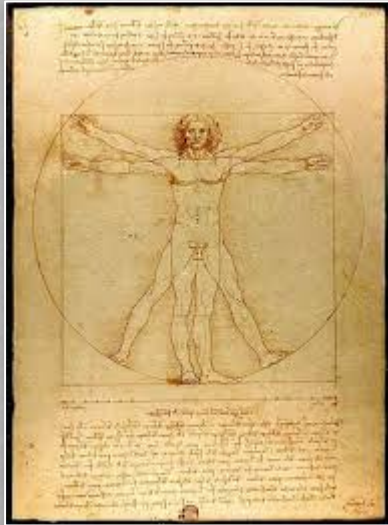
The Golden Number

- ◆ The golden number (divine proportion), discovered in antiquity, and represented by the Greek letter ϕ (fi).
- ◆ It is an irrational algebraic number (decimal nonrecurring infinity). Its symbol is the first letter of Greek sculptor Phidias (430-490 BC).

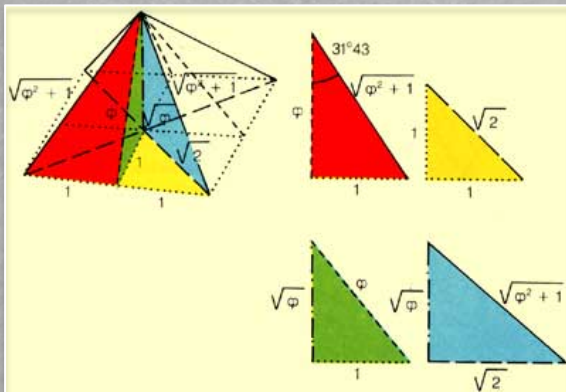


EGG-SHAPED CONCRETE FERMENTERS

The Magic of the Number



- ◆ This ratio is found in the human body (ratio of the distance from the shoulder to the fingers and the distance from the elbow to the fingers, the relationship between the first metacarpal and phalanx, or between the first and second or between the second and third, relationship between the diameter of the mouth and nose etc)



- ◆ The ratio works for architecture (Parthenon) or other arts (drawing by Leonardo Da Vinci "Man of Vesuvius" to illustrate the book De Divina Proportione mathematician Luca Pacioli published in 1509).



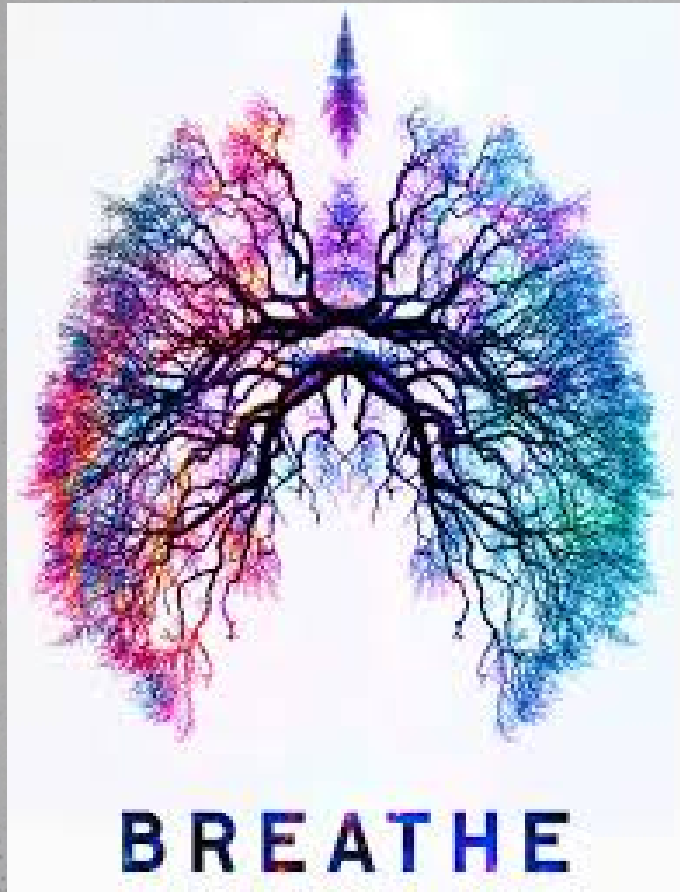
EGG-SHAPPED CHARACTERISTICS

Concrete is Cool

- Concrete can take the heat, or the cold. It's a natural insulator and will stabilize the temperature of whatever is inside of it.
- This stability makes for a smooth and gradual fermentation, because there are no temperature spikes to make the yeast become aggressive.



EGG-SHAPPED CHARACTERISTICS



Just Breath

- ◆ Concrete is porous, albeit on a microscopic scale, and that's where it beats stainless steel. The environment in stainless steel is too perfect to be ideal for fermentation. Without a gradual introduction of micro-oxygenation, the wine remains flat. It cannot breathe and evolve.

EGG-SHAPPED CHARACTERISTICS

Staying Neutral

- You know that even neutral oak is not neutral, all oak will give a bit of itself to the wine, whether you like it or not.
- Concrete makes for a truly neutral vessel, imparting only a slight and desirable minerality.



EGG-SHAPPED CHARACTERISTICS

Always in movements



- The ovoid tank takes advantage of the micro-oxygenation that is made possible by the clay-cement material. Inside the “egg”, the wine is continuously in movements because all fluids rise when temperature increases, and do so in a vortex, but in a barrel or other container, the vortex is slowed by the angles.

EGG-FERMENTERS ADVANTAGES

- ◆ Is an insulating material opposite the stainless steel that is conductive.
- ◆ The temperature control is achieved with little expenditure of energy allowing more cold fermentations that favor higher flavor retention.
- ◆ Particular advantages for native yeasts or spontaneous fermentation that is more sensitive to thermal shock, that contributes to softer and longer fermentations.
- ◆ Porous material that allows the wine to breathe, both during fermentation and aging.
- ◆ The internal temperature differences of the eggs vats generate a smooth vortex which creates a helical motion that raises the mannoproteins released by yeasts keeping them in contact with the wine, delivering weight and fat mouth feel.
- ◆ No wood flavors input.
- ◆ Mayor aromatic purity with clear reflection of the terroir and minerality characteristic.
- ◆ Low-volatile acidity
- ◆ The shape of the vats makes much of the vat is submerged most of the time.
- ◆ Virtually no evaporation losses.



VALLEYS & VARIETIES

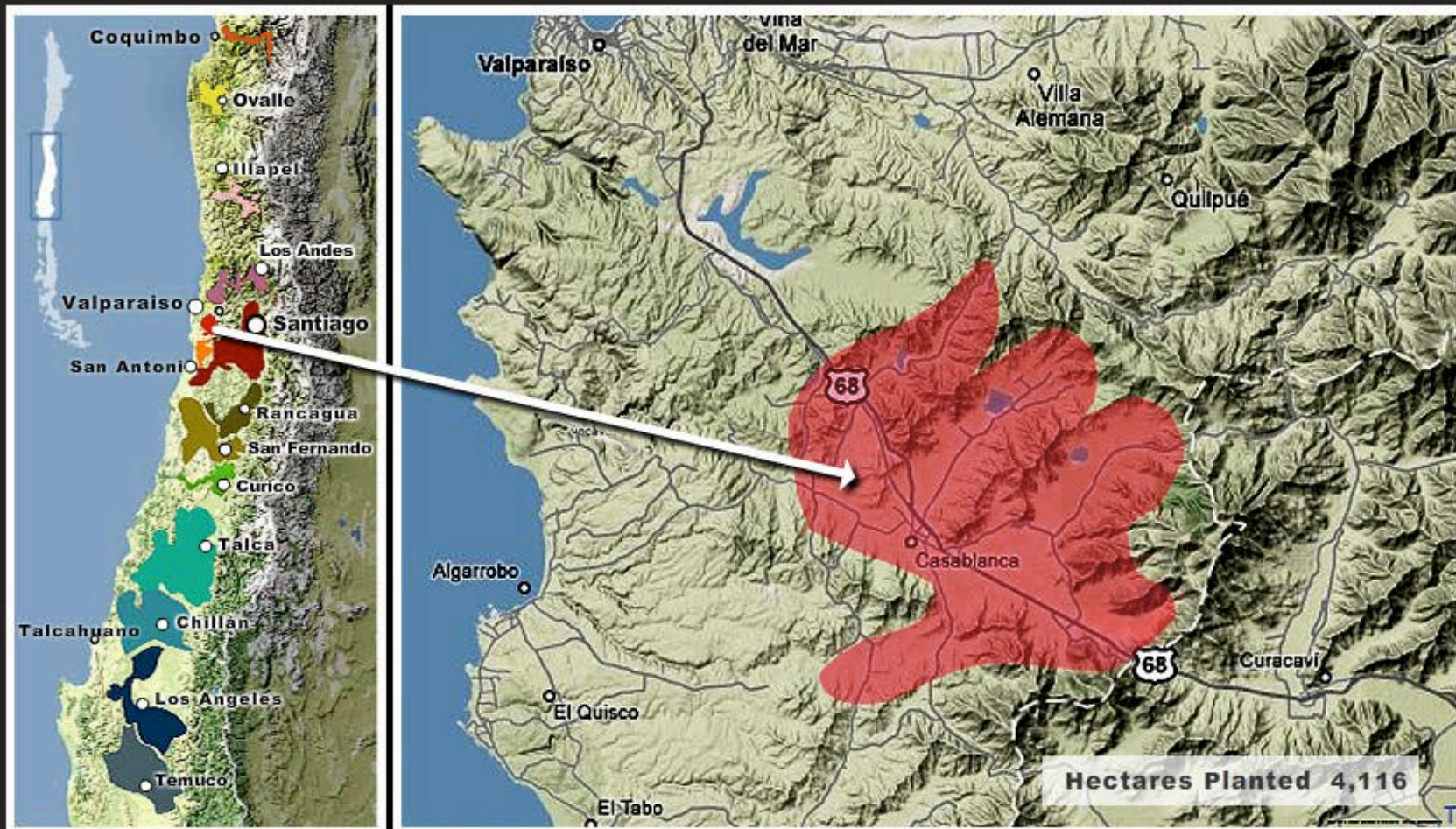
CASABLANCA

- Located 60 kms north West of Santiago.
- One of the world's great 'cool climate' regions.
- Mediterranean climate with marked maritime influence. 450mm / 17.7 in of rain per year.
- Soils: clay and sandy soils.
- Terrific results: Proximity to the ocean creates cool foggy mornings ideal for top quality Sauvignon Blanc, Chardonnay, and Pinot Noir.



VALLEYS & VARIETIES

CASABLANCA



**SIGNOS
DE ORIGEN**



La Vinilla

D.O: Casablanca Valley

VARIETY: Chardonnay

VINEYARDS: Fundo Casablanca, La Vinilla sector, foothills of the Coastal Range, Blocks 15.

VINEYARD DESCRIPTION: Masal selection, planted at 370 masl and vertically positioned.

PLANTATION YEAR AND DENSITY: 1993 year of plantation , 4,000 plants/hectare.

YIELD PER HECTARE: 4 tons, 20 HI.

SOIL: of granite origin with sandy-loam texture and a slightly acidic pH (6.3). It is low in organic matter (2%), with moderate fertility, low salinity, and a medium capacity for moisture retention.

CLIMATE: the 2013–2014 season was cold during the time the grapes were ripening, which delayed the harvest in the valley. Precipitation was 360 mm, June was the rainiest month. The summer and early fall were dry. Average maximum temperatures fluctuated between 17°C and 28°C and the average minimum temperatures between 1°C and 10°C. Big frosts during the month of September affected the production.

HARVEST: Manual, from April 27 to May 16, 2014.

**SIGNOS
DE ORIGEN**



La Quebrada

D.O: Casablanca Valley

VARIETY: 97% Syrah, 3% Viognier.

VINEYARDS: : Fundo Casablanca, sector La Quebrada vineyard, foothills of the Coastal Range, Blocks 16 and 27.

VINEYARD DESCRIPTION: Located 380 m.a.s.l. and vertically positions, the vineyards have a northeast-southwest orientation. Clone 174 grafted onto SO4. Drip irrigated.

PLANTATION YEAR AND DENSITY: 2002 year of plantation; 4,000 plants/hectare.

YIELD PER HECTARE 4.5 tons, 24 Hl.

SOIL: Granitic colluvial origin. Deep soil with low clay content, sandy-loam texture, and slightly acidic pH (6.1-6.3). It is low in organic matter (1.7%), with moderate fertility and low salinity.

CLIMATE. The 2012–2013 season presented average maximum temperatures that were slightly higher than those of the previous season. Lower precipitation with a total of 260 mm concentrated in the winter, followed by a very dry spring and summer, which encouraged fruit set. Harvest came early and the grapes were healthy due to high temperatures and the absence of rainfall, although some dehydration was observed in the grapes due to high luminosity. The wines obtained present a slightly higher alcohol level and lower acidity than in past years due to the high temperatures.