

FACING CLIMATE CHANGE:

MOVING THE VINEYARDS IN ALTITUDE
IN THE FRENCH GREATER SOUTH-EAST :

BEGINNING OF INVENTORY

for the symposium "Lien de la Vigne" on 01/04/2022 in Paris

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FOREWORD N° 1: **inventoried area**

The French "*Great South-East*" or "*French Mediterranean Arc*". **See map p. 4**

= 5 wine-producing regions : *ROUSSILLON, LANGUEDOC, RHONE VALLEY, PROVENCE and CORSICA*






Administratively = Provence-Alpes-Côte-d'Azur + ex-Languedoc-Roussillon
+ Corsica + Drôme and Ardèche departments (AURA region)
= 15 departments = 1/7 of the French departments
= thousands of micro-climates !

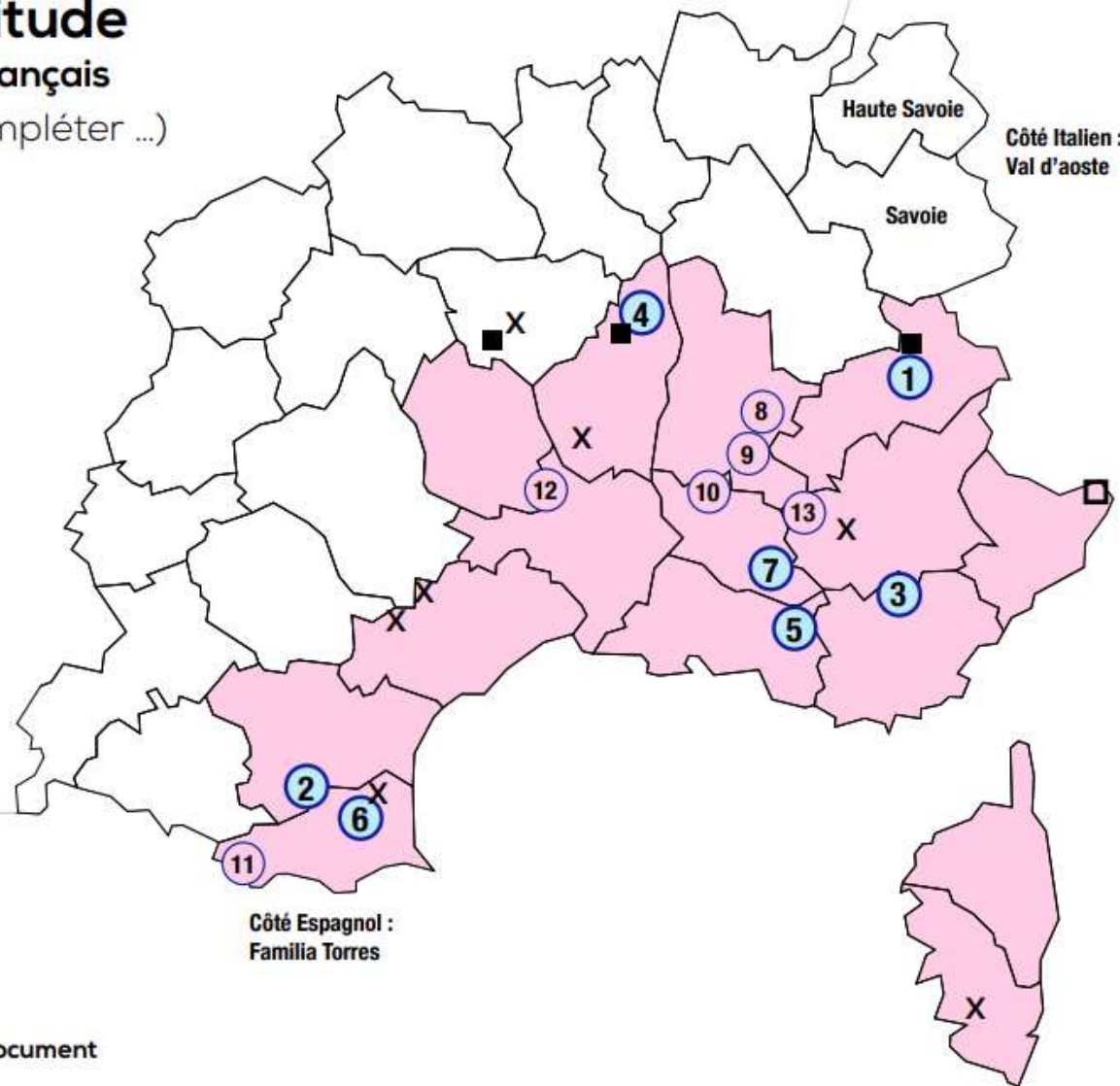
Soixantaine de vignobles plantés à plus de 400 m d'altitude

dans le grand sud-est viticole français

(recensés au 22 mars 2022, à compléter ...)

Légende :

-  15 départements du « grand sud-est viticole français »
-  7 « nids* » de 3 à 11 vignobles de > 3 Ha
-  6 « nids* » avec 1 critère particulier
- X Implantation isolée, « hors nid »
-  3 parcelles associatives, ou communales, ayant pu faire école
-  1 projet de parcelle associative



* Les noms des 13 « nids » sont sur la dernière page du document

FOREWORD N° 2 : **threshold and relativity**

Threshold retained as "altitude": **> 400 meters**

= "hill level"

+ rare and modest cases from 1000 to 1200 m = beginning of the “mountain level”

N.B.: Differences in Latitude not taken into account

Whereas 100 km to the north = - 0.55° of average temperature

= + 83 m of altitude

250 m at Clos de Vougeot = 620 m at Aix en Provence

The word "altitude" is therefore very relative!

The south-east of France is particularly threatened...

- because it is close to the **Mediterranean "where climate change will be one of the most radical in the world"**, according to the IPCC
- because the starting points are **already high**, especially compared to the rest of France :
degrees of quality wines are already quite often close to the maximum,
rainfall is already quite often "limit",
risks of fire and flooding are already present, ...
- because the changes in grape varieties present a **double** risk : "more southern" grape varieties have a risk of changing their identity, and current grape varieties risk being adopted by vineyards further north and/or without altitudes (Beaujolais, Bordeaux, Loire, ...). The risk of confusion is doubled.

... but reliefs are quite close

- In each of the 25 departments of the great southeast :
the highest point of the department exceeds 1,000 m of altitude
(*whereas it is lower than 400 m in : Gironde, Charentes, Loire-Atlantique,
Maine et Loire, Lot et Garonne and even Gers*)

- The distance between the actual vineyards and the agricultural
land at an altitude of more than 400 m is measured, in the 25
departments, in tens of km at the most, i.e. in tens of minutes by
car or truck (*for tractors: better Cuma, mutual aid, or double on site !*)

The moves are therefore not an obligation everywhere

Une des vallées au nord du Mont Ventoux *valorisée par la cave coop de Beaumont du Ventoux*



Discreet and individual initiatives...

- Over the past 25 years : about **thirty installations + as many witnesses to periods of strong winegrowing presence** + many "pieces of property" > 400 m altitude, but < 3 ha.
- But probably more, as the number increases each year, and the discretion characterizes new and old installations, for certainly multiple reasons

Rare media coverage : the highest installations, local press

- Very individual approaches, without any incentive group, nor "network", nor "fashion", nor leader other than very local.

Only exceptions: 4 associative or communal plots

.... in a still reluctant context

- AOP regulations have not yet evolved:
Numerous altitude ceilings : 350 m, 450 m, ...
Northern exposures are still being chased
- Stigmatization by an unjustified label : "nomadism"
- Put aside, in the "national strategy" of the sector.
(only exception: altitudes adjoining the current vineyards)
- No help in the research of potentialities, solutions, ...

Totally disparate investors ...

- From large non-regional merchants : Grands chais de Fr, Latour,.
- Up to young environmentalists, out of AOP, with horse and natural wines
- Through a range of intermediate profiles (wealthy or not)

With advice from a great name (Y. Cuilleron)... or advice from a neighbor!

From 75 ha near Aix en Prov. to 3 ha in the north of the Ardèche

From " nappa valley style ", to hillsides covered with gore (= decomposed granite)

But 4 common points : a lot of organic and biodyn. Few cooperatives.

Many "nests" of 10 to 15 km radius, in 1 corner of the department

No failure recorded to date (unlike the Sark Island fiasco)

... on very different altitudes and slopes:

From unknown plateaus (Pyrénées-Orient., Bouches du Rhône, ..)
to slopes not necessarily "heroic" (> 30%), far from it

3 different types of altitudes ("roughly speaking", because exceptions):

- **400 to 600 m = double return** (towards 20th century temperatures, and towards terroirs from centuries before) with southern or Rhône varieties
- **600 to 1000 m = "altitude typed"** wines with local grape varieties, Rhône, Savoy, Burgundy, Beaujolais (even "forbidden" in the Cévennes !)
- **> 1000 m** = plots of "pioneers" (Cerdagne in the Eastern Pyrenees) or modest amateurs (Montagne de Lure in Alpes de Haute Provence)

Constraints, and unknowns ...

- **Known and almost general constraints :**

Water, in the retention of soils, the possibilities of irrigation

A global image of quality to be created (or even to be reserved for oneself ?)

Thresholds of the "wine altitude" fluctuate: from 200 m to 500 m.

Exclusion from the "national strategy", in August 2021

Statistical and cartographic desert (while the tools exist)

Isolation of suitable sites from each other, "by nature"

Disparity of profiles of actors and investors

AOP areas are not very expandable, and very long to create.

Presence of wildlife more varied than just wild boar.

- Unfortunate unknowns :

Consensus regional declinations of IPCC forecasts?

Telescoping, or not, between frosts and vegetation advancements ?

Areas with adequate micro-climates (frost, cloudiness, wind, shade,..)

Global analysis of the characteristics of the wines produced ?

Global economic assessment of the last 25 years? (installations, departures, plantings, uprooting, sales, ...)

Willingness of the actors to exchange, to work together, to build something ?

... but 13 to 17 appreciable assets:

On the side of the climate and thus of the micro-climates :

- 1) Two degrees less for 300 m of altitude, - 4° for + 600 m,
- 2) Gains of temperature cumulable with all the other adaptations
- 3) Very qualitative difference of temperature night / day: stronger
- 4) Air, and grounds, generally drier + isolation = bio easier
- 5) IGP areas open

And, in some places :

- 6) Temperature inversions : hot air rising / cold air falling
- 7) Favourable orientation : shadow of a relief, wind corridor, ...

+ other assets :

8,9) Less expensive land. Less neighbours constraints

10,11) No monoculture. So fewer consequences linked to monoculture?

12) Close qualitative references: Torr s, Val d'Aoste, Switzerland, Savoie, ... and more distant: Priorat, Navarre, Portugal, Austria, Bekaa, China, South America ...

13) European cooperation to be developed: Cervim, Alcotra, ...

+ Medcliv, Vin as projects, (+ Wine lab ?)

14) Tourist attraction, permanent presence appreciated by elected officials

15) Sustainable maintenance of great grape varieties (Syrah, or + according to warming)

And, in some places :

16) "*Return of the vine*" very popular and media-friendly.

17) Particular beauty of certain landscapes

Domaine des masques, sur le plateau du Cengle, au pied de la Ste Victoire



In 2050 : where will the top of the range be ?

Adapting to climate change is essential ... but **adapting to the change in consumers would not be useless!**

However, we already have the consumers of 2050 in front of us: they were born since 2000. They are the "*Gréta Thunberg generation*"(?)

"The high-end-are the vines and the wines that make people dream" said Jérôme Quiot. What will make the "generation Z" dream?

- Vines with photovoltaic panels, sails, various trees,.....
- Wines worked like today + de-alcoholized and acidified?

The question deserves to be debated...

... for the greater good of the neighbors

Every region, every industry, needs a "high-end segment" whose prestige and renown reflect on all their neighbors.

The existence of high-end areas in 2050 in the southeast concerns all producers and actors in these five regions.

A miracle or universal solution does not exist. Any solution is:

- to be added to others, when it is cumulative, such as altitude
- to be compared to others: climatic gains, real feasibility (cf.Sark)

CONCLUSIONS :

Elevation = solutions among others, but :

- **Cumulative**, with "innovations", with ascents to the North, etc.
- **Already tested**, in real size, abroad and in France

They must come out of the shadows where they have been put (to use a very diplomatic understatement)

The label "*nomadism*" must be removed from them, which implies "frequent, continuous or regular" displacements

CONSOLIDATED BIBLIOGRAPHY :

Models of foresight : echoes of the strategy of the TORRES family in the Catalan Pyrenees, echoes published in France in 2015, 2019 and 2021

"Strategy of the (French) wine industry in the face of climate change" 26 August 2021 + **the 4 documents cited** in the bibliography

Publications of the 10-year research program LACCAGE, co-directed by Nathalie Ollat and Jean-Marc Touzard, from INRAE

Press review on "vines and altitudes" in a mail loop.

Current presentation is the summary of a 10 pages note..

To be explored: publications of the CERVIM (> 500 m) and of the OIV (?)

First inventory of 13 "nests" of 10 to 15 km radius

See map on p. 4

7 nests of > 3 farms with > 3 ha of vineyards at > 400 m altitude

- 1) The alpine nest, around the lake of Serre-Ponçon, in the Hautes-Alpes
- 2) The nest of the Hautes-Corbières (Mont Tauch, Talairan, ...) in the Aude department
- 3) The nest of the Pinot de la maison Latour, in the haut-Var
- 4) The nest of the Ecologistes Polyculteurs, in the north of the Ardèche
- 5) The nest of the Investisseurs in the south of Ste Victoire in the Bouches du Rhône departement
- 6) The nest of the Conflent in the Pyrénées-Orientales department
- 7) The nest of the Park of Luberon, above Apt, in the extreme East of Vaucluse department

6 nests with 2 of the above criteria + 1 additional, in bold :

- 8) The nest of AOP Diois and Chatillon en Diois, in the Drôme department, for "*continentality*"
- 9) The nest of 2 **special cases**: Ste Jalle and Roche Saint Secret, in the Drôme Provençale
- 10) The **cooperative** nest of Ventoux: cooperative cellars of Bédoin and Beaumont du V., in the Vaucluse department
- 11) Mountain plots **at 1200 m**, in Cerdagne (Pyrénées-Orientales department)
- 12) Micro-plots of "**forbidden** grape varieties" (= first "resistant" ones) in the Cévennes (Gard-Lozère departments)
- 13) Micro-plots of **private amateurs**, in the mountain of Lure (Alpes de Haute Provence)

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Domaine des Trois Orris, dans le Conflent, au pied du mont Canigou

