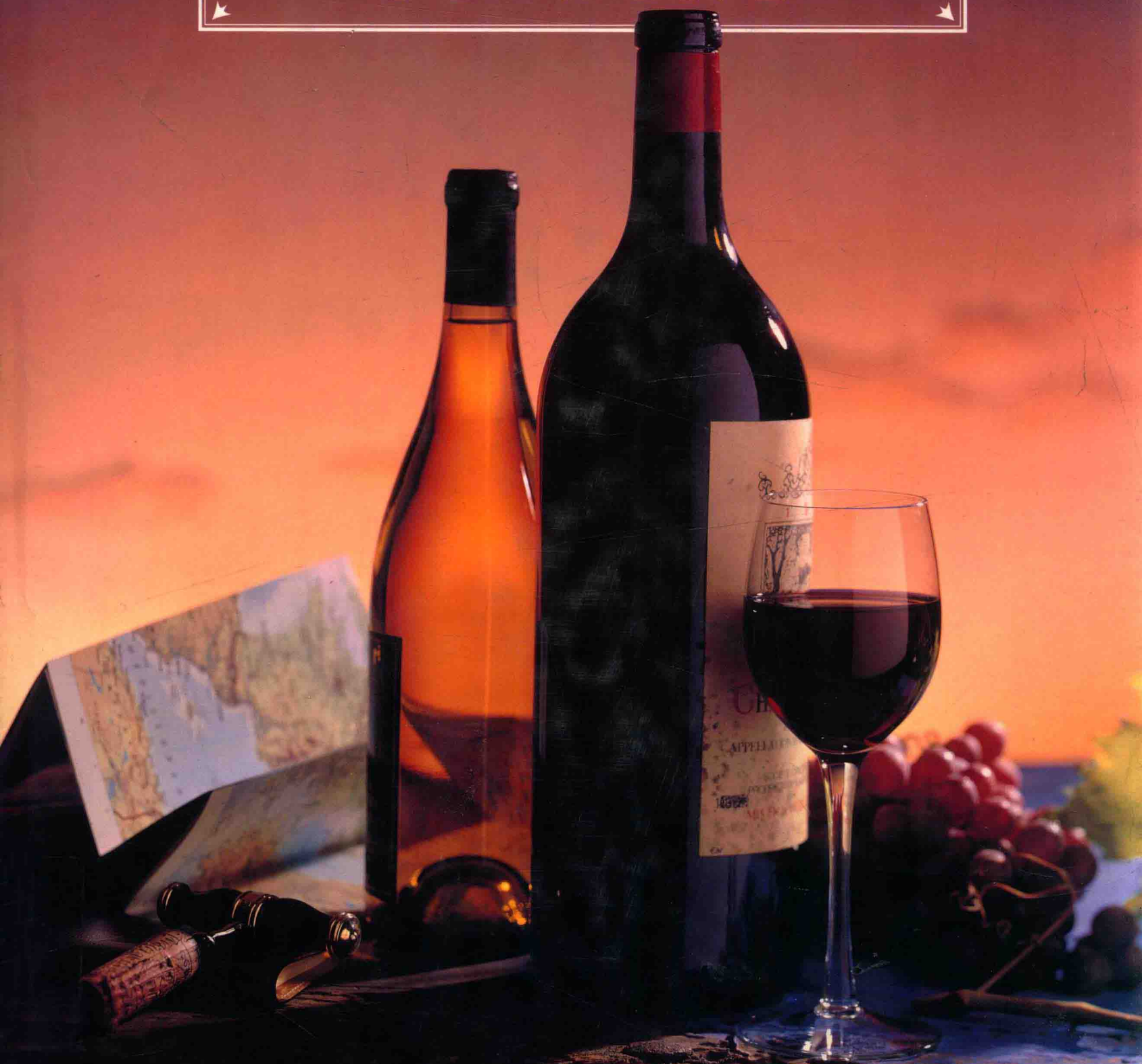


# HUGH JOHNSON

FOURTH EDITION

*The*  
WORLD ATLAS  
OF WINE



COMPLETELY REVISED, EXPANDED, AND UPDATED

*Hugh Johnson*  
THE  
**WORLD ATLAS  
OF WINE**  
FOURTH EDITION

SIMON & SCHUSTER  
New York London Toronto Sydney Tokyo Singapore





# Contents



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Mitchell Beazley International Limited  
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This edition is dedicated to the memory of  
three men who changed the world of wine:

Julio Gallo,  
Baron Philippe de Rothschild,  
Max Schubert







*Hugh Johnson*

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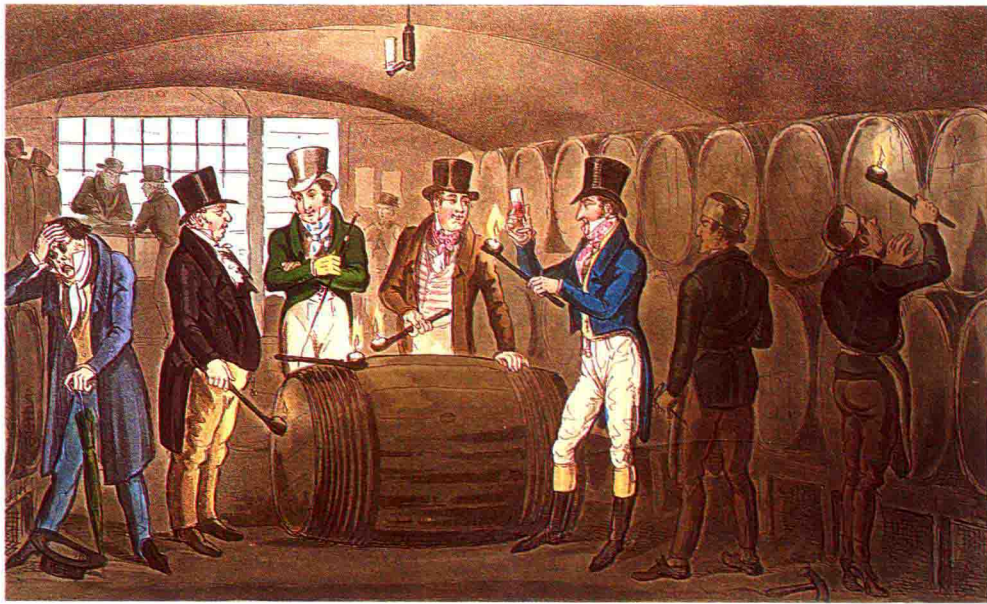
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"Wine tasting in London docks" by George Cruikshank, 1821





## INSTITUT NATIONAL DES APPELLATIONS D'ORIGINE

138 Champs Elysées 75008 PARIS

Quel redoutable honneur que de préfacer cette quatrième édition de l'Atlas Mondial du Vin, car cet ouvrage remarquable de Monsieur Hugh Johnson est une institution; par ailleurs, le fait que cet atlas soit mondial confère au français que je suis une responsabilité particulière. Il me faut tenter de l'assumer.

Le vin est oecuménique par essence, et par nature. Fait de variété, sachant prendre de multiples facettes, le vin sait satisfaire une gamme très ouverte de consommateurs, issus des quatre coins de la planète. Il sait rassembler un monde divisé. Nos vignobles du monde nous viennent de l'histoire, de la culture; ils sont faits d'histoire et de culture. Les savoir-faire des hommes issus le plus souvent de la tradition, ont su extraire des entrailles de la terre des vins aux expressions d'une complexité si fantastique que tout amateur aspire en permanence à les découvrir. Comment ne pas rendre hommage à Hugh Johnson qui nous offre, avec cet ouvrage, le monde du vin, dans toute sa richesse et toute sa diversité.

Il est notamment une diversité qui nous est chère à l'I.N.A.O.; il s'agit de celle des terroirs. Le terroir est ce complexe fait de géographie, d'histoire, de géologie, de climatologie, de sociologie, d'ethnologie; il est constitué de la symbiose entre l'homme et son environnement.

L'empirisme a permis aux hommes de sélectionner le ou les cépages qui savent révéler au mieux l'expression du terroir, au travers des vins élaborés dans notre monde viticole.

N'oublions jamais la part assumée par les terroirs dans l'expression de nos vins; ne banalisons pas ces terroirs en leur substituant des techniques standardisatrices. Car c'est d'eux que viennent la richesse et la diversité de nos vins, puisqu'ils sont eux même riches et divers.

Le marché du vin est mondial, la concurrence y est forte. Mais les consommateurs dans le monde expriment du Nord au Sud, de l'Est à l'Ouest des relations au vin différentes, auxquelles il nous faut obéir dans leur pluralité. Il s'agit là d'une grande richesse qui nous laisse beaucoup d'espoir. Encore faut-il que nous sachions l'entretenir en préservant une offre de vins respectueuse des diversités.

Un grand merci à Hugh Johnson qui avec ce bel ouvrage entretient la connaissance de nos vignobles; chacun nous montre sa spécificité, et de la mosaïque de ces vignobles naît la formidable palette de nos vins. Que de messages à puiser dans l'univers du vin pour notre monde à la fois perturbé et, malgré tout, toujours enclin à se réfugier dans la standardisation.

Paris, Février 1994

**ALAIN BERGER**

**DIRECTEUR DE L'INSTITUT NATIONAL DES  
APPELLATIONS D'ORIGINE**

# Introduction

This Atlas was conceived in 1970 as a way of making the happily absorbing study of wine easier, clearer and more precise. To anyone who hopes to distinguish and remember among the bewildering thousands of the world's wines, maps are the logical, the vital, ally. With a map names are no longer isolated but part of a picture, distinctions and relationships become clearer, tastes begin to form a pattern which is much more memorable than individual impressions.

Revising and largely rewriting it for this fourth edition has made me reflect on 23 years of constantly accelerating change. The first edition was published in 1971, the second in 1977 and the third in 1986. Each new version gave me truckloads of new material and an increasing sense that the world of wine, far from being peacefully repetitive, a long afternoon of vines and vats, was expanding and advancing steadily, apparently towards a golden age of quality and plenty.

The fourth edition appears in a less certain climate. The 1990s began with Revolutions that have redrawn the political map of Europe; but parallel revolutions, too, in the way we question traditions, the way we collect and analyse data, and the world-wide spread of technology.

The end of the Cold War jolted the world's sense of stability. It also coincided with, or set off, a depression that threatened many well-found businesses and drove the affluent wine-drinking world to count its pennies.

These circumstances have caused stresses and found fault lines in the long-evolved world of wine. They have set off fundamental debates about how wines should be described, defined, judged and valued. To understand the situation now it is best to start where I did in 1970, in a world of accepted convention, if not of innocence.

## The first appellations

In 1970 France was the only wine country with a comprehensive set of wine laws based on geography – the result of the foundation in the 1930s of the Institut National des Appellations d'Origine. The new appellations were beautifully mapped by Louis Larmat in the 1940s. Larmat's were the only detailed wine maps of any country until the first edition of this Atlas. Since that date, country after country and region after region has defined or redefined its vineyards and produced maps to prove it.

Italy started in the 1960s, Spain in 1970, Germany in 1971, Austria and South Africa in 1972. Since then Portugal, Greece, the former Yugoslavia, New Zealand, Argentina, Chile, Bulgaria and, since 1980, the United States have plotted, or started plotting, appellations, under whatever name or guise. By 1993 even Australia was scrambling to the finishing line with a list of countless wine regions – though still no maps. Now there is a pressing motive; the whip of the harmonization squad of the European Community.

The maps in this Atlas were originally based largely on informal sources, on usage rather than statute. Every year has brought more precise data, more appellations with the force of law, and more refinements of existing appellation systems – all grist to the map-maker's mill.

But while governments have been preparing to defend their traditions, or at least their markets, with the geographical weapons first devised by the French, the global village effect

has been pulling in the opposite direction. The authorities who designate and control appellations, especially the French, approach the 21st century with a certain apprehension.

The system of appellations so successfully and elaborately constructed on local knowledge of *terroirs*, masterminded in Paris, has almost the force of a religion. In any religion, though, faith is necessary. Any heresy can be contagious. The 1980s saw the rise of a powerful heresy, not in France but in the New World countries that emulate and envy her. It is that only the grape variety really matters.

## Name a grape

'Varietalism', to give it a name, is easy. No historical background is needed. The trick is to persuade consumers that the tastes and aromas of specific grapes are all that constitutes character and quality in wine.

Once you have shown that Chardonnay from Oregon, South Africa, no matter where, has a flavour in common with Chardonnay from Burgundy (and even more when you have added to it the expensive flavour of French-grown oak) you can begin to argue that that is all there is to it.

It is a seductive argument at first for anyone whose vineyards are outside the hallowed circle of the 'classics'. It tries to show the concept of privileged *terroirs* as hocus-pocus intended merely to defend established interests. It defeats itself, though, on two counts.

First and most important, because the differences between *terroirs* are facts. No one can seriously defend the view that valley and hillside, chalk and sand, north slope and south slope make no difference to the wine. This is the subject-matter of this Atlas: open it anywhere and see the evidence.

Second, the anti-*terroir* argument falls because it is against progress. If progress is about making better wine it is about choosing the best places to grow it: in other words discovering new excellent *terroirs*. This is the excitement of plotting the developing wine world. It is the very opposite of the dull varietal position. It explores the globe (as freelance oenologists increasingly do) for places that can add new forms of excellence for us all to choose from.

## New regions to note

What are the new places that we should know about – regions that are exploring their own *terroirs*, either for the first time or with new urgency and resolve? Italy should probably have pride of place, because in 1992 her increasingly outmoded DOC laws were replaced with a completely new system that precisely embodies what I have described above: the acceptance, on conditions, of newly defined *terroirs*, and the rejection of appellations based primarily on grape varieties.

Spain and Portugal have certainly created many new regions – though here one feels it is sometimes more in anticipation than realization of great new discoveries. The same is true of Greece – and come to that of many of the AVAs that now so impressively carve up the USA.

France continues to evolve; especially in the heartland of her best-selling *vins de pays*, the Midi (one of the places, incidentally, where the varietal/*terroir* debate is most vividly seen in action). More space is also devoted in this edition to Alsace,



Beaujolais and Chablis. The German authorities, meanwhile, continue to miss every boat, bus and plane to a wine-law that its growers and the world can take seriously.

For lack of official German resolution this Atlas takes the initiative and maps for the first time what the authorities have sadly failed to recognize: the finest *terroirs* in the finest regions. Although this mapping is my own responsibility and must be considered provisional, I hope it will break the absurd log-jam that prevents the world from recognizing Germany's greatest wines. In the same way this edition plots for the first time the precise vineyards of the first-growths of Bordeaux – and also of Tokay, Eastern Europe's greatest wine region, now at last free again to make its unique great wine.

Other regions that have extra space and new maps in this edition, in recognition of their progress in defining their own potential, include the Northwest, Southwest and Northeast of the United States, parts of Australia and New Zealand, Chile, Slovenia, East Asia and the ex-USSR.

### You, the consumer

The emphasis of this Atlas continues to be on the consumer's point of view. My priorities are those of a wine-lover of the Western world, unattached to any particular country or region except by the appeal of its produce.

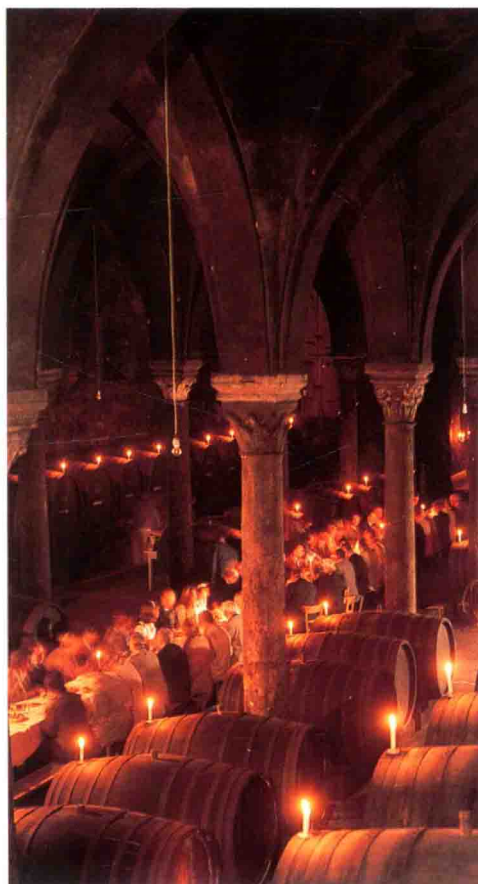
There can be no question of finding one style or one set of criteria to apply to every map. No two regions have the same standards, or place emphasis on the same things. In Burgundy there is the most complex grading of fields ever attempted: each field, and even parts of fields, being classified in a hierarchy that is cut and dried. In areas of Bordeaux there is a formal grading of properties; not directly related to the land but to the estates on it. In Germany there is no official land classification at all, so I have attempted my own. In Champagne whole villages are classed, in Jerez soils of certain kinds, in Italy some of the best wine zones, but not others.

Behind all this tangle of nomenclature and classification lies the physical fact of the *terroir*, the hills and valleys where the vine grows. In each case I have tried to make it plain, so far as I have been able to discover, not only which corner of the countryside gives the best wine, but why; what happy accident of nature has led to the development of a classic taste which has become familiar – at least by name – to half the world.

There are reproductions of paintings; music has scores; poems are printed; architecture can be drawn – but wine is a fleeting moment. One cannot write about wine, and stumble among the borrowed words and phrases which have to serve to describe it,

without wanting to put a glass in the reader's hand and say, 'Taste this'. For it is not every Nuits-St-Georges or Napa Cabernet that answers the glowing terms of a general description – the liquor shops of the world are awash with wines that bear little or no relation to the true character of the land.

This is the reason for giving the most direct form of reference available: the labels of more than 1,000 producers whose wines truly represent the subject matter of the Atlas. Among the many thousands who qualify to be included choice is almost impossible. As it stands it is partly personal, as anything to do with taste must be, and partly arbitrary, as the limitations of space ruthlessly cut out firm favourites.



The cellar of the 12th-century Cistercian abbey of Eberbach in the Rheingau has sheltered the wines of the Steinberg for 700 years. Together with the Clos de Vougeot in Burgundy it symbolizes the crucial role of Christianity in the history of wine.

### Personal thanks

No book like this could be attempted without the generous help of authorities in all the countries it deals with. Their enthusiasm and painstaking care have made it possible. On page 320 there is a list of government and local offices, and some of the many growers, merchants and scholars, who have so kindly helped, and to whom I owe the great volume of information embodied both in the maps and the text. The facts are theirs; unless I quote a source, on the other hand, I must be held responsible for the opinions.

Apart from those named above and those whose help is acknowledged, this is the place to record my thanks to the team in the front line. Map-making is the most demanding form of draughtsmanship: I owe a great debt to Thames Cartographic and Bob Croser for the thousands of hours they have spent plotting and checking. Zoë Goodwin must be the world's most cheerful, as well as disciplined, supervisor of cartography, responsible for the research, briefing and correction of every map.

It falls to the editor to coordinate and make sense of every aspect of a book. Stephanie Horner combines understanding and resilience, patience, intuition and tact to a high degree. She has also beavered away as very few editors do on many aspects of research which ought, by rights, to be the author's.

Paul Drayson has now designed so many of my books that I am in danger of taking for granted the meticulous freshness and elegance of his work. Simon McMurtrie and Anne Ryland, in overall charge, kept us all relatively calm in a schedule with no respite, not only producing this English edition, but also coordinating German and French editions to appear simultaneously.

To all of them, to my wife Judy, who knows more than she wants about every detail, and to my secretary, Hanne Evans, I publicly acknowledge that the author of such a book as this gets far more than his fair share of the credit.

# The World of Wine

The world today has some 20 million acres – 8.5 million hectares – of vineyards. They produce an annual crop of more than 25,000 million bottles of wine; enough, if there are 5,000 million people on earth, to give the world's entire population five bottles a year each.

Yet wine, food and comforter as it is, is very far from being a universal phenomenon. It is part of a cultural and agricultural pattern peculiar to the earth's temperate zones where Mediterranean, or 'Western', man has flourished. Wine-growing and wine-drinking are rooted in the most widespread, longest-lived civilization the earth has known. But they have never yet successfully or significantly colonized other cultures.

The map shows the distribution of vineyards and wine production around the world. Europe still accounts for over three-quarters of production. Many Eastern countries have considerable vineyards but produce no wine, or very little; table-grape acreage is included in the figures.

Italy and France remain far and away the biggest producers (with Spain now in third place) – but no longer the biggest consumers by their traditional massive margin. From 1968 to 1991 the French average consumption dropped by nearly two-thirds: from an annual 150 bottles per head to 67. Italian wine-drinking is dwindling almost as fast. Modern life has no place for the heroic quantities working people used to put away. A car-filled world inevitably means drinking much less – but also better. Expenditure on wine has risen as consumption has fallen.

The few countries that are increasing their consumption over the medium term (although not at a rate anything like fast enough to absorb the surplus) are those where wine is considered a luxury rather than a staple beverage: the USA, Britain, Japan (though these three have actually declined slightly with recession), Germany, Australia, Canada, South Africa, Belgium, Switzerland, the Netherlands and Scandinavia.

Spain, Portugal and Hungary are the exceptions: big producers who are also slightly increasing their consumption.

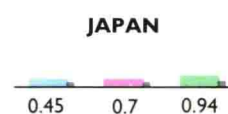
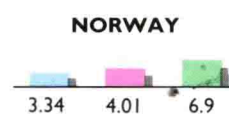
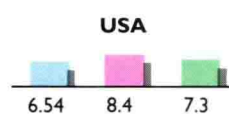
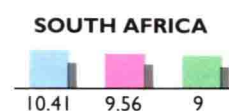
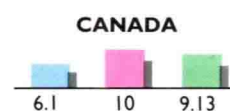
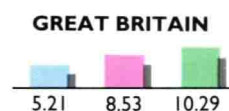
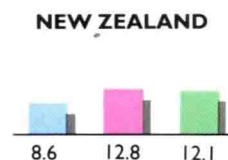
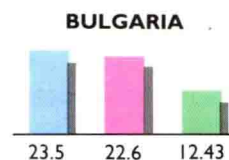
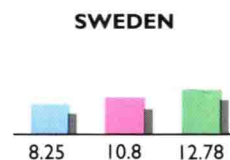
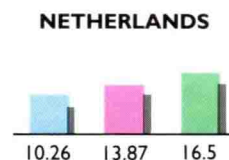
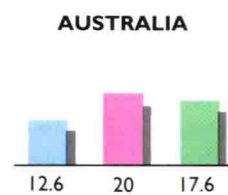
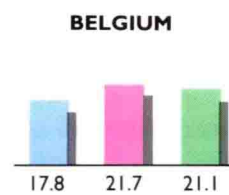
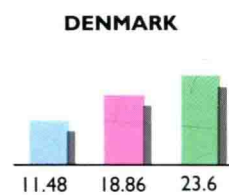
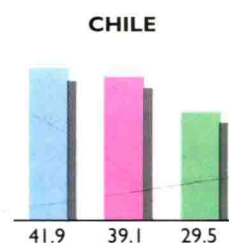
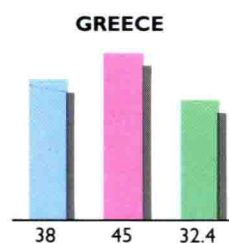
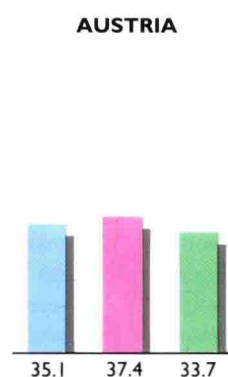
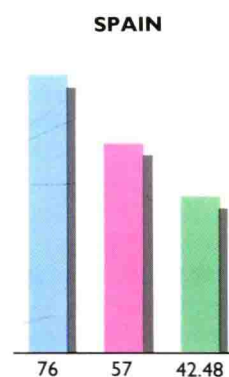
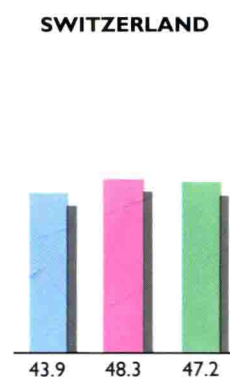
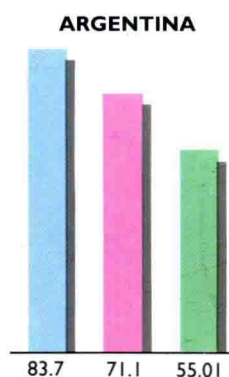
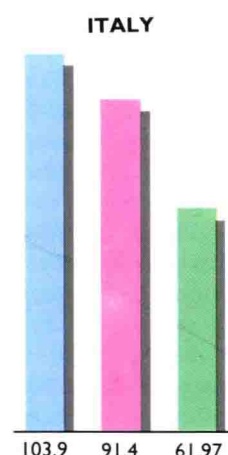
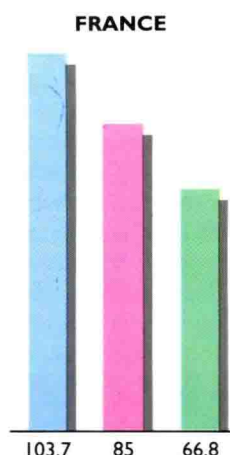
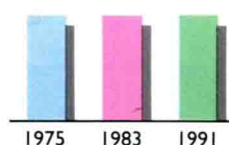
In the 1960s and 1970s the world's vineyard acreage was increasing fast, with the USSR and other communist-bloc countries, Argentina and the USA leading the way. It peaked in 1980 and has been steadily shrinking since. It is now lower than at any time since the 1950s. Greater productivity from a smaller acreage accounts for part of this decline: between 1950 and 1980 acreage increased by 13%, production by 35%. So does the reversal of Soviet agricultural policy in the 1980s. Most important, and pointing the way forward, is the increased emphasis on quality at the expense of quantity. Those who are drinking less are spending more. The new recruits in North America, northern Europe, Australasia are being trained to demand well-made wine.

Alas, for the poor traditional wine farmer the 'wine lake' will not go away. From time immemorial there has been a glut of third-rate wine. Never before, until the present age of scientific advance and technological control, has there been more than enough good wine to go round.

## WORLD WINE CONSUMPTION In litres per head of population

\* Figures reflecting consumption in the revised political boundaries within these former states have yet to be collated

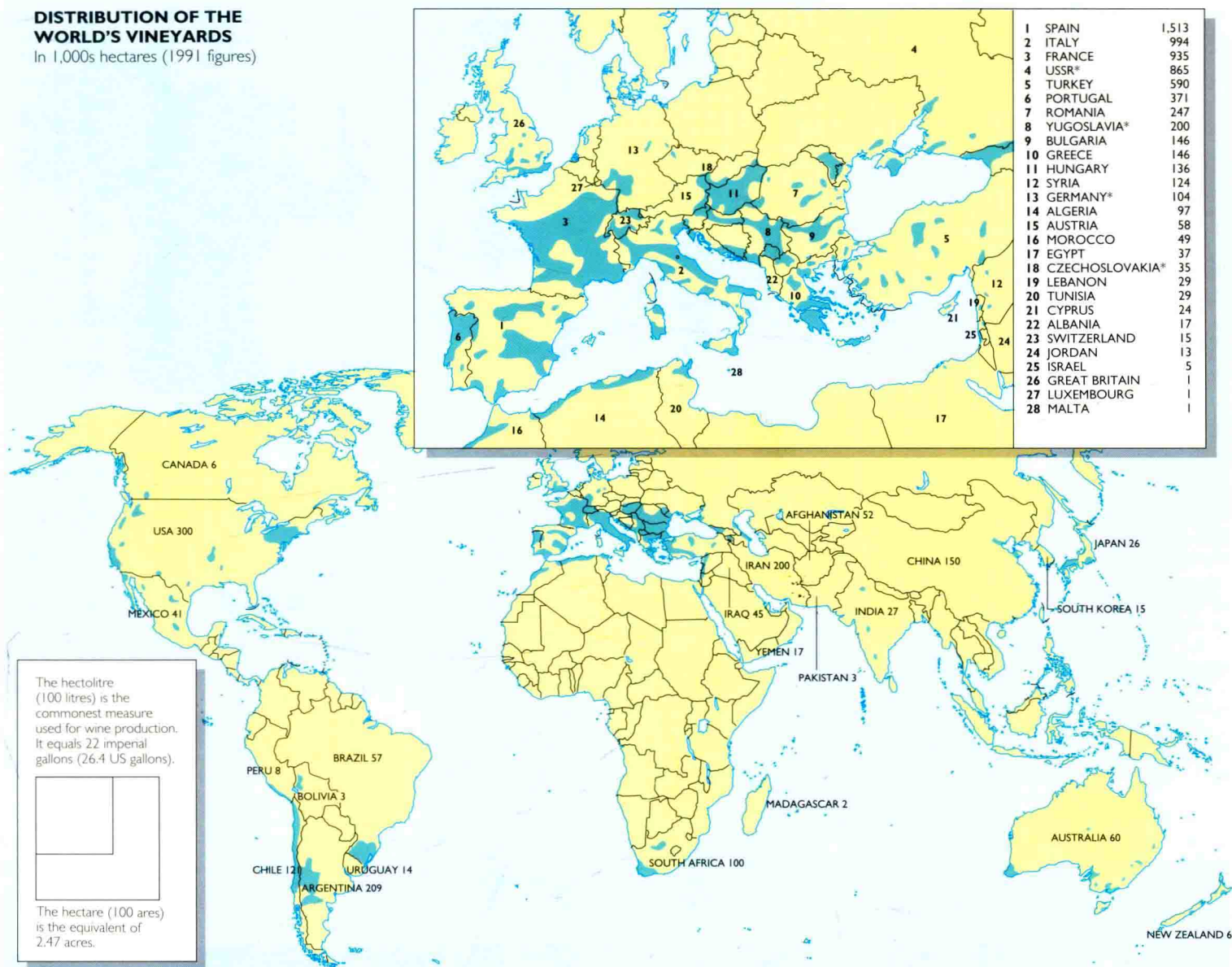
KEY





## DISTRIBUTION OF THE WORLD'S VINEYARDS

In 1,000s hectares (1991 figures)



## WINE PRODUCTION

In 1,000s hectolitres

N. America	1983	1991
USA	14,762	15,500
Canada	470	504

S. America	1983	1991
Argentina	24,719	14,500
Brazil	2,750	3,110
Chile	4,384	2,895
Mexico	147	1,669
Uruguay	810	796
Peru	90	100
Bolivia	20	20

Europe	1983	1991
Italy	82,200	60,086
France	68,123	42,689
Spain	30,320	31,200
USSR*	35,100	13,000
Germany*	13,040	10,170
Portugal	8,303	10,033
Yugoslavia*	7,877	5,800
Hungary	6,275	4,607
Romania	8,700	4,450
Greece	4,800	4,021
Austria	3,698	3,093
Bulgaria	4,476	2,190
Czechoslovakia*	1,379	1,343
Switzerland	1,612	1,326
Albania	220	175
Luxembourg	185	86
Malta	19	28
Great Britain	13	15
Belgium	4	2

Africa	1983	1991
South Africa	9,174	9,704
Algeria	1,750	460
Tunisia	576	425
Morocco	436	380

Asia/ Middle East	1983	1991
Cyprus	830	415
Turkey	390	240
Israel	190	120
Lebanon	—	105
Jordan	6	10
Syria	—	5

Far East	1983	1991
China	—	950
Japan	592	583

Australasia	1983	1991
Australia	4,026	3,943
New Zealand	580	499

\* Figures reflecting vineyards and production in the revised political boundaries within these former states have yet to be collated.



# The Ancient World

Wine is far older than recorded history. It emerges with civilization itself from the East. The evidence from tablets and papyri and Egyptian tombs fills volumes. Mankind, as we recognize ourselves, working, quarrelling, loving and worrying, comes on the scene with the support of a jug of wine.

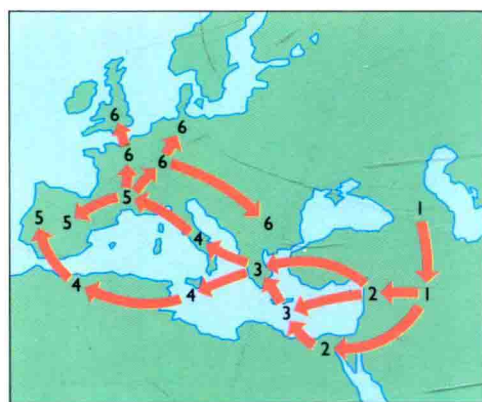
Pharaonic wine, however vividly painted for us to see, is too remote to have any meaning. Our age of wine, with still-traceable roots, begins with the Greeks and Phoenicians who colonized the Mediterranean, starting about 1500 BC. It was then that wine first arrived where it was to make its real home: Italy, France and Spain. The Greeks called Italy the Land of Vines, just as the Vikings called America Vinland from the profusion of its native vines 2,000 years later. North Africa, southern Spain, Provence, Sicily, the Italian mainland and the Black Sea had their first vineyards in the time of the Greek and Phoenician Empires.

The wines of Greece herself, no great matter today, were lavishly praised and documented by her poets. There was even a fashionable after-dinner game in Athens which consisted of throwing the last few mouthfuls of wine in your cup into the air, to hit a delicately balanced dish on a pole. Smart young things took coaching in the finer points of 'kottabos'. But such treatment of the wine, and the knowledge that it was almost invariably drunk as what we would call 'a wine cup', flavoured with herbs, spices and honey and diluted with water (sometimes even seawater) seems to question its innate quality. That the wines of different islands of the Aegean were highly prized for their distinct characters is indisputable. Chios in particular was a supplier in constant demand. Whether the wines would appeal to us today we have no way of knowing.

Greeks industrialized winegrowing in southern Italy, Etruscans in Tuscany and further north, and Romans followed. So much was



Above: this ancient Egyptian painting shows grape-treaders under an arbour of vines. It comes from the tomb of Nakht, an official from Thebes who died in the 15th century BC.



written about wine and winemaking in ancient Rome that it is possible to make a rough map (right) of the wines of the early Roman Empire. The greatest writers, even Virgil, wrote instructions to winegrowers. One sentence of his – 'Vines love an open hill' – is perhaps the best single piece of advice which can be given to a winegrower.

Others were much more calculating, discussing how much work a slave could do for how little food and sleep without losing condition. Roman winegrowing was on a very large scale, and business calculation was at the heart of it. It spread right across the Empire, so that Rome was eventually importing countless shiploads of amphoras from her colonies in Spain, North Africa – the entire Mediterranean.

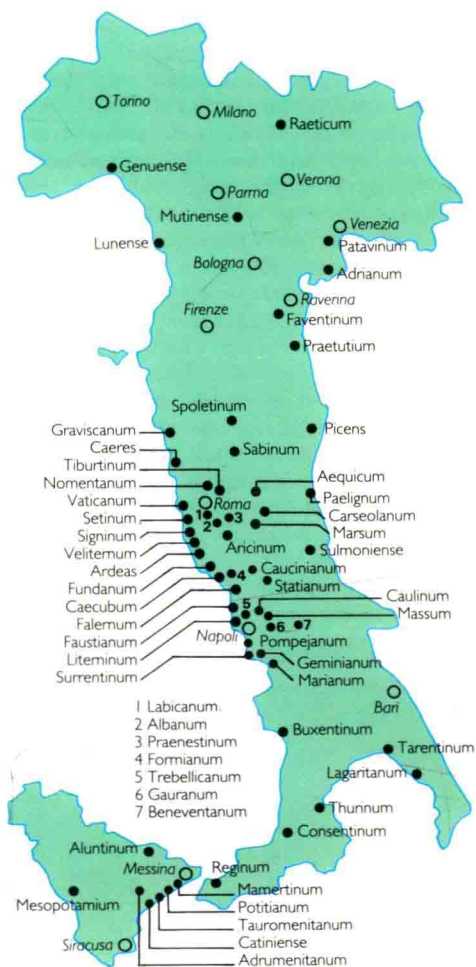
How good was Roman wine? Some of it apparently had extraordinary powers of keeping, which in itself suggests that it was well made. It was frequently concentrated by heating, and even smoked to achieve what must have been a madeira-like effect. On the other hand Pliny, whose *Natural History* contains a complete text-book on wines and winemaking, recommends the boiling of concentration of must in vessels made of lead, 'to sweeten it'. The resulting lead oxide poisoning must have been excruciating. The cholics, and eventual blindness, insanity and death that resulted were never connected with their cause; pains were even put down to bad vintages.

Left: the early movements of the vine. Starting in Caucasia or Mesopotamia 1 in perhaps 6000 BC it was cultivated in Egypt and Phoenicia 2 in about 3000 BC. By 2000 BC it was in Greece 3 and by 1000 BC it was in Italy, Sicily and North Africa 4. In the next 500 years it reached at least Spain, Portugal and the south of France 5 and probably southern Russia as well. Finally (see map on opposite page) it spread with the Romans into northern Europe 6, getting as far as Britain.



Right: the ceremonial of wine-drinking is one of the favourite motifs of Greek painting. This wine-cup from about 500 BC illustrates the wine mixed in a *krater* being labelled, with due reverence, into a drinking-cup or *kylix*. A 'symposium' was simply an evening of wine-drinking.





Above: barrels were used by the Romans. This one was found being used as the lining of a well at Silchester in southern England. Left: the Romans interpreted the graceful Greek wine god Dionysus as a more fleshly creature; in a mosaic from Pompeii, he rides his traditional mount, a lion, but boozes from a monstrous pot.

Above: the wines the Romans drank; a reconstruction of winegrowing Italy in AD 100. Names of modern cities are given in italics; wine names in roman type.

Rome's great vintages were discussed and even drunk for longer than seems possible; the famous Opimian – from the year of the consulship in Opimius, 121 BC – was being drunk when it was 125 years old.

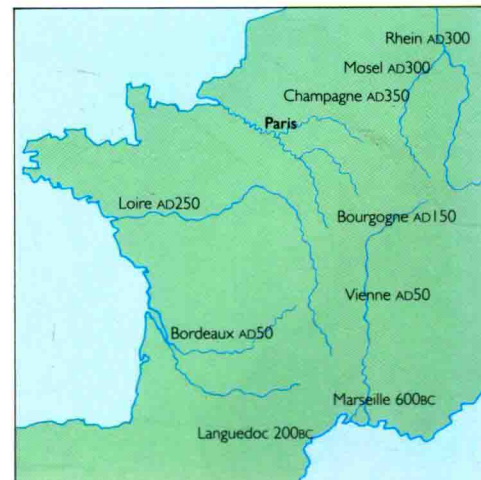
Certainly the Romans had all that is necessary for ageing wine. They were not limited to earthenware amphoras like the Greeks – although they used them. They had barrels just like modern barrels and bottles not unlike modern bottles. The art of glass-making came to Rome from Syria. Most Italians of 2,000 years ago probably drank wine very like their descendants today; young, rather roughly made, sharp or strong according to the vintage. The quantities they drank, though, were prodigious; the Roman orgy is by no means a flight of later imagination. Even the Roman method of cultivation of the vine on trees, the festoons which became the friezes on classical buildings, is still practised here and there in the south of Italy and (especially) northern Portugal.

The Greeks – or perhaps the Etruscans from Tuscany – took wine north to southern Gaul.

The Romans domesticated it there. By the time they withdrew from what is now France in the fifth century they had laid the foundations for almost all the most famous vineyards of the modern world.

Starting in Provence, which had had Greek-planted vineyards already for centuries, they moved up the Rhône valley and into the Languedoc, the Provincia Narbonensis, and across (or by sea?) to Bordeaux in the time of Julius Caesar. All the early developments were in the river valleys, the natural lines of communication, which the Romans cleared of forest and cultivated, at first as a precaution against ambushes. Besides, boats were the best way of moving anything so heavy as wine. Bordeaux, Burgundy, Trier on the Moselle (where the museum preserves a fully laden and manned Roman wine-boat in stone) probably all started as merchant-centres for imported Italian or Greek wine, then planted their own vines and eventually surpassed the imported product.

By the second century there were vines in Burgundy; by the third on the Loire; and by the fourth at Paris (not such a good idea), in Champagne, and on the Moselle and the Rhine. The foundations had been dug for the French wine industry we still know.



Above: the vineyards of France and Germany at the fall of the Roman Empire. The dates of their founding are mainly conjectural. Vineyards in the Languedoc and Marseille were founded by the Greeks; the rest by the Romans in the heyday of Roman Gaul.

The history of all these vineyards has been continuous: Alsace – which does not appear here – was probably founded in about AD 800.