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vine  
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Hovhannisyan Nelli A., Yesayan Aleksandr A., Bobokhyan Arsen A.,  
Dallakyan Marina V., Hobosyan Suren G., Gasparyan Boris Z.

# **Armenian Vine and Wine**

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The book introduces the final achievements accumulated in the study of the origins and development of viticulture and winemaking in Armenia, with the intention to ensure improved knowledge and increased awareness among the readers. It will be interesting for all readers who realize that wine is not just a drink, which is industrially made independently of its ties to the land, the history, the traditions, the social context; it is for those who understand that wine cannot be viewed independently of the grape varieties, history and traditions used to make it. Vines and Wine allows all of us to learn about history of people who made it, about traditions and culture of places where amazing diversity of native grapes give birth to unique wines.

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## FORWARD

**T**he annals of wine-making or viniculture in Armenia are as old as the viticulture itself. This is the undeniable truth, verified in results of scientific research, physical evidence of archaeological excavations and the testimonies of Greek historiographers of the V-IV centuries BC and the following centuries, regarding the diverse, delightful and aromatic wines of Armenia.

There are plenty of books, publications, ampelographies, monographs and other valuable materials on the viticulture and wine-making in Armenia, but they have all been of different orientation.

The “Armenian Vine and Wine” is valued for its comprehensive contents, covering the genealogy, history of viniculture and viticulture, the diversity of grape varieties and clones, the Armenian vine and wine culture, the medicinal significance and the art of serving and drinking wine.

The publication of “Armenian Vine and Wine” is fully consistent with the policy adopted by the Government of the Republic of Armenia, considering that viticulture and viniculture were recognized as priority areas by the Government. Moreover, in 2016 a Vine and Wine Foundation was established in Armenia, according to the Decision of the RA Government.

Publishing a book about Armenian viniculture and wine-making pursues the goal of expanding the culture of wine production and consumption, preservation and promotion of sustainable use of traditional grape varieties used for Armenian wine production, which, in its turn, will contribute to better knowledge among public institutions, academic and business communities and other stakeholders.

The Armenian office of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has brought together researchers from various sectors; archaeologists, ethnographers, biologists and other scientists, as well as professional wine producers. They have collected, analyzed and summarized an extensive volume of information, related to Armenian wine and vine.

**Ignati Arakelyan**  
*Republic of Armenia*  
*Minister of Agriculture*

## FORWARD

**T**he region of Southern Caucasus lies at the crossroads of Europe, Asia and the Middle East. Different cultures, languages and religions meet here. The whole region is characterized by a big diversity of plants and animals of global importance. Mankind has long existed in this region where many traces of ancient life can be found. There is evidence that wine-making traditions have made the part of the region since long ago. Even today, the lands of Armenia are home to many indigenous grape varieties, with an invaluable genetic resource and potential.

It contributes a high priority to the preservation of this precious heritage. Moreover, the wine-making industry in Armenia is a promising economic sector that could serve a good example for other industries. Its huge potential for sustainable and environmentally friendly management practices by wine makers could also enhance the development of hospitality industry, tourism, and many others. There is a need to reflect upon the importance of biodiversity and its benefits for humanity and develop corresponding strategies for agriculture and tourism, create conducive conditions for the best use of the Armenian wine sector for Armenia's sustainable growth and prosperous future.

The book "Armenian Vine and Wine" is an encouraging start for such reflections that shows the aim of the Integrated Biodiversity Management in the South Caucasus (IBiS) Program. Financed by the German Government and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, IBiS Program aims at supporting its Armenian partner organizations in fostering the cross-sector coordination in the sustainable management of biodiversity and ecosystem services.

We congratulate the authors for their outstanding work in giving this comprehensive overview about "Armenian Vine and Wine". We sincerely hope that this book will contribute to the promotion of preservation and sustainable use of Armenian grape varieties and unique wine culture as a promising sector for the well-being of Armenian people and their sustainable development!

**Carsten Schulz**

*Integrated Biodiversity Management,  
South Caucasus (IBiS) Program,  
Deutsche Gesellschaft für Internationale  
Zusammenarbeit (GIZ) GmbH*

## PREFACE

**G**rapevine is one of the oldest and widely cultivated fruit bearing trees in the world. Since ancient times grapes and wine played an outstanding role in human life and represent an important multicultural heritage. It is true that people have shaped the grapevine over Millennia; it is equally so that grapevine and the wine have altered human patterns of life, which formed the mutual dependence of people and wines. This is the case which gave birth to such terms as the “Drinking Revolution”.

Armenia (and the Armenian Highlands in general), together with neighboring areas (the Caucasus, Near East and the Mediterranean basin) was one of the primary centers of grapevine domestication and diversity of grapevine varieties, as well as the origins of winemaking. Archaeological excavations in Armenian Highlands and adjacent territories discovered numerous finds that proved grapevine cultivation and winemaking (winepresses, wine cellars, vessels for practical and ritual uses, iconographical items), which describe the primary phases and patterns of development of cultivation and production. Among the mentioned finds, especially important were hundreds of grape sprouts, barks, fruit stems, seeds, pressed fruits and pulp remains found in Areni-1 cave in Vayots Dzor Province of Armenia, together with the oldest known wine producing facility, which is at least 6.000 years old.

It is not obvious, that the earliest evidence among the written historical sources, which has indirect parallels in Sumerian literature, is the Biblical legend, according to which the Patriarch Noah planted the grapevine and made wine after descending from the Mount Ararat. This legend was preserved in historical memory of ancient peoples, among which the Armenian folkloristic tradition has its special place. Up to nowadays the Armenians believe that the tree of life is associated with the grapevine, which grew from

the buried bones of the sacrifice delivered by the Patriarch Noah. In folkloristic records, especially in the “Sasna tsrer” epic tell the Armenians swore to bread and wine.

Being involved in studying of biological, ecological, ampelological, oenological, archaeological, historical and social aspects of “Vine and Wine” in Armenia we have always been fascinated by rich diversity of Armenian’s aborigine grape varieties and associated social and corporate identity of wine. Each of them is the result of long standing relationships with its local geology and climate, as well as the cultural phenomenon linking the local traditions, territories and people. Hence the core thread of this book became the idea to combine cultural and biological aspects of “Vine and Wine” in Armenia. We underlined that in order to understand the long-term history of “Vine and Wine” evolution we need detailed knowledge of the biological, ecological and genetic changes over time combined with archaeological and historical data. Of equal necessity is the knowledge of establishment of the agrarian life-ways and economization of social behaviors, intensification of human production chains, their culture in resourceful landscapes, transformation of basic village communities into hierarchically organized complex polities. Thus, diversity of grapevine and wines seems to appear as a result of interaction of different cultures, mutually shaping each other in process.

Meanwhile, there has been very limited interdisciplinary communication in creation of corresponding knowledge. This is partly because “Vine and Wine” has been studied as lying within the biological and the economic realms, whereas archaeology and Culture-Studies were concentrated on artifacts and their meanings. With the book “Armenian Vine and Wine” we have tried for the first time to break down such artificial divisions, and to discuss various aspects of amazing world of “Vine and Wine” in diachronic and spatial perspective. Indeed, viticulture and winemaking are a subtle mixture

of science and art, traditions and culture. There is a huge diversity in grapevine, climates, soils, viticulture practices and winemaking processes. This results in a tremendous range of wine types all around the world. However, in spite of its historical, cultural and economical value, viticulture faces several challenges. From the approximately 5.000 varieties which are believed to exist in the world, only 200 – 300 are cultivated to a large scale. Today, owing to an ongoing preference for a small number of “global-player” varieties autochthonous varieties with an interesting potential for wine market or genetic improvement are endangered and knowledge about their use and characteristics is quickly disappearing.

Armenian ampelography contains descriptions of more than 300 aborigine wine grape varieties. However we know less about these grape varieties and the only source of information is the Ampelography of the Armenian SSR and the ethnographic data. We realized that only ca. 10% of the aborigine varieties are preserved in the Armenian National Grapevine Collections and private farms. Having long historical tradition of viticulture and winemaking we feel the need to promote and preserve untapped potential of native grape varieties and their wines.

The book “Armenian Vine and Wine” introduces the final achievements accumulated in the study of the origins and development of viticulture and winemaking in Armenia with main idea to ensure improved knowledge and increased awareness among the readers. It presents botanical properties of grapevine and its wild ancestor, the origins of viticulture and winemaking in modern perception, the origins and development of alcoholic beverages, the primary sources of ancient viticulture and winemaking, like archaeological and archaeobotanical, genetic and molecular biological, historical and written, mythological and folkloristic, and, finally, linguistic, the history of viticulture and winemaking in Ancient, Medieval and Modern Armenia (including forms and

methods of winemaking, industrial facilities, maturation and preservation, economies, professions related to them, irrigation systems for the vineyards, circulation and trade of grapes and wine, consumption), grapes and wine as a system of values, their place in ritual ceremonies and beliefs, the diversity of vine varieties and art of drinking in Ancient and Medieval Armenia, classification of Armenian wines, modern culture of drinking wine, as well as wine and food pairing.

It is important to mention that the book highlights the description of native grapes and their wines. It covers the description of the main threats to local grape varieties and the future opportunities for vine breeding and winemaking, including the main ways of effective preservation and sustainable use of grape genetic resources. It is not only about famous Areni and Voskehat varieties, but also about Arevik, Banants, Garan Dmak, Tozot, Lalvary, Tchilar, Movouz, Movses, Mormor, Mskhali and many others.

This book is for all readers who realize that wine is not just a drink, which is industrially made independently of its ties to the land, the history, the traditions, the social context; it is for those who understand that wine cannot be viewed independently of the grape varieties, history and traditions used to make it. “Vine and Wine” allows all of us to learn about history of people who made it, about traditions and culture of places where amazing diversity of native grapes give birth the unique wines.

We hope that this book will support and facilitate the sustaining of existing and neglected autochthonous varieties and traditional viticulture and winemaking, enriching and diversifying the quality of grape and wine production.

By means of this publication, we hope that readers will come to understand the future prospects for developing viticulture and winemaking in Armenia and to highlight the place of “Armenian Vine and Wine” from the global perspective.

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