

# **Glassware and Glassworking in Thessaloniki**

**1st Century BC – 6th Century AD**

**Anastassios Ch. Antonaras**

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Dedicated to  
Mania and Christos



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# Introduction

Glass was one of the first substances invented by man, perhaps as a very fortunate accident while experimenting with glazed pottery or faience. This probably took place at some time in the 3rd millennium BC, probably in Mesopotamia, and the first objects – monochrome or polychrome translucent or opaque items – were produced in Mesopotamia and Egypt. The first products appear to have been simple beads, and, later, decorative elements and inlays were for a very long period the only glass creations, with vessels as such (polychrome/opaque) only being known from the 15th century BC onwards. The use of glass vessels was extremely restricted and reserved only for elites. In the Mycenaean world of the second half of the second millennium BC, many beads and pendants of dark-blue glass were used and a few small unguentaria appeared employing the mosaic technique. Colourless transparent glass was made for the first time in 8th-century BC Assyria and was used for the production of vessels.

In Classical Greece, from the 6th century BC onwards, core-formed multicoloured vessels, mainly unguentaria, miniature replicas of tableware, were produced; these were apparently expensive items meant only for gods, rulers, and the highest ranks of society. In the 4th century BC in Greece and the Near East, colourless transparent glass was reintroduced and small objects and fancy tableware vessels, seemingly used at official or ceremonial banquets, were made of it. In Hellenistic times technical and artistic advances occurred in glassworking, but glass vessels remained exquisite items, for instance tableware (almost exclusively drinking and pouring vessels, bowls and amphorae), that were still restricted to privileged users. It was only in late Hellenistic times that drinking vessels, simpler in form and decoration, began appearing in greater quantities and now, for the first time, intended for wealthier users.

The invention of the blowing technique, in the 1st century BC, made glass objects accessible for the first time to wider society, introducing glass objects into almost every middle-class household. All classes of tableware, drinking vessels (bowls, beakers), vessels for presenting or offering food (dishes, plates, trays) or pouring liquids/drinks (jugs, decanters, flasks/bottles) were abundantly produced in glass. Unguentaria appear in a great variety of shapes and sizes, containing perfumes, cosmetics, medical and religious substances. In this period the storage, preservation and trade of various products, even in large quantities, was conducted using bulky and totally utilitarian vessels. Furthermore, from the 3rd and 4th centuries onwards, developments in transparent glass led to the wide use of the material for lamps. Some forms of tableware evolved to that end, or other special shapes were devised for society's growing demands for lighting, which, from Late Antiquity onwards, were mainly met by the use of glass receptacles. Throughout the Late Antique, Byzantine and Medieval periods (and even later, depending on social, economic and commercial fluctuations), glass items retained these uses, serving people in all aspects of their mundane or special occasions, before finally accompanying them to their graves (and thus protected from the breakage and consequent recycling that widely occurred), offering a better picture of the very wide range of shapes, sizes and colours that these products appeared in.

This present work deals with the production and decoration of glass in the Roman and Early Byzantine periods; the social and economic aspects of glassworkers; the typology of glass vessels found in Thessaloniki and its environs; and the wide variety of human needs met by such objects. Furthermore, this research sheds light on the find-spots and excavations conducted in this region during the 20th century, which, in the main, have been summarily presented or completely unpublished hitherto.

In contrast to other regions of the Roman Empire, in Greece the history of glass during Roman and Early Christian times is a subject that has only been cursorily investigated.<sup>1</sup> Specifically, glassworking in Thessaloniki remained – before the Greek publication of this book in 2009 – almost entirely unknown and was presented only sporadically

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<sup>1</sup> The most important of the studies dedicated exclusively or mainly to glass finds are noted *infra*, referring to the following sites or collections: Corinth: G. Davidson 1952 – the first systematic study of this kind, where glass finds from the excavations of the American School of Classical Studies in Corinth were presented; Nea Anchialos: Weinberg 1962 – including vessels and probably also a glass-workshop; Samothrace: Dusenbery 1967 and Dusenbery 1998; Galaxidi: Zafeiropoulou 1975; the collections of the Benaki Museum: Clairmont 1977; De Tommaso 1991 – concerning glass unguentaria from Greek territory; Knossos: Price 1992; part of the collection of the National Archaeological Museum: Weinberg, McClellan 1992; Amorgos: Triantafyllidis 1998. Congresses dedicated to the history of glass in Greek territories were organized in Margarites/Mylopotamos in 1997, and in Rhodes in 2001. In the proceedings of these congresses (Themelis (ed.) 2002 and Kordas (ed.) 2002) several studies regarding Roman and Early Christian glassworking were published. A three-day international seminar was organized in Thessaloniki in 2001 and the published proceedings (Antonaras, Kordas (ed.) 2002) include studies presenting for the first time in Greek the history of glassworking from the Mycenaean to Ottoman periods.

in the form of illustrations accompanying excavation reports and entries in exhibition catalogues.<sup>2</sup> Only one article reported specifically on the glass finds from an excavation.<sup>3</sup>

The present study aims to fill this existing gap in the research. It includes nearly all the glass vessels, both Roman and Early Christian, brought to light by excavations conducted in Thessaloniki and its environs from the early 20th century until the year 2002. In addition to the 800 vessels presented in detail in the Catalogue, the author has studied thousands of additional vessels and fragments that were ultimately excluded from publication, either due to their fragmentary state – which made their identification problematic and insecure – or because they are intended for publication by their excavators. However, all the excluded vessels belong to types presented in depth in the chapter on typology through other examples. Thus, the entirety of glass vessel types excavated in the greater Thessaloniki region are illustrated and published here. These types fall within the more general framework of glassworking during the period, and provide a secure basis for the study of the region's material culture and the daily lives of its inhabitants. In addition, the study of this material has enabled us to draw meaningful conclusions about the commercial and economic relations and contacts of Macedonia, essentially the main gateway for commercial goods making their way into the Balkan hinterlands during the Roman and Early Christian periods.

The first chapter here deals with production. It examines the places where raw materials were collected, the location and operation of glassmaking workshops (known only in the Middle East), and those workshops used for secondary production (i.e. the forming of glass objects) and which operated in various cities throughout the Empire. The raw materials and two main types of workshop are presented in such a way as to make the artisanal/glassworking finds from Thessaloniki, which form part of the following chapter, more easily understandable.

All the techniques employed in producing, forming and decorating the glass vessels that comprise the Catalogue are examined. A detailed presentation of these techniques was deemed necessary for several reasons. First, most of the techniques used in ancient glassworking are not known with any precision. This is the result of a break in the related technical tradition, the absence of clear references in ancient historical sources, and the absence of relevant excavation finds. Second, the theories and views presented until recently by archaeologists and art historians, and which have often and uncritically been repeated, were frequently based on arbitrary conclusions arrived at by 19th-century scholars through analogies to metalworking and pottery techniques, or based on observations of the methods of contemporary glassworkers. However the technical means and infrastructure of contemporary glassworkers differ radically from those of their Hellenistic and Roman peers. The second half of the 20th century inaugurated a new period of study in which researchers began to deal steadily and substantively with technical issues, and to attempt to demonstrate empirically the techniques that were employed based on interpretations of the technical details found on the vessels themselves, as well as on the fragments of glass remains from workshops. Some earlier theories were proved credible; others were excluded as technically unfeasible and replaced by new views concerning techniques that were experimentally demonstrated, while for some as-yet unresolved issues the conversation continues, together with efforts to identify the most likely hypotheses.

The following chapter presents and analyzes the excavation data and portable finds that document the presence of glass-workshops in Thessaloniki. We examine the issue of the location of glass-workshops in the Roman world generally, and in Thessaloniki in particular, on the basis of legal texts and excavation data. The various workshop groups with common characteristics are presented, and the corresponding finds from Thessaloniki are included in their respective groups. This chapter concludes with a detailed presentation of the evidence and most important workshop finds. At the end, the vessel types that probably comprised local products are presented.

Next, the historical, commercial, economic and social contexts of production are established. We discuss the social position and economic situation of glassworkers, the place of glassworking in artisanal and artistic production generally, and links are drawn to other crafts and products. The evidence for commercial relations and trade in glass products is examined, as well as that for the development of local production and the means by which glass products were channelled to local markets.

<sup>2</sup> *Thessaloniki Istorika kai Techni* 1986, passim; *Thessaloniki apo ta proistorika mechri ta christianika chronia*, 1986, passim; Papanikola-Bakirtzi (ed.) 2002, passim. In 2010, a year after publication of the Greek version of this book, the author provided catalogue entries (*Glass Cosmos 2010*) for 134 glass vessels that form part of the assemblage catalogued in this present work. Furthermore, all publications related to Thessalonian and Macedonian glass finds in general have been included in this updated edition, first published in Greek in 2009. Glass-related publications referring to finds from other regions of the Roman Empire, published after 2009, have been added only occasionally, whenever there was a need to shed light on chronological issues that were perhaps unclear in the Greek edition.

<sup>3</sup> Mavromichali 2001.

Vessels are classified based on shape and size as main criteria, these being mainly determined by their use, and which for the most part allow identification. Each type is grouped within existing classifications of vessels and includes in its descriptive title the classification type according to Clasina Isings (1957), which is the most commonly accepted format and makes the identification of Macedonian finds easier. Each type is then described and the technique by which it was formed is explained. International parallels are identified across the entire geographic compass of the Roman Empire and neighbouring regions. Finally, a valid excavation dating for the specific examples from Thessaloniki is cited.

The decoration of vessels is examined in depth in a chapter where each vessel is discussed, if its depicted motif(s) permits or requires it, or each motif category if the motif is simpler and repeated on many vessels. In addition, production and decoration workshops are indicated, together with the provenance of the various decorative motifs.

Next, guided by the specific functional needs of the vessel, we analyze and explain the reasons that allowed, or imposed the choice of glass for its production, e.g. for transport or tableware use.

There follows a chronological overview of the finds. The dating of objects (where this is possible) is done on the basis of their excavation evidence. First, if the find is from a closed tomb or sealed layer (61 vessels, i.e. 8.09% of the total) then its excavation dating is accepted; however, the evidence used for dating was scrutinized and rechecked. In each case the dating was controlled for accuracy on the basis of international typological parallels, which were checked in turn for whether they were dated on the basis of stylistic or excavation evidence. When the original publication mentions it, the evidence for the dating of each piece is cited. If the find came from an excavation or layer only generally dated (116 vessels, i.e. 15.38%), or if the dating does not appear securely established by excavation, or there are no excavation data at all (578, i.e. 76.65%), then the main dating criterion was its parallels. This chapter also cites statistical evidence for vases, which is examined by century, on the basis of vessel use and place of production, in a condensation and decoding of the evidence from the chapter dealing with typology. We avoided any attempt to distinguish material on the basis of whether it was found in a tomb or a habitation site, since, apart from those vessels lacking all excavation evidence (59, i.e. 7.82%), nearly all the material came from cemeteries (556, i.e. 73.7%). The relatively small number of finds coming from public spaces (agora, temples-churches, and baths) (111, i.e. 14.7%) and private residences (28, i.e. 3.71%) came from just a few excavations and may easily be dramatically altered through additional evidence from more recent excavations in the city. Finally, there is an attempt to interpret the evidence that results from the study of the archaeological material in historical terms and incorporate it into the socio-economic processes of the region's political history.

The Catalogue of the vessels under study follows. Each entry consists of seven sections divided by double strokes. Namely, the sections comprise the following information: Cat. no (Registration Number) // Find spot and date // Condition-Preservation // Colour and quality of glass // Dimensions in cm. // Publications // Date. As to Catalogue Numbers, it should be noted that for the fourteen items which were not included in the Greek edition and were only added to the present English edition, instead of changing the numbering of the entire catalogue, they were inserted at the appropriate places with the addition of a letter after their number, namely nos 133a-b, 134a-b, 135-b, 142a-b, 164a-c, 175a, b, c were added.

The Catalogue and a brief history of excavations and find-spots of the objects dealt with in this work are provided in the following chapter. The Catalogue cites in summary form the excavation evidence coming from publications which were fully catalogued and in many cases augmented by evidence discovered in the course of research in the relevant archives of the Directorates of Antiquities. Each excavation history is followed by a chart with the vases found, identified by their sequential number in the general Catalogue, and classification type; in addition, their exact excavation data and date of discovery are also noted. Within each excavation the objects are presented by Catalogue Number, and when more than one campaign of excavation was carried out at the same plot they are presented chronologically. A map of the region is provided, on which the precise locations of excavations have been labelled and annotation provided.

A glossary of terms referring to glassworking technology that are used in the book follows.

A concordance is provided between the Museum or Directorate Inventory Numbers and the ascending numbers for the general Catalogue of this volume in ascending alphanumeric series on the basis of Museum or Directorate Inventory Number. This is followed by a typological-chronological chart containing a drawing of each type, the period during which it was in use, and the Catalogue numbers of the vessels belonging to it.

Finally, we offer drawing and photographic documentation of the material, with illustrations of all the objects in the Catalogue.

A full Index of the 602 geographical locations found in the volume is also provided. The ancient name for each site is noted in parentheses in parallel with its contemporary name to make it easier for readers to locate. Beside each site the name of the country to which it belongs today is cited. For relatively unknown cities and sites, especially in Greece, their prefecture or nearest major municipality is noted. In general the names of ancient Greek sites and monuments are transliterated in the conventional way. Modern Greek sites and street names were transliterated according to the Hellenic Organization for Standardization system of 1982, as adopted by UN 1987.