**‘IREP EN KEMET’ PROJECT: CREATING THE CORPUS OF WINE IN ANCIENT EGYPT**

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**ABSTRACT:**

Presented are the research objectives of the project ‘Irep en Kemet’. Wine of Ancient Egypt, and the content of the website. This research project aims at documenting the complete corpus of wine in ancient Egypt and analysing the data (iconography, textual sources and artefacts) to unveil the importance of the ancient Egyptian wine culture legacy in the Mediterranean region. At this stage, a bibliographical researchable database relevant to wine, viticulture and winemaking in the ancient Egypt has been completed, a scene-detail database for the viticulture and winemaking scenes in the Egyptian tombs has been recorded, and the collected data will be studied and analysed. Our main goal is to provide scholars with a complete, comprehensive archaeological and bibliographical database for the scenes of viticulture and winemaking depicted in the Egyptian tombs throughout the ancient Egyptian history. The project’s website (under construction) will include all the collected data, the study and analysis, as well as the results of our research.

1. **THE ‘IREP EN KEMET’ PROJECT**

1.1 Introduction

The ‘Irep en Kemet’ research project’s main goal is to document and analyse, for the first time, the complete corpus of viticulture and winemaking scenes depicted on the walls of the ancient Egyptian private tombs, being the most important data to study the history and legacy of wine production in the Mediterranean region. The traditional European wine elaboration method, which has been used for centuries in the southern European countries like France, Spain, Italy, Portugal or Greece, is considered to come from ancient Greece and Rome. However, the iconographical, archaeological and textual sources from ancient Egypt confirm that the wine was already produced there in the third millennium BC. The scenes represented on the walls of Egyptian private tombs show how the different steps in the elaboration of wine are very similar to the traditional European method. Although several studies and researches were undertaken to resume the viticulture and winemaking in ancient Egypt (Lerstrup, 1992; Lesko, 1996; James, 1996; Tallet, 1998; Murray, 2000; Guasch-Jané, 2008), it has not been compiled and analysed in depth until now.

‘Irep en Kemet’ is a three-year scientific project (2011-2013) that is directed by Dr. Maria Rosa Guasch Jané at the Faculdade de Ciências Sociais e Humanas of the Universidade Nova in Lisbon (Portugal), and funded by the Fundação para a Ciência e a Tecnologia (FCT) of the Portuguese Ministry of Science and Education.

The research team consists of Sofia Fonseca, Archaeologist and Egyptologist, Mahmoud Ibrahim, Egyptologist and Linguist and Maria Rosa Guasch Jané, Pharmacist and Egyptologist.

This paper presents the current stage of our research and the database we are developing, which will be accessible in the project’s website, together with the highlights of the research project.

1.2 Wine in ancient Egypt

The oldest and most extensive documentation about the viticulture and wine production comes from ancient Egypt. In Egypt, wine was a prestigious product consumed mainly by the upper classes and the royal family. Wine was offered in the daily temple rituals, in funerary offerings (Meyer, 1986) and used in medical treatments. Viticulture and winemaking scenes are depicted on the walls of the private tombs from the Old Kingdom (2575-2150 BC) through the Graeco-Roman times (332 BC-395 AD). Thanks to these scenes, we have information about how the wine was made; the scenes showing that the procedures are very similar to the traditional European method (Guasch-Jané 2008; Guasch 2010).

1.3 Wine jars and their inscriptions

Since the Predynastic Period (4000-3100 BC), wine jars were placed in the Egyptian tombs as funerary offerings. During the New Kingdom Period (1539-1075 BC), wine jars (amphorae) were inscribed in hieratic to indicate: the year, the name of the product (wr (Erman, 1926) or shedeh (Erman, 1930)), the quality, the provenance, the property (royal or private) and the name and title of the wine-maker (Figure 1).

The inscription on the amphora (Journal d’Entrée 62303, Cairo Museum (Figure 1)) from Tutankhamun’s tomb (KV 62) at Thebes, reads: “Year 4, wine from the Estate of Aten, in the Western River, chief vintner Sen” (Cerny, 1965). As Figure 1 shows, the clay seal of this amphora is broken and it is open on the upper part. Like the labels in the modern bottles of wine, the inscriptions on the New Kingdom wine jars give us information about the harvest and wine production (Guasch, 2010).

These inscriptions on the amphorae reveal that the ancient Egyptians considered this information relevant and necessary to be able to distinguish between wines. It was extremely important to know the vintage and the provenance of the product.
The results of these analyses also confirm that in Egypt, during the Eighteenth Dynasty (1539-1292 BC), the grape harvest, treading, pressing, fermentation, closing the jars, stamping and labelling the jars, and finally storing the jars in the cellar (Murray, 2000; Guasch-Jané, 2008). In the scene from Nakht’s tomb (Figure 2) at Thebes, dating to the Eighteenth Dynasty (1539-1292 BC), the grape harvest and winemaking are represented. To the right, the scene shows two workers picking up the red grapes by hand and putting them in baskets. To the left, a group of four men are pressing the grapes in a vat with their feet and, besides this, there is a man taking the red juice (the must) that flows out. On the top, the amphorae are sealed with a mud stopper.

2. VITICULTURE AND WINEMAKING SCENES

2.1 Scenes in the Egyptian tombs

The reliefs and paintings in the ancient Egyptian private tombs depict the different steps of viticulture and winemaking including grape harvest, treading, pressing, fermentation, closing the jars, stamping and labelling the jars, and finally storing the jars in the cellar (Murray, 2000; Guasch-Jané, 2008). In the scene from Nakht’s tomb (Figure 2) at Thebes, dating to the Eighteenth Dynasty (1539-1292 BC), the grape harvest and winemaking are represented. To the right, the scene shows two workers picking up the red grapes by hand and putting them in baskets. To the left, a group of four men are pressing the grapes in a vat with their feet and, besides this, there is a man taking the red juice (the must) that flows out. On the top, the amphorae are sealed with a mud stopper.

Regarding the presence of white grapes in the iconography, it is still under discussion. It has been suggested that a tomb from Deir El-Bersheh of the Middle Kingdom Period (1975-1640 BC) may show the production of white wine, since the pressing scene directly follows the harvesting scene where greenish-coloured grapes could be represented (Montet, 1913; Murray, 2000). The elaboration of the shedeh represented in the scenes is also doubtful, and there is a unique reference from the tomb of Baqet III (no. 15) in Beni Hassan that might show a filtering and a
Our project starts the documentation of the corpus of wine in ancient Egypt with the viticulture and winemaking scenes, not only because of the extensive information they provide, but also for many aspects that are less studied. The types and forms of the vines that are represented in the scenes, and the different heights of the vine tree or its shape are still not fully studied and classified. The same for the workers involved in the grape harvest, the way they picked the grapes as well as the kind of baskets they used for transporting the grapes to the press. Furthermore, the type and material of the press (or deposit) where the grapes were treaded needs to be studied in-depth, because these scenes are the only references as no archaeological evidence has been found. Another aspect we aim to study is the second extraction of the grapes juice (and colour) using a sack-press.

The fermentation process and the closing of the wine-jars, or the strict control of closing and labelling wine-jars during the New Kingdom Period, revealed by the amphorae and their inscriptions, are even more interesting aspects to be investigated.

2.2 Documenting the scenes

Our team is developing a database in two different parts: the bibliography and the scenes of viticulture and winemaking. We are documenting all the viticulture and winemaking scenes in the Egyptian tombs, including the iconography and the texts associated to the images (Fonseca, 2012). The different elements of the grape harvest and wine production that are depicted in the tombs will be analysed, classified and then compared to the traditional European winemaking method.

The research methodology includes the bibliographical database with all the books, articles, websites and on-line articles as well as existing databases related to wine, viticulture and winemaking in ancient Egypt, and the scenes database with all the iconography and texts related to viticulture and winemaking in the Egyptian private tombs from all archaeological sites in Egypt (Fonseca, 2012).

The scenes will be classified according to type, condition, image, period and name of the tomb owner. The wine production and any representation of the three kinds of wines (white wine, red wine and shedeh) will be investigated. The hieroglyphic texts accompanying the scenes will be studied, categorized, and the translation and commentary will be included.

Moreover, the titles of the owners of these tombs having viticulture and winemaking scenes will be studied to unveil the existence of wine-makers, and to know the different specific titles related with wine production.

3. THE PROJECT’S WEBSITE

3.1 Bibliographical database

The project’s website will first include the database with the bibliography related to wine, viticulture and winemaking. The bibliographical database, which has now more than 180 entries, see example in Figure 3, includes the following items about each reference: serial number, type of article/book, authors, title, website, online link, periodical/ journal/ encyclopaedia/ dictionary, edition, editors, pages, plates/ plans, publisher, place of publication, year of publication, author abbreviation and remarks (Fonseca, 2012). It is being recorded in Excel Sheet and presented by Filemaker Pro11 software.

3.2 Scene-detail database

The database of the scenes of viticulture and winemaking in the ancient Egyptian private tombs (see Figure 4), in process, will include the following items about each scene (see Figure 5): record number, scene description with the different steps according to the theme, that is, viticulture or winemaking. The steps represented in the viticulture scenes include: vinery, taking care of the vine, grape harvest and counting the baskets.

In the winemaking scenes, the steps represented are: transporting grapes to a press, pressing grapes, heating and filtering, pressing the remains in a sack press, filling wine jars, fermentation, offerings to goddess Renenutet, wine tasting, sealing the wine jars, labelling wine jars, counting wine jars, transporting wine jars to a cellar, refrigeration during fermentation, and storing wine jars in a cellar.

The scene-detail database (Figure 5) will also include: scene details, annotations, scene type and scene condition, text (inscriptions and translation) and image/photo. Moreover, the scene database (Figure 6) will include: dating (period, dynasties and kings), location which includes: a) provenance with governorate, archaeological site, tomb name and number and location inside the tomb; b) present location, with same as provenance, if it's a museum then location inside the museum and inventory number, and others if it's not a museum. Finally, the tomb information (type of tomb, tomb’s owner and name and titles of the tomb’s owner) will be included. At the end, the bibliographical references related to the scene will be listed.
The data is being recorded in Excel Sheet and presented by Filemaker Pro11 software.

Figure 4. Global image of the scene database. Copyright (photos): Griffith Institute, University of Oxford, and Abteilung Ägyptologie, FB III, Universität Trier

Figure 5: Scene database, detail (left side). Copyright (photos): Griffith Institute, University of Oxford, and Abteilung Ägyptologie, FB III, Universität Trier

3.3 Technology transfer and dissemination

Besides the database with the corpus of scenes of viticulture and winemaking and the bibliography at the first stage, the project will develop a website, which will include all the material related to the research and the scientific and non-scientific dissemination of the results. The research manuscripts that we plan to publish in international peer-reviewed journals with the results of the scientific research will be included in the website. Articles presenting the results and addressed to the public will also be included in the website, as well as articles in journals specialised in Egyptology, archaeology or oenology, magazines and in the mass media. Furthermore, the communications in congresses presenting the research results of this project will be posted in the website, as well as conference proceedings, and lectures to the scientific community and to the general public.

3.4 Further research

We plan to extend our research to the other aspects related to wine that are represented in the ancient Egyptian iconography: the daily life scenes of wine drinking in banquets and religious festivals. Scenes depicting wine consumption were popular motifs in private tombs of the Eighteenth Dynasty (1539-1292 BC) at Thebes. Furthermore, we also aim to document the scenes of wine-offering in rituals depicted in tombs and temples, as well as the archaeological artefacts (wine jars and related objects) which will be further included in the website. The expected results are to relate the process of wine elaboration of the ancient Egyptians to the traditional European
method and to unveil the ancient Egyptian wine culture legacy in the Mediterranean through the compilation and study of the iconography, texts and artefacts.

4. CONCLUSION

The final and main result of the ‘Irep en Kemet’, Wine of ancient Egypt, project is to document the corpus of wine in ancient Egypt. At this stage, we are compiling and studying the viticulture and viticulture scenes in the Egyptian private tombs. Our goal is to publish an on-line comprehensive and researchable database of the viticulture and winemaking scenes in the ancient Egyptian tombs, considering all the data regarding the scene and the tomb where it was found, and the bibliographical references available. The database will be available on-line for Egyptologists, students or the public interested in this subject. In the near future, we plan to extend our project to include all the scenes related to wine in the ancient Egyptian daily life and rituals, depicted in temples and on funerary stelae and artefacts.

REFERENCES


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