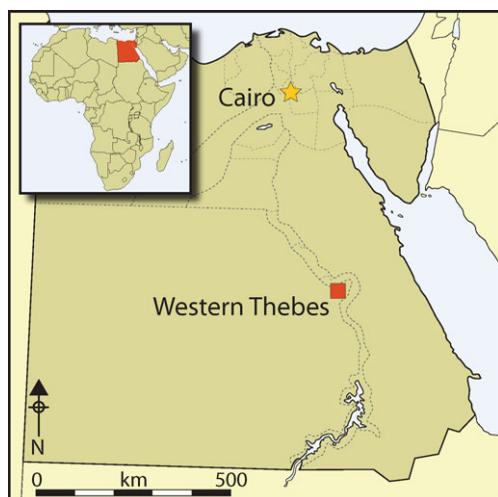


# The meaning of wine in Egyptian tombs: the three amphorae from Tutankhamun's burial chamber

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*Three wine jars in Tutankhamun's fabulously preserved burial chamber had been opened and placed east, west and south of the sarcophagus. By means of inscriptions, endorsed by residue analysis, the author distinguishes the contents as red wine, white wine and a high quality fortified wine, and goes on to argue for specific symbolic meanings for these choices in the context of religious change after Akhenaten.*

*Keywords:* Egypt, second millennium BC, residue analysis, Tutankhamun, Akhenaten, wine, burial rites

## Introduction

In one of only a few intact royal tombs to have been discovered in Egypt so far, that of Tutankhamun (1332–1322 BC) in the Valley of Kings (KV 62), Western Thebes, 23 amphorae were placed for use in the king's afterlife in the annexe chamber, which served as a store room for oils, fats, unguents, wines, fruits and foodstuffs (Carter 1933). However, in the burial chamber itself, containing the sarcophagus of the king, were three more wine jars lying on the ground between the outermost shrine and the walls situated to the east, west and south (Carter 1927; Figure 1).

Why were these wine jars not stored in the annexe chamber with the rest of the wine, but placed instead in the burial chamber? Does the position of the three wine jars (E, W and S) have any meaning? Curiously, no amphora was found on the northern side. The purpose

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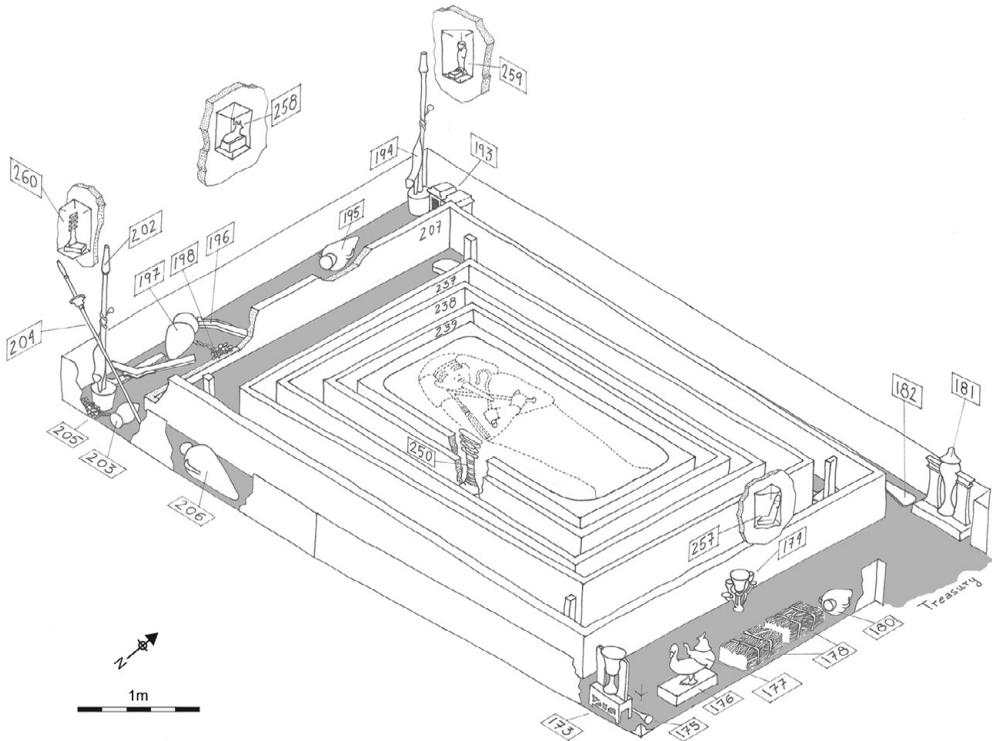


Figure 1. Drawing of the objects found between the outermost shrine (Carter no. 207) and the walls in Tutankhamun's burial chamber (© Celso Pereira).

of the research reported here was to use the residue to identify the nature of the wines that had been in the amphorae and investigate their symbolism in the context of what is known of Egyptian mythology in the late Amarna period. The results were of particular interest as each of the wines proved to have been of a different type.

## Context

Figure 1 shows the location of the three wine amphorae in Tutankhamun's burial chamber. The first to be found lay beside the eastern wall next to the entrance to the Treasury (no. 180 in the Carter Archive, *Journal d'Entrée* 62316 in the Egyptian Museum in Cairo), the second (no. 195, *JE* 62314) was found beside the western wall, and the third (no. 206, *JE* 62315) beside the southern wall. Carter commented on a likely visit by looters, although 'little damage had been done by intruders, except that the folding doors of the great shrine had been opened for the purpose of peering in, and that the sealings of the wine jars, placed between the shrine and the walls, had been broken' (Carter 1927). Although the seals of all three amphorae in the burial chamber were missing, along with their clay plugs, it is unlikely that these would have been taken by looters, as supposed by Carter, since the amphorae were left with wine still inside, as shown by the residue. To the east, two lamps were found which retained slight traces of oil (Carter nos. 173 & 174). The scene suggests that it was before

the tomb was finally sealed that the amphorae had been opened, probably by officiants who had also left the lamps burning.

Hieratic inscriptions on the jars (Černý 1965) suggest differences in vintage, origin and production of the wines. The eastern amphora (180) is inscribed ‘Year 5, wine of the Estate of Tutankhamun, Ruler of Thebes, in the Western river, chief vintner Khaa’; the western amphora (195) states ‘Year 9, wine of the Estate of Aten in the Western river, chief vintner Sennufe’; and the southern amphora (206) inscribed with ‘Year 5, very good *shedeh* of the Estate of Aten in the Western river, chief vintner Rer’ (Figure 2).



Figure 2. Tutankhamun's *shedeh* amphora (Carter no. 206, JE 62315) found in the burial chamber beside the south wall. The inscription reads: ‘Year 5, very good *shedeh* of the Estate of Aten of the Western river, chief vintner Rer’; ‘very good’ is repeated on the top of the amphora. Height: 68cm; diameter: 26.6cm (©Griffith Institute, University of Oxford).

Sediments were later noted inside these amphorae, their appearance being a ‘dry residue of a light brown colour’ (eastern amphora), a ‘dry and blackish residue’ (western amphora) and a ‘dry residue of a black colour’ (southern *shedeh* amphora) (Guasch-Jané 2008). These residues were analysed using liquid chromatography mass spectrometry (LC/MS/MS); wine was identified from tartaric acid, a grape marker, and red wine from syringic acid derived from malvidin, a marker of red grapes (Guasch-Jané *et al.* 2004). The results showed that there was a white wine in the eastern amphora and a red wine in the western amphora (Guasch-Jané *et al.* 2006b; Guasch-Jané 2008), while in the southern amphora, inscribed *shedeh*, there was a red grape wine with a more elaborate preparation (Guasch-Jané *et al.* 2006a; Guasch-Jané 2008). The *shedeh* was a much appreciated beverage that appeared at the end of the Eighteenth Dynasty, with a value higher than that of wine. According to Papyrus Salt 825 in the British Museum (BM 10051), *shedeh* was filtered and heated (Derchain 1965; Tallet 1995; Guasch-Jané

2008). The results of the residue analysis indicate that the three amphorae in the burial chamber contained different products and the record of their discovery shows that they were placed beside the king’s mummified body at three different cardinal points. Was this for symbolic reasons?

## Wine in ancient Egypt — a brief overview

From the Early Dynastic period (*c.* 3000 BC), large quantities of storage jars are found in Egyptian tombs at Abydos and Saqqara and interpreted as being for the sustenance of

the deceased in the afterlife and as funerary offerings to the *ka* (spirit) of the dead (Meyer 1986). Although they are not usually inscribed, they are often assumed to contain wine, suggesting in turn an early appreciation for wine and its early application to the funerary context (Murray 2000). The word for wine, *irep*, is documented from the Second Dynasty (2775–2650 BC) onwards (Murray 2000). During the First and Second Dynasties (2950–2650 BC), wine jars were typically large in size, around 1m high, and some of them were inscribed: their mud seals had an ideogram with the name of the vineyard where the wine was produced, and the name of the king could be also found imprinted on the jar (Petrie 1900, 1901; Emery 1958; Wengrow 2006).

However, no wine jars dating from the later Old or Middle Kingdom have been found, since it was only in the earlier periods that food and drink were placed in tombs. Later, the Egyptians substituted them by descriptions of food offerings in lists or paintings on the walls of the tomb (Emery 1962). The deceased is depicted before an offering table with an inscription enumerating what was offered: wine is usually included, as represented in the wooden panel from the tomb of Hesyre at Saqqara (Spencer 1993). Offering tables showing the food and drinks brought to the dead were placed in front of the tomb's false door, from which the buried person was supposed to emerge.

In the descriptions of the royal funerary rituals preserved in the pyramid texts, inscribed on the walls of the pyramids at Saqqara and dating to the Old Kingdom (2575–2150 BC), five different wines were presented in the food offering ritual: Delta wine, wine in an *abesh* jar, wine from Buto, wine from Mariut and wine from Pelusium (Poo 1986; Allen 2005). First documented in the late Fifth Dynasty (2450–2325 BC) pyramid texts of Unis at Saqqara, these five wines became standard features of later offering lists (Murray 2000). Reliefs and paintings on the walls of Egyptian private tombs dating from the Old Kingdom to Graeco-Roman times provide extensive documentation concerning viticulture and wine-making (Murray 2000). The scenes show that the procedures were very similar to traditional European methods (Guasch-Jané 2008): workers picked the grapes by hand and put them in baskets, the baskets full of grapes were transported to a press near the vineyard and a group of men trod the grapes. A sack press was also used and the remains of the grape skins and pips were pressed to obtain a second extraction (Murray 2000; Guasch-Jané 2008).

Scenes depicting wine consumption were popular motifs in private tombs of the Eighteenth Dynasty (1539–1292 BC) at Thebes, and included representations of the family meal in front of the tomb during the Festival of the Valley, with servants and musicians and many participants enjoying wine. During the Ramesside period (1292–1075 BC) these disappeared: daily life activities were considered inappropriate for tomb decoration and were replaced with funerary scenes (Poo 1995).

Typical New Kingdom (1539–1075 BC) wine jars had two vertical handles and carried a hieratic inscription indicating the product, the harvest year, the qualification and sweetness, the property or estate, and the name and title of the wine-maker, in other words much the same information as can be found on a bottle of wine today (Guasch-Jané 2010). Thanks to the inscriptions, we know that two different products were made: *irep*, which is 'wine' and *shedeh*, the translation of which remains unsolved (Tallet 1995), but chemical analysis of its residues has revealed its botanical origin to be a red grape wine (above; Guasch-Jané *et al.* 2006a; Guasch-Jané 2008).

Covering and sealing the wine jars was necessary to transport them from the delta to Thebes or from the Western Oasis to the Nile Valley: a clay plug blocked the mouth while a mud seal completely enclosed the neck of the amphora to safeguard the contents; a stamp repeated the most important data of the harvest (Guasch-Jané 2010). Although wine jars destined for the palace or the most important temples were labelled, most of the jars did not have any inscription (Meeks 1993). These non-inscribed amphorae suggest a table wine produced locally without a denomination of origin and were probably drunk during the year of production.

In ancient Egypt wine was mainly consumed by the royal family and the upper classes. Wine was offered to the gods by the pharaoh or priests in a daily temple ritual as is represented in temples dating from New Kingdom to Graeco-Roman times. Divine offering of wine is depicted in New Kingdom royal tombs at Western Thebes from the time of Horemheb, Tutankhamun's successor, and other Ramesside kings such as Ramesses I or Seti II (Poo 1986). Moreover, the dead were given offerings on the occasion of the burial. However, only fragments of inscribed amphorae have been found in New Kingdom tombs, such as Queen Mutnodjmet's burial chamber in Horemheb's private tomb at Saqqara (Martin 1991). Tutankhamun provides the exception.

## On the symbolism of wine

According to Egyptian mythology, the god Osiris, the first being to undergo resurrection (Poo 1995; Assmann 2000), was the ruler of the dead, the 'Lord of the westerners' and, in the late Old Kingdom pyramid texts, 'Lord of wine' (Allen 2005). The grape harvest coincided with the Nile flood and the red colour of the Nile — caused by ferruginous sediments washed down from the Ethiopian mountains — during the inundation suggested the colour of wine (Poo 1986). Thus grapes became a symbol of resurrection: for example, a vine leading to the nose of Osiris in the Nakht papyrus held at the British Museum (BM 10471) and a vine symbolising rebirth of the dead painted on the ceiling in Sennefer's tomb in Western Thebes (Desroches-Noblecourt 1985). This symbolism is still in use in Coptic iconography today.

Egyptian mythology assumed that the sun god Ra travelled in his night boat inside the body of the sky goddess Nut to be reborn in the morning as Ra-Horakhty (Wells 1992; Assmann 2001). The New Kingdom Books of the Netherworld, painted on the ceilings of the burial chambers of Ramesside royal tombs at Western Thebes such as Ramesses VI (KV 9) and Ramesses IX (KV 6), depict the transformation of the sun god Ra from red at sunset to yellow at sunrise: the red sun disk is entering the mouth of the goddess Nut in the west, symbolising sunset, and she is giving birth to the yellow sun disk in the east, symbolising dawn (Piankoff 1954). The positioning of amphorae of red and white wine in the west and east of the burial chamber respectively may therefore be seen as part of the burial ritual symbolising the king's journey into the afterlife: the red wine at sunset and the white wine at sunrise. This interpretation nevertheless does not explain the positioning of a *shedeh* amphora to the south, and it does not explain why there was no amphora found to the north.

An explanation may be found in the disposition of other celestial bodies. In the southern sky there are stars that rise and set (the *decans*) like the sun; they are Sothis and the constellation Orion. Orion was the most visible southern constellation and was the astral aspect of Osiris (Bonnet 1952; Griffiths 1982), the god with whom the king rowed through the Duat and sailed through the night sky before dawn (Allen 1989; Krauss 1997). By contrast, in the northern Egyptian sky, the circumpolar (imperishable) stars of the Great Bear constellation do not rise and set but rotate around the north celestial pole, always above the horizon (Leitz 1989; Wallin 2002; Symons 2007).

The critical part of the king's renewal after death took place during the sixth hour, when the union of Ra as *ba* (soul) and Osiris as his corpse occurred (Hornung & Abt 2007), and these hours had to be painted in the southern wall (Abt & Hornung 2003). The supply of *shedeh* on Tutankhamun's south wall may thus have been intended to strengthen the king in his most difficult transition: his trip through the southern sky. The *shedeh* was an exquisite wine (Tallet 1995) and this might be the reason why this beverage, and not an ordinary wine, was chosen to support and symbolise his transfiguration into Osiris.

## **Discussion**

These readings may be placed in the context of the religious history of the period. Akhenaten (1353–1336 BC), Tutankhamun's predecessor, founded a new capital city at el-Amarna and a new religion that represented a negation of polytheistic religions: it was a radical variant of the New Solar Theology of the Eighteenth Dynasty that centred upon the course of the sun and asserted that all life was a creation of the sun, continually created, with theological interpretations of the cosmic phenomena (Assmann 2001). In Amarna religion, the god Aten was worshipped only in the form of the sun, his sole form of manifestation, conceived as the god of light, and all the constellations of traditional religion were abolished (Assmann 2001). The nocturnal phase of traditional beliefs no longer signified the regeneration of light in the darkness but merely its absence, and the waking from death to new life was no longer accomplished nocturnally in the Duat but in the morning, in the light of the rising sun. At Amarna everything was oriented to the east, even the tombs, and corporeal regeneration became irrelevant. Crucial now was the existence of a living *ba* (soul) and Osiris became redundant to the concept of the afterlife (Hornung 1999).

The course of religious reaction after Akhenaten's death can be clarified with the new dual unity of cosmology (Assmann 1983, 2001). Traditional beliefs about the sun experienced no setback, despite Akhenaten's revolution, and greater attention was devoted to the combination of Ra and Osiris (Hornung 1982, 1999). The innovation is that, at night, Osiris becomes Ra and may be seen as the constellation of Orion in the southern sky. Osiris illuminates the darkness of the Duat as a nocturnal sun god and when morning comes, Ra arises from the arms of Osiris to be reborn as Ra-Horakhty (Martin 1989). For example, a hymn to Osiris inscribed on the south wall of the exit passage of the Statue room in the private tomb of Horemheb (Tutankhamun's commander in chief) at Saqqara, describes Osiris as the nocturnal manifestation of Ra (Martin 1991). A unique cryptographic text on the exterior of Tutankhamun's second shrine (Carter no. 237), describes the rejuvenation of the sun in the east overseen by the giant figure of the unified Ra-Osiris (Darnell 2004). The

*shedeh* provided on the south side reflected the axis of the pharaoh's journey, while no wine was needed on the northern side.

## Conclusion

The development of techniques for the chemical analysis of residues has thrown a powerful light on the nature of offerings found in burials. The present example from a culture unusually rich in documentation and a tomb with exceptional preservation shows that liquid offerings may have had considerable symbolic meaning. The evidence presented here suggests a symbolic purpose behind the positioning of the different wine amphorae in the king's burial chamber. The red wine, identified in the western amphora, was for Tutankhamun's transfiguration as Osiris-Ra in the evening and the white wine, identified in the eastern amphora, was for his transfiguration as Ra-Horakhty in the morning. For Tutankhamun's most difficult step in his transformation, his nocturnal trip through the southern sky, the highly appreciated *shedeh* wine was selected. Meanwhile, the wines found in the annexe were no doubt offerings of the usual kind for sustenance in the afterlife.

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*The meaning of wine in Egyptian tombs*

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