

Four oil lamps – 2nd century BC to 7th century AD



The oil lamp – a bowl to contain oil and a place on the bowl to rest a wick, part in and part out of the oil – was one of the earliest technological inventions of humanity. For thousands of years it was the only option for convenient, portable and controllable lighting.

The earliest lamps were carved from stone. Examples have been found in caves in France dating around 17,000 years ago. At least 6,000 years ago people started using clay to make lamps – small clay bowls from that time have been found with tell-tale burn marks on the rims. In the third millennium BC people began making a pinch in the rim of the bowl to hold the wick in position, so it didn't slide around when the lamp was carried. A stone oil lamp dating from around 1600 BC has been found with an enclosed nozzle for the wick. This meant that the flame could be controlled by moving the wick in and out of the nozzle – pulling the wick out resulted in a large but smoky flame, pushing it in gave a small clearer flame (if you wanted bright light but no smoke you needed several lamps, or at least several nozzles, all with the wicks tamped down). Around the seventh century BC the Greeks started making clay oil lamps with enclosed nozzles and this became a standard design.

Clay oil lamps were not luxury goods and the wealthy actually often used metal lamps. The simple clay ones were cheap to produce and provided you had sufficient food that you could spare some oil for lighting you could use an oil lamp. Various types of oil could be used, but in the area around the Mediterranean it would probably have been olive oil. Oil lamps were not only used in the home – excavations at Pompeii have shown that in a street of shops at the date of the eruption of Vesuvius (79 AD) all the shops in the street had oil lamps, suggesting a typical evening scene where the Romans shopped by lamplight. A lamp would typically last an hour or two on one fill of oil but the wick would require regular adjustment during this period as it burns back. A Franciscan monk based in Jerusalem has reported that he could successfully conduct mass in a room lit only by four clay oil lamps. It helps if the lamps are well positioned in the room, and ancient buildings often had niches in the walls designed to hold oil lamps.

The four lamps (between 7 and 10 cm long) shown in the photo at the top of this note are probably all from lands around the eastern end of the Mediterranean. Between them they span a long period of time, evoking daily life in those distant times.

1. Oil lamp possibly from Turkey or northern Palestine, 2nd or 1st century BC



This lamp has an unusual design, with a sort of bowl or funnel above the filling hole, presumably to make it easier to fill without spilling precious oil. There is a similar lamp in the Getty museum in Los Angeles (see photo below), which is dated to the second or possibly the first century BC. The Getty museum catalogue says their lamp was made in 'Asia Minor', which is modern Anatolia in Turkey. Several examples of this type of lamp in the literature seem to have come from towns on the Mediterranean coast, particularly Cnidus (modern spelling Knidos, in Turkey) and also sites on the Greek coast. In the second century BC Cnidus was part of the Ptolemaic Empire, which was the last Greek state to be independent of Roman rule, and had its capital in Alexandria in Egypt. Other examples of this type of lamp have been found in Galilee (northern Palestine), at sites dating to the first century BC.



Lamp in Getty museum



My lamp, showing scar where handle broke off

The example in the Getty museum has a handle and there is a scar on my oil lamp which indicates that it also once had a similar handle (see photo to the right above). The nozzle on my lamp has been badly eroded in use and would probably have originally looked like the Getty lamp's nozzle. My oil lamp has a surface of relatively smooth clay, which has flaked off in many places to reveal a coarser

clay underneath. This coating of finer clay would not have been just to improve appearance of the lamp, but also to reduce the seepage of oil through pores in the clay. It is even possible that the finer surface layer vitrified somewhat during the firing, which would have reduced the porosity even more. Greek potters were adept at controlling the vitrification of surface slips in this way.



Base of my lamp, showing flaking surface layer of finer clay

2. Roman oil lamp – probably first century AD



The previous lamp would have been thrown on a wheel and then had the nozzle added afterward. In the third century BC the Greeks developed a method of making oil lamps in moulds – the top and bottom halves (including the nozzle) would be moulded separately and then joined. In the second century BC the Romans adopted this technique and used it to introduce a huge variety of decorative scenes. My second lamp (photo above) is an example of a style of lamp developed by the Romans in the middle of the first century BC. This is called a discus lamp, because of the disc-shaped body which forms a shallow bowl, in which there is moulded decoration. These discus lamps continued to be made until the end of the first century AD. They were initially developed in Italy and became

hugely popular throughout the Roman empire, not only being exported from Italy but also copied by potters in the Roman provinces, so it is not possible to say where in the Roman empire my lamp was made.

The surface of my lamp is rather worn and difficult to make out. There are definitely two figures and it looks to me as if they are both holding shields and brandishing swords, so I suspect they are gladiators, but they could represent a scene from Roman mythology or a battle scene.

Another advantage of making the whole disc of the lamp bowl-shaped is that the actual hole for filling the lamp can be small – if you pour too fast or miss the hole the oil will sit there and gradually drain into the lamp. A small filling hole gives various benefits – it doesn't get in the way of the moulded decoration as a large hole would, it reduces evaporation and the risk of spillage, and it makes it difficult for mice and other vermin to get to the oil.

The Romans made their moulds from plaster. Initially a master shape would be made out of clay and then plaster moulds would be cast using this master. This means that multiple moulds could be cast from the same master – which is important when you want to make lots of lamps quickly since, after moulding, each half-lamp needs to spend some time drying in the mould before it can be released. Also, plaster moulds can wear and the decoration lose definition, so an easy way to make fresh moulds with the same design is very useful. There is a way of telling if a lamp has been made with a plaster mould – plaster tends to get bubbles in it, which can result in small pits on the surface of the mould. These pits result in small blobs on the surface of the lamp – as can be seen on my lamp.



Small lump caused by pit in plaster mould

3. Oil lamp from Palestine – first century AD



This type of oil lamp is often called 'Herodian' because it was originally thought to be made during the reign of King Herod (37 BC to 4 BC). More recently it is thought that its main period of use was slightly after this, in the first seventy years AD. These lamps were used mainly by the Jewish communities in Palestine and they tend to be valued by Christians because they were in use in the community and at the times in which Jesus lived.

The lamp was thrown on a wheel and had the moulded nozzle attached afterwards. The hole in the nozzle would have been pierced after it had been attached to the body and the detailed shaping of the nozzle and its join to the body would have been finished with a knife. The knife marks resulting from this finishing can be seen in the photo below.



Specialists have subdivided these Herodian lamps into twelve different types, depending on the precise shape of the nozzle and the hole, and other details of the lamp design, but it is not really clear whether these distinctions have any significance or just represent local variations in manufacture.

4. Oil lamp from Palestine – probably between 5th and 7th century AD



Around the fourth century AD, in Palestine, a new shape of oil lamp was developed, which did not have a separate nozzle. Instead, the lamp had a pointed end and the hole for the wick was cut into this end. These lamps, which were made by moulding, are often described as ‘almond-shaped’ and usually have moulded geometric designs on the shoulder. They are sometimes called slipper lamps, because their shape resembles a middle-eastern slipper. In some cases they had pronounced handles at the opposite end to the wick-hole, but my lamp just has a small projection and ledge to make it easier to carry.

My lamp has a moulded herringbone pattern on its upper surface, similar to lamps which have been found at archaeological sites in northern Palestine, near the current Israel/Lebanon border. These sites have been dated to between the fifth and seventh centuries AD.

In conclusion

All four of my lamps show signs of having been used, with soot blackening and wear around the wick-hole. Holding these lamps it is quite easy to visualise them in use in ancient times. I realise it is fanciful, but I can't help speculating that my Herodian lamp may have been held by Jesus or one of his disciples.

Since Palestine was under Roman control in the first century AD it is conceivable that all four lamps were originally found in Palestine. I bought them in an auction as a group and I do wonder about their previous owner and whether it was someone who used to live in that part of the world, maybe buying them from a local dealer in antiquities.

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January 2024