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# DIATRETA CUPS, LIGHT IN ROMAN DINING SPACES

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## Abstract

Cage cups or *Diatreta* are ancient Roman glass vessels produced by creating a thick blown blank of glass that, once cooled down, is taken to a glass cutter or *diatretarii*. The latter would cut and carve away most of the glass leaving a transparent vessel inside and an open-work decoration separated through thin posts of glass. The work is very delicate and exclusive, produced within limited space in time with no record of similar vessels until the late 1800 (Donald B. Harden & Toynbee 1959, p.181). Many of these glass objects have good-will inscriptions or decorations that express the importance of drinking. As for their provenance, most –when found in context- have been found in pagan burials. Nevertheless some fragments have been found in Christian environments or with Christian motifs like the Szekszárd cup. The location of these finds is mostly in the Rhine area –northern Empire, when Milan was one of its capitals (Aquaro 2004)- but the actual extent of finds expand throughout the 4th century extent of the Roman Empire. Considering their typological analysis there are basically two types, beaker and bowl. Beakers are considered drinking vessels as they either display a legend or a mythological reference to drink or wine. Whereas a general consensus agrees that open bowl-form cups were hanging lamps (Whitehouse 1988, p.28) since the 1986 find of a *diatreta* bowl with copper alloy hanging attachments. It is clear these were luxury objects to be used in special occasions and spaces.

The aim of this paper is to understand the space where socialisation and drinking took place and the importance of luxurious objects to adorn, display and use. The paper will also put forward the idea that the beaker shaped *diatreta* vessels, usually considered for drinking, could have been lamps that encouraged drinking and good will to the guests. This paper is structured to first consider an introduction to late luxury Roman glass and then analysing the typological shape of all, or most of the *diatreta* currently known; secondly, through assessment by the means of comparison, analyse the writings or decorations the vessels were endowed with. Thirdly, by describing and understanding the people and the space where these vessels would have been used, emphasise the beauty of illuminating such spaces with these vessels.

According to Herodotus in his historical investigation –5th century-, dress habits and food regime are elements of extreme importance to understand a people (Caporusso et al. 2011, p.12). This idea is not only valid for Herodotus' time but it is something anthropology uses time and again to explain different aspects in people's way of life. Through food and its environment, the dining space, this paper will aim to put the cage cups into a social context in order to give emphasis to the hypothesis of light versus wine.

## Roman Glass

All glass produced in the Roman world between the first century BC and the sixth century AD has the remarkable characteristic of having a similar chemical composition irrespective of time or place. The source of soda coming from an element called *natrun*, an evaporated mineral extracted from the *Wadi-el-Natrun* lakes found in Upper Egypt –between Cairo and Alexandria-, this component would become the soda component of Roman and Byzantine glass until the 5th-6th century when plant ash will start to be introduced in Levant (Whitehouse 2002, p.196). The quartz rich silica sand needed for Roman glass was also limited to the eastern Mediterranean rivers but Pliny the Elder in his *Naturalis historia* states 2 sources of sand [SiO<sub>2</sub>] one on the banks of the river Belus –between Haifa and Acre in Israel- and another one by the mouth of the river Volturno –northwest of Pozzuoli and Naples in Italy (Silvestri et al. 2006). We can then assume that raw glass was produced in large quantities in the East, also possibly the Volturno River, and then transported to the production centres which would be located near consumption places (Aerts et al. 2003).

Augustus Caesar, in the 1st century B.C., establishes peace and an Empire that maintained for several centuries a remarkably homogeneous material culture. Amongst other crafts, cast glass and free blowing are the techniques

that characterise the Roman workshops which, in this frenzy of manufacture and development, fill the Italian and Sicilian homes, rich or poor, urban or rural (Klein & Lloyd 1984, p.22). Cast glass was, basically used for open-form cups and bowls, -sagged over a convex mould or otherwise by placing pieces of glass inside a mould and heated to melt and fuse them together to form a vessel (Trentinella 2003). Free-blown glass was used for closed forms like bottles, windowpanes (sheets) and containers. Both techniques were produced in parallel but by the late 1st century, glass makers progress mainly into free and/or mould-blow techniques (Newby et al. 1991, p.1).

### Luxury *Diatreta* Glass

After the 1<sup>st</sup> Century, glass was mass-produced across the Mediterranean, the quality of the product was so important that glassmakers would sign their vessels with their name plus the Greek or Latin inscriptions *epoiei* or *fecit* respectively.



Figure 1. *Diatreta* glass called the Trivulzio Cup in the Archaeological Museum of Milan. Discovered in the Novara area inside a sarcophagus. (Author's photograph)

Pride in their technical and aesthetic achievement could be one of the reasons for the signatures (Stern 1995, p.71) but at the same time it indicates that a good design would acquire value though a name; a trademark to put in modern words. The creative designer/inventor would then trust his name to capable glass workers that had learned his trade possibly from himself -apprenticeship. A similar case can be that of *Diatreta* glasses. These are hard cold cut glasses, the artisans in charge of cutting glass were called *diatretarii*. Each *diatretarii* would produce a type of work or cutting and this equated to the signature.

Romans praised creativity and innovation as an added value to the object and, as we do today, handmade objects acquire exclusivity by being unique thus monetary value.

Cage cups also known as *Diatreta* cups, are glass vessels produced by creating a thick blown blank of glass that, once cooled down, is taken to a glass cutter. The latter would cut and carve away most of the glass leaving a transparent vessel inside and an open-work decoration separated through thin posts of glass (fig. 1). The fabrication process of the relief/cage effect on *diatreta* cups require an initial blank of layered glass just as the Cameo glass but, in most cases, colour is kept transparent on the inside layer and coloured glass on the outside - not opaque. The blank, has been accepted by most scholars, is free blown by the same method in Cameo glass.

### The Form

The form of the vessel is important in order to understand the possible use of *diatreta*. For this a graphical analysis will be drawn following the classification of cage cups already proposed by Doppelfeld and Harden. *Diatreta* are

divided in two figurative first groups: Plastic, A; and geometric, B; and 4 typological groups relating to vessel form: beaker –bell shaped; bowl hemispherical shape; bucket or *Situla*; and flask (Donald B. Harden 1987, p.179)

		BEAKER			BOWL		SITULA	FLASK
		colour	dichroic	transparent	colour	transparent	dichroic	transparent
GEOMETRIC								
PLASTIC								

Table 1. Glass vessels considered *diatrete* cups organised by decoration and form.

A further important classification should be done about colour: completely transparent, with colour layers and dichroic. Table no. 1 divides the vessels according to these groups and by adding subcategories, divides them by colour and also by type of decoration giving us a better typological understanding.

With this division, we can see that a certain pattern exists: most cups with writing on it are beaker-shaped and most bowl-shaped are only geometrical and transparent.

Bowl shaped *diatrete* are usually wider than their depth. They are considered lamps due to the hanging brackets found on the Corning museum example. They all have a splayed rim and no base, the decoration follows under the cup. The only one in this category with writings is the Szekszard cup found in a Christian sarcophagus and with a fish decoration that could relate to a Christian tradition. The writing, on the other hand, has similar meaning to the ones portrayed in beaker shaped. Its writing "AEIB[E ω Π] OIMENI ΠIE ZH[CA]IC" could translate, as a Christian motto, to: "Libate O Shepherd, drink, may you live" (Boon 1985, p.15). It could also read "Libate O Poimenios, drink, may you live" (Sijpestrijn 1988, pp.124–5) a pagan motto. The motto "drink may you live" on its own or in more expanded versions has been widely used by Romans whether pagan (Trivulzio and Cologne), Christian (Szekszárd) or Jewish (Auth 1996, p.103). It is important to say that independent of a specific religious connotation, these mottos -and more importantly the well wishing ones- were part of the Romans' life.

Beaker shaped *diatrete* are the most common form that has been found and are the main concern of this paper because even though the form's typology matches that of drinking vessels, we would like to debate that these vessels would be more suitable as lamps. The form of the vessel might relate to other drinking vessels but following are the reasoning behind the theory of lamps:

- The overall thickness of the vessels vary between 8 and 12 cm; 8cm would be a thick drinking glass to hold and a 10 or 12 cm diameter can make the glass difficult to hold, especially full of wine.
- None of the *diatrete* in this category have a base. This, however, is not an impediment to its use since they could have been placed upside down –on its rim.
- The splayed rim is not the best form for drinking since liquid can find a larger surface than the size of the mouth.



d) Rims have an indentation at the same distance from the relief and identical to the ones holding the metal hanger in the Corning museum example.

e) Finally, the fragility and cost of the vessel would require it was use with care.

Added to these five points are other aspects that can help understand these glasses in order to place them in the space dedicated to dine and drink. Most glasses bear inscriptions or plastic representations of wine/drink relates subjects. The colour is also important if we think of the content or light that could be reflected from them.

### Symbolism

The inscriptions found in the Trivulzio and the Cologne cups have the same or similar meaning, as do most of the other *diatreata* with writing: "Drink and live long life" (Donald B. Harden 1987). The fact that the writing implies that one must drink makes reasonable that the beaker would be used for that purpose. However the motto does not necessarily imply that the vessel be used to drink from it but in the environment of 'drink'. The motto is very common and can be seen in plates, flasks and other types of glass vessels. There is one in the Romano-Germanic museum, a shallow vessel of transparent glass with the engraved motto PIE ZHEHN 'drink may you live'. It would be difficult to drink from such a shallow plate but also this particular vessel has one thick loop/hoop that could only have been used to hang it on its side. It could have been a decorative piece to hang on the wall of a dining room or in front of a lamp.

The ornamental cups that have been found complete bare an implicit message on the drawing. Some of the examples are clearer than others but in the case of the Lycurgus cup as its name states it depicts the myth of king Lycurgus attacking Dionysus and his maenads Ambrosia, the latter called out onto mother earth for help, who transformed her into a vine and coiled around the king and held him prisoner. The idea of this representation implies the love for wine and food -for the pleasures of the palate and the power of the Gods (Donald B. Harden 1987). Libations in honour of the gods were important and one was not allowed to drink before a toast to Dionysius (or other gods) was made (Spivey et al. 2004).

### Splayed Rim with indentation

Finally, to enhance the assumption of Beaker shaped *diatreata* glasses being lamps rather than wine glasses, it is important to describe the rim. From all the cups analysed (table 1) the ones with rim, except for the two buckets, have exactly the same form. Open rim with a slight indentation just below the curve of the rim. It can be accepted that the form of the curve be technical, a way to reduce the thickness of the original blank in an elegant way. The indentation, on the other hand, does not seem to fulfil a technical task. This particular indentation can be found on most beaker shape vessels and also, on the bowls considered hanging lamp Fig 4. (author's drawing right end). The first image on the left end of figure 4 shows how the rim is created to thin the blank and the indentation. The image in the centre can demonstrate this indentation.



Figure 4. Splayed rim with indentation on diatreata glasses. Author's drawings and fragment from Trier Archaeological Muesum (author's photo). Inv. 14588

### Colour

Colour in *diatreata* glass can be divided in three subcategories: transparent, coloured network and dichroic. If we analyse table 1 we can see that the bowl shaped *diatreata* are more likely to be transparent or dichroic whereas beaker shaped ones tend to have colourful network. Technically, for Roman glass makers, coloured or transparent *diatreata* would be only a matter of design. The glass cutter would have to require the form and colour from the

glass maker before it was blown. The colours in the more sophisticated vessels would also be layered according to the design, this required that glass maker and glass cutter new in advance the design they wanted to pursue.

There are six known *diatrete* cups that do not follow this colour pattern. These have a very complicated colouring technique, the dichroic effect –a reaction to light that causes the cup to change from green to red-pink or brownish-orange when light is projected through the glass walls. After scientific analysis, Freestone discovered that this effect was achieved by the addition of silver and gold to the glass molecular structure (Freestone et al. 2007). The presence of silver and gold alone does not produce this effect; it is the formation of nanoparticles of gold-silver alloy by the heating process (Gudenrath & Whitehouse 2009, p.226). The question still remains on how and why Romans reached this technological knowledge; was it mere chance or did they have the intention to do so. Off course it is to assume that the most possible explanation is a lucky trial and error find (Donald B. Harden 1987). The addition of Gold and Silver to the glass metal could have been a way to give more value to glass, not untold off, since we have written information of food with addition of gold to make it luxurious or the account of Cleopatra giving Marc Anthony a ‘Pearl Banquet’ where a pair of fabulous pearl earrings where dissolved in a glass of wine; a highly valued gesture (Renfrew 1985, p.47). It is also possible that they believed that since gold oxides produce a red colour they were trying to produce red glass and discovered ‘dichroic’ instead. How this technology was acquired can only be assumptions, for now what is important is that once they discovered the effect they used it to create valuable objects. Glass with such effects would not be reflecting its properties if dark wine was to be poured in it –let us be reminded that the glass on diffused light is opaque green.



Figure 2. Known as the Lycurgus Cup, this dichroic glass changes colour when a light source shines inside. Rothschild Collection. MME 1958,12-2,1 British Museum, London (Authors photos).

Instead if a candle or the traditional oil and twig light were to be put in its interior, then the cup would reveal the motif (fig. 2). David Whitehouse (1989) discusses two Roman passages that relate to the dichroic effect. The first one in Vopiscus’ life written by Hadrian (117-138) to his brother-in-law Severinus, when he was in Egypt:

*“I have sent you parti-coloured cups that change color, presented to me by the priest of a temple. They are specially dedicated to you and to my sister. I would like you to use them at banquets on feast days”*

The date of Hadrian’s time seems to be too early for the dichroic glasses found to date (3rd-4th century), nevertheless as Whitehouse expresses the writing was done by Vopiscus in the early 4th century and thus it is possible that this glass was a rarity of his time.

The second passage is less strait forward but it opens a more interesting debate. Achilles Tatius’s in his novel *Leukippe and Cleitophon* tells the story of a hero, Cleitophon, attends a banquet on the feast day of Dionysius where the host offers a libation in the most unusual vessel. A vessel with a complicated design that changes colour when wine is poured into it. For this passage Whitehouse (Whitehouse 1989, p.120), says that the narrator could have spoken about an object he had not seen and that the change of colour was not when pouring wine but when

giving it light. Then both paragraphs could be seen as special cups used in feasts or libations –moments of drinking- but through a display of light.

This chapter has put forward a series of ideas related to colour, form and period of time for the use of *diatrete* glasses. They all point to a re-assessment of the use: from drinking vessel to lamp. Terracotta lamps, provided light and by doing so the lamp per se would lose its appeal (being dark/darkened by the light produced) whereas glass lamps will always reflect their beauty through light.

Finally, we have reference of glass lamps being used in late Roman time but rarely we hear about it or find references to glass lamps. There are, however, various examples of medieval glass lamps. It is very likely that this tradition would have started in the late Roman world and re-enforced through the following period. The lamp represented here (fig.3), has the same rim to the *diatrete* lamps of this research, the size of the open mouth is similar to the beaker shape vessels. Finally, except for the dichroic effect all other beakers have transparent glass in the interior part of the cup.



Figure 3. Blown Glass Lamp designed for suspension. Roman Eastern Empire AD 350-450. GR1997.3-24.2. British Museum London. (Author's photograph)

### Social Context

According to Herodotus in his historical investigation –5th century-, dress habits and food regime are elements of extreme importance to understand a people (Caporusso et al. 2011, p.12). This idea is not only valid for Herodotus' time but it is something anthropology uses time and again to explain different aspects in people's way of life. Through food and its environment this chapter will aim to put the cage cups into a social context. With a brief analysis of the architectural space by the 3rd-4th century in order to give emphasis to the hypothesis of light versus wine.

Romans inherit the idea of dining as a convivial moment from the Greek symposium (Spivey et al. 2004, p.259), founded in the expression of cultural ideals. Greeks describe the symposium as a social model to express merriment and elegance, good order, civic virtues, etc. However at the dinner table politics were discussed, revolutions planned and enemies eliminated (Slater 1991, p.3). It was also a time for homosexual relations between an older mature man and a young lad as described in Plato's description of Socrates most famous philosophical discussion on love (Spivey et al. 2004, p.255). The balance between the extremes was led by a *symposiarch* and a successful *symposium* –dinner- would achieve this balance. Romans on the other hand take all the ideals of the symposium and convert them into a formal hierarchical affair where food is served and a dedicated room is assigned (Spivey et al. 2004, p.259). This dining room takes the name of the couches where they lay to eat: triclinium and the term *cena* or *convivium* is used to describe dinner.

### Dinner as an event

The hierarchical distinction of Roman society was not as simple and strait forward as we would see it today and the roles of its peoples vary according to their gender, profession and social status (Veyne 2010, pp.193–5). This hierarchy is important because it provides the backdrop of the context around which luxurious objects become a necessity of pleasure rather than function. By the end of the working day it was common practice to bathe before

dinner and by the 3rd century women would use the baths until no later than the 7th hour whilst men thereafter (Fleming 1997, p.23). In this way, women would be back home to supervise the dinner, which was the last issue in a typical Roman agenda, whether it be a family dinner or a feast. Married women in the Roman world had full power in running a household, controlling domestic slaves and domestic duties, plus the family affairs while the husband was away. In dinner parties they were responsible for the organisation and were allowed to join men and act as hostesses (Rogers 2007, p.98).

*La cena* is then an occasion to distend in all its meaning; it is a time when one rejoices in who he is and what he possesses; one was allowed in drinking and eating to forget everything except his profession (Veyne 2010, p.181). A philosopher would dine with a backdrop of cultural and literary discussions as evidenced in Plutarch's "Symptotic Questions" or Athenaeus' "Intellectuals at the table" (Spivey et al. 2004, p.259). Literature also provides the satire of Petronio in the passage from the *Satyricon*, "Trimalchio's dinner". The essence of these writings though, maintains a common denominator: enjoy drink and food while entertainment is provided. The three following quotes can exemplify the different connotations of each of the dining recounts of ancient times.

Plutarch:

"[...] In fact, the man of sense who comes to dinner does not betake himself there just to fill himself up as though he were a sort of pot, but to take some part, be it serious or humorous, and to listen and to talk regarding this or that topic as the occasion suggests it to the company[...]"

Athenaeus:

"And while we were now all amusing ourselves with agreeable trifling, some flute-playing women and musicians, and some Rhodian players on the sambuca came[...] And when we were relieved from their exhibition, then we had a fresh drink offered to us, hot and strong, and Thasian, and Mendeian, and Lesbian wines were placed upon the board, very large golden goblets being brought to every one of us." (Yongue 1854)

Petronio:

(36) [...] "Ah me! To think that wine lives longer than poor little man. Let's fill 'em up! There's life in wine and this is the real Opimian, [...]" (53) When this was over with, some rope dancers came in and a very boresome fool stood holding a ladder, ordering his boy to dance from rung to rung, [...] then the boy was compelled to jump through blazing hoops while grasping a huge wine jar with his teeth."

It is clear that dinner was not something to be taken lightly, requiring preparation of food and entertainment; drinking was as important and could last for many hours after food had been served and finished. We can see in the quotes that the quality of the wine was important as the glasses in which it was served. A libation in honour of the gods was expressed at the beginning and sometimes during dinner and drinking and it would be here when phrases of good luck and long life would be proclaimed, similar to the speeches we do in weddings and special events before we drink champagne.

The researched literature agrees that wealthy Romans would use tableware as a representation of their hierarchical status and would use these wares in his/her every day meal as well as in special events or parties and it is quoted by Fleming "...the patrician families, the traditionally wealthy of Rome, ate only off gold and silver; the well-to-do in bronze; everyone else drank off glass and/or pottery." (Fleming 1997, p.37). The rigidity of this system, however, does not exclude the fact that our researched object, the *diatretra* cup, would be considered in the rank of the precious/valuable objects like gold used within the given environment and it could be added that these vessels could be used either, as drinking glasses, or as lamps.

### The space

Whether in the city or in the Villa the success of the meal depended not only in the food and wine but the amenities and the elegance of its setting (Dunbabin 1996, p.66). The space that occupied the dining room in antiquity was called triclinium a name taken from the bedlike couch triclinia in which Romans laid to eat. In many cases the triclinia were isolated pieces of furniture but in some, they were built into the space. By the late Roman Empire the word *Stibadium* begins to be used for outdoor dining areas, nevertheless it then became the name of the disposition of the couches, triclinia, in a semi-circular pattern (Dunbabin 1995, pp.130–2). Tables, on the other hand were isolated pieces of furniture that could be moved and added according to need.

Dining rooms in the *Domus* –house, were often highly decorated; the walls would be painted with scenes that related to food, hunting or mythological representations; floors would be paved with exquisite mosaic with similar patterns. The detail and work of many of these mosaic floors and paintings can only be a confirmation of the importance of dining, an event that became more and more important. Villas in particular would have a dining

room that could open to the garden or terrace (Maiuri 1958, p.134) as can be often seen in Pompeii. By the 3rd century houses could have more than one dining room.

The architectural space of the triclinium or *stibadium* is of importance not only to understand the layout within a household but in terms of the daylight in these spaces. Dinner was an evening event and even if during summer months light would last longer; Romans would extend dinner into a drinking event for many hours still. An example of a hypothetical house according to Vitruvius shows the location of the dining space and the standard form which should be twice the width of its length (Dobbins & Foss 2008, p.270)(Vitruvius 1960) giving space for the entertainers or amenities.

The form of the space gave distribution of the couches and in some cases, the pavement mosaic would determine this place. By the late 3rd or early 4th century we see villas where dining rooms become bigger, nevertheless the number of guests around one table would always stay under 9 people (Dunbabin 1996, p.67). A good example is the *Maison de Bacchus* where the construction of 7 different semi-circular spaces are joined in a long rectangular central area where the entertaining and cooking could have taken place (Slater 1991, plates *Triclinium/Stibadium*) (Dobbins & Foss 2008, p.492). Without going into more depth than required, we understand dining rooms where small spaces with a variety of activities while *la cena* was in progress. They were also dark, or darker than we can imagine since their source of light came from live fire –yellow light, and small windows. Now light is extremely important in an environment where showcasing food, objects and people is crucial. Little has been written on the light indoors and what is available proves that lighting was through terracotta lamps.

In the hypothesis proposed the dining space could benefit from having more light, especially if this light could be near the tables to see the food that had been prepared for the occasion. Here we can imagine the *diatrete* glass providing not only a source of light but also enhancing the luxury of the vessel, giving the owner the status he deserves. The toast to good will would be ever present while the event is ongoing.

Cups or lamps like these could also be part of the entertainment where a Magician uses a cup like the Lycurgus cup to impress the invitees by changing the colour of the beaker. These glasses could then be placed on metal candelabra set between the tables and guests. One can also imagine the beauty of the light reflected by a glass similar to the one in figure 1 where the words “drink and live long life” would flicker in blue as the wick or candle light moves with air in the space.

## Conclusion

The first cage cups to be analysed in the late 1800’s early 1900’s were the beaker shape cups bearing either an inscription related to drinking or a mythological scene with the same connotations. This intensified the idea that they would have been used as drinking vessels (Aquaro 2004). After the discovery of the Constable Maxwell cup in the 1970’s with a bowl shape and a splayed rim, the idea of drinking from this shape vessel faded away (Sotheby 1979) but still no alternatives were proposed

The subject was re-assessed in 1987 when the Corning Museum in New York bought a vessel, very similar to the Maxwell cup but this cup had attached copper alloy hinges. David Whitehouse (1988) in assessing the bowl and comparing to other similar bowl shape cups known concludes with the ‘provocative question: not “how many cage cups were used for drinking?” but “how many cage cups were hanging lamps?.”

Having studied the architectural space and the importance of dinner events in the Roman world, it is easy to picture a rich and luxurious environment. The decoration of the walls was as rich as the food and the tableware. These intense and overly decorated spaces would have also absorbed much of the light from the oil lamps leaving a central glass lamp to shine as an extraordinary object of luxury.

Diatreta beakers are too wide to comfortably hold them in the hand without putting the fingers through the circular net. Seeing figure 1 this looks as an unlikely situation thinking these glasses must have been extremely expensive. The chapter on the rim puts forward a much better solution to carry the vessel, with metal hinges or setting inside a metal tripod at table height. The symbolism represented on many of these cups can be itself the libation to the gods displaying or turning on such lamps before the drinking commenced and would stay alight throughout the evening. If we can picture a dinner as represented on the ancient writings, we can easily see these cage cups as the Chandeliers of today glittering and enhancing the room to the movement of their light.

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## Figures and Table

Figure 1. Trivulzio Cup found in the province of Novara in a pagan sarcophagus dedicated to Atila Abina. The piece is now part of the Archaeological Museum of Milan, Italy.

Figure 2. Lycurgus Cup, Dichroic glass cup with mythological scene. 4<sup>th</sup> Century AD. British Museum, London, U.K. Inventory number: 1958,1202.1, AN36154001

Figure 3. Blown Glass Lamp designed for suspension. Roman Eastern Empire AD 350-450. GR1997.3-24.2. British Museum London, U.K.

Figure 4. Fragment from Trier museum in Germany found in Nikolas road in the same city. Museum schedule reads as follow: "Fragment eines Diatretglases, Trier, Nikolausstraße, 4.Jh. Entfärbtes glas. Inv 14588

Table 1. Recreated table of all the cage cups that have been documented in journals, papers or books. Authors compilation.