WORD BECOMES IMAGE

OPENWORK VESSELS AS A REFLECTION OF LATE ANTIQUE TRANSFORMATION

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Cover image: Detail of stop-mark and Greek inscription on Catalogue Figure 36.3, The Szekszárd Cage Cup. Photo by the Author

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Introduction

If you accepted the challenge of articulating a definition of 'art' today you would, no doubt, soon realise the difficulty of this undertaking. Whilst an intriguing task, your next question would most likely be: what kind of 'art'? From decorative art, fine art, craft, digital art, street art, to environmental art, the list of distinguishable types of art goes on and on. Notions of art today allow for an incredible range of variation in terms of the content, media, venue and shape. Are such variations unique to contemporary art or is it also true of ancient art? The answer is surely the latter. When we look at art made in the past, too often we essentialize from static artefacts restricted to a white museum space outside of time and context.

When we look at artefacts from the past, a limited conception of the rich variety demanded then, as now, misses the complexity of a type of 'art' which – like that of the present day - integrated aspects of production, viewer participation, and display. Take, for example, the Lycurgus cup, a well-known openwork vessel, Catalogue Figures 80.1-80.3. If dismissed with a cursory glance, one might miss the active, animated nature of the object itself. In addition to boasting scenes in which the deities Dionysus and Gaia figure prominently in the punishment of Lycurgus, the vessel was fashioned in the shape of a goblet in which wine was to be poured. This is where the aspect of use *literally* animates the participatory narrative. Today we know that the vessel changes colour when viewed in transmitted or reflected light. What does this suggest concerning the original viewing conditions? That the lights were altered to show the colour change? Or would the act of pouring wine into the goblet produces the colour change? If filling the vessel with a gift given by Dionysus causes the vessel to changes colour then this echoes the life cycle of grapes in viticulture; the vessel changing from the colour of unripe, green grapes to the colour of mature, ripened red grapes. Regardless of how the colour change was achieved in antiquity, the visual programme incorporates aspects of production and process into the final form.

When considering ancient art in context, questions shift from reductive What pre-existing, static category does this example fit? to interpretive questions such as: How did they make this kind of object? Why? What could it have meant? This is especially relevant in considering the role of inscriptions as art.

Word becomes Image

As 'the Living Word', Christ is made flesh - word figuratively becomes image. As openwork inscriptions became decoration on late Antique vessels - words literally became images.² For the Roman Empire, the implications for this dramatic paradigm shift extended beyond religious confines to a transformed world view. As part of a continuum from naturalism to abstraction, the symbolic representation of a figure is the word. Thus, aestheticised inscriptions on vessels serve as a class of symbolic image. This work unpacks the history of Roman openwork vessels from the Classical period when they were adorned exclusively with imagery – to the late Antique period – when their decorative programme underwent a shift, commensurate with the social fabric of society, resulting in a novel option: openwork inscriptions as decoration. In late Antiquity, word became image.

Given the size of the Roman Empire, both the effects and the impetus for change were experienced as waves rippling across this vast territory, reverberating at different times, and bringing about varied results. A noteworthy example is the transformation resulting not only from the adoption of a doctrinal religion but also the adoption of the codex instead of the scroll. In the period of the early Church in the mid-first century AD, Roman Christians chose to write about the life and teachings of Jesus Christ and his disciples, and then circulate these writings giving their monotheistic religion a doctrinal basis. It is difficult to discern whether this was in part, in response to an emergent shift resulting from the technological change from scroll to codex or whether the catalyst for such a revolutionary transformation in technology was largely prompted by the social need for a more accessible book. The very notion of Christ as 'the Incarnate Word' clearly resonates with the resulting material phenomenon of the ascendance of text and shift to text as image.

The nascent late Antique tradition evident throughout the openwork vessel assemblage is the Roman cultural practice whereby social interactions were made tangible via inscribed material culture. An occasion of use was documented on an object mediating social exchange. Drinking vessels, for example, used at convivial occasions were adorned with inscribed toasts.

Inscriptions rendered in openwork are found in contexts no earlier than the late third century AD.³ There was no tradition of writing as decoration on small-scale, circulating vessels, or usable objects, before the midthird or fourth centuries. Large-scale inscriptions also

References to catalogue numbers appear in bold, e.g. Catalogue Figures 36.7 and 46.3. All images of a particular object are denoted as follows Catalogue Figures 21.1–21.5 and illustrated in the Corpus of Openwork Vessels. Openwork vessels without published images are referred to by their entry, Catalogue Figure 13. Whilst the best quality images were used throughout the catalogue, in an effort to be comprehensive there is variation in image quality. References to photographs, diagrams and tables that appear in the commentary, however, have been given a letter, e.g. Text Figure A.

 $^{^{2}\,}$ On holy writing, see Krueger December 1997; Krueger 2004; Rapp 2007.

³ See the earliest dated openwork vessel in silver found in Copenhagen, Catalogue Figure 11. No inscribed stone openwork vessels are known.

changed in late Antiquity, becoming more formulaic and acclamatory.⁴ The category of ceremonial use and display – abstracted – gained importance over the particular occasion of use.⁵ Thus, on movable material culture, the emerging late Antique role for text as decoration was to document categories of social interaction.

What does the study of openwork vessels contribute to our understanding of the integration of imagery and writing? The evidence suggests that the conceptual shift in the treatment of writing stems from factors such as the way that co-emperors were distinguished from one another or imperial gifts, by a temporary iteration of dynastic imperial imagery, or the novel development of the emperor's name as adornment on payment or gifts displaying allegiance; and the wide-reaching influence of early Christian doctrine. The transformation from naturalism to abstraction is analogous to Christ as the Logos, the Word.

Inscriptional Art

A tacit division exists, typically segregating the study of epigraphy from art. The aesthetics of inscribed decoration, the 'art of writing', is not a commonplace art historical subject. Whereas figural, vegetal and symbolic imagery fall within the generally accepted parameters of representational art, inscriptions, often part of the aesthetic programme of material culture, have been largely undervalued, overlooked or under explored, and placed within the confines of epigraphy.⁶ As a consequence, a potentially rich source for art historical study remains relatively untapped.⁷

The visual study of epigraphy may be approached in a manner similar to iconography. The divided, often unintegrated methodology of art historical work is curious. Too often specialists provide exceptional studies along material lines, focusing exclusively on a single material, yet their conclusions remain isolated and specialised, such that their broader applications are never realised. Art historical studies rarely integrate discussions of epigraphic forms and content as part of a larger context-based approach. Conversely, a majority of epigraphic studies only discuss inscriptions in their own right or as a means of dating. When carving is examined technically, it is most frequently assessed with respect to representational imagery.8 Only a handful of interdisciplinary studies address the visual form of epigraphy as it relates to art history. Text has remained divided from image as though aestheticised inscriptions and palaeography do not form part of an integrated visual culture. Take, for example, a well-known volume which includes several papers delivered at a symposium on sixth century ecclesiastical silver plate, focusing primarily on issues related to the Sion Treasure, bequeathed discussion of inscriptions to an epigrapher.⁹ It is striking that what consistently served as part of designs in silver, inscription and imagery, is consistently divided in specialist studies in which art historical analyses do not necessarily address epigraphic content.

Perhaps largely the result of omission within art historical studies, isolated examination by epigraphic specialists, or a combination of both factors, few nonepigraphers discuss the visual ways in which inscriptions are rendered as a constituent of artistic production in a particular medium.¹⁰ Although visually-based discussions focusing on 'works of art' generally include translations of inscriptions, the extent of epigraphic discussion tends to be narrowly restricted to bare facts, i.e. the isolated content of inscriptions in commentary focusing primarily on imagery. The synergistic effect on original audiences, namely the role of inscriptions as an explicit part of an overall decorative programme, is all too often omitted. Similarly, aestheticized writing such as hallmarks or stamps are not a priori the subject of art history, rather they can be subsumed within the broader category of inscribed dating evidence.¹¹ Unlike epigraphy, however, the use of historical texts and hallmarks are commonplace in art historical discussions. Historical and literary texts are clearly differentiable from visual culture and as such often provide evidence of non-visual contexts for reception. However, objects in texts (ekphrasis) and texts on objects (inscribed decoration) provide two types of art historical source which interconnect art, text and material culture.¹²

⁴ See for example, life-sized honorific sculpture from Aphrodisias. Despite the fact that the inscriptions remained distinct from the sculpture, the form and content of the inscriptions broke with a local tradition, see Reynolds 1989; Roueché and Reynolds 1989; Smith 1999. On acclamations, see the minutes that begin the *Codex Theodosianus*, Roueché 1984.

On the increasingly ceremonial aspect of the late antique imperial court, see McCormick 2001b. Interestingly, by becoming increasingly abstracted, the specificity of the imperial image transformed from a likeness of the individual to a symbolic representation of the office. Not only did the fourth century mark the rise of text as image, the ascendance of symbolic representation, but reciprocally, images were morphing into symbolic representations. This is in keeping with the importance of the imperial office over the individual emperor during the Tetrarchy, for example. This short-lived period of co-rule by four emperors was marked by imperial portraiture abstracted to the point that individual emperors were indistinguishable. Protests against any of the four emperors ruling jointly are known to have taken the form of defacing a symbol of imperial office, the conspicuous imperial fibula, rather than dishonouring any individual emperor. See a desecrated emblem of office on a porphyry statue of the co-leaders now at St. Mark's, Venice, Ramage and Ramage 2014: fig. 11.22.

⁶ Compare classic art historical work such as Janson 1962; Riegl 1985; Winckelmann 1779; Wölfflin 1950 to more recent scholarship on inscriptions, such as MacMullen 1982; Meyer 1990; Woolf 1996.

⁷ For notable exceptions of art historical studies addressing inscriptions, see Cutler 1994a; Elsner 2005b; Mango 1991.

⁸ See Freestone, Meeks, Sax and Higgitt 2007; Lierke 1991; Lierke June 1995; Lierke 1995a; Lierke 1995b; Lierke 1996; Lierke 1999; Lierke 2001; Lierke 2002; Lierke 2003; Lierke 2013; Scott 1991; Scott 1993; Scott 1995; Scott 1996; Welzel 1998; Welzel 1999; Welzel 2002. A noteworthy exception is R. D. Grasby, a modern practitioner of stone letter carving, 1996; 2002.

⁹ Ševčenko 1992; Ševčenko 1998.

¹⁰ Exceptions to the rule often focus along material-specific lines, see Auth 1996; Cutler 1994a: 62, 137-40, 208-10 and 222; Dodd and Khairallah 1981; Filippini 1996; Mango 1991. Some investigations remain at the level of specialist studies rather than re-contextualising a material-based study more broadly within a given period.

For an exception, see Dodd 1961; Dodd 1964; Dodd 1992.

¹² Meredith 2006; Meredith, forthcoming Art in Ancient Texts: Layered Objects, Layered Meanings.

The use of ink or paint does not delineate the limits of visual forms of inscriptions. Although it may often form the primary basis of palaeographic evidence, palaeography is not limited to the study of ancient handwriting on papyri, tablets and *ostraka*. Palaeography is 'the study of ancient writing and inscriptions; the science or art of deciphering and interpreting historical manuscripts and writing systems'. What characterises palaeography is the broader study of 'writing systems' composed by *manus*.

Writing is in its infancy as an art historical subject. In an examination of Middle Byzantine ivories, it was argued that '[t]he relation, if any, between inscriptions on works of art and the contractions employed by scribes [commonly used abbreviations] is an unstudied subject. Even the filiation between letter forms on sculpture and those used in books is a topic still in its infancy'. These observations highlight the conspicuous absence of art historical studies on a range of epigraphic considerations which are constituents of the production of visual material culture. Omitting discussions concerning the extent of literacy or the use of epigraphy as a means of dating, numerous potentially revealing and interesting questions generally remain unasked.

The art historical and social considerations too often overlooked can be listed as follows:

- 1. Evidence for or against the preconceived design of inscriptions,
- 2. Imagery and inscriptions combined on an art object,
- 3. Evidence for or against different hands executing an object's inscription and imagery,
- 4. The varied means of integrating text and image as part of a unified object,
- 5. The division of pictorial space and the proportions devoted to text and image respectively,
- 6. The scale and depths of carving used in text and imagery,
- 7. The placement of text on objects in conjunction with the placement of imagery in relation to text on objects.
- 8. The range of epigraphic content found throughout a single vessel type,
- 9. The extent of overlap between the content of inscriptions and the subject of imagery, on a single vessel or object type,
- 10. Implicit rules for the placement of text and imagery within pictorial space on a vessel type,
- 11. The use and meaning attributable to stop-marks as constituents of inscriptions,
- 12. Similarities or differences in the use or meaning attributable to stop-marks throughout a single category of vessel,
- ¹³ In a study aimed at furthering cross-media study in the history of art, C. Mango addressed the relationship between letter forms on sculpture and those used in codices, 1991: esp. 241-3 and 246.
- ¹⁴ For example, Hoogendijk, van Minnen and Clarysse 1991.
- 15 The Oxford English Dictionary.
- 16 This lacuna is not present in the study of numismatic inscriptions, for example.
- ¹⁷ Cutler 1994a: 137.

- 13. Or in relation to monumental epigraphy,
- 14. Distinctions between object types using contractions from comparable objects with inscriptions without contractions,
- The use of abbreviations on inscriptions constituting part of an art object in relation to commonplace contractions and abbreviations on epigraphic monuments,
- 16. General epigraphic conventions used on portable art objects as opposed to monumental epigraphy,
- 17. Consistency or variation within the individual letter forms of a single inscription,
- 18. Or throughout inscriptions found on a single category of material culture,
- 19. Colour or colours used in the construction of inscriptions,
- Colours used within an inscription in relation to colours used elsewhere on the vessel body, adjacent imagery or patterning,
- 21. The angle of carved lettering in determining the intended position of viewers,
- 22. Use of carving to dictate perspective,
- 23. Known or expected contexts of display, or
- The content of inscriptions as contexts for viewing and use.

As a discipline, art history suffers greatly by sidestepping the inclusion of inscribed content (literally context), ¹⁸ often positioned next to imagery or patterning. It has been noted that there are dissimilar approaches to viewing representational imagery as opposed to inscribed decoration. For example, in the 'reading' of the Roman imperial monument of Trajan's almost exclusively figural column in Rome, one scholar articulates an often overlooked distinction between viewers' responses and approaches to viewing writing as opposed to imagery:

The way the vocabulary of art is displayed on a monument changes according to monuments and even according to viewers. Several readings of the same monument may be made, even by the same reader. Unlike writing, there is no such rule in images as a reading from top to bottom, left to right. Some clues can be left on the monument about a preferred order to decipher it, but there is scarcely an obligation to follow them, and, anyway, segmenting a monument into details need not prevent the viewer from perceiving it as a whole. One of the main advantages of reading a monument is that it forces the reader to be aware of his or her methodology and of the analogies and differences between the analysis of a monument and that of a text. It also encourages one to notice the interplay between text and art...The inscription on this monument asks the viewer to see the monument in relation to its surroundings.19

¹⁸ Elsner 1995: 1-20; Elsner 2002: 1-18; Elsner 2005b: 300-18.

¹⁹ Huet 1996: 21.

Similarly, inscriptions on moveable art objects invoke the viewer, the potential user, and suggest a particular use of the object in order to perform an action.²⁰ Active framing of a visual scene on a vessel is tacitly achieved contemporaneously by the addition of handles, or another means of handling the vessel, for use.²¹ As a form of decoration, inscribed content unites text and object directly to help frame viewing and – at least on moveable art objects – use. Text on glass openwork vessels provides evidence concerning contexts of use and display otherwise missing from the now decontextualised objects. As records of interactions, text as decoration originally framed viewing and visual adornment. Today, it provides one of the few means of accessing the original late Antique social contexts.

Animating Ancient Art

The central research interests which form the basis of this book can be divided into three themes: first, continuities and discontinuities evident during periods of transition. Second, how material culture and texts about material culture were used to teach ways of approaching not only objects but interactions as well. Essentially, therefore, material culture has the potential to reveal a great deal about the social construction of meaning. Third, the conceptual categories that ancient societies came up with - both explicitly and implicitly - and the myriad ways in which an object serves as 'a social canvas' for the projection of meaning. Another facet of my approach is a focus on the artisan in addition to the consumer, user or viewer. This work, therefore, approaches ancient categories from the point of view of craftsmen, instead of exclusively from the top-down; for example, as set out in the law codes, or based on imperial or aristocratic sources.

One of the principal aims of this work is to explore 'late Antique art' by considering a single case study, that is openwork vessels, in their original context. By context, I mean to the extent possible, capturing and representing a slice of history within which to place these vessels with the aim of providing scholars with the most complete understanding of the case study and its place in the society for which it was made. Openwork vessels are the ideal case study, in part, because of the obvious role that craftsmanship and, therefore, production played in their design and execution. Once the corpus was assembled in toto, intriguing questions about their production history rose to the fore – as well as potential answers. When examined as a comprehensive assemblage, it became possible to retrace a standardized sequence of production. Commensurate with this task is the act of sketching out the nexus of complications that stem from the corpus in question. The use and display of small-scale, tactile objects in motion give rise to a number of interconnected issues, such as craftsmanship, valuation, categorisation, use and the superimposition of meaning. Taking for example the According to the archaeological record, there were myriad 'late Antique' art forms. The overarching shift from naturalism to abstraction was experienced in successive waves across the Empire. This work analyses the Roman period technique of openwork, a type of high relief carving, in depth in order to investigate one diachronic example of a late Roman cultural aesthetic.

Why late Antique art? As the name implies, this period is part of a transitional phase of history; a descending curve on the arc representing antiquity. Thus, part of what is so compelling about the study of late Antique art is how its origins in Classical antiquity shaped its expression. Yet, it also underwent development and radical transformation, in part, in reaction to its classical inheritance - whilst responding to emerging late Roman (to speak culturally within the Roman tradition) or late Antique (to speak more broadly) social phenomena. For instance, fundamental shifts include the role of loyalty and allegiance, their public display after a sustained period of governmental instability with increasingly powerful neighbouring adversaries independently encroaching and often dominating on two opposing fronts, and the assimilation of Christianity in the Roman Empire as its influence can be seen from the development of the form and decoration of openwork vessels.

Openwork vessels have been chosen as the case study with which to explore questions concerning continuities and discontinuities, in part, because their design and production history spans the shift from Classical Antiquity to the transitional late Antique period. As will be discussed with respect to the design and production history of openwork vessels as an assemblage, whereas Classical openwork vessels were exclusively figural, openwork vessels only began to incorporate inscriptions as decoration, *circa* the third or fourth centuries AD. Whilst late Antique openwork vessels continue to integrate traditional figural imagery into their decorative programme, such figural decoration yields its exclusivity; their decoration is no longer restricted to representational imagery.²²

The Emergence of a Late Antique Tradition

As the name suggests, 'late' Antiquity displayed continuity with Classical Antiquity, whilst developing along a separate and distinct tradition. After 1000 years as a pagan Roman Empire, AD 312 marked the beginning of 1000 years as a Christian Roman Empire. There were two wide-reaching

geometric patterning evident on a number of openwork vessels, it soon becomes clear that the unvarying pattern found on the two horizontal registers nearest the base follows a model; not one surviving openwork vessel with a geometric cage network along its base deviates from this template. The implications, and additional questions, about late Roman carving and craftsmanship are varied and enmeshed with the nature of this close study.

²⁰ Cf. Huet 1996: 23.

²¹ Huet 1996: 27.

²² See Meredith 2009a; 2009b.

and interconnected developments that occurred in short succession. Whilst these trends are strikingly similar and occurred less than a generation apart, there is no concrete evidence to determine whether this is anything more than coincidence or if one led to the other with any certainty.

The first signs of a nascent late Antique tradition in which writing was aestheticized (i.e. writing as part of a pictorial programme), occurred in an imperial context.²³ During the Tetrarchy (c. 284-305 AD), when four unrelated emperors ruled jointly, imperial gifts were designed so that the gifts were systematised. Surely one reason for this wide-reaching change was so that each of the four co-emperors had displays of loyalty which distinguished the senior rulers from their junior counterparts, or one ruler from among the throng. The obvious benefit of such individuation was a declaration of allegiance, not to the imperial office but a single, named emperor.

The second indication of an emergent late Antique tradition in which writing was aestheticized as part of a pictorial programme, occurred in a religious context, specifically the biased presentation of the sequence of events during which Emperor Constantine converted to Christianity, and thereby the Roman Empire was Christianised. Although Christian doctrine was compiled over time, from at least the time of the writing of the synoptic Gospels, to the writing of the Acts of the Apostles, to their translations and later redactions, spanning some 400 years, the source credited to a Christian Bishop, Eusebius of Caesarea, remains one of the only extant sources to represent the events that precipitated the Emperor's conversion in AD 312.24 For our purposes, the key point is the aestheticisation of writing in the first vision visited upon the Emperor and his army. Not only was writing part of pictorial programmes on material culture, but it was clear that conceptually, aestheticized writing was part of a mode of viewing that revealed this late Antique category; a late Antique conception of historicity and clarity of meaning as a means of visual expression.

Case Study Reflects Cultural Transformations

The corpus of openwork vessels, compiled from as early as the late first century AD to as late as the mid-sixth or seventh centuries AD, represents a date range from Classical to late Antiquity; when the Roman Empire was converted from polytheism to Christianity. Thus, the case study reflects cultural transformations before and after a period of radical transition and transformation. As a whole, openwork vessels provide us with access to rich source material, to social canvases with which to investigate the social construction of meaning in late Antiquity.

Openwork vessels represent a trend during a period that was not merely one of transition, but which displayed a character neither classical, nor Byzantine, yet related to both. Between the third and seventh centuries, Roman craftsmen produced a type of vessel that displayed a remarkable degree of technical skill. Although an earlier Roman version of glass openwork is known on vessels dating to the late first century, there is no evidence of continuous production from the late first through to third centuries.

Why concentrate on a Roman technique? By selecting a Roman period technique and contextualising vessels as the central case study, this work focuses on a category of material culture created for and defined by the Romans.²⁵ The aim, however, in concentrating on the Roman period technique of openwork is to delimit a category of material culture which the Romans considered a discrete type. Thereby, drawing upon the surviving corpus of openwork vessels, this diachronic investigation will consider the limits and underlying design principles of this Roman category of material culture.

According to the assemblage of openwork vessels, there is a clear division between the conceptual categories applied to openwork vessels produced during Classical Antiquity in contrast to the conceptual categories applied to late Antique openwork vessels. Openwork vessels dated to Classical Antiquity (end of the first century -c. 325 AD) bear geometric patterning and imagery only; thus, there is absolutely no writing. Unlike their precursors, late Antique openwork vessels (c. 325 AD – sixth/seventh centuries AD) include writing as an option alongside or in combination with geometric patterning and imagery. Thus, the introduction of aestheticized writing began exclusively during the late Antique phase of production and circulation. Part of the motivation for the technical nature of this study is the thorough consideration of factors such as dating, contexts of deposition (provenance and structures), quantities, materials and circulation.

What is meant by the *openwork* technique? The specialist vocabulary used today no doubt differs from the – unknown – Roman terminology originally applied to such vessels.²⁶ Known today as *openwork*, *cage cups*, *diatreta*, *kaniskia* or *canistra*,²⁷ this category of vessel had more than one use, for example as drinking vessels or lamps (see **Catalogue Figures 46.1-46.3**, **51.1-51.5** and **88.1-88.6**).²⁸ Undoubtedly, the first thing that captures any viewer's attention when confronted with an openwork vessel is the delicately pierced or undercut outer layer (**Text Figure A**). Craftsmanship is given material form in this type of exceptionally constructed object.

 $^{^{23}}$ See Chapter II and, the Catalogue of Openwork Vessels, e.g. Catalogue Figures 13 and 17.1.

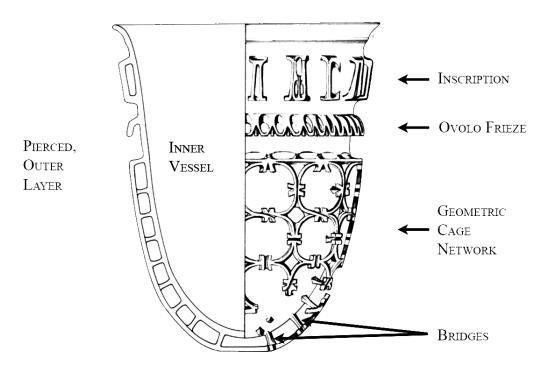
²⁴ See Chapter II.

Whilst openwork vessels have features that overlap with openwork rendered in different forms, such as openwork jewellery for example, the latter have been omitted in order to focus in depth on the vessels and their potential uses. For openwork jewellery, see Geroulanou 1999.
For an intriguing and entertaining list of names used for different types

²⁶ For an intriguing and entertaining list of names used for different types of cups, see Athenaeus, *The Deipnosophists* XI – XII. See also Braund and Wilkins 2000.

²⁷ Boyd 1988; Eisen and Kouchakji 1927; Thorpe 1938. For the less common *kaniskia* and *canistra* (*basket* or *little basket*), see Stern 2003.

²⁸ There is no evidence to suggest (or refute) that the same vessel could have had more than one use. Differences in vessel shape, imagery and inscriptions typically suggest one purpose or use but they do not delimit function.



TEXT FIGURE A: DIAGRAM OF GLASS OPENWORK VESSEL

Openwork vessels are made of two layers. The decorative outer layer was pierced and extensively carved, whilst the plainer, inner layer served as a container. Glass and stone vessels are carved from a single, continuous blank. The two layers remain connected only by a network of perpendicular glass bridges. Late Roman craftsmen consistently made these pieces to a high standard, removing all evidence of toil to such an extent that historians remain puzzled by the working methods originally employed. Questions concerning how Roman artisans achieved this effect still fuel ongoing debate.²⁹

There was variation in openwork decoration. On glass openwork vessels, decoration ranges between one and three horizontal zones. Zones consist of an inscription, geometric patterning or iconography. On glass, the individual decorative elements (geometric patterning, iconography or inscription) do not repeat on a given vessel, and each element is selected and combined according to tacit principles of design. The colour combinations also follow a convention. Most typically, a colourless inner vessel has one to two colourless or primary coloured overlays. When combined decorative elements and colours used are orientated horizontally, not vertically.

With the possible exception of fourth century jewellery, vessels dominate late Antique openwork. The materials used in the creation of openwork vessels include the precious materials metal and stone, as would be expected. Interestingly, glass, a non-precious material, was selected alongside the more valuable materials for the production of this skilfully cut vessel. The metal openwork vessels are most often combinations of pierced metal casing and a

5	Stone	(agate, chalcedony, marble and rock crystal)
		, ,

- nil Provenanced Stone Vessels or Fragments
- 5 Unprovenanced Stone Vessels or Fragments

18 Metal (bronze, gold and silver)

- 17 Provenanced Metal Vessels or Fragments
- 1 Unprovenanced Metal Vessels or Fragments

69 Glass

- 55 Provenanced Glass Vessels or Fragments
 - 5 Provenanced Dichroic Vessels or Fragments
- 6 Unprovenanced Glass Vessels or Fragments
 - 3 Unprovenanced Dichroic Vessels or Fragments

92 TOTAL

TEXT FIGURE B: TOTAL NUMBER OF OPENWORK VESSELS

plain, free blown glass inner vessel. However, the limited numbers of stone vessels found are entirely stone, as are the glass vessels known to be entirely glass.

This work takes glass openwork vessels as part of a broader case study of openwork vessels in order to understand the high level of standardisation and implicit organisation required to produce their design, engraving and distribution. The development of a distinctly late Antique aesthetic in openwork was in part a response to social changes expressed through the novel development of a tradition

²⁹ See *Chapter I*, esp. **Text Figures L** and **M.1-M.2**.

of movable, usable material culture³⁰ with inscribed decoration. Imperial largesse, and similar presentation gifts of the third and fourth centuries, highlights the widereaching role of personal display in conjunction with use as a means of spreading propagandistic messages and reciprocally influencing late Roman self-presentation among elite society.

Decoration and function are the defining features of glass openwork vessels. Inscriptions on vessels provide evidence concerning the intended contexts for display and use. Therefore, openwork vessels are the ideal case study with which to examine relationships between literary usable art objects and an assemblage of real, extant useful art objects. When compared to the precious materials of silver, gold, bronze, agate and chalcedony, or jewellery for that matter, the study of glass vessels is particularly revealing: unlike valuable materials, the fact that glass is not an intrinsically valuable material means that it is more commonly found in situ, in its original depositional context. Thereby, openwork glass finds are potentially more informative because they are commonly found constituting part of a burial assemblage. Firstly, this type of glassware is typically found in stratified burials. Therefore, unlike unprovenanced finds, glass openwork vessels generally have a known terminus post quem.31 Other grave goods are often found alongside glass openwork vessels. This aids in establishing the estimation or relative value attributed to individual glass openwork vessels based on their selection as part of classical or late Antique burials. A specific burial assemblage can also assist in dating and in the determination of hierarchies based on scale or overall wealth. Secondly, the positioning of glass openwork vessels in relation to the deceased may be preserved. Such information is useful in observing a possible ritual significance for these objects. Finally, excavated openwork vessels in glass far outnumber those in any other medium.

According to the current state of the archaeological record, 92 openwork vessels are known to the Author (**Text Figure B**). Of the total number of known openwork vessels, approximately three-quarters are made entirely of glass (**Text Figure C**). The fact that these highly crafted vessels were made out of precious stones and metals, as well as the base material glass – is in itself intriguing. Moreover, openwork vessels as a cross-media category display similar principles of design, which underlie selection and combinations of iconography, geometric patterning and inscriptions. Examining the assemblage as a whole reveals

³⁰ The terms 'functional art object', 'usable art object' and 'useful art object' will be used interchangeably to refer to an aestheticized object with a potentially utilitarian element, for example, a goblet with incised grape clusters, or a wooden chair with inlaid imagery. The functional or usable nature of such objects indicates a potential for use, regardless of whether there is evidence of wear. Such objects are contrasted with non-functional, often stationary art objects, for example wall paintings or pavement mosaics.

Material	Catalogue Figure	Number_ of Vessels
Agate	82, 87	2
Chalcedony	85	1
Marble	92	1
Rock Crystal	51	1
Total Stone Open-work Ve nil provenanced	5	
Provenanced Bronze Vessel	19	1
Provenanced Gold Vessels	60 and 61	2
Provenanced Silver Vessels	11-12, 46, 62, 69-76, 78 and 90	14
Silver (unprovenanced)	83	1
Total Metal Open-work Vo 17 provenanced 1 unprovenanced	essels:	18
Provenanced Glass Vessels	1-10, 13-18, 21- 22, 25-44, 47-50, 52-59, 64-65, 77, 79 and 86	55
Provenanced Dichroic Vessels	45, 63 and 66-68	5
Glass Vessels (unprovenanced)	20, 23-24, 81, 88 and 89	6
Dichroic Vessels (unprovenanced)	80, 84 and 91	3
Total Glass Open-work Vo	69	

TOTAL Number of Open-work Vessels: 92

9 unprovenanced

TEXT FIGURE C: TABLE OF OPENWORK VESSEL MATERIALS

a third stage of production, extensive carving, which is largely absent from the written sources.

Although little evidence survives in the archaeological record to document the practice of engraving, a substantial amount of artefactual material remains demonstrating that extensive carving was desirable and in demand in late Antiquity. Use of the openwork technique and other forms of high relief carving were not limited to vessels. They serve as an example of a broader late Roman cultural aesthetic. High relief glass openwork vessels are only one type of object among many exquisitely carved pieces in circulation between the third and fifth centuries AD. Engraving typically adorned usable art vessels in various

³¹ Literally, 'limit after which'. A *terminus post quem* specifies the earliest time an event may have occurred. Conversely, a *terminus ante quem* ('limit before which') specifies the latest.

social contexts, most commonly pagan, Christian, Jewish,³² imperial and domestic, and in glass, metal or precious stones. High relief carving continues on handheld late Antique ivories,³³ precious stones³⁴ and cameo cutting.³⁵

Chapter Overviews

Chapter one investigates the value of glass through crafting. This chapter examines non-narrative textual sources on the subject of the reception of craft in late Antiquity, as well as textual and archaeological evidence concerning the three stages of glass trade and production in antiquity. Debates concerning the production of glass openwork vessels continue to be a topic of lively discussion. This chapter seeks to develop a deeper understanding of glass openwork vessels in particular. Since a majority of openwork vessels are made entirely of glass, concentrating on the glass vessels provides a clearer picture of the original contexts of production and reception of one type of object produced using the Roman technique of openwork carving.

This work includes an illustrated catalogue of openwork vessels and chapter two addresses what scholars know about the term 'diatreta'. According to extant textual evidence, the term diatreta refers to the manner of openwork carving. Today, when applied exclusively to glass, scholars often refer to glass openwork vessels as 'cage-cups'. Chapter two seeks to analyse the surviving evidence on the Roman technique of openwork carving, to disentangle the subdivisions - typically along material lines – whereby modern scholars have applied specialised terms as though they were not interrelated categories of Roman visual culture. The term openwork is, therefore, used throughout this work to identify the carving technique employed, regardless of medium. Moreover, this chapter considers Roman social uses for openwork vessels. Who produced them, for whom, and why? What were their social uses? This chapter seeks to establish what the textual sources reveal about 'diatreta' and, as a result, how to distinguish, refer to and contextualise the extant artefactual assemblage of Roman, openworked vessels. In addition, this chapter addresses the fourth century phenomenon of blurred boundaries between text and image by concentrating on openwork vessels as imperial largesse. The case study illustrates the blurring of such boundaries by incorporating the emperor's image or inscribing his (and sometimes their) name(s) – a nascent late Antique tradition whereby both text and image were used interchangeably. Thus, the case study re-considers

and re-presents openwork vessels as a reflection of a wide-reaching Roman cultural aesthetic.

Chapter three focuses on the core source material which forms the backbone of this work - openwork vessels themselves. In an in-depth analysis of the corpus as a whole, typologies (old and new), imagery, geometric patterning and inscriptions as the major divisions among openwork decorative elements, basic design principles are identified, non openwork carving and its relation to openwork decoration are discussed, as are the function, handling, display, movement and provenance of openwork vessels throughout the Roman Empire. Whilst we may not have unambiguous stratigraphic evidence concerning openwork vessel production, find-spots provide evidence concerning when individual openwork vessels were removed from circulation and thereby, indicate use. The corpus also provides a cross-section of material culture assembled by contemporary users in the form of burial assemblages.

By amassing an assemblage of openwork vessels from Classical to late Antiquity, this diachronic investigation provides scholars with primary evidence as well as an approach which traces the contours of one category of Roman material culture defined by the Roman period technique of openwork carving. It is hoped that art historians and archaeologists working on the transition from Classical to late Antiquity, as well as scholars focusing on classical, late Antique and later periods of study, will be able to fruitfully apply this approach to visual culture.

³² Although none survive in openwork, it is likely that images or texts associated with Judaism were in circulation in late antiquity. See gold-glass medallions with Jewish symbols, Morey and Ferrari 1959.

³³ See Cameron 1982; Cameron 1986; Connor 1998; Cutler 1984; Cutler 1993; Cutler 1994a; Cutler 1994b; Cutler October 1997; Dalton 1909; Gibson 1994; Morey 1941; Olovsdotter 2005; Randall, Jr. 1985; van den Hoek April 2005; Volbach 1976.

³⁴ See Henig 1983; Henig 1990; Henig 1993: 27-40; Mango and Mundell Mango 1993: 57-76; Sande 2001; Spier 1993: 43-55.

³⁵ See Guyan 1975: 38-77, on the on the Hunt cameo in the Narodni Muzeum, Belgrade, Brilliant 1979: 83, no. 71 and pl. 2; Elsner 2006: 269, fig. 29. On cameos, see Mango and Mundell Mango 1993; Spier 1993; Whitehouse and Painter 1993. On glass imitating gems, see Krug 1995.