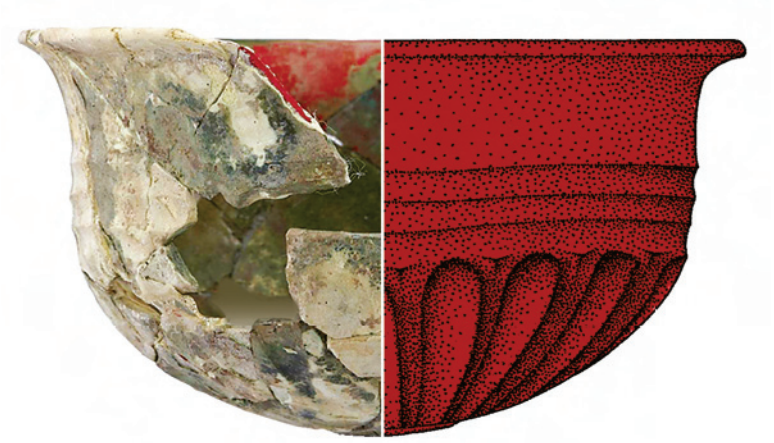
ANNALES



Thessaloniki 2009

du 18e CONGRÈS

de l'ASSOCIATION INTERNATIONALE
pour l'HISTOIRE du VERRE

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Editors
Despina Ignatiadou, Anastassios Antonaras

Thessaloniki 2009

Couverture / Cover illustration

The *haematinon* bowl from Pydna. Height 5.5 cm.
© 27th Ephorate of Prehistoric and Classical Antiquities, Greece.
The bowl (skyphos) is discussed in the paper by Despina Ignatiadou 'A *haematinon* bowl from Pydna', p. 69.

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PRÉFACE

Marie-Dominique Nenna

J'ai le grand plaisir de vous présenter les Annales du 18e congrès de l'Association Internationale pour l'Histoire du Verre et je tiens à remercier tous ceux qui ont fait que cette publication paraisse dans les meilleurs délais, les auteurs au premier chef, le comité de lecture et surtout les éditeurs du volume, Despina Ignatiadou, vice-présidente, puis membre du bureau de l'AIHV durant les années 2006-2012 et Anastassios Antonaras.

Le 18e congrès de l'AIHV s'est tenu à Thessalonique du 21 au 25 septembre 2009. Il a été dédié à Clasina Isings qui est venue, via une video, nous offrir ses meilleurs vœux au début des sessions. Tous nos remerciements vont d'abord au Musée archéologique de Thessalonique qui a organisé l'ensemble de cette manifestation et au Musée de la civilisation byzantine qui a accueilli nos sessions dans le tout nouveau auditorium, utilisé pour la première fois pour notre congrès. Remercions aussi les amis du Musée archéologique de Thessalonique qui ont soutenu ce congrès avec entre autres, le beau sac décoré de balsamaires-oiseaux ; la préfecture de Thessalonique qui nous ont accueillis à la fin de ces journées. Et enfin, du fond du coeur, tous nos remerciements vont à Despina Ignatiadou, Anastassios Antonaras et au comité d'organisation pour avoir réuni tous leurs efforts pour organiser ce congrès et nous offrir l'occasion de nous rencontrer une nouvelle fois pour partager nos découvertes et nos réflexions sur ce matériau qui nous passionne tous.

Durant les trente-trois sessions organisées en parallèle, 95 contributions orales et 55 posters ont été présentés, montrant ainsi la vitalité de la recherche sur l'Histoire du Verre dans l'ensemble du monde scientifique. Grâce au dynamisme du comité grec, après une découverte de la ville à l'orée de notre congrès, des promenades thématiques ont été organisées afin de mieux connaître les différents aspects de Thessalonique, ville hellénistique et romaine, ville byzantine, ville ottomane avec son importante communauté juive et ville du xxe siècle. En outre, les excursions post-congrès ont permis aux participants de découvrir le cœur de la Macédoine avec les cités de Vergina et de Dion, ainsi que le lac de Pikrolimni, producteur de natron dans l'Antiquité et encore aujourd'hui, les villes d'Amphipolis et de Philippes ou encore de faire une croisière autour du Mont Athos.

Ce volume réunit 84 contributions qui couvrent un arc chronologique très vaste depuis le deuxième millénaire av. J.-C. jusqu'à nos jours, et touchent à tous les aspects de l'histoire du verre, avec une bonne interconnexion entre l'archéologie, l'histoire de l'art et l'archéométrie. Une part importante est réservée aux débuts de l'histoire du verre au iie millénaire et au début du ier millénaire av. J.-C. et à ses développements

dans le monde hellénistique avec des communications portant sur le Proche-Orient, l'Égypte et le Soudan, la Grèce et la Turquie. Les mondes romain et byzantin sont abordés selon deux axes : étude de la production et de la consommation de la vaisselle et des ornements et étude en fort développement de l'emploi du verre dans les mosaïques pavimentales et pariétales. Les communications sur le monde islamique s'inscrivent dans la lancée inaugurée au 15e congrès et attestent la vitalité de la recherche dans ce domaine. La présentation de découvertes et études portant sur la Grande Bretagne, l'Italie, le Kosovo, le Montenegro, le Portugal, la Pologne, la Roumanie, la Serbie et la Tchéquie alimentent le débat sur le verre à l'époque médiévale et post médiévale en Europe. XVIIIe et XIXe siècles ne sont pas en reste, avec des communications sur le verre dans les toits, les fleurs de verre et le verre mosaïqué et on dispose aussi de communications sur le verre en Chine méridionale et en Afrique subsaharienne.

Lors de l'assemblée générale, le bureau de l'AIHV a été renouvelé. Jan Egbert Kuipers, trésorier et Ian Freestone, que l'on doit remercier pour leur dévouement et leur efficacité, ont présenté leur démissions. De nouveaux membres ont été élus : Irena Lazar, organisatrice du 19e congrès en 2012, comme vice-présidente et Huib Tijssens, comme trésorier. Déjà présents dans le bureau, Despina Ignatiadou a été élue comme membre, Jane Spillman a été réélue comme secrétaire général, David Whitehouse comme membre, et j'ai moi-même été réélue comme présidente. Le comité exécutif réunissant six membres élus ainsi que les représentants des associations ou comités nationaux a été en partie renouvelé, avec l'élection de Fatma Marii et de Yoko Shindo, tandis que Sylvia Fünfschilling, Lisa Pilosi, Marianne Stern et Maria Grazia Diani ont été réélues. Nous avons déploré le décès lors du congrès de deux de nos membres, Sarah Jennings d'Angleterre et Claudia Maccabruni d'Italie.

Les préparatifs pour le 19e congrès se déroulent sous la houlette d'Irena Lazar. Le congrès se tiendra à Piran en Slovénie du 17 au 21 septembre 2012 (www.aihv.org, www.zrs.upr.si). Après l'accent mis sur la Méditerranée orientale au congrès de Thessalonique, une nouvelle avancée vers les informations et les membres d'Europe Centrale sera effectuée à Piran.

PREFACE

Marie-Dominique Nenna

I have great pleasure in presenting you with the Annales of the 18th congress of the Association Internationale pour l'Histoire du Verre, and I wish to thank all those who have ensured that this publication appears with the least delay: principally the authors, the academic committee, and especially the academic editors of the volume, Despina Ignatiadou, vice-president, and member of the board of the AIHV for the years 2006-2012 and Anastassios Antonaras.

The 18th congress of the AIHV was held in Thessaloniki from September 21st-25th, 2009. It was dedicated to Clasina Isings, who came, via a video, to offer us her best wishes. Here we have to warmly thank the Archaeological Museum of Thessaloniki which has organized the whole manifestation, and the Museum of Byzantine Culture, which has hosted our sessions in the brand new auditorium of the Museum, used for the first time for our congress. All our warm thanks also to The Friends of the Archaeological Museum of Thessaloniki who supported the organization of the congress among the others with the nice bag decorated with bird-balsamaria, and The Prefecture of Thessaloniki, who has hosted us at the end of the congress. Last, but not the least, from the bottom of our heart, our thanks go to Despina Ignatiadou, Anastassios Antonaras and the Organizing committee for their hard work in organizing this congress and for offering us the opportunity to meet once again to share our discoveries and our thoughts on this wonderful material, glass, to which we are all dedicated.

During the 33 parallel sessions, 95 oral communications and 55 posters were presented, displaying the vitality of research on the history of glass in the scientific world. Thanks to the energies of the Greek Committee, after a first glance at Thessaloniki at the beginning of our congress, thematic visits were organised to discover the different aspects of Thessaloniki· Hellenistic and Roman city, Byzantine city, Ottoman city with its important Jewish community, contemporary city. In the post-congress trips, the participants were able to visit the heart of Macedonia, with the cities of Vergina and Dion, and the Pikrolimni Lake, producing natron in Antiquity and still today, the ancient cities of Amphipolis and Philippi, or to make a cruise around Mount Athos.

This volume brings together 84 contributions, which cover a vast chronological span from the second millennium BC up to the present day, touching on all aspects of the history of glass with a good networking between archaeology, history of art and archaeometry. An important part is devoted to the beginnings of the history of glass in the second millennium and the beginning of the first

millennium BC, and the developments in the Hellenistic world with papers covering the Near East, Egypt and Sudan, Greece and Turkey. The Roman and Byzantine worlds are approached from two directions: the study of the production and consumption of vessels and ornaments and the expanding study on the glass in mosaic pavements and walls. The papers on the Islamic world build on the start made at the 15th congress and show the vitality of research in this area. The presentation of discoveries and research coming from the Czech Republic, Great Britain, Italy, Kosovo, Montenegro, Portugal, Poland, Romania and Serbia, fuels the debates about glass during the medieval and post-medieval period in Europe. The 18th and 19th centuries are not ignored, with papers dealing with glass in roofs, glass flowers and mosaic glass and there are also studies dealing with African and Asian glass.

During the General Assembly the board of the AIHV changed. Jan Egbert Kuipers (Treasurer) and Ian Freestone, to whom we extend all thanks for their work, submitted their resignations. The newly elected members were Irena Lazar, organizer of the 19th Congress in 2012, as Vice President, and Huib Tijssens, as Treasurer. Already present in the board, Despina Ignatiadou was elected member, were re-elected Jane Spillman as General Secretary, David Whitehouse as member, and I as President. The executive committee which assembled six elected members as well as the presidents of the national Associations or Committees, was partly renewed, with the election of Fatma Marii and Yoko Shindo; Sylvia Fünfschilling, Lisa Pilosi, Marianne Stern et Maria Grazia Diani were re-elected. We mourned during the congress the recent death of two long time members, Sarah Jennings from England and Claudia Maccabruni from Italy.

The preparations for the 19th congress are progressing under the guidance of Irena Lazar. The congress will be held at Piran (Slovenia) from September 17th to September 21st 2012 (www.aihv.org, www.zrs.upr.si). After the wider opening towards eastern Mediterranean members effectuated during the Thessaloniki Congress, we will receive in Piran more information and members coming from Central Europe.

THE HARROW CHALICE: EARLY GLASS OR EARLY FAKE?

Paul T. Nicholson, Caroline M. Jackson

Early Egyptian Glasses

Sir John Gardner Wilkinson (1797-1875) is one of the great pioneers of Egyptology[1]. After studying at Harrow he went to Oxford, but left without completing his degree[2]. He then served in the army but in 1820 was persuaded by Sir William Gell (1777-1836) to abandon a military career for the study of archaeology, particularly that of Egypt.

In 1821 he moved to Egypt where he was to remain for the next 12 years, leaving only to visit Nubia and surrounding deserts. Most of his time in Egypt was spent residing at Thebes, and living in the tomb of Amethu, known as Ahmose (TT83)[3]. His long stay in Egypt and particularly his residence in Thebes gave him an unrivalled knowledge of the country, its inhabitants and its archaeology. His book, *Manners and Customs of the Ancient Egyptians,* was published in 1837 and remains in print to the present day[4].

During his time in Egypt he not only recorded the monuments but collected antiquities. Some of these he gave to the British Museum, but his personal collection was given to Harrow School in a generous gesture designed to interest young scholars in archaeology. As well as his own hand-written catalogue the collection was later catalogued by Sir Wallis Budge (1857-1934)[5]. The collection, which includes some glass, was re-catalogued in the 1990s by Dr. Shaw[6].

The most interesting piece of glass in the collection is a small, chalice-like footed cup or goblet. Budge (1887) describes it rather summarily in his catalogue but Wilkinson's own description of 1864 is more informative:

"549. Cup of colored "glass porcelain." these are usually an opaque glass. From Thebes, of Egyptian time. Height 2 1/2 inches. Some of these vases appear to be the false "murrhina" mentioned by ancient Greek and Latin scholars, - an imitation of the stone which was doubtless fluor-spar, so common in Derbyshire, but nought from other countries in old times, as we learn from Pliny. In those the arrangement of the colors [sic] differed from the present specimen, having broader and more decided lines and hard zigzags, as may be seen in the bottles marked fig. 335, 339 in vol. II of this catalogue under the head of glass."[7]

By "glass porcelain" Wilkinson almost certainly means faience in this instance and it is possible that the confusion over the material arose because the vessel was complete when it entered the Harrow collection and as such no broken section could be observed. The sketch given by Wilkinson (Fig. 1) suggests that the piece was indeed complete and in good condition, but at some time, probably after 1887 when Budge described it, the vessel was broken, pieces lost and poorly restored. The break, whilst regrettable, does make it clear that the piece is glass.

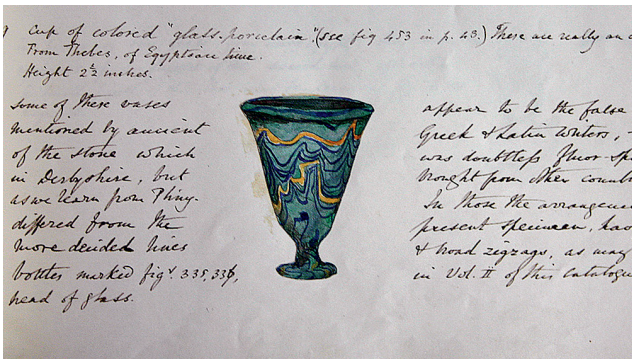

Fig. 1: Entry for the chalice in John Gardner Wilkinson's catalogue notebook at Harrow School (1864). Note that the vessel is shown as complete. (Photo: P. T. Nicholson, reproduced courtesy of the keepers and governors of Harrow School)

1. Thompson 1992.
2. Dawson *et al.* 1995, 443.
3. Thompson 1992, 101-5.
4. Wilkinson 1837.
5. Budge 1887.
6. Shaw 1991.
7. Wilkinson's handwritten catalogue is kept at the Old Speech Room Gallery Museum at Harrow School.

Fig. 2: The Harrow Chalice. Ht. 6.0 cm. (Photo: John Morgan).

Number	Shape/Type	Body colour	Technology
Munich ÄS630	Chalice	Light Blue	Core-formed
Ashmolean E2451	Chalice	Light Blue	Core-formed
MMA23.9*	Lotus Chalice	Light Blue	Cast & cold worked
BM 24391	Kohl pot with lid	Light Blue	Drilled and cold worked
UC 19657	Kohl pot (no lid)	Light Blue	Drilled and cold worked
MMA26.7.1179	Kohl pot (no lid)	Light Blue	Drilled and cold worked
Cairo 24959	Kohl pot (lid only)	Dark Blue	Cold worked
Cairo 24961	Handled vessel	Light Blue	Core-formed
Cairo 24960 AND Brooklyn 53.176.4	Rounded vessel	Light Blue	Core-formed
BM 47620	Jug	Light Blue	Core-formed with powdered glass decoration
MMA26.7.1175*	Krateriskos	Marbleised	"Glassy faience" – probably core formed

* Indicates Wadi Qirud provenance

Table 1: List of vessels assigned to the reign of Thutmose III (Nicholson 2006: 14).

The vessel (Fig. 2) is made of a turquoise blue body glass, beneath whose thickened rim is a single line of dark cobalt blue glass followed by a poorly executed swag of yellow. Several more swags of cobalt blue follow before another single yellow swag and more cobalt blue running down onto the foot. The vessel is not a particularly accomplished piece, but the quality of the glass is good and it is core-formed.

Unfortunately Wilkinson says nothing about how or where he acquired the piece. Some of his antiquities came from his own excavations, others he bought whilst in Egypt and still others may have been acquired subsequently through contacts in Egypt. All that is known for certain is that it was in Wilkinson's possession by the time he wrote his catalogue in 1864.

Shortland (2001) has pointed out that turquoise blue glass, like that used for the chalice, is the most common body colour for glass in the time of the pharaoh Thutmose III (1479-1425 B.C.). Whilst the colour is common, the form is less so, but there are parallels for this shape at this early period of Egyptian glass.

Shortland (2001) followed Nolte[8] in assigning 12 glass vessels or vessel fragments to the reign of Thutmose III, most are light blue. These are listed in Table 1.

The list includes three chalice type vessels, one of them – the lotus chalice now in the Metropolitan Museum of Art[9] is securely provenanced as coming from the tomb of the foreign wives of Thutmose III at the Wadi Qirud[10]. This lotus chalice also bears the king's name. Whilst this piece is believed to be cast and cold worked there are two other chalice-type vessels which are core-formed.

The best known of these is that in the Munich collection[11], a light blue vessel with swagged decoration in dark cobalt blue and yellow. This piece also bears the cartouche of Thutmose III, added at something of an angle in the middle of the body. This vessel was originally part of the Dodwell Collection and was purchased in Thebes in 1832. Its original provenance is not known[12].

Last amongst this group of chalice vessels is a plain blue example from Gurob and now in the collection of the Ashmolean Museum, Oxford[13]. This piece comes from Loat's excavation of Tomb 058 at Gurob[14] and its

8. Nolte 1968, 12-3.

9. MMA 23.9
10. Lilyquist 2003.
11. ÄS630 We have not been permitted to examine this piece so our comments are based on published sources only.
12. Nolte 1968, 48-49.
13. E2451.
14. Loat 1905, 7 and Pl.IV: 43.

date has largely been based on comparisons with the Munich vessel made by Fossing[15] and by Nolte[16].

Of the three vessels, the Munich example is the largest at 8.1 cm high, followed by the Gurob example at 7.6 cm and the Harrow chalice at 6.0 cm. All are turquoise or light blue in colour, with the Harrow and Munich examples apparently being closest in colour. All are core-formed. It is unfortunate that the two decorated examples lack provenance, and that the provenanced example is dated mainly by comparison with an unprovenanced piece.

Against this background one must ask whether the Harrow vessel is genuine. Even as early as Wilkinson's time in Egypt, fakes were common and frequently ended up in European collections as a result. Nicholson's original publication of the vessel (2006) regarded the piece as likely to be genuine because (1) it is of an unusual form and therefore not an obvious subject for a fake, (2) it was collected by Wilkinson who, through his residence in Thebes would have known the forgers as well as the dealers and (3) because its colour and technology seemed to fit with the other vessels believed to be the time of Tuthmosis III.

That the form is a genuine one seems to be confirmed by the finding of the Gurob vessel in 1903, decades after the Munich and Harrow pieces are known. The purchase of the Munich piece by Dodwell in 1832 is contemporary with Wilkinson's time in Egypt and it is not impossible that the two pieces came from the same source, whether that source was genuine or fake.

At the time of Nicholson's 2006 paper it was not possible to obtain permission to sample the Harrow vessel glass in order to undertake analyses which might determine whether or not the piece had an ancient Egyptian composition. However, in 2008 the piece was made available, along with other items from the Harrow Collection, for conservation and analysis was kindly permitted. The conservation and sampling work was carried out by Mr. Philip Parkes of the School of History and Archaeology at Cardiff University. We are indebted to Dr. Leder and to the keepers and governors of Harrow School for permission to make the analysis and to present the results here.

Analytical Work

It was hoped that the analyses might show not only whether the piece was indeed ancient but might suggest whether or not it had been made in Egypt. As early as 1925 Petrie stated that "as soon as Egypt overran Syria, artificers were brought in, about 1500 B.C., and glass making became a flourishing and varied industry" Petrie[17] this view comes from the known campaigns of Thutmose III who conquered the kingdom of Mitanni from whence the earliest glass seems to come. Oppenheim's (1973) study, looking at loan words for glass which had entered Egyptian, supported the view that the earliest glass probably came to Egypt from Mesopotamia, and that the earliest glassworkers were probably imported too. Thus it may be under Thutmose III that we see glassmaking become an Egyptian craft. Analytical data may therefore be helpful in determining whether the Harrow vessel was made at newly established Egyptian workshops or was imported from the Near East.

Major elements of the blue glass were determined using electron microprobe analysis at the University of Manchester (a mean of 5 iterations) and trace elements using laser ablation ICP-MS at Imperial College London (a mean of 3 iterations). The sample for analysis was taken when the glass was re-conserved, and only a very small chip (approx. 2 mm diameter) of the turquoise blue glass was available from the interior of a broken section of the body of the vessel (the deep cobalt blue and yellow decoration were not available for sampling as this would have damaged the exterior of the vessel). When compared to Shortland and Eremin's (2006) data of mean values for opaque turquoise glasses from Egypt and from Mesopotamia it is evident that the composition of the Harrow vessel is very similar in many respects (Table 2). It is a soda-plant-ash based glass and is coloured with copper and opacified with calcium an-

	Harrow	Egypt[1] (n=8)	Mesopotamia[1] (n=15)
SiO_2	61.22	61.64	64.25
Al_2O_3	0.65	0.76	0.95
Fe_2O_3	0.42	0.43	0.27
MgO	3.75	4.48	4.25
CaO	5.77	8.55	7.63
Na_2O	16.37	17.88	16.41
K_2O	2.23	1.89	2.27
CoO	b.d.	0.02	0.05
CuO	3.08	1.37	0.95
Sb_2O_5	2.45	1.34	1.35
SnO	0.07	0.10	0.01
Cl	1.38	0.88	0.83

Table 2: Major element composition of the Harrow Chalice. (1) Comparative data taken from the means of the turquoise glasses analysed by Shortland and Eremin (2006). (b.d – below detection)

15. Fossing 1940, 8 n.6.
16. Nolte 1968, 49.
17. Petrie 1925, 72. It should be noted that this paper is actually a report by a third party on a lecture given by Petrie.

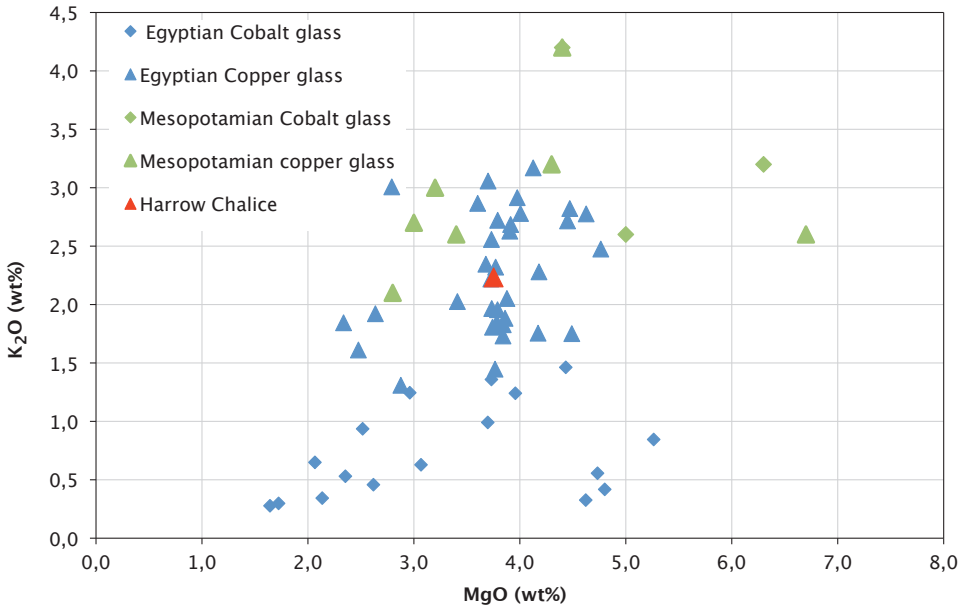

Fig. 3: Potassium and magnesium oxide concentrations. Data for Egyptian and Mesopotamian glasses taken from Shortland and Eremin 2006.

timonate, typical of many light turquoise vessels from Egypt and Mesopotamia. There are no compositional characteristics which would suggest it is of modern origin. It has concentrations of chlorine typical of other Egyptian glasses (Table 2) and at concentrations which would suggest it is not of modern origin[18].

The ratios of potassium and magnesium in the Harrow vessel fall into the group of Egyptian and Mesopotamian glasses coloured with copper from Amarna and Malkata analysed by Shortland and Eremin[19]. However, on the basis of the major element chemistry alone it is not possible to suggest whether the piece is of Egyptian or Mesopotamian origin.

In order to further examine the question of origin, trace element analysis was carried out. The ratios of lanthanum (2.9 ppm) against chromium (10.9 ppm) in the chalice were plotted (Fig. 3), this time using comparative data from Shortland *et al.*[20]. These authors found that lanthanum was generally in lower concentrations in Mesopotamian than in Egyptian glasses, and the ratios of the two elements differed between the two provenances. The Harrow chalice falls *between* the ranges of these samples for the Egyptian vessels from Amarna and Malkata and the Mesopotamian ones from Nuzi and Tell Brak. Its nearest neighbours are, however, from Malkata, though little can be made of this plot alone and further exploration of the trace element data is needed. It should be noted that the data reported by Shortland *et al.*[21] encompass data from only two much later sites and so the data may provide only a conservative estimate of the element ratios; it is possible that earlier Egyptian glasses may have had slightly different compositions which would fall within the values seen for the Harrow chalice.

Shortland *et al.*[22], also suggested that titanium and zirconium were present at different concentrations in glasses from Egypt and Mesopotamia, the Egyptian glasses exhibiting higher concentrations of both elements (Fig. 4). Inevitably there is some overlap, as with most datasets. However, when the ratio for the Harrow chalice is plotted onto the data form Shortland *et al.* (2007) it is apparent that it falls securely within the distribution of the two elements given for Egyptian glasses (385 ppm Ti; 41 ppm Zr). This would *suggest* that the vessel was made in Egypt and is of Late Bronze Age date, a view which might be supported on stylistic grounds.

Conclusion

The analyses therefore suggest that the chalice is indeed ancient, and on the basis of the data currently available was probably made in Egypt, though whereabouts in Egypt cannot as yet be suggested. Furthermore the Harrow piece seems to form part of a group with those from Munich and Gurob. Whilst all these pieces are competent they are not so well made as the renowned juglet of Thutmose III in the British Museum collection. This has no known parallel in glass, though it is similar to the apparently much larger vessel shown in the tomb

18. Freestone *et al.*, 2008, 166.
19. Shortland and Eremin 2006.
20. Shortland *et al.* 2007.
21. Shortland *et al.* 2007.
22. Shortland *et al.* 2007.

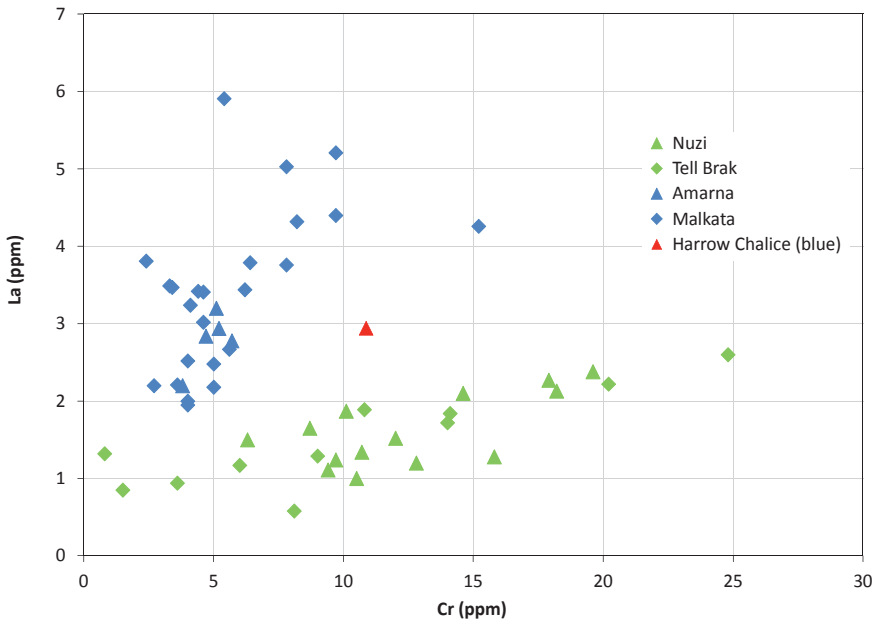

Fig. 4: Lanthanum and Chromium concentrations for the Harrow chalice. Other comparative data taken from Shortland *et al.*, 2007.

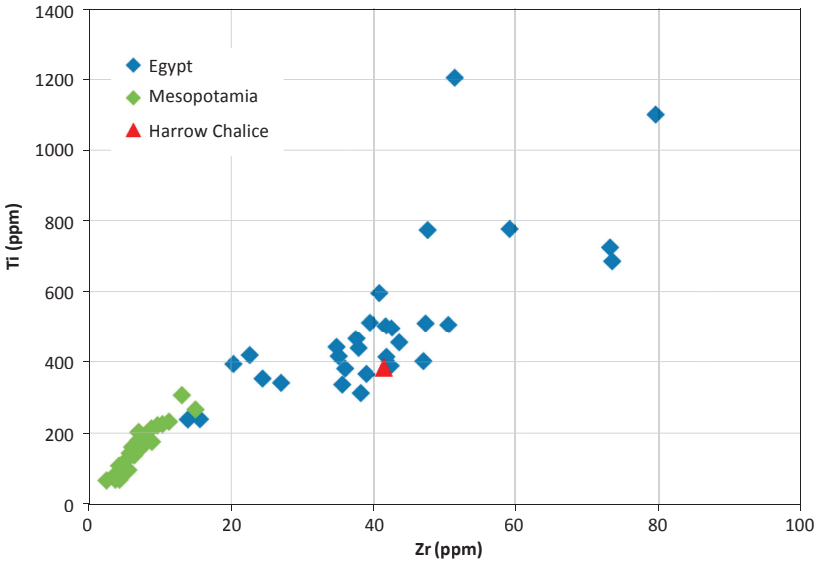

Fig. 5: Titanium and Zirconium concentrations for the Harrow Chalice. Other comparative data taken from Shortland *et al.*, 2007.

of Rekhmire (TT100)[23]. The decoration of the British Museum piece also has Near Eastern parallels. It may be that the piece, which according to both Budge [24]and Cooney[25] probably came from the tomb of Thutmose III (KV34), was made specially as a high status gift or was made in Egypt by the most skilful craftsmen, perhaps brought in from Mitanni. Certainly it seems to have been produced by different hands than those which made the chalices.

The British Museum juglet, and the chalices, however share a common technology – that of core forming. This makes them distinct from 5 of the 12 pieces of Thutmose III glass (Table 1) which were cold-worked, often drilled and cold-worked. It is tempting to see in these core-formed pieces a move away from the treatment of glass as an artificial stone which is to be worked in the manner of any other stone toward the treatment of glass as a material in its own right. Three other pieces from the 12 listed above are also core-formed and probably belong to this same transitional time. A final piece, the well known *Krateriskos*[26] has been classified as 'glassy faience' by Lilyquist *et al.*[27] and so has only peripheral relevance to this debate.

We may conclude then that the Harrow chalice is genuine and was probably made in Egypt. Whilst it has no secure provenance it does seem to belong to a group

23. Davies 1943, Pl. XXI.
24. Budge 1925, 391.
25. Cooney 1976, 70-1.
26. MMA 26.7.1175.
27. Lilyquist *et al.* (1993, 13-14)

of similar vessels which have been dated to the reign of Thutmose III and which in turn probably belong to the very beginning of a glass industry in Egypt, a time when cold-working, especially drilling, was being replaced by core-forming. It seems at least possible that those making or directing the work on these earliest core-formed pieces may have been the craftsmen which Petrie supposed were brought in to Egypt from "Syria" by which is meant Mesopotamia/Mitanni.

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Paul T. Nicholson
School of History Archaeology and Religon
Cardiff University
Cardiff, CF 10 3EU, UK
nickolsonpt@cardiff.ac.uk

Caroline M. Jackson
Department of Archaeology, University of Sheffield
West Court, Mappin Street
Sheffield S1 4DT, UK
c.m.jackson@sheffield.ac.uk