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PRO HELVETIA

All that glitters . . .

An exhibition of replicas of Aegean Bronze Age plate

April - June 2000

THE CLASSICAL MUSEUM

Department of Classics, UCD

Preface

This exhibition comes at an opportune time as this year marks the 100th anniversary of the beginning of Sir Arthur Evans's excavation of the Palace of Minos at Knossos in Crete. The makers of the works on display in the exhibition, Gilliéron father and son, were close associates of Evans and were responsible for the restoration of many of the frescoes at the site. Our exhibition however is concerned with the work of the Gilliérons as replica makers, and in particular as producers of electro-types of Minoan and Mycenaean plate.

Replica making is an old craft. In the past it was not clearly distinguishable from the making of fakes, which has given replicas a bad reputation in more recent times. But the replicas in our exhibition are of very special interest, not only because they copy magnificent objects, but also because they provide a fascinating insight into replica-making at the turn of the 20th century and the pioneering application of the then relatively new technology of electro-typing to the copying of archaeological artefacts.

Of course, there cannot be an exhibition without the objects themselves, and we are most grateful to the National Museum of Ireland, in particular to the Keeper of the Department of Antiquities, Mr E. Kelly, and to the Director, Dr P. Wallace, for facilitating the loan of the Museum's collection of Gilliéron replicas for this exhibition. We are also very grateful to the Arts Council of Switzerland (Pro Helvetia) for its generous contribution towards the costs of the catalogue, which has made it possible for us to produce a well documented and properly illustrated publication.

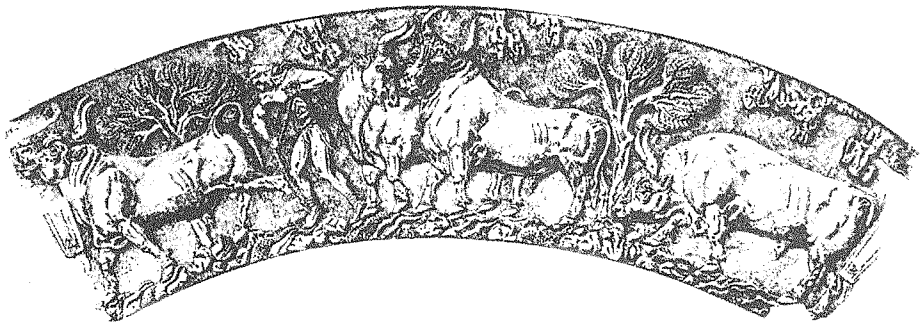
The thirteen students listed below, some of whom are day students and some evening (Modular) students, participated in the preparation of the exhibition with dedication and enthusiasm; they were involved at all stages, from the researching of the artefacts to the mounting of the display. Particular thanks are due to Enda Woods, third-year Modular student and Director of Insignia House, for sharing with the rest of the team his expertise in metallurgy and for explaining the intricacies of electro-typing. Special mention is also due of Martina Kearney and her brother Ciarán ó Cearnaigh for the computer image of the 'Goblet with rosettes', which further 'improved', by the addition of its colours, Gilliéron's own 'improved' copy of the original, and which decorates the back cover of this catalogue.

For information on the Gilliérons, who until recently were still relatively obscure, we are greatly indebted to the following: Professor Kenneth D.S. Lapatin (Department of Art History, Boston University), Dr Sue Sherratt (Ashmolean Museum, Oxford), and Mr Mark Norman (Head of Conservation, Ashmolean Museum, Oxford). Thanks also go to Dr A. Peatfield, of this Department, for advice on the 'Boxer rhyton'.

Finally, we are also grateful to Dr E. Haywood for proof-reading the catalogue.

Dr Christina Haywood
Research Curator, Classical Museum
Department of Classics, UCD

Participating students:
Seána Trehy (Second Year); Alison McDonald, Emer Finlay, Thomas Loughlin, Fiona Nicholl (Third Year); Maura Connor, Linda Cowley, Kathleen Donohue, Carmel McKenna, Martina Kearney, Angie Murray, Joy Wheeler, Mary Woods (Third Year Modular).



*The famous Gilliéron drawing of the 'quiet cup' from Vapheio (**no. 11**)*

The Gilliérons and their replicas*

The Gilliérons, father and son, known as Gilliéron père and Gilliéron fils, were Swiss. Gilliéron père was most likely born at Villeneuve, near Montreux, in 1850 or 1851. He trained as an artist in Basel, Munich and Paris, and in 1877 moved to Athens, where he mostly worked for archaeologists, in due course together with his son, who was born in Athens in 1885. Both father and son enjoyed a particularly long and fruitful working relationship with Sir Arthur Evans in Crete. Gilliéron fils, a citizen of Corcelles-le-Jorat (in French Switzerland), lived most of his life in Greece, though he trained in Paris. In recent years there has been renewed scholarly interest in the Gilliérons, whose lives and careers had long been veiled in obscurity and misunderstanding. Emile, or to be exact Emile Victor Gilliéron, père, was often conflated with his son, also called Emile, though sometimes erroneously referred to as Edouard.

Both Gilliérons were versatile and imaginative artists, whose careers as draughtsmen, restorers of frescoes and other objects, as well as expert replica makers, spanned half a century. They were responsible for the reproductions of the best known fresco images from Minoan Crete and, as amply exemplified by our exhibition, for the metal replicas of objects from Schliemann's excavations of the Shaft Graves (Grave Circle A) at Mycenae. These replicas were once displayed in museums around the world. Forgeries, including the famous Ring of Minos, are also attributed to the Gilliérons.

Gilliéron père was responsible for introducing a new type of metal replica of artefacts made of precious metals. This was based on the principle of electro-plating (see below, 'The technique of electro-typing'). This pioneering technique made it possible to produce identical copies of the original artefacts (called electro-types or galvanoplastic replicas). For the production of these replicas the Gilliérons set themselves up as a company (E. Gilliéron & Son), and for their manufacture and sale they used a factory in Berlin (Würtembergische Metallwarenfabrik: WMF), which had already acquired a reputation for the reproduction of antiquities. The production started in 1903 and continued until the 1920s. In response to the huge demand for their replicas the Gilliérons published at least 3 multi-lingual sales catalogues, catering for archaeologists and museums, as well as for the luxury market. Most of our metal replicas were acquired by the National Museum of Ireland in 1905 and therefore belong to the early phase of the production, and three date from 1913. Unfortunately we do not have a date for the acquisition of the two

replicas owned by University College Dublin, though the earlier date is the most likely.

As artists the Gilliérons did not always limit themselves to reproducing accurately what they saw or had to hand. Their work at the Palace of Minos at Knossos, where they reconstructed whole scenes from small portions of preserved originals, gave scope to their creativity, and they willingly collaborated with Evans in his recreation of a Minoan dream world. Their approach to restoration can best be appreciated by looking at the plaster casts of the Boxer rhyton (**no. 10**), where the missing parts of the scenes, which they themselves must have restored on the original, are reproduced on the replica as though they were part of the original.

Similarly many of their metal replicas were 'improved' or 'corrected' versions of the originals in the state in which they were preserved. In such cases the electro-types produced by WMF were made from a negative mould of a corrected copy of the original. In a number of cases two versions were produced, as for instance with the 'mask of Agamemnon', which was reproduced both in the damaged state in which it was recovered and in an 'improved' version. Evidently the two versions were intended for different markets.

The Gilliéron replicas are known to have fetched handsome sums. In a 1918 price-list the copy of a Vapheio cup (an example like **no. 11**) is listed as being for sale at 75 Reichmarks (approximately £1500 in today's prices).**

Gilliéron père died in 1924, his son in 1939 or 1940. Both father and son are also known to have undertaken other activities connected with the arts: Gilliéron père became the art teacher of the children of George I, King of Greece (1902), Gilliéron fils designed Greek coins and bank notes, became artistic director of the National Archaeological Museum at Athens, and advised on the display of Mycenaean collections in a number of foreign museums.

* For the bibliographical details of this section we are indebted to Professor K. Lapatin.

** We owe this information to Dr S. Sherratt.

Emile Gilliéron, père

Emile Gilliéron, fils

The technique of electro-typing used in replica making by Gilliéron & Son (1903 - c. 1920)

The majority of replicas in our exhibition were produced by way of electro-typing (also referred to as electro-forming). The technique is related to the better known technique of electro-plating, but instead of an object being covered with a coat of another metal, as is the case with electro-plating, electro-types are made entirely of one metal. This method, which enabled the accurate reproduction of metal objects, was relatively new when Gilliéron père introduced it for replicas of Bronze Age plate in 1903. Würtembergische Metallwarenfabrik (WMF), who manufactured the electro-types, were experienced in silver-plating, and in 1897 had taken over Schauffler & Saft, the leading manufacturers of nickel-plated tableware.

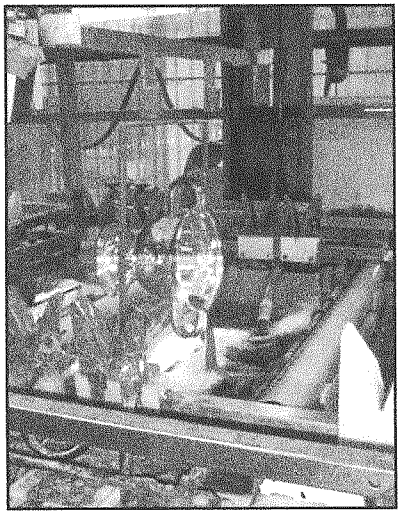
- In the manufacture of an electro-type the first step was the production of a negative mould of the original. For this purpose the object was coated with soft graphite flakes, possibly mixed with melted wax, to form a paste which would act as a conductor of current.
- The artefact would then be immersed in a vat of acid copper-plating solution. Copper bars acting as anodes (or positive poles) lined the walls of the tank. The artefact would be attached to a current source and thereby act as a cathode (or negative pole).
- Very slowly, over perhaps 60 to 80 hours, as copper was drawn off the anodes and attached itself to the cathode, a copper layer of 1-1.5 mm would form over the surface of the graphite-covered original.
- This copper layer became the mould used for the production of replicas, again by the process of electro-forming, the copper itself being covered in graphite on the inside and the process of electro-typing repeated. The replica formed would be in the exact shape of the mould.
- To produce 'improved' or 'corrected' replicas, the Gilliérons would have manipulated the mould of the original before finally producing the replica.
- Since an electro-typing mould cannot be used for more than a dozen replicas, it is probable, given the popularity of their replicas, that the Gilliérons made several negative moulds of each artefact.
- Some details would have been added on the surface of the individual objects after electro-typing, particularly when incision work was required (as on **no. 4**). The lining

of vessels was made from simple sheets of metal hammered to shape and added afterwards, as were handles and rivets.

- The metals used were common brass for gold, and most likely nickel for silver and electrum.

It is clear that the technique was far from allowing the mass production of objects, but was more related to craft production. Most of our electro-types (**nos. 2, 3, 4, 7, 8**) are 'improved' versions, though three (**nos. 1, 8** and **9**) are exact replicas. Simple undecorated vessels (**no. 6** and Nestor's cup: **no. 5**) did not need to be made by electro-typing; pieces of sheet brass were simply hammered and fused together. Objects could easily be 'improved' by this technique, as was the replica of Nestor's cup for example, which was preserved in an extremely battered state.

The Gilliérons further embellished some of their replicas of gold objects by gilding the brass surface, presumably through electro-plating. This was possibly a technique introduced at a later stage of their production, as all three gilded objects (**nos. 2, 4** and **9**) were acquired by the National Museum of Ireland only in 1913.



A vat similar to the one which would have been used for the electro-types. It is used for modern electro-plating.

A note on the methods of plate production in the Greek Bronze Age

The techniques used in the production of plate in antiquity do not bear any resemblance to the electro-typing technique used for the replicas.

The most common method used to form an object was raising. A flat disc of sheet metal, cut to size, was centred on a stake - an incision on the base of the original of one of the replicas on display (**no. 6**) is evidence of centring - and the object was formed by hammering repeatedly from the outside with hammers of varying sizes. The work would be interrupted to soften the metal by annealing (i.e. reheating and quenching), though this was not normally necessary for gold, which is very malleable. Gentler hammering was necessary to even out the surface. Silver was more difficult than gold to raise from the sheet metal and required frequent annealing, hence casting was sometimes preferred (as for **no. 7**).

Some parts of a vessel, particularly handles, were made separately and riveted onto the wall of the vessel. The rivets could be made of a different metal than the object itself, and were sometimes covered with an overlay of gold. Vapheio spool-handles (**nos. 5** and **7**) were mostly made in three parts linked together with nails. The sides of handles as well as the rims of some vessels could be reinforced by folding the metal over, sometimes over a copper strip or wire fused onto the surface (**no. 1**: handle, **no. 11**: rim).

For the decoration, two techniques were most commonly used: repoussé and chasing. Repoussé was used for most of the modelling; the result was obtained by hammering from the back of the metal sheet with hammers and punches of different sizes so that the design appeared on the outer surface. Chasing was used to add linear designs or give better definition to contours and details, and involved working from the outside with hammers and punches.

Incision was used to render fine linear details, for example hair on lions' faces and bodies (**nos. 2** and **4**). This required the use of a pointed tool such as a burin. Punched decoration, requiring a mould to repeat the design, was not common, but may have been used for the circles on the muzzle of the 'Lion-head rhyton' (**no. 4**).

For the gilded overlay on objects or parts of objects finer gold sheet was used. Whether on metal objects or objects of other materials such as stone (**no. 10**), the gold was stuck onto the surface with a suitable adhesive. Mercury-gilding was not used.

The most characteristic method of inlay in the Mycenaean period consisted of removing an appropriate area of the surface and inserting motifs cut out from a sheet of metal of a different colour (for example gold on the electrum goblet **no. 7**). This was often done on a coating of 'niello' (a dark silver sulphide(?)-based substance) which showed up as a black outline. A brightly coloured effect could also be produced by the application on the surface of semi-precious stones or coloured substances, such as the lapis-lazuli and white paste on the 'Cup with rosettes' (**no. 3**). This method did not give long-lasting results. The technique of cloisonné, though used on Minoan-Mycenaean objects, was not used on any of the originals of the vessels displayed here. Neither were the techniques of filigree or granulation.

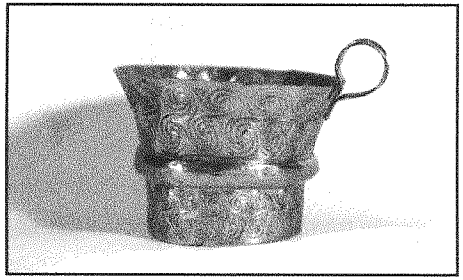
Catalogue

The exhibits are a representative sample of the Gilliérons' replica production of Late Bronze Age plate. The focus of their work was on Minoan objects, and they were encouraged in this by their patron, Sir Arthur Evans, though the majority of their electro-types were of gold and silver objects found by Schliemann in Grave Circle A at Mycenae a quarter of a century before Evans's excavations in Crete. Hardly any plate has been found in Crete, but a large number of the objects from the Shaft Graves are believed to be Minoan imports, or made by Minoan craftsmen at Mycenae. Evans in fact came to think (erroneously, as we now know) of the Shaft Grave occupants as Minoans.

Grave Circle A was the burial ground of the chieftains of Mycenae for approximately a century between the late 17th and 16th centuries BC. Five cups in our exhibition (**nos. 3-7**) come from Shaft Grave IV, which was the largest and richest of the graves, and two (**nos. 1-2**) from Shaft Grave V. Both IV and V were the graves of men (five and three men respectively). Drinking cups of precious metals, particularly cups as elaborate as those shown here, were prestige objects. The most elaborate are probably the cups from Tsountas's 1888 excavation of the tholos tomb at Vapheio (Laconia), a replica of one of which, the 'quiet cup', is exhibited here (**no. 11**). They were found in an unrobbed pit grave in the tomb, on either side of the disintegrated burial of an aristocrat, along with decorated weapons, silver cups and sealstones. It is likely that all these cups were used for wine-drinking, possibly ceremonial drinking, which became an important feature of later palace life.

Three cups on the other hand are rhytons, i.e. vessels for sacred libations: the so-called 'Lion-head rhyton' (**no. 4**) and two conical rhytons, the silver 'Siege rhyton' (one fragment only, **no. 8**) and the large 'Boxer rhyton' (here in three plaster replicas, **nos. 10a, b** and **c**). The 'Boxer rhyton' is the only exhibit whose original was made of stone, and probably gilded, and the only object to have been found in Crete; it was excavated in the 'royal villa' of Hagia Triadha, along with other exceptional stone vases which had fallen from an upstairs frescoed room.

The only exhibit which is not a vessel (**no. 9**) is the replica of the most impressive diadem found by Schliemann in Grave Circle A, grave III, the grave of three women and two children.



1. Vapheio-type cup

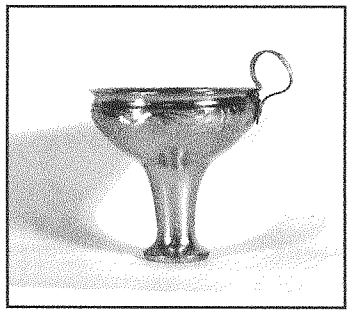
University College Dublin, R1011. Original in the National Archaeological Museum at Athens.

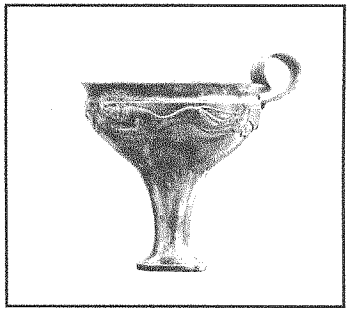
Galvanoplastic copy (electro-type) in brass of a gold cup from Mycenae, Grave Circle A, Shaft Grave V, probably a Minoan import (Late Helladic I, 16th c. BC). Height 10.8 cm (with handle 12.8 cm), diameter at rim 15.5 cm, weight 235 gr.

The replica is an exact copy of the original cup illustrated above and, except for the handle, was made by the electro-typing method. It reproduces precisely not only the shape and decoration of the original but also the battered state in which it was preserved.

The original, slightly heavier than the replica (253.6 gr), was raised from a single sheet of gold and its spiral decoration and waist band were executed in repoussé.

The handles of the original and the replica were made separately, the original of sheet gold, the replica of brass, but whereas the edges of the gold handle were strengthened by being rolled over bronze or copper wire, the edges of the replica were just folded over.





The original

2. Stemmed goblet with running lions

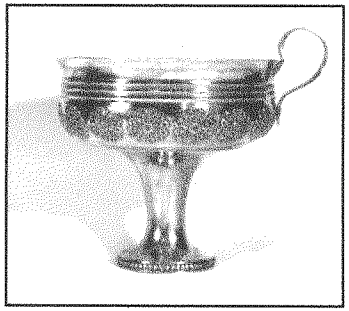
National Museum of Ireland, 1913.1043. Original in the National Archaeological Museum at Athens.

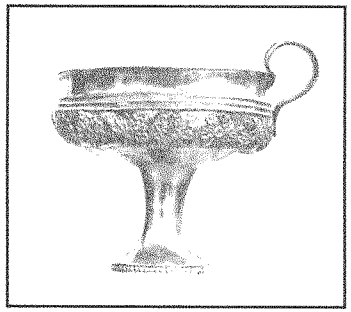
Galvanoplastic copy (electro-type) in brass with gilt overlay of a cup from Mycenae, Grave Circle A, Shaft Grave V, probably by a Minoan craftsman (Late Helladic I, 16th c. BC). Height 10.4 cm (with handle 12.8 cm), diameter at rim 10.9 cm, weight 136 gr.

The copy closely conforms to the measurements and design of the original, but the shape was rendered more regular and new-looking by the removal of the tool marks and small imperfections of the original.

The original goblet was raised from a fairly thin sheet of gold (it is lighter than the replica by nearly 10 gr), and it had a thick hollow stem with a disc base, both replicated on the copy, as are the running lions, originally executed in repoussé work. The fine incised work on the original, used to define hairs on the manes, underbellies and hind legs, is also rendered on the replica. The quality of the original goblet is lost however, because of the gilding which has obliterated quite a bit of the detail.

The handle with its ribbed middle was faithfully reproduced; of the four rivets, all but one, which has only been reproduced on the inside, are fully present.





The original

3. Goblet with rosettes

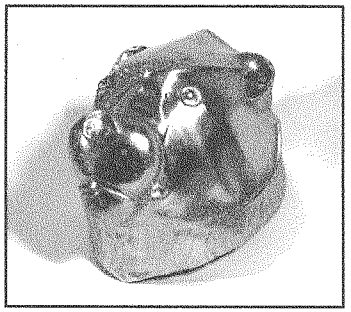
National Museum of Ireland, 1905.100. Original in the National Archaeological Museum at Athens.

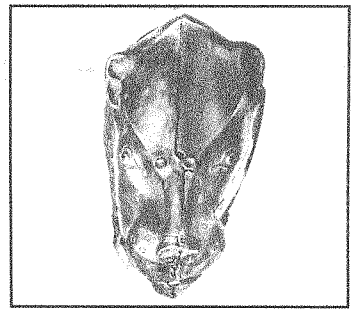
Galvanoplastic copy (electro-type) in brass of a gold cup from Mycenae, Grave Circle A, Shaft Grave IV, probably a Minoan import (Late Helladic I, 16th c. BC). Height with handle 18.2 cm, diameter 17.5 cm, weight 739 gr.

This is a replica of a splendid cup, which however was quite distorted due to the pressure in the grave. Gilliéron's electro-type is a 'corrected' copy, which added about 4 cm to the height of the original and 1.3 cm to its diameter to compensate for the damage.

The original was raised from a very thick single sheet of gold and was even heavier than the already weighty replica (1004 gr). It had an inner lining of thinner gold plate which was fitted inside the bowl and secured by a horizontal incision. The lining was once supported by a filling in the stem which may have been of wood. The electro-type has done away with these complications, the cup, handle apart, having been produced in one piece. The saddle-shaped handle is reasonably well rendered in the replica, though on the original one of the rivets was covered by the inside lining.

The major decorative feature of this cup is the frieze of 15 rosettes with double petals which was executed in repoussé. The motif, faithfully rendered on the replica, clearly lacks the subtlety of handmade work. An interesting feature of the original was the added colour, traces of which survived: the rosettes were apparently blue with gold-rimmed petals against a white ground, with gold and white stripes above and below, and a row of gold bosses against a blue ground on the foot. Gilliéron did not recreate this polychromy on our replica, but we were able to do this for him, thanks to modern computer technology (back cover).





The original

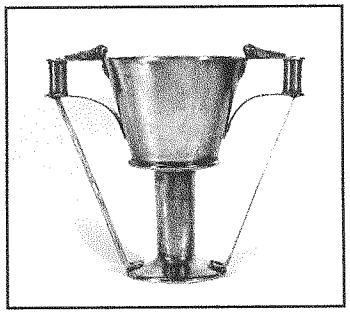
4. Lion-head rhyton

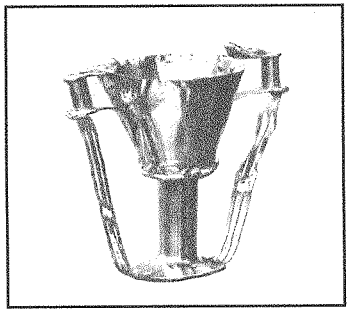
National Museum of Ireland, 1913.1044. Original in the National Archaeological Museum at Athens.

Galvanoplastic copy (electro-type) in gilded brass of a gold vessel from Mycenae, Grave Circle A, Shaft Grave IV, believed to be of Mycenaean manufacture (Late Helladic I, 16th c. BC). Height 12.5 cm, width 14-16.5 cm, weight 356 gr.

The original was raised from a single sheet of heavy gold plate (over 630 gr.). The features of the animal were executed in repoussé technique, while several of the details were added from the surface, particularly the incised decoration on the beard, muscle hairs, cheek bone hairs and fringe, as well as the punched circles on the muzzle. It would have had a back plate of gold, attached with thirteen bronze or copper rivets indicated by the surviving rivet holes around the edge. If it functioned as a vessel, it would have had a filling-hole somewhere; the liquid was let out through the hole pierced in the muzzle of the animal.

The copy is a much corrected and embellished version of the original, which was found by Schliemann crushed and torn along the centre, with a part of its mane missing; it could only be remodelled to a rather squashed state. The copy was made from a corrected mould giving the head a rounder and fuller form, and the animal possibly a rather more benign look. The small, badly preserved miniature handle on the back of the head of the original was not reproduced. On the other hand, the rivet holes for attaching the back plate and the pouring hole in the muzzle were faithfully rendered, as were the incised details.





The original

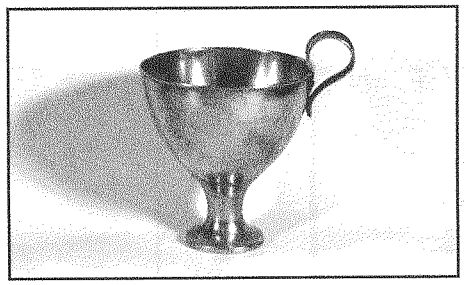
5. 'Nestor's cup'

National Museum of Ireland, 1905.102. Original in the National Archaeological Museum at Athens.

Brass replica of a gold vessel from Grave Circle A, Shaft Grave IV, believed to be of either Mycenaean or Minoan manufacture; named by Schliemann after the cup of the king of Pylos described in a passage in the *Iliad*, Book 11, lines 631-35 (Late Helladic I, 16th c. BC). Height with handles 14.4 cm, diameter at rim 9 cm, diameter with handles 16.5 cm, weight 255 gr.

The replica was made from a number of pieces of sheet brass, one each for the bowl, stem, base, etc. The replica, though lighter by 40 gr., is sturdier than the original and does not replicate its poor condition or technical imperfections. The original was made from one piece of gold plate and, unlike the replica which has a brass disc blocking the stem, in the original, cup and stem were not divided, thus allowing the fluid to go through the stem and flow into the concave base. The birds surmounting the two handles were made in repoussé with incised wings; they were riveted on following an unsuccessful attempt at fusion. In the copy they were cast in brass, probably with the lost wax technique, and fused into position. The open-work struts on both original and copy were cut out from a separate strip of metal and riveted onto the handle and base.

On the whole the replica falls short of conveying the impression of the original, particularly that of an elegant, but rather poorly crafted piece. The original seems to have been made by an inexperienced craftsman; the individual parts are not precise, any attempt at fusion is poor, and tool marks were left on the bowl. It also remains a unique form of vessel in Minoan/Mycenaean metalwork.



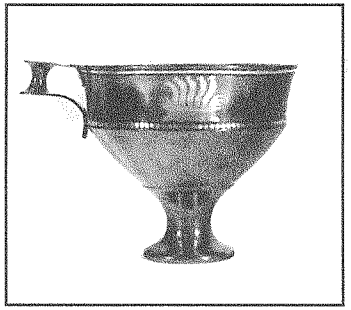
6. Plain massive goblet

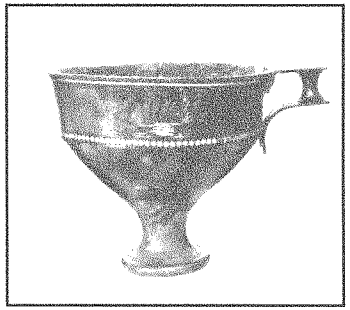
National Museum of Ireland, 1905.101. Original in the National Archaeological Museum at Athens.

Brass replica of a plain gold vessel from Mycenae, Grave Circle A, Shaft Grave IV, believed to be of Minoan manufacture (Late Helladic I, 16th c. BC). Height 11.9 cm (with handle 14.3 cm), diameter at rim 11.9 cm, weight 190 gr.

The replica, made of beaten brass, is a little shorter (by 1 cm) than the original. Its precise contours and the technique of manufacture show an earnest attempt to reproduce the effect of the original cup. The original was raised from a single sheet, while brass was used for the replica. The interior of the original was closed at the bottom by a separate circle of gold plate attached to the wall by 14 gold pins. This is reproduced in the replica, though the rivets appear to be just studs applied to the exterior of the vessel. The handle, made from a tapering sheet of metal with thickened edges, copies the handle of the original.

Compared to the impressive original cup, which Schliemann called 'massive' and which weighs 449.5 gr, nearly half the weight of a modern gold bar, this replica is a rather flimsy object, though it preserves the elegance of its model.





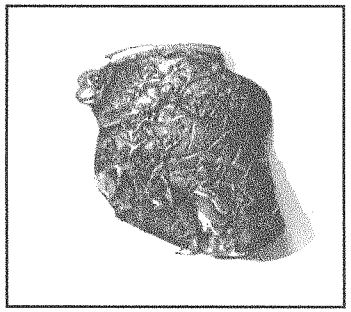
The original

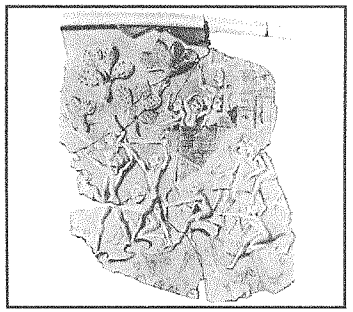
7. Inlaid goblet

National Museum of Ireland, 1905.103. Original in the National Archaeological Museum at Athens.

Galvanoplastic copy (electro-type) in nickel (?) and brass of an electrum goblet with gold inlay from Mycenae, Grave Circle A, Shaft Grave IV, believed to be of Minoan manufacture (Late Minoan IA, 16th c. BC). Height 14.2 cm, diameter at rim 16.8 cm, weight 702 gr.

The original cup was a most impressive object, weighing 1057.5 gr, i.e. 350 gr more than the replica; it was made in two parts which were most likely cast and then fused together. The replica closely imitates the original shape and decoration, but Gilliéron sought to recapture the old splendour of the cup by producing a 'corrected' version, straightened up, with an elegant metallic grey surface rather than the original's corroded surface, and with all three rivets intact. The surface colour of the original is thought to have been created through deliberate patination, and like the copy the original would have relied for its effect on the contrast between the surface colour of the bowl and the colour of the gold inlay. The three flower-decked inlaid 'altars' on the bowl of the original were apparently set without the use of 'niello', but 'niello' was used for the frieze of bosses around the carination. The replica managed to render the delicate decoration very successfully in brass, which was finely incised, replicating faithfully even the slightly differing patterns of the three original 'altars'.





Drawing by E. Gilliéron

8. Fragment of the 'Siege rhyton'

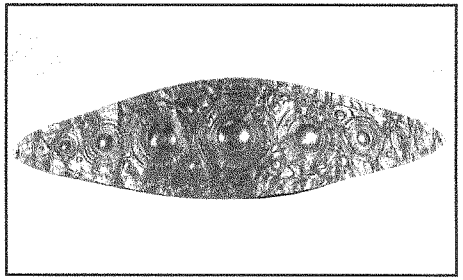
University College Dublin, R2011. Original in the National Archaeological Museum at Athens.

Galvanoplastic copy (electro-type) in nickel (?) and brass of part of a silver conical rhyton with gold overlays from Mycenae, Grave Circle A, Shaft Grave IV, believed to be of Minoan manufacture for Mycenaean patrons (Late Helladic I, 16th c. BC). Dimensions 9.8 X 9 cm.

The fragment is an exact copy of the best preserved fragment of the original rhyton, which was found in a very bad state of preservation, the silver largely mineralized. The original was restored to a very distorted shape using plaster.

The original rhyton was raised from one fairly thick sheet of silver, and the scenes executed in repoussé. The surface was apparently once covered with niello, which proves that a dark finish was desired. The rim was strengthened with bronze fused onto the silver and covered with gold. The two lugs in the shape of shields were made of sheet gold shaped in repoussé and riveted on either side of the vertical handle.

The scene depicting the siege of a city is rendered faithfully in the electro-type, and the rim and figure-of-eight handles were made of flat pieces of brass and fused to the surface.



9. Diadem

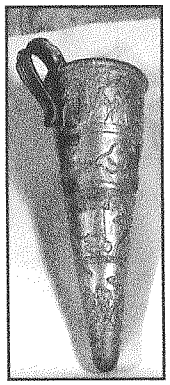
National Museum of Ireland, 1913.104. Original in the National Archaeological Museum at Athens.

Galvanoplastic copy (electro-type) in gilded brass of a large gold diadem from Mycenae, Grave Circle A, Shaft Grave III, of Mycenaean manufacture (Late Helladic I, 16th c. BC). Length 66 cm, height 17.2 cm, weight 418 gr.

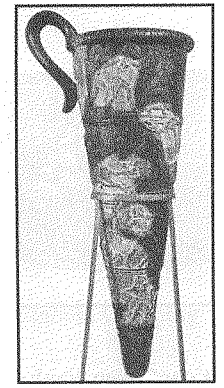
This is an exact replica of the original diadem in the condition in which it has survived; it shows all the damage, including dents and small tears, which the object suffered, presumably during burial.

The original is made of a heavy gold plate, which tapers to a point at either end, where two holes (replicated in the copy) were pierced to allow for fastening around the head. The decoration, faithfully reproduced on the electro-type, consists of a narrow border of S-shaped spirals and a row of protruding points; down the centre of the diadem is a row of nine decorated shield-like circles, the largest being in the centre and the others diminishing in size following the diminishing width of the diadem; the intervening spaces are filled with small circles of simpler design.

The original was found with a piece of skull stuck to it, which would seem to confirm its use, despite its size, as a diadem for one of the ladies buried in Shaft Grave III. The holes for fastening it would appear to suggest that it was also worn in life.



NMI 1915.178



The original

10a, b, c. The 'Boxer rhyton'

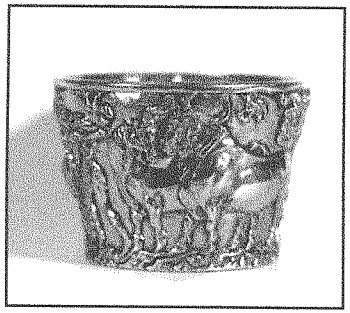
National Museum of Ireland, 1915.177 & 1915.178; UCD, R1039. Original in the Museum of Herakleion, Crete.

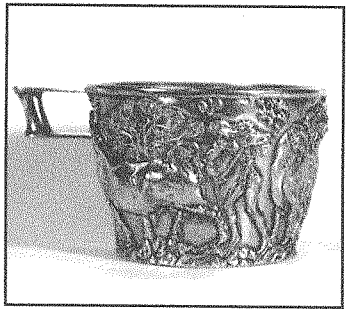
Three painted plaster casts of a gilded stone vessel from the 1905 excavations of the villa at Aghia Triadha (Crete), room 29, originally from a first-floor frescoed room (Late Minoan IA, 16th c. BC). Height 45 cm (with handle 48 cm), diameter at rim 16 cm, weight 1746 gr.

The cast was made in two halves from a two-piece mould of the restored original, with the handle constructed separately. The three examples differ in surface finish: one was painted black to imitate the steatite or serpentine of which the original was made, its pair was painted with gold paint to imitate the gold leaf, and UCD's 'educational copy' was painted half and half.

The original was carved from a block of stone, roughly shaped in the form of a vase. This was first drilled out with a rotating hollow reed fed with an abrasive powder, and then the relief work was executed on the surface. Finally, the finished product was polished, probably with oil. Two rivet holes on the body of the vessel (along with a third one on a fragment which has not survived) are believed to have served to fix the handle, which was not recovered. The handle of the replica was made in imitation of handles of conical rhyta on frescoes, though if the shape is correct it would have obscured part of the scene.

It is not sure whether the vase was covered with an overlay of gold, though gold leaf has been found on similar stone vases. If the vase was gilded, the gold leaf would have been stuck onto the surface with an adhesive. The intention, most likely, would have been to reproduce the effect of repoussé work, similar to that on the Vapheio cup (**no. 11**).





11. The 'quiet cup' from Vapheio
National Museum of Ireland, 1905.99. Original in the National Archaeological Museum at Athens.

Galvanoplastic copy (electro-type) in brass of one of the two cups from the tholos tomb at Vapheio (Laconia), believed to be a Minoan import (Late Minoan IIA, early 15th c. BC). Height 7.4 cm, diameter at rim 10.4 cm (with handle 13.6 cm), diameter of base 7.8 cm.

The original cup bears a continuous narrative frieze in pronounced repoussé with some chasing and incised details worked from the surface. It is composed of three scenes depicting the capture of a bull with the aid of a decoy cow, which features in the centre of the composition. The change of scene is indicated by an olive tree and the movement of the cow's head to the right.

The replica reproduces faithfully the decorative frieze of the original, but the irregularities of the surface and rim have been corrected. The interior of both the original and the replica are lined with a sheet of metal which is folded over the rim; the rim itself has been pressed thin on the original, but is thick and round on the replica. The spool-handle of the copy is at a slightly different angle from that of the original, but both are made in a similar fashion: the metal plates at the top and bottom are attached by way of rivets to the spool and, at the other end, they are bent and riveted to the body of the cup.

E. Gilliéron made a supurb drawing of both gold cups from the tomb; the quiet cup is illustrated on page 2. The drawings feature in many publications, but are usually unattributed.

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