EXAMINATION AND TREATMENT OF A GERMAN GILDED CONSOLE TABLE, circa 1740

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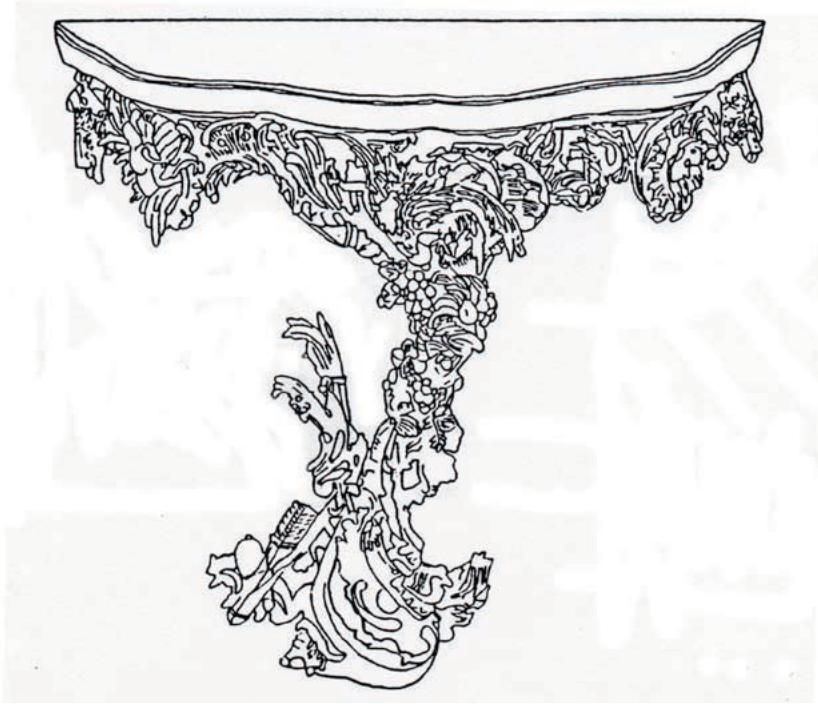
INTRODUCTION

The extremes of rococo style as conceived by German designers and craftsmen in the mid 18th century are exemplified by this console table. Hallmarks of this style are an asymmetry of design together with motifs of c-scrolls, shells and running water. In this instance the single leg of the console table takes the form of a \\ tree metamorphosing at its base into a dragon. A wide range of rococo motifs are interwoven into the structural form of the table and can be seen in the carving of the leg and apron. Birds, grapes, and hunting implements illustrate the technical brilliance of the carving and show the complexity of rococo design vocabulary. Console tables are mounted directly to room panelling, with which they are conceived as an integral part.

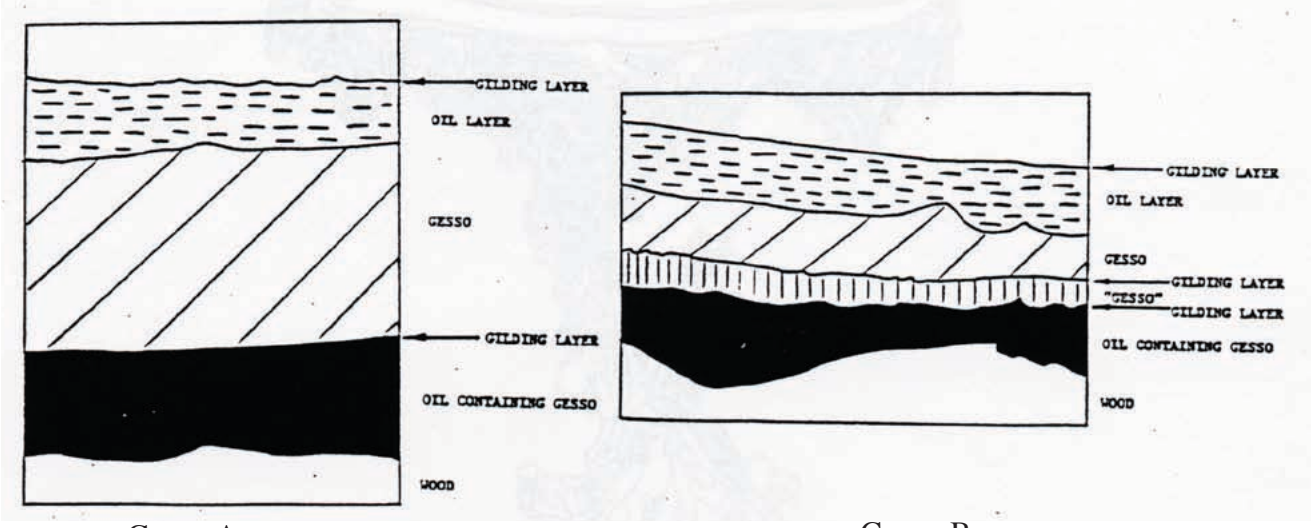


German gilded console table, circa 1740

As both the structure and surface of the console were stable when it was acquired in 1985, it was placed on exhibit without being treated. In 1989, however, a closer examination of the table was performed. The surface quality of the table appeared to be heavily covered with over layers which had filled in the intricacy of the original carved surface. Areas of flaking gilding, especially on the grapes, revealed a vivid orange color beneath the surface. With the curator, we decided to look for a layer of original gilding underneath the existing surface.

SURFACE COATING ANALYSIS

Cross sectional samples were taken from a number of locations on the table to clarify the layer structure of the surface coatings. Examination of these cross sections using visible light and UV microscopy in conjunction with autofluorescent dyes showed that the samples could be divided into two similar but distinct groups, showing two or three gilded layers respectively. The first group of cross sections contained an oil rich gesso which had been applied to the wood, followed by an oil gilding layer. This was covered with a thick gesso, followed by a bright orange oil size, gilding, and a final covering of shellac. The second group of cross sections, however, included two additional layers between the lowest gilded layer and the thick gesso layer. These layers comprised a third preparation and gilding layer.



Group A Group B

Cross sections

EXCAVATION UNDER MICROSCOPE

A carved detail from the bottom of the leg had become detached at the site of a previous restoration, facilitating the examination of the surface under low power magnification (x25). Using a scalpel and other fine tools, I excavated a small area of the surface to clarify the results of the cross sectional analysis. The excavated areas conformed to the two layer gilded structure found in the first group of cross sections. To confirm the composition of the various layers, spot solvent tests were used on the excavated area. These showed the following: that the bottom layer of gilding was not water soluble and therefore was probably oil gilding; that the thick gesso on top of this gilded layer was easily soluble in water and therefore was a conventional animal glue gesso; and that the top layer was also insoluble in water, again conforming to the characteristics of an oil gilding layer.

I then considered the second group of cross section samples which exhibited three layers of gilding. On closer examination these samples proved to have been taken from areas of previous restorations - accounting for the third layer of gilding. The structure therefore could be interpreted as:

1) original preparation and oil gilding layer
2) subsequent localized restorations to the original gilding.
3) complete regessoing & overgilding of the surface of the entire table.

Due to the complete over gilding of the table, it was not possible to accurately assess the extent of the intermediate localized restoration.

PROPOSAL FOR TREATMENT

Under magnification the excavations showed that the recesses and interstices of the carving been extensively filled by the second thick gesso layer. The excavations also indicated that the earliest oil gilding remained relatively intact. We had expected that such an elaborately carved object of this period would have been water gilded, allowing for burnishing of highlights, but our investigations disproved this.

Thus far all indications were that the bottom gilding layer was original. To confirm this we closely examined the unfinished edges and reverse side of the carving, which revealed a sequence of undisturbed gesso, oil size and leaf. Furthermore, there was no indication, either macroscopic or microscopic, that the table had ever been stripped. with these conclusions I decided to attempt to remove the subsequent layers of gesso and gilding in order to
reveal the crispness of the original surface.

EXPERIMENTS TO REMOVE OVER GILDING

I first attempted to dissolve the over layers with a range of organic solvents while leaving the original oil gilding layer intact, however, none was found to be effective. Next, commercial paint strippers, including methylene chloride, were tested. The methylene chloride dissolved the upper oil layers but also penetrated through the intervening gesso and dissolved the original oil gilding.

I then tested a range of solvent gels in order to control the penetration of the active solvent, but they only slightly softened the oil layer and were difficult to remove from the interstices of the carving.

At this point I decided on a second approach. Due to the high oil component in the original surface - both ground and oil gilding - I tried a water based method to see if the intermediate gesso could be softened without disturbing the original gilding. I experimented by exposing the original gilding in an excavated area to a water soaked poultice for 30 minutes, and no softening of the original gilding occurred.

With this information the following treatment was designed.

TREATMENT FOR OVERLAYER REMOVAL

The procedure for removing the over layers involved applying cotton-wool poultices moistened with deionized water to the surface of the table for 15-20 minutes. This allowed the water to penetrate the top gilding layer without dissolving it and to soften the glue in the intermediary gesso. When the poultices were lifted, the slightly swollen surface could be mechanically removed with a range of small tools.
In large flat areas, gilders hooks were useful for the removal of large amounts of the overlayer. Further poultice applications were sometimes required to soften remaining gesso. Dental tools and bamboo sticks were useful to remove the last traces of gesso from the fine details of the original surface.

The poultices provided a high degree of control because their retention of water prevented run off and evaporation, and removal of the poultice interrupted the softening of the gesso.

Because of the complexity of the table's design, a systematic approach to its cleaning became vital. Areas were delineated with white gouache and cleaned completely before moving on to the next area.

Completed areas were then protected by covering them in Saran wrap while adjacent areas were being cleaned.

The restoration that followed involved the regessoing and regilding of the entire table.

Therefore, the table has had three different appearances and two major restorations during its life.

TREATMENT OF PREVIOUS RESTORATIONS
I removed several of the previous wood restorations to the carving because they were of poor quality and were speculative with regard to the original design. Three major wood restorations, however, one of a wing on the central bird and two at the base of the single leg, were left, as they blended with the original carving and their removal would have greatly disrupted the overall design of the table.

PRESENT RESTORATION
With the removal of the over gilding two major losses became apparent. Since they greatly disrupted the form of the table new wood was added. To make up the irregularities of the original break basswood was roughly carved to shape and then attached to the table using a carvable Araldite paste (AV 1253/HV 1253). An intermediate film of Saran wrap was used to isolate the setting epoxy paste from the table. Then, before finishing the carving I secured the addition in place using hot animal glue.

INTEGRATION OF LOSSES & RETOUCHING
I limited the regilding to the previous restorations to the wood and to the two new restorations. A traditional gesso was followed by an ochre bole layer and water gilding. Gouache was used for toning. I chose to water gild my restorations so that in the future the gilding would be easily removable, without disturbing the original oil gilding.

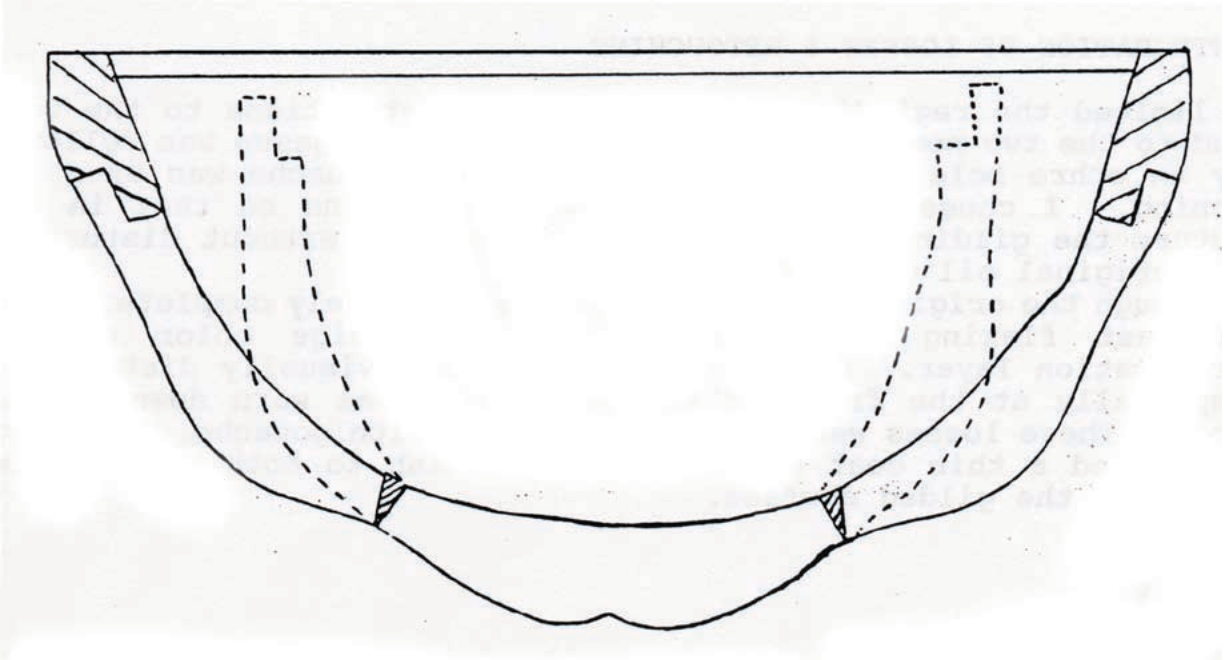
Although the original gilded surface was relatively complete, areas of past flaking had revealed the pale beige color of the preparation layer. Some areas of wear were visually disturbing, especially at the front of the leg, which was worn down to the wood. These losses were lightly inpainted with gouache. Finally, I applied a thin coat of Arcon P-90 varnish to both protect and saturate the gilded surface.

POST VIEW
The treatment has revealed the depth, delicacy, and intricacy of the original carving along with a remarkably well preserved original surface.

PREVIOUS RESTORATIONS
Removing the overgilding revealed a major structural alteration to the table. It became apparent that the two ends of the apron which adjoined the wall had been spliced onto the original. Both wood and gilding in these areas differed from the original. Furthermore, the central portion of the apron had been cut in two places to receive wooden wedges (see diagram).

This information, in conjunction with the cross sectional analysis, made it possible to hypothesize the order of the modifications and the gilding layers. Initially the table had been gessoed and oil gilded. At a later date, probably corresponding to its removal from its original room setting, the carved apron was cut in two places, changing the plan view of the table top. The two extensions to the apron enabled it to reach the wall at its new angle. These extensions were carved to simulate the original design. The widening of

the console also required replacement of the back apron. Additionally, the original apron was surmounted with a wide moulding, to which the opened and extended apron could be attached. At this time several losses to the original carving were also recreated and attached to the table. These areas of new wood, as well as adjoining areas of the original, were gessoed and oil gilded. This explains the cross sectional samples which had three layers of gilding.



Original & modified plan view of table top

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