

# Metal Casting with Wire Templates

**MARANAO, LANA DEL SUR PROVINCE, NORTHWESTERN MINDANAO ISLAND, SOUTHERN PHILIPPINES.** *There is a very distinct class of metal objects cast in southern Philippines principally among the Maranao and also the Maguindanao. The distinguishing characteristic of these objects is the presence of wire-formed ornamentation that comes in loops, spirals, circles, curlicues and running and interlocked scrolls that are often plant-like as vines and growing ferns.*

A GREAT DEAL of these objects come in the form of bronze/brass *lotoans* or betel-nut boxes that come in various shapes such as quadrangular, octagonal, cylindrical or lunette. Some are disparate objects like gong hangers, trailers for cosmetic cases and the like. Occasionally, this decorative technique is applied to enhance the appearance of *kulintang* gongs seen as triangular forms ornamented with wire-like curlicues radiating from the boss.



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application of the ornamentation is done with a high density, giving the impression of a highly textured surface rather than being composed of isolated decorative motifs.

The tablets are put together to form the section to be cast and then covered with thick layers of clay and sand as mold. The number of molds depends on the number of parts of the object. Spruces, through which the wax, and then later the molten metal, will seep out are provided in the mold.

The process of making this kind of lotoan involves the lost-wax, waste-mold technique. Tablets of wax representing the sides that will be decorated are prepared, excising sections deep enough to accommodate the thickness of the ornamentation to be implanted. Wire-like lengths of wax are then applied within the excisions forming the whirls and curls of the ornamentation. There is a wide variation in the thickness of the appliqué, depending on the desired effect. Thin appliqué result in tiny and intricately delicate compositions, while thick ones result in designs that are more robust. The most common effect is a lacelike, open latticework that is floral. Oftentimes, the

The liquefied bronze or brass is then poured through the channel into the mold and then allowed to cool. Subsequently, the molds are broken apart to extricate the cast objects. Final cleaning, repairing, refurbishing and polishing are required before assembling the parts of the lotoan.

For less dense wire inlays, the grooves are engraved with a narrow ongette graver with a swallow-tail profile. The wire is then forced into the groove by hammering. For wider pieces of metal inlays, a square graver is first used and then an ongette to create the undercut.