

# Metal Casting

## The Art of Ōzawa Koumin



**FY2010 Craft Technique Documentary**

Presented by The Agency for Cultural Affairs

Produced by Group Gendai, Co.,Ltd.



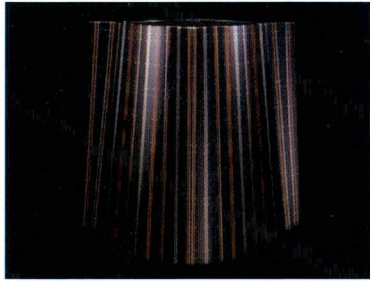
## Metal casting is the art of pouring molten metal into a mold that will determine its shape.

This film diligently documents every step in the inventive and labor-intensive creation of a metal vase entitled “From the Earth, From the Heavens.” In producing this work of art, the metal casting artist Ōzawa Koumin makes use of both traditional fired mold casting technology and his own unique *igurumi* metal insert technique in a complicated two-step casting process. In this *igurumi* technique, Ōzawa places metal rods and nails in a fired mold into which he then introduces molten metal. The metal rods and nails become lines and dots that float to the surface of the finished piece, producing ornamental designs that are truly unique to the artist.

### The Artist

Ōzawa Koumin was born in Takaoka City, Toyama Prefecture in 1941. After graduating from the Toyama Prefectural Vocational Training Center’s Bronze Division in 1958, he continued his studies in Takaoka, mastering traditional casting methods and exploring a wide range of technical expression using fired mold casting techniques. In recognition of his technical prowess and artistry, Ōzawa has received several prestigious awards from the Japan Traditional Art Crafts Exhibition. In 2005, Ōzawa was officially recognized by the Japanese government as a “Holder of the Important Intangible Cultural Property, Metal Casting.”

# An Overview of the Documentary



## Prologue

Casting artist Ōzawa Koumin uses metals of various colors to express nature's power and beauty. Here, the black bronze background represents the earth, the red copper lines are the sun's rays and the white stainless steel is moonlight.



## Ōzawa Koumin, Casting Artist

When molten metal is poured into a mold, this is called "casting." For contributing to the preservation of this craft, Ōzawa was recognized by the Japanese government as a "Holder of the Important Intangible Cultural Properties."



## Metal Casting in Takaoka

Metal casting has flourished here since the 17th century. In the Meiji period, works produced here were highly praised both in Japan and abroad. Even now, traditional casting methods are passed down to the next generation.



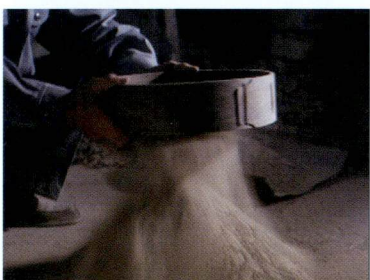
## Fired Mold Casting

In fired mold casting, prior to casting, the mold is formed around a pattern and then fired at nearly 900 degrees Celsius. Molds are assembled, enabling the artist to cast complex shapes.



## Designing the Piece

Ōzawa prepares to make a vase entitled "From the Earth, From the Heavens." This is his first attempt at making full use of traditional fired mold casting and his own unique *igurumi* metal insert technique.



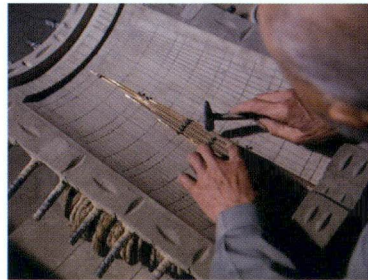
## Preparing to Make a Mold

A variety of materials are used when making a mold. The main component is the finely ground powder from old molds. In this way old molds are recycled repeatedly.



## Making the Outer Mold

Ōzawa has begun the work of making an outer mold. He applies a mixture of clay and rice straw. The straw will burn when the mold is fired, leaving openings through which gases can escape during the casting.



## Preparing the Inserts

Ōzawa secures copper and stainless steel rods to the outer mold using stainless steel nails. They will become engulfed in molten bronze at the time of casting, and reappear as a pattern on the surface of the finished piece.



## Making the Core

After making and firing the core, Ōzawa uses a small spatula to shape the runners through which the molten metal will pass at the time of casting.



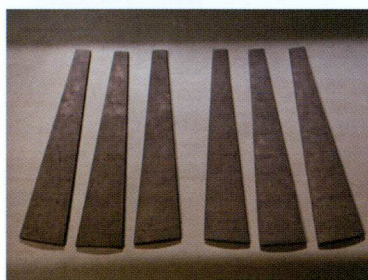
## Preparing to Cast

Having fired the outer mold and core, it is time to join them together. The space between them will determine the thickness of the finished piece.



## The First Casting

Immediately after firing the mold, bronze is melted in a crucible. Identifying the right temperature as the mold cools, Ōzawa pours the molten bronze into the mold.

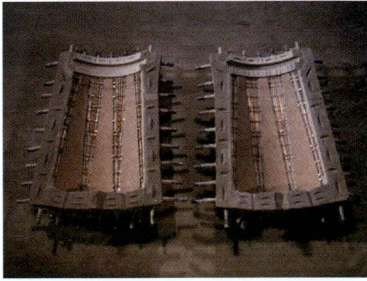


## Removing the Mold

After the mold has cooled and after it is dismantled, the runners are removed and these six cast bronze pieces are all that remain. Ōzawa's efforts thus far have been to produce these bronze pieces.

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## The Art of Ōzawa Koumin



### The Second Casting

The bronze pieces are fixed in place in an outer mold newly made for the second casting. This casting, with brass, will result in the creation of a vase in which the black of the bronze and yellow of the brass contrast with another.



### The Finishing Touches

Following the second casting, Ōzawa scrapes a millimeter of metal from the surface with a metal file. He then polishes the surface with sand paper until it is as smooth as glass, exposing the metal inserts.



### Coloring

After discussing his image of the finished piece in great detail with a coloring specialist, the piece is bathed in a coloring solution. It changes color just as Ōzawa had hoped it would.



### Epilogue

After four months of work, "From the Earth, from the Heavens" is complete. Ōzawa has entered a new world with this fusion of traditional fired mold casting and his own original *igurumi* insert casting technique.



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