# A Study on the Identification of the Four Series of Vases of Yuan Dynasty Magizhou Kiln

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**Abstract:** Yuan dynasty magnetic state kiln four series of bottles in Chinese ceramic history, the bottle shoulder four series of ear easy to carry hanging, is a representative work, reflecting the production level and style characteristics. Historical research literature, scholars focus on the traceability, generation and other aspects of the study of the four series of flasks of the Magizhou kilns, identification of the research content is small and mostly for the body of a certain element of the study, the lack of comprehensive identification and in-depth discussion. With the increase in the number of newly unearthed four series bottles and the abundance of materials, it is possible to provide a detailed analysis and identification study, which will help to deeply understand its historical value and artistic characteristics, and provide reference for enthusiasts and collectors.

Keywords: Magnolia kiln; Four series bottles; Appraisal research

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#### I. Introduction

The four series of vases from the Yuan dynasty's Magizhou kilns shine uniquely in the bright starry sky of Chinese ceramics. As the largest folk kiln system in northern China in ancient times, the products of the Magizhou kilns are rich in variety, and the four series of bottles are even more distinctive. The appearance of this type of bottle not only reflects the level of ceramic production technology, but also with the specific social and cultural needs of the Yuan Dynasty, which are inextricably linked. The identification of the Yuan dynasty Magnetic Zhou kiln four series of bottle research, not only help to identify the authenticity, protection of precious cultural heritage, but also can deeply understand the social landscape of the Yuan dynasty, aesthetic concepts and ceramic production technology. By consulting a large number of ancient literature and preserved physical materials, as well as examples of specimens collected in different periods, after analyzing and categorizing them and combining them with our own extensive practical experience, we can more scientifically and accurately judge the age, origin and value of the four series of vases from the Yuan Dynasty Magnetic State Kiln through meticulous analysis of their shapes, decorations, tires and glazes, and by combining the traditional methods of appraisal with the means of modern science and technology.

# 2. The Yuan Dynasty Magnetic State Kiln Four Series of Bottles Divided into Type and Type

According to the Yuan dynasty magnet state kiln four series bottle abdomen maximum diameter position and its form can be divided into five types, and then further combined with the four series bottle other parts of the construction of the details of the characteristics of the classification, such as the mouth, neck, shoulders, abdomen, bottom and other characteristics, the formation of eighteen styles, after the subtyping and subtyping ultimately form the five types of eighteen styles. Specific details are as follows:

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# (1) A type: 3 styles

Type A Yuan maximum abdominal diameter in the middle of the round ball, the shape of full and heavy atmosphere. The mouth and bottom of the slender, contrasting with the center. The bottle is flared along the mouth, with a girdled neck, ample shoulders, and a flat shoulder transition. The base is a footrim. The bottle is divided into three styles according to the shape of the mouth, the length of the neck, and the size of the base:

- 1) Style I: the lip of this bottle is rounded, with the mouth slightly turned outward, the body of the bottle is rounded and bulging, and the footrim is wider than the diameter of the foot than the caliber.
- 2) Type II: the mouth is flared, with a rounded lip and a thicker lip. The neck is elongated, the footrim is wider, the four systems are shorter, the system is bridge-like, and the base diameter is larger than the caliber.
- 3) Type III: The body of this vessel is large, with a wide mouth and a short neck; the diameters of the neck and mouth are larger than those of the previous two types, while the diameter of the base is relatively small, and the caliber is larger than that of the foot.

# (2) Type B: 4 styles

Type B has a majestic and upright shape with smooth lines. The upper part is full and rounded, while the lower part and the bottom of the mouth are lean. The maximum diameter is shifted upwards, and the center of gravity follows. It is shaped like a chicken's leg, thick at the top and thin at the bottom. The bottom is flared and short rimmed. According to the length of the maximum diameter, the curvature of the outer wall and the smoothness of the transition of the shoulders are divided into four types:

- 1) Type I: the body is of medium length, rounded, with the longest diameter in the upper center, gradually tapering downward and closing sharply. The shoulder of the bottle changes considerably towards the abdomen, and the overall lines are rounded and smooth. The shoulder of the bottle is wide and broad, the transition between shoulder and neck is relatively straight, and the foot is short and short.
- 2) Type II: This bottle is slightly taller than Type I, but its width is narrower, making it slender. The shoulder of the bottle is a sloping shoulder, with a soft, curved shoulder line, making the bottle more coherent. The belly of the bottle is long and curved, with a slower lower end and little change in the curvature of the outer wall.
- 3) Type III: The caliber is shorter, the lip thicker, and the difference between the caliber and the base diameter is not great, making the bottle slightly thicker. The shoulder of the bottle is a sloping shoulder, with a smooth curve between the shoulder and the neck, and the curvature of the outer wall of the bottle is less variable, with a slower lower end. The height of the bottle is between 29 and 35 centimeters, and the difference in diameter between the mouth and the base is about 1 centimeter, which is similar in size.
- 4) Type IV: small mouth, thicker lip, sloping shoulder, smooth lines, neck and shoulder joints forming a smooth curve, long and thin body. The height of the bottle is between 27 cm and 30 cm, and compared with Type III, its caliber and base diameter size difference is obvious, the mouth is small and the base is large.

# (3) C-type: 6 style

Type C is thick and straight. The largest diameter of the abdomen is in the center, and the ratio of the shoulder to the bottom to the abdomen is 1:1. The lower part of the body is gently closed, and the short footrim is slightly flared. The neck and abdomen are gently turned, and the lower part of the body is not clearly turned. There are six styles according to the characteristics of the shoulder, the maximum diameter of the abdomen and the curvature of the outer wall:

1) Style I: thick lip, small diameter of mouth. The outer contour lines are very smooth, with obvious curvature, showing a rounded shape. The shoulder shape is rounded and plump, the neck and shoulders show tension and appear fuller, and the neck is straight. The diameter of the base is large, ranging in size from about 6 to 10

centimeters.

- 2) Style II: The overall length of the bottle increases and the width decreases. The neck is a bunched neck, and the diameter from mouth to neck changes from wide to thin, with a smooth transition effect. The shoulder is designed as a slip-shoulder style, and the contours of the outer wall of the bottle are more fluid, with less variation in the curvature of the lines, making the bottle appear more regular.
- 3) Type III: The shoulder of the bottle is a full shoulder, the overall shape is long, and the outer wall contour line is straight and the curvature is relatively small.
- 4) IV style: this type of mouth flared, slip shoulder, long rounded belly, the lower abdomen inward, the body is long.
- 5) V style: the overall shape becomes smaller, wide mouth, mouth diameter of about 7 cm to 10 cm, the caliber and base diameter is not much difference, the maximum difference of not more than 1 cm, the bottle shoulder for the slip shoulder.
- 6) Type VI: The shape becomes smaller in width and height, appearing slender. It has a small mouth with a thick flared lip, the diameter of the mouth is about 5 cm to 7 cm, and the neck is straight and appears thick. The curve of the outer wall changes significantly.

# (4) Type D: 2 types

D type Magizhou kiln four series of bottles the largest diameter down to the lower abdomen, was sagging, bunch neck and the bottom of the bottle short foot flared, the outer contour line turns obvious, there is a beautiful curve, the center of gravity down more stable. There are two styles:

- 1) Type I: the whole is rounded, with the largest diameter near the foot, a strong sense of sagging, and the shoulders are either full or sloping, with a full sense of three-dimensionality and beauty;
  - 2) is the II type, the overall diameter lengthened to show straight long, the mouth for the thick lip and flared.

#### (5) E type: 3 style

E-type for small and exquisite straight tube, short neck, from the shoulder to the bottom of the nearly straight line, the shape is long and beautiful. According to the foot and the body width of three styles:

- 1) Type I has a straight body that is thin and small, with a small diameter mouth and a moderate diameter base, and a short flared and shallow dug foot;
- 2) Type II has a small mouth, a moderate diameter at the base, a hidden footrim and a deeper footrim, a reduced diameter at the base, an almost curved outline, and a larger diameter at the belly.
- 3) Type II is smaller; Type III is slender, with similar diameters at the mouth, base, and abdomen, a clear sense of straightness and length, no curvature on either side of the vertical wall, a deep footrim, and a sense of thickness, and a harmonized overall proportionality.

# 3. The Yuan Dynasty Magnetic State Kiln Four Series Bottle Identification Method

#### (1) Modeling identification

Yuan Dynasty Magnetic Zhou kiln four series of bottles in the shape of identification has a unique point. Can be broken down into the mouth, shoulder, abdomen, bottom and other parts, each part of the characteristics of each other, through the analysis and study of different local features, can better understand the different areas of the shape characteristics.

There are three common types of mouths: straight mouths, flared mouths, and lip mouths. Straight mouth of the mouth along the neck upward extension, the outer edge of the line and the neck in the same straight line, like a vertical cylinder; skimming mouth from the neck gradually unfolded, the mouth edge outward flared micro-flared flare; lip mouth ware mouth edge outwardly rolled to form a certain thickness, rounded shape like lips. The shape of the mouth varies from region to region and kiln to kiln.

Shoulder molding is divided into shoulder and shoulder. Shoulder lines full and smooth, the thickness of the outer edge of the neck is large, giving people a sense of warmth and atmosphere, mostly in the abdominal diameter and the maximum diameter of the four series of bottles on the upper; slipped shoulder lines rounded and smooth, the thickness of the outer edge of the neck is relatively small, and the transition with the abdomen is natural, most of the maximum diameter of the lower part.

Department of unique shape, the use of pinch molding or standing line techniques to decorate the leaf rib pattern, the length of the thickness varies. They are mainly divided into type A, broad and flat, and type B, narrow and thick; type A, with a large width and a small thickness, is decorated with foliate patterns and a large number of lines, with a thin, long, pointed tail, curved with the shoulder, with a curvature of the shoulders, with a lot of contact with the shoulders, and with a high degree of flexibility, and is more often decorated with larger bottles of the four series; type B is decorated with a single line of stripes, with a small width and a large thickness, and with a thick tail, with a pressed depression, and with a varying length of the various lines, and is more often decorated with small devices and with longer necks. The neck is longer.

Abdomen modeling is the key to study the characteristics of modeling. According to the shape of the abdomen and the size of the diameter is divided into five types. type A body seems to be round, large and bulging like a ball, the largest diameter in the middle of the abdomen, large capacity; type B the largest diameter of the abdomen in the middle of the upper, the upper mouth large lower tail shrinking, it is a combination of arcs and diagonal straight line; type C the largest diameter of the abdomen in the middle of the straight and long, curved arc change is small, the lower closing slowly; type D the largest diameter of the abdomen in the middle of the lower, the bottom diameter and volume becomes larger, is a combination of diagonal straight line; type D the largest diameter of the abdomen in the middle, bottom diameter and volume becomes larger, it is a combination of diagonal straight line. The volume becomes bigger, it is a combination of oblique straight line and introverted arc, the center of gravity is shifted downward and it is stable and solid; Type E is straight, the abdomen is straight, there is almost no change in the diameter from the shoulder to the bottom, and the overall shape is small.

# (2) Process identification

#### 1) Molding process

Yuan dynasty magnet state kiln four series bottle molding process is mainly handmade, with the help of the wheel system billet, the Department of decoration with standing line and other ways to pinch. Wheel system billeting is the billet mud on the wheel, the use of centrifugal force to pull out the bottle and molding, bottle surface will have a circle of billet traces, can be used as a basis for identification. Its molding and Hebei, Henan, Shandong and other places with good plasticity and toughness of raw materials.

# 2) Decorative process

Decoration process is unique. First, the wet process, because of the dry climate in the north, this process can maintain the moisture of the blank, easy to apply makeup soil and paintings, craftsmen need to fasten the main body pattern simplified to simple lines but vivid performance. The second is the sagger mounted firing process, mounted firing before the "glaze" program, the bottom of the fire-resistant old earth with more iron cushion cake cushion burning, isolation role, cushion cake is a round cake shape. Sagger bottom with fine sand pad flat,

four series of bottles at the bottom of the grit and black-brown iron spot traces on the pad cake, can be used for identification, the bottom of the fakes are not adherent, although imitations of the firing in the trellis plate sprinkled with quartz fine sand, but there are differences with the real thing. Third, flint red, is the secondary oxidation of iron in the tire bone iron red crust, mostly in the bottom part of the tire glaze at the intersection of unglazed exposed tire parts, reddish-brown, light color. Modern imitations of flint red for artificial pseudo-production, color transition hard and unnatural. These decorative process characteristics can be used as a reference to identify the authenticity of the Yuan dynasty magnetism kiln four series of bottles.

# (3) Identification of decoration

Yuan dynasty magnesium kiln four series bottle decorative patterns in plant patterns most. The writing of the pen decisively, the lines do not overlap, less cross, and the stroke is free and have to put in and out, there is no messy state. Because the three-dimensional four series bottles are different from the flat presentation, the difficulty of painting increases, and in order to make the layout reasonable, the strokes and modeling can only be simplified. In order to realize the macroscopic control of the structure, the content of the botanical paintings should be simple, with no changes in volume, light and shadow, and only a single botanical pattern, with no other auxiliary patterns. This kind of plant pattern shows a unique artistic style, reflecting the wisdom and skill of the craftsmen at that time in the limited space for artistic creation.

Animal motifs are mainly dragon and phoenix motifs, which are classic motifs of traditional Chinese culture. The dragon pattern is in the shape of a snake, with an elongated body and a large "S" bend. The dragon's head is upward, neck bent, looking forward, mouth sharp and thin like a bird's beak, the upper mouth is long and large, there are sharp antlers, dragon hair straight line flowing backward like a horsehair, the dragon's legs are thick, the three claws are long and thin, the form of the strong and powerful, fierce appearance. The phoenix pattern is simple and free, the picture for the phoenix flying posture, majestic, join the clouds, water patterns to set the mood, often with clouds, water pattern combination of free soaring, keep the black and white space properly, decorative effect is excellent. The dragon and phoenix pattern has its own characteristics, showing a unique artistic charm and cultural connotation.

Text pattern is mostly seen in the four series of bottles, different styles, mostly drawn in cursive, is a combination of calligraphy and ceramic art, with traditional ink painting characteristics, reflecting the cultural landscape at that time. The content is rich, including poems, lyrics, songs and fugitives, etc., which are presented in single-word and multi-word forms and are easy to understand. Because of the hand of folk artisans, the font is random and improvised, and it is difficult to recognize the shape of the characters as flowers. The form of writing is mainly in running script, but also in regular script and cursive script, with abstract fonts. The composition is uniquely arranged, with no strict pattern but no loss of order. Modern imitations are dull and unnatural, hesitant, not smooth enough, the color is not pure, gradient is not natural, seems to be processed by the second and third time. It fully demonstrates the artistic creativity of the folk craftsmen at that time, which is in sharp contrast with the modern imitations.

#### (4) Tire glaze identification

Magnetic State kiln four series of bottles is a unique species, the production of often in situ. Because of the past and modern porcelain clay composition, processing fineness and firing temperature is different, tire color and glaze effect is different, important to identify the authenticity of ancient porcelain. Yuan dynasty magnet state kiln four series bottle raw material processing fineness is not enough, the body is rough, often applying make-up soil to increase the surface fineness and whiteness, make-up soil surface and then applying transparent white glaze, so that the surface of the object smooth and white, but increase the risk of glaze peeling. Special attention should be paid to the differences between modern and traditional blanks when identifying authenticity. Understanding these characteristics helps to accurately determine the age and authenticity of the

four series of bottles from the Magnetic State Kiln.

# 4. Analysis of the Authenticity of Examples of Four-system Bottles

By analyzing the characteristics of each element of the four series of bottles of the Magnetic Zhou Kiln and the key points of identification, the four series of bottles of the Magnetic Zhou Kiln in our personal collection will be analyzed for authenticity and summarize the characteristics of forgeries and imitations. There are big differences between ancient and modern times in terms of stylistic features, tire quality and glaze, decorative patterns and firing techniques. Traditional tire rough, the color is not pure white, Shi white make-up clay "whitening", and long-term preservation or use of the glaze luster will fade, there may be wood light, peeling glaze and other phenomena, but also due to the environment or collision to the glaze layer flaking. Modern imitations of tire white, no make-up soil process, can only see the glaze color without make-up soil traces. The traditional decorative patterns are smooth and one-piece, while modern imitations are dull and deliberately imitated, with unnatural strokes. Traditional firing has repair blank, billet, pad cake support firing and other traces of modern kiln firing in a different way, the object is either very clean or intentionally old, the effect is very different. Although the quality of the current imitations continue to improve, some imitation skills, but there is still a gap with the ancient times. To correctly identify the authenticity of the need for in-depth understanding of the differences between traditional and modern, more observation of the details of the four series of bottles, and constantly comprehend the summary of experience, so that in the modern imitations of the tiny place to find the cracks, debunking its authenticity.



# 5. Summary

This paper concludes, based on a study of Yuan dynasty Magnetic State Kiln four-series bottles, that this type of popular artifact is usually of low counterfeiting value, and because of its low selling price, it is not worth investing a great deal of time and effort in. However, when it comes to poems and floral decorations, there are more fake finished products, and the forger upgrades the grade through surface painting and calligraphy and floral decorations in order to gain high profits, and the possibility of counterfeiting the four series of bottles with such characteristics is high and common on the market. If there is no professional theoretical knowledge reserves, it is often difficult to determine the authenticity. Therefore, connoisseurs or buyers in the face of the Yuan dynasty Magnetic Kiln four series of bottles, especially with poetry, floral decorations, to be extra cautious,

because it may have a high risk of counterfeiting, the need to have professional knowledge to better identify.

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