

Naming Mobile Vessels: Kundika, Kendi, and the Problem of Classification across Maritime Asia

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Abstract. This article studies how water vessels identified as kundika, kendi, and junchi acquired different material, functional, social, and museum identities across maritime Asia. Instead of using these terms as names for one fixed type, it compares historical texts, archaeological reports, museum catalogs, object records, and field photographs to separate vessel form, production, handling, and recorded context. Song-Yuan Cizao ceramics provide the central case. Cizao workshops reproduced forms already circulating in Southeast Asia through local clay bodies, glazes, and decoration, but production and circulation alone do not show consumers' religious identities or individual functions. Evidence from Muslim maritime settings shows that the vessels could support controlled pouring and ritual washing, not a universal Islamic use. Later cases from Banten, China, Iran, and European collections separate court use, remaking in new materials, physical changes, and museum naming. The article argues that material translation and reclassification should be linked only when evidence from the context identifies the makers, users, collectors, or catalogers involved. It also treats naming as evidence: historical translations and modern catalog terms make comparison possible, but they may hide differences in construction, handling, and use. Similar form and circulation alone do not prove that function or cultural identity stayed the same.

Keywords: kundika, kendi, Cizao, material translation, reclassification

1. Introduction

Related Asian water vessels have been described through overlapping terms, including *kundika*, *junchi*, and *kendi* [1]. These names do not necessarily designate the same form or practice. Differences in openings, handles, and materials affect how vessels could be filled, held, and emptied. This article asks how these vessels acquired different material, functional, social, and museum identities across maritime Asia, and how historical and modern categories preserve or hide those differences.

Earlier studies focused on origins and movement. Coomaraswamy and Kershaw compared Chinese Buddhist water vessels with Indian prototypes, Rooney examined the Southeast Asian *kendi*, and Ueda and his collaborators used archaeological and compositional evidence to separate production traditions [1-3]. Building on this work, the present study compares form, manufacture,

handling, terminology, and catalog classification to show where the evidence supports a shared history and where the cases must stay separate.

The problem extends beyond the fact that several names have been used for similar objects. Each name comes from a specific kind of source. A monastic rule may define a vessel by the water it holds and the conduct of its user. An archaeological report may identify a fragment by its clay, glaze, and similar objects. A museum catalog may give it a searchable modern title. These sources do not have the same historical weight. If they are combined into one type, a modern label may seem to prove an ancient function that the surviving evidence does not record. Thus, this study asks who used each term, which object it described, and in what historical or museum setting.

Form gives a clearer starting point than words alone. The position and size of the inlet and outlet limit how liquid could move. A handle also changes how a user can grip, tilt, and direct the vessel. These physical features do not reveal use by themselves, but they show how a vessel could work. This article keeps conclusions based on form separate from claims based on excavated context, written sources, or collecting history. It also does not treat visual similarity as a full line of development. Similar forms may have been copied, adapted, or chosen because they moved water well. A history of movement must use dated evidence of production and circulation. Shape alone is not enough [1-3].

The evidence consists of historical texts, archaeological reports and scientific studies of materials, museum catalogs, and field photographs taken in Quanzhou in July 2026. *Kundika* means a form with a shoulder inlet and a narrow upper outlet, while *kendi* means a form with a broad upper inlet and a lateral dispensing spout [1, 2]. "Material translation" refers to remaking a recognizable form through different materials and techniques. "Reclassification" is used only for recorded changes in use, value, or identification. Song-Yuan Cizao (磁灶) ceramics provide the central case. The sections that follow move from East and Southeast Asian forms to Cizao production, Muslim maritime contexts, and later courtly and collecting histories.

For each case, this article asks four questions. First, what name does the source use? Next, what physical features does it describe or show? Then, when and where does it place the object? Last, what can the source not prove? A museum title can show how an object is named today, but it cannot show what its first user called it. A kiln fragment can show where a form was made, but not who bought it. A text can give a rule for use, but it cannot prove that every surviving vessel followed that rule. These questions keep modern labels from replacing historical evidence.

2. Classifying the *kundika* through form and bodily practice

Yijing's account of monastic water use connects the *kundika*'s paired openings with rules for bodily practice. Later texts and catalogs show how comparable forms acquired different names and social associations.

In section 6 of the *Nanhai jiguai neifa zhuan* (南海寄歸內法傳), Yijing distinguishes water for *jing* (淨, "clean") use from water for *chu* (觸, "touched") use and assigns each to a separate vessel. The Chinese text specifies a narrow hole at the top of the clean vessel for drinking and a separate round opening at the side for adding water. Takakusu's translation renders the same relation as a "drinking-mouth" and a side hole used for pouring in water [4]. This is direct textual evidence for different openings. Coomaraswamy and Kershaw's modern reconstruction shows how a vessel of this form could be tilted so that water entered the mouth without the outlet touching the lips [2]. The reconstruction shows an action that the form allows. It does not show the historical use of every surviving vessel.

The passage defines the practice by keeping two types of water apart. Water called *jing* (淨, "clean") and water called *chu* (觸, "touched") belonged in different containers because contact changed their ritual status. The two openings were part of this rule. The user drank from the narrow opening at the top, while water entered through the opening at the side [4]. Thus, the vessel was more than a visual sign of purity. Its form guided storage, refilling, drinking, and the effort to avoid unwanted contact. This passage links form and bodily conduct, but only within the practice that Yijing describes.

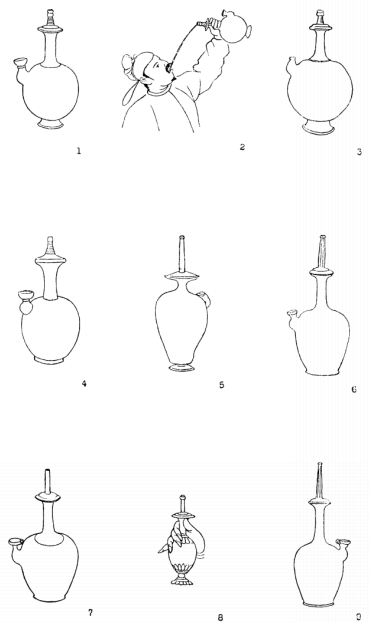


Figure 1. *Kundika* forms and a modern reconstruction of drinking without lip contact, after Coomaraswamy and Kershaw [2]

Figure 1 should be read as a group of objects for comparison, not as a chart of development. The drawings record variation in the height of the upper tube, the shape of the shoulder inlet, and the profile of the reservoir. Coomaraswamy and Kershaw used those similarities to reconstruct a mode of drinking, but the group also shows why silhouette alone cannot identify one date, place, or use [2]. The reconstruction shows what the form allows. Yijing's text supplies the historical claim about regulated handling.

An earlier gloss in the *Da Tang xiyu ji* (大唐西域記) writes the Sanskrit term *kuṇḍikā* as *junzhijia* (拑稚迦). It explains the word as *zaoping* (澡瓶, "washing bottle"). It also describes the older name *junchi* (軍持) as a shortened or incorrect form [5]. The passage records an effort to make the terms more regular, but it does not prove that every object later called *junchi* or *zaoping* shared one form or function.

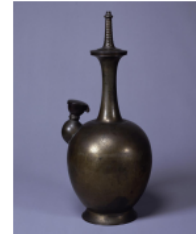
The gloss gives several kinds of names in one passage. *Junzhijia* (拑稚迦) represents a foreign sound. *Zaoping* (澡瓶, "washing bottle") explains the object by its use. *Junchi* (軍持) is an older common name that the text treats as imperfect [5]. These terms are linked, but they do not mean exactly the same thing. One copies a sound, one explains a function, and one uses a familiar name. The passage shows that the vessel was renamed as texts moved between languages. However, it cannot establish whether every object named by these words had the same material or opening design.

In the *Xuanhe fengshi Gaoli tujing* (宣和奉使高麗圖經) of 1124, Xu Jing records a vessel called *jingping* (淨瓶). He describes its long neck and side opening. He also says that nobles, officials, religious institutions, and households used these vessels to store water [6]. His list places the form in several social settings, but it does not show a change over time from monastic to secular use. The Goryeo celadon in Figure 2a offers an object for comparison because it has a narrow outlet at the top and an inlet at the shoulder. The National Museum of Korea records its findspot as the vicinity of Gaeseong in Gyeonggi Province and classifies it under Buddhist offerings. Neither the museum record nor Xu Jing's text names the historical user of this object [7].

Xu Jing's description also separates the social range of a category from the history of one object. His *jingping* (淨瓶) appears among nobles, officials, religious institutions, and households, so the name was not limited in his account to one monastic setting [6]. However, the text describes a class of vessels instead of the Goryeo celadon now held by the National Museum of Korea. The museum cites the Goryeo account for the use of such vessels to hold clear water, but this explains the type rather than this object's use [7]. Reading these records together broadens the possible group of users without assigning a specific owner or action to the surviving vessel.



(a) Goryeo celadon *jeongbyeong* (정병)



(b) Asuka-Nara *Jōhei* (淨瓶)

Figure 2. Regional and transregional classifications: (a) Goryeo celadon kundika with reeds and wild geese in relief, H. 34.2 cm, body diam. 12.8 cm, National Museum of Korea, Deoksu 2960 [7]; (b) Asuka-Nara *Jōhei*, Tokyo National Museum [8]

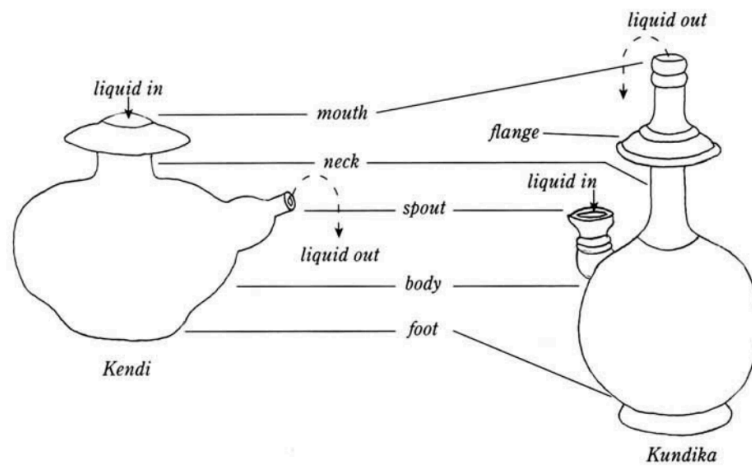
Figure 2 shows the same problem across regions and materials. The Goryeo example translates the paired-opening form into celadon, while the Japanese example is made in metal. Their profiles make formal comparison possible, but their media imply different techniques of construction, surface, weight, and durability [7, 8]. The Korean record names the vessel *jeongbyeong* (정병), while the Japanese museum uses *Jōhei* and the English title Pitcher (Kundika). These catalog terms offer evidence of modern classification. They do not show that the two objects had identical owners, settings, or functions.

The Tokyo National Museum titles Figure 2b *Jōhei* (淨瓶) in Japanese and *Pitcher (Kundika)* in English [8]. These labels make comparison across regions easier, but they do not show the terminology used by historical owners. The next section compares this upper-outlet form with the Southeast Asian *kendi*, whose main pouring spout projects from the shoulder.

3. Kendi in Southeast Asia and material variation

The term *kendi* is used here as a working term for a Southeast Asian vessel form: a handleless vessel with a broad upper opening and a lateral shoulder spout. Water could enter through the upper opening and leave through the lateral spout. By contrast, the *kundika* discussed above was filled through a shoulder inlet and emptied through a narrow upper outlet [1, 2]. This reversal changes the

possible sequence of filling, holding, tilting, and emptying. It shows two forms that work in different ways without proving a linear transformation or a uniform historical use (Figure 3).



Kendi forms redrawn from examples in 'Introduction' by Eng-Lee Seok Chee in 'Kendis: A Guide to the Collections, National Museum Singapore'.

Figure 3. Reconstructed ways of filling and pouring with the *kendi* and *kundika*, after Rooney [1]

The reversal shown in Figure 3 changes how the vessels work rather than merely how they look. On a *kendi*, the broad upper opening allows direct filling and the side spout controls the outgoing water. On the *kundika*, the narrow tube at the top is the outlet, while the shoulder opening lets water enter. Because neither vessel always has a handle, the user's hand must steady the neck or body as the vessel is tilted. Small changes in neck height, spout angle, or body size could change reach and flow even when two vessels share a general shape. Rooney's diagram makes these limits clear, but it cannot name the liquid, social setting, or ritual meaning linked to a particular object [1].

Material evidence also does not support one Southeast Asian type. Archaeological and petrographic studies distinguish pale, kaolin-rich fine-paste wares associated with southern Thailand from coarser, red-bodied earthenwares associated with East Java. Some vessels recovered from the tenth-century Intan shipwreck combine forms associated with southern Thai production and red-burnished surfaces more often linked to Javanese pottery [3]. Form, clay body, firing, and surface treatment did not always travel together as one fixed set.

The distinction between fine-paste and coarse earthenware is especially important because it separates a recognizable form from a single ceramic tradition. Petrographic composition, firing, and surface treatment can link a vessel to a production region more firmly than shape alone. Also, a locally familiar finish could be applied to a form associated with another center. The Intan cargo shows that such combinations traveled within the same maritime system [3]. Thus, it supports exchange among workshops and markets without requiring a single point of invention or a stable cultural meaning for every *kendi*.

These material differences also change how movement can be traced. Shape gives a first point of comparison. Clay, firing, glaze, and surface can give a stronger link to a workshop or region. A well-recorded excavation can show when and where an object was found. Not every object gives all of this information. The Intan cargo joins form, material, and date in one setting [3]. The vessel in Figure 4 keeps its complete form, but it has no excavated setting [9]. Thus, the two cases support different kinds of claims even when their forms can be compared.

A fourteenth- to fifteenth-century earthenware *kendi* attributed to eastern Java and the Majapahit Empire gives an example based on one object (Figure 4). Its broad upper opening, bulbous lateral spout, and handleless body could have permitted filling from above, support at the neck or reservoir, and controlled pouring through the lateral spout. This account of its use is based on the surviving form. The museum record offers no excavated findspot or object-specific evidence of use, so no single historical function can be assigned to it [9].

The object's recorded dimensions, 18.4 by 20 by 16.5 centimeters, show its small body and projecting spout [9]. The upper opening is broad enough to remain clearly separate from the outlet, while the swollen body places much of the vessel's volume below the user's gripping point. Its burnished earthenware surface also differs from the glazed Cizao examples discussed below. These features allow a close account of material, capacity, and handling, but the absence of an excavated context leaves the original contents and use unknown. The catalog's broader list of everyday, medicinal, and ceremonial associations should stay as background for comparison and should not be treated as the history of this vessel.



Figure 4. Earthenware water vessel (*kendi*), eastern Java, fourteenth-fifteenth century, Los Angeles County Museum of Art [9]

This regional material variation provides the context for understanding Cizao as a site of material translation instead of the place of origin of the *kendi* form.

Here, portability involves more than size. The absence of a handle allows the vessel to be approached from several directions, but it also requires the user to support the ceramic body directly. A broad mouth simplifies refilling and cleaning, while a short lateral spout limits and redirects the stream. Those features could serve several practices, which helps explain why comparable forms remained available in homes, ceremonies, and institutions. The same flexibility also makes function hard to judge from form. Figure 4 shows a flexible vessel form, not a direct record of how one Majapahit vessel was used [9].

4. Cizao material translation and commercial circulation

Cizao matters because its workshops remade a form that was already circulating in Southeast Asia. They used the ceramic methods and trade networks of southern Fujian. Kiln evidence can show production. Archaeological finds can show circulation. Later studies and museum catalogs record how the vessels have been understood. These types of evidence must stay separate.

Material translation describes a choice made in the workshop. A potter could keep the broad mouth and lateral spout of a circulating form while changing clay preparation, firing, glaze, decoration, and the proportions of the body. The result still worked in a familiar way but became part of a different ceramic tradition. This term is more limited than cultural transmission: it does not assume that makers reproduced the meanings attached to the form elsewhere, or that all users understood it in the same way.

4.1. Production and circulation evidence

The archaeological record gives a basic timeline. Fine-paste earthenware *kendi* circulated with the tenth-century Intan cargo [3]. At Kota Cina, a settlement occupied from the late eleventh to the early fourteenth century, Zhao's catalog groups ewer fragments through comparisons of fabric, glaze, and shape. It labels one group as Cizao ware and describes another as "presumably" *kendi*-shaped and comparable to wares from Zhizhushan and Tuwei'an [10]. These are published identifications based on comparison, not scientific proof of origin. Thus, this article treats them as possible Cizao wares. They support the possibility that Cizao-related ceramics reached the Strait of Malacca. However, they do not provide a precise date or kiln origin for every fragment.

The Intan and Kota Cina materials mark different dates, not one continuous route. The Intan cargo shows that Southeast Asian fine-paste *kendi* circulated with Chinese ceramics in the tenth century [3]. Kota Cina documents a later port settlement and contains ceramics assigned or compared to Cizao-related groups [10]. Neither group of finds identifies the hands that carried an individual vessel, and neither proves that the form moved in only one direction. Their value lies in showing that related forms were present within changing networks before and during the expansion of southern Fujian exports.

Cizao workshops belonged to the production area linked to Quanzhou's sea trade. Within the kilns' wider range, vessels now classified as *junchi* (軍持) were concentrated at Zhizhushan (蜘蛛山) and Tuwei'an (土尾庵). Archaeological studies record unglazed, green-glazed, celadon-glazed, and decorated examples, including vessels with applied dragon ornamentation [11]. This range shows material variety within Cizao production without identifying one destination or consumer group.

Evidence of production is not the same as evidence of destination. Finds at Cizao show what its workshops made, and the Kota Cina finds show that related wares reached a port [10, 11]. Museum objects keep the complete form, but they often lack an excavation record [12]. None of these sources names a buyer. When they are read together, they show a possible path from a workshop to sea trade and then to a later collection. Each step, however, comes from a different source. This is why the article does not claim one direct route.

Variation within the kiln range also limits claims about centralized design. The presence of unglazed, green-glazed, celadon-glazed, and decorated vessels suggests that Cizao workshops adjusted finish and visual effect instead of manufacturing one standard export object [11]. Some choices may have responded to price, available materials, or market taste, but the archaeological evidence does not identify a court order or a single commercial strategy. The evidence supports the claim that the workshops could reproduce a mobile form through several locally available ceramic treatments.

4.2. Museum classification and market interpretation

Modern museum labels add another layer of classification. At the Quanzhou Museum of Ancient Chinese Export Ceramics, the labels call the handleless vessels in Figure 5(a)-(b) *junchi* (軍持). They call the handled pouring vessels in Figure 5(c)-(d) *zhihu* (執壺) or *shuizhu* (水注). These labels document current classifications based on selected formal or functional features. They do not show the terms used by Song-Yuan potters or consumers.

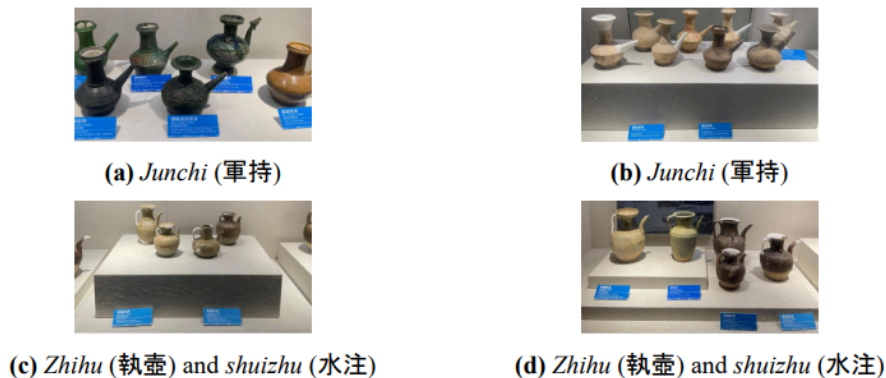


Figure 5. Current classifications of Cizao pouring vessels, Quanzhou Museum of Ancient Chinese Export Ceramics, July 23, 2026 (picture credit: original)

The field photographs make the difference between categories clear within one display. Handleless forms with lateral spouts appear under *junchi* (軍持), while nearby handled vessels are separated as *zhihu* (執壺) or *shuizhu* (水注). Their placement invites comparison across glaze and decoration, but the labels give more weight to handles and spouts when assigning names. Figure 5 records a current museum classification system as well as the vessels themselves. It cannot be used as if it were a list of categories used by Song-Yuan (宋元) potters, traders, or consumers.

A green-glazed Cizao vessel in the National Palace Museum shows material translation in one object. Cataloged as *Quanzhou Cizao yao liuyou junchi* (泉州磁灶窯綠釉軍持) in Chinese and *Kendi with Green Glaze, Cizao Ware* in English, it is dated to the Southern Song-Yuan period. Its broad upper opening and lateral tubular spout match the Southeast Asian *kendi* form, while its pale ceramic body, green exterior glaze, and unglazed interior and base link the form to Cizao production [12]. The material features support an argument about translation, while the two titles record current museum classification. Neither identifies the historical user or function.

The two catalog titles show two naming systems used at the same time. The Chinese record places the vessel within the Cizao kiln range and calls it *junchi* (軍持). The English title calls it *kendi* [12]. The object fits both names. Its broad mouth and side spout match the Southeast Asian *kendi* form, while its clay, glaze, and firing link it to production in southern Fujian. Neither title needs to be treated as the object's original name. Instead, the two titles show how a museum links a regional vessel type to a production site. This is a modern link. It does not prove that the makers or first users used the same two names.

Claims about Muslim consumers need to be studied separately. Cai and Xia propose that green-glazed Cizao *kendi* may have appealed to Muslim markets because of associations attached to green in Islamic contexts [11]. Their evidence does not include an order from the same period, a merchant letter, an inscription, or a clear place of use. Green glaze shows material and visual differences. By itself, it does not show the buyer's religion or the vessel's original production intent.

A claim about market intention would require evidence that connects production to an expected buyer, such as a commission, order, merchant account, inscription, or repeated find pattern in a clear place of use. A claim about actual use would require a different connection between an object and a user or practice. The available green-glazed examples supply neither link. Cai and Xia's proposal is useful because it identifies a possible visual appeal, but color symbolism cannot replace evidence of a sale or use [11]. Thus, this article treats the green glaze as a material choice. Its meaning to buyers and religious users is still uncertain.

The Cizao evidence is strongest when these sources are read together. Kiln remains show a range made in southern Fujian. The Kota Cina finds allow comparison and may show circulation. Museum objects preserve complete examples, and current displays show how museums now classify them [10-12]. No single source connects every stage from workshop to buyer. Together, the records show how a form could be made locally, move through sea trade networks, and later gain more than one name. This evidence shows material translation without claiming a fully recorded route or one destination.

5. The *kendi* in Muslim maritime contexts

In this article, "Muslim" refers to people and communities identifying with Islam, while "Islamic" describes religious practices, institutions, or material contexts associated with Islam. Fine-paste *kendi* are found in the tenth-century Intan cargo [3]. Wain's archaeological overview places firmly dated Islamic royal centers in northern Sumatra later, including late thirteenth-century Samudera-Pasai [13]. These sources show two separate dates: regional circulation by the tenth century and secure evidence for a Muslim polity centuries later. They do not prove that every *kendi* arrived before Islam or that one vessel type passed directly from non-Muslim into Muslim use.

This difference in dates matters because the date of a shipwreck, the date assigned to an object, and the rise of a polity recorded in sources answer different questions. The Intan cargo dates one moment of circulation. It does not date the first appearance of the *kendi* in every port [3]. Samudera-Pasai provides firmly dated evidence for Muslim political authority in northern Sumatra, but it does not mark the beginning of every Muslim presence or practice in the region [13]. Thus, the two dates cannot support a simple before-and-after narrative of religious conversion.

Each type of evidence answers a different question. Archaeology can show circulation, but not use. Form can show whether a vessel could pour water in a controlled way. Later studies record links to ablution, pilgrimage, and Zamzam water. These are not the same kind of proof. Thus, the *kendi* may have been used in some Muslim settings, but this change did not affect every vessel.

Use must also be tested one case at a time. A spout shows a possible action, but it does not name the liquid. Residue may identify the contents, and wear marks may show how the vessel was held. A text or image may name a user or setting. The sources used here mostly give form, circulation, or a later reading [14-16]. They give few direct links between one *kendi*, a Muslim owner, and a ritual act. Thus, this article keeps Muslim use as a possible claim for certain settings. It does not turn that claim into one fixed function for the whole vessel type.

Religious setting, user identity, and ritual use must also stay separate. A vessel found at a port ruled by a Muslim leader shows that the vessel was present in that political setting. It does not identify the religion of its owner or how that person used it. A form suited to washing also does not place the object in a Muslim context. Only evidence that links the vessel, its user, and an action could show a clear case of ablution. This rule is strict, but it keeps the word "Islamic" from being applied to every portable water vessel that moved through a Muslim-ruled port.

Medieval Islamic ewers help compare how different vessels work. They are not models that the *kendi* directly copied. A brass ewer made in Mosul in 1232 has a tall neck, long spout, and handle. The National Museum of Asian Art says that it was probably made for ablution [14]. A fourteenth-century Egyptian brass ewer has a similar form. The Metropolitan Museum describes a servant who poured water over his master's hands into a basin [15]. In both ewers, the handle, neck, and spout link the user's grip to the direction of the water. A handleless *kendi* needs support around the neck or body and sends water through a shorter side spout. These objects could all control the flow of water. However, the comparison does not show that they were the same type or that one came directly from another.

Figure 6 compares the two ewers discussed here. These examples also show the limits of comparison based on form. All three vessels could direct a small stream of water. A handled ewer, by contrast, lets the wrist and handle control the pour. A handleless *kendi* needs more contact with the body or neck. This difference may matter when water is poured for another person, brought to the mouth, or used to wash the body. The museum records make ablution and handwashing possible uses for the ewers [14, 15]. They give a model for controlled pouring, but they do not prove that every *kendi* had the same use in a Muslim home or court.

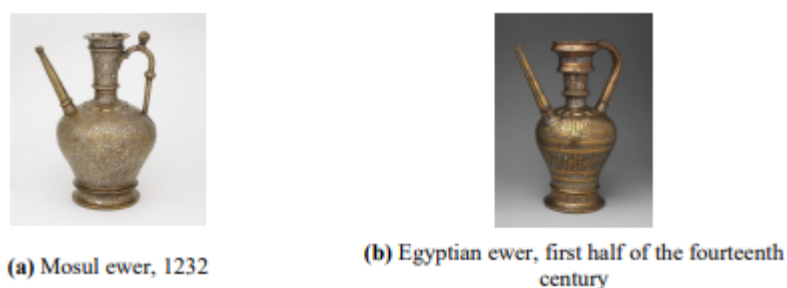


Figure 6. Medieval Islamic ewers compared by use [14, 15]

A clearer religious link appears in modern scholarship. Li, citing Han Huaizhun's 1948 study, links porcelain *kundika/kendi* with ablution in Southeast Asia and reports a tradition in which pilgrims carried Zamzam water home from Mecca in such vessels [16]. Han's original wording has not been independently examined for this article, so the article presents the claim only as Li's report of Han's argument. It supports possible uses in some Muslim settings, not a general change in function across the medieval world.

The chain of citation is part of the evidence. Li's article reports Han's earlier link between the vessel, ablution, pilgrimage, and Zamzam water [16]. This study has not checked the wording and examples in Han's 1948 article directly. Thus, it does not treat Li's report as separate proof. Keeping the citation to Li shows where the claim came from. It also stops a secondhand claim from seeming like a fact about a specific object.

Together, the evidence supports a comparison of bodily use, not a religious label. The openings and handles guided contact between the hand, vessel, water, and body. The *kundika* used two openings, the *kendi* used a side spout, and the Islamic ewers used handles [4, 14, 15]. Those differences make controlled flow a useful point of comparison, while texts and museum records show when a specific practice can be named. This difference keeps open the possibility of use in Muslim settings. A suitable form alone, however, does not prove ritual use.

6. Later lives of the kendi

The following cases are not stages in a continuous development from Southeast Asia to Iran and Europe. They show a new social role in Banten, material translation and possible functional change between China and Iran, and physical changes or new names in later collections.

Here, a later life means a recorded change in how people related to an object. It does not mean that the object gained a new identity each time it crossed a border. Evidence may show who handled the vessel, how its body was remade, whether its fittings changed its operation, or how a collecting institution named it. Keeping those processes separate makes it possible to compare them without assuming that movement across places always changed function.

6.1. Courtly use in Banten

At Banten, a familiar regional water vessel gained value at court within a Muslim polity. A 1596 image shown in Figure 7 depicts a servant carrying a bulbous-bodied, long-necked ewer cautiously identified as a *kendi*. The edited Banten chronicle also says that the minister Ki Nayakusuma carried a *kendi* in a court procession. Ueda and his coauthors report this passage [17]. The excavated evidence is later and must stay separate. In the Surosowan Palace core area, unit S4W4 levels 9-17 date to the seventeenth-eighteenth centuries. Levels 2-8 date to the eighteenth-early nineteenth centuries. Both groups contained imported fine-paste and locally made medium-paste *kendi*, and both categories declined in the later levels [17]. Together, the image, later report of the chronicle, and stratigraphy link the *kendi* with elite service and courtly display without forming one continuous record.

The difference between the layers is important to this reading. Levels 9-17 and levels 2-8 belong to different date ranges, so their contents cannot be merged into a single seventeenth- to nineteenth-century deposit. Read separately, both groups preserve imported fine-paste and local medium-paste vessels, while the later group records a decline in both categories [17]. This pattern shows continued use even as the numbers fell within the palace group of finds. It does not explain why quantities fell. It also does not assign a ritual use to the excavated pieces.



Figure 7. Procession at Banten in 1596, with a servant holding an ewer cautiously identified as a *kendi*, reproduced from Ueda et al. [17]

The 1596 image offers a different kind of evidence from the excavated fragments. It shows a vessel carried upright by an attendant within a procession, which supports an association with service and public display [17]. The printed image does not reveal the vessel's material, contents, or precise opening design, so its identification as *kendi* should be treated with care. The vessel in the image also cannot be treated as the same as pieces from later palace layers. Its value is visual. It places a recognizable pouring vessel in a court scene between an attendant and an elite figure.

6.2. Material remaking and museum reclassification

The elephant-shaped *kendi* compared in Figure 8 presents a different relation between material and functional change. Metropolitan Museum records date the Chinese porcelain example to the late sixteenth century and the Iranian stonepaste example to the second quarter of the seventeenth century [15]. Their dates support material translation from porcelain into stonepaste. Finlay's discussion of the *kendi-qalian* makes a smoking function plausible for some Iranian examples, but it does not document that use for every elephant-shaped vessel or for this object in particular [18]. Material translation has stronger evidence than a change in function.

The two elephant-shaped vessels make copying visible without making their histories identical. The Chinese example uses underglaze-blue porcelain, while the Iranian example translates the body into stonepaste painted in blue beneath a transparent glaze [15]. Both organize the animal's body as a reservoir and its head as part of the vessel's projecting form, but differences in material and detail show active remaking, not simple copying. The date order supports a relation between the objects. The proposed smoking use remains a separate interpretation that requires evidence beyond resemblance [18].



(a) Iranian stonepaste, second quarter of the seventeenth century



(b) Chinese porcelain, late sixteenth century

Figure 8. Elephant-shaped *kendi* in different materials [15]

The animal form adds another part to the vessel's movement. A viewer could recognize the elephant body even without knowing the word *kendi*, while the openings still made the object work as a container. The animal design, ceramic method, and possible use could change at different speeds. The Metropolitan Museum records clearly give the material and date of the two objects [15]. Finlay's account helps explain why the Iranian form may have entered the history of the *qalian*, but the physical comparison alone cannot show when or by whom it was smoked [18].

The Chicago and Princeton vessels in Figure 9 separate physical changes from museum naming. In the Chicago object, a probably London-based metalworker added a lid, scroll handle, silver straps, and an eagle-headed outlet to a late Ming porcelain body. These additions changed how the vessel could be grasped and poured. The Art Institute of Chicago's title *Ewer* describes the object after these changes [19]. The Princeton vessel keeps a broad neck, side spout, and handleless body, while the museum titles it *Kendi ewer* and lists it under both *kendi* and *ewers* [20]. The record

documents current museum classification, not the date when that terminology was introduced. The comparison separates a physical change to the Chicago vessel from the current title of the Princeton object.

The European mounts on the Chicago vessel are important because they change the original body's operation. A scroll handle establishes a fixed grip, the metal lid closes the broad opening, and the eagle-headed fitting turns the lateral projection into the outlet of a mounted ewer [19]. This physical change is visible on the object and is different from a later catalog title. The Princeton record uses the current phrase *Kendi ewer*, but the object has no similar physical change [20]. These cases show why a change to an object and reclassification by an institution should not be treated as the same historical event.



(a) Porcelain body with European silver mounts



(b) Vessel catalogd as *Kendi ewer*

Figure 9. Late Ming *kendi* in later collections [19, 20]

Catalog words are also part of these later histories. The title *Ewer* presents the Chicago object as a European ewer because of its metal mounts [19]. The two-part title *Kendi ewer* keeps two classifications visible for the Princeton vessel [20]. These phrases determine how the readers find and compare the objects in collection records, even though the words do not change the ceramic bodies. Museum reclassification therefore matters to an object's later history. However, it must be dated to the catalog record and not applied to its production or first use.

Table 1 brings together the types of evidence used in the article. It shows what each group of sources can support. It also shows what stronger claims the same evidence cannot support. The table is not a hierarchy in which texts always outweigh objects or archaeological contexts always outweigh catalogs. Its purpose is to keep each source linked to the historical question it can answer.

The person involved changes from one case to another. A court attendant appears in an image. Potters leave evidence in the material and firing. A metalworker changes how a ceramic body works. Museum staff give an object the names readers use to find it [17, 19, 20]. These people did not need to act at the same time. Keeping their roles separate makes the argument clearer because a change in material, use, social value, or museum title can be dated only when the matching evidence survives.

Table 1. Evidence, supported claims, and limits in the case studies

Evidence	Supported claim	Limit
Yijing and the modern reconstruction [2, 4]	The text assigns drinking and filling to different openings and links the vessel to monastic rules for handling.	The reconstruction does not show how every surviving vessel with two openings was used.

Table 1. (continued)

Historical and museum terms [5-8]	Texts and catalogs record names, explanations of use, social range, and current museum classification.	The terms do not mean exactly the same thing and do not identify the owner or use of one museum object.
Southeast Asian examples [1, 3, 9]	Study of form and material shows how vessels worked, which ceramic traditions made them, and when they circulated.	A similar shape alone does not prove one origin, route, contents, or social use.
Kota Cina and Cizao [10-12]	Published comparisons, kiln finds, and a catalog with two languages support production history and material translation.	They do not prove that every fragment came from a Cizao kiln, that the buyer was Muslim, or that one central order guided exports.
Muslim dates and ewers [13-16]	The sources keep trade dates separate from political dates and show that the vessels could support controlled pouring and some Muslim practices.	They do not prove that one form came directly from another or that every kendi had an Islamic use.
Banten image, chronicle, and strata [17]	Separate records link the vessel to court service and record imported and local forms in dated palace layers.	They do not form one continuous deposit or give one ritual use to the excavated pieces.
Chinese and Iranian elephant forms [15, 18]	Object records support comparison by date and material. One study suggests smoking as a possible use for some examples.	More evidence is needed before this use can be given to every elephant-shaped vessel or to the Iranian object.
Chicago and Princeton collections [19, 20]	Metal mounts record a physical change in use, while catalog titles record current museum names.	A modern title does not show original use or the date when that name was first used.

7. Conclusion

The history of vessels identified as kundika and kendi cannot be explained as the spread of one fixed type. Different opening designs produced different ways of filling, holding, and pouring, while archaeological and material evidence reveals several Southeast Asian ceramic traditions. Cizao workshops adapted an already circulating form through southern Fujian clay bodies, glazes, and decoration. Production and distribution therefore document material translation and commercial circulation without proving a single origin, uniform function, or religious identity.

Material translation and reclassification did not always occur together. In some Muslim maritime settings, the kendi could support controlled pouring and ritual washing, but the evidence does not justify assigning an Islamic function to every vessel. Banten sources instead connect the form with court service, while Chinese and Iranian elephant-shaped examples show remaking in new materials and only a possible change in use. The Chicago and Princeton cases further distinguish physical alteration from later museum naming. These examples show that changes in material, use, social value, and classification must be dated from the specific evidence that records them.

The comparison therefore shifts attention from assumed vessel identities to the evidentiary basis for each name. Written texts describe rules of use; kiln remains identify production; port and shipwreck finds document circulation; later fittings record physical alteration; and catalog titles show institutional classification. Terms such as shuizhu, junchi, kundika, and kendi should be treated as historically situated evidence rather than interchangeable labels. Future research can strengthen these connections through compositional analysis, use-wear and residue testing, reconstruction experiments, trade records, and older catalogs. Linking individual vessels more securely to makers, users, collectors, and museum staff would clarify how maritime movement

produced changing material histories without assuming that function or cultural identity remained constant.

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