

## A STUDY OF DUCK-SHAPED STONE WEIGHTS: WILD DUCKS OR DOMESTIC DUCKS

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### Introduction

In ancient Mesopotamia, merchants were engaged in active commerce. For instance, Assyrian merchants *circa* 2000 BC imported tin and woolen goods from Ashur to Anatolia, while sending silver and gold back to Ashur as profits [Orlin 1970]. During that era, the weight of goods held significant importance in trade, with the value of commodities frequently assessed in terms of silver weights. Additionally, it's documented that merchants of that period carried specific weights to measure their trading goods.

The British Museum houses several animal-shaped weights originating from ancient Mesopotamia. These shapes encompass frogs, ducks, and, less commonly, lion and boar heads [Melein 2018: p. 32]. Most are made of stone, but bronze weights have been found as early as the 1st millennium BC [The British Museum: Museum No. 91220]. This article discusses the duck-shaped stone weights found among these artifacts. Duck weights were quite prevalent in ancient Mesopotamia and were either carved or cast resembling a duck, often with its head positioned in the middle of its back [The Van Egmond Collection of Near Eastern Seals and Related Artifacts 2023]. Weights of this form were utilized extensively throughout the Levant, specifically coordinated to guarantee equitable trade between merchants and their customers [*ibid.*]. These weights were also designed to be both aesthetically pleasing and functional, implying that those employing weights sought beauty in their commodities [*ibid.*]. Thus, while the weights served utilitarian purposes, it is documented that certain pieces were transformed into artistically valuable items. Therefore, what was the rationale behind employing duck motifs on these weights? Furthermore, were these weights genuinely crafted in the form of domesticated ducks?

This study aims to determine whether stone weights, particularly those crafted from hematite and shaped like ducks, originating from the second millennium BC, depict 'wild ducks' or 'domesticated ducks'.

### Domestication of Ducks

Domestication occurs across millennia, encompassing human intervention and control over non-human animals to breed them with 'desirable' traits tailored for human purposes [Barnes 2020]. Multiple theories abound regarding the domestication of ducks, and while an exact date remains elusive, prevailing belief posits its domestication in Mesopotamia approximately 3,000 years in the past [Ashton 2014: p. 83]. The prevailing notion suggests that ducks trace their origins back to a species of wild mallard, known scientifically as *Anas platyrhynchos* [Griffler 2018; Laatsch 2023]. The earliest documented instances of domestication took place in Egypt, China, and Europe around 4000 BC [Laatsch 2023]. During the second millennium BC in ancient Mesopotamia, ducks served as a dietary resource and were also employed as symbolic motifs for weights. Mallards

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are recognized to have existed in their wild state across extensive regions spanning Europe, Asia, North America, and North Africa [*ibid.*]<sup>1)</sup>. Whereas wild ducks lay around 12 eggs a year, some domesticated ducks have been bred to lay as many as 300 eggs a year [Griffler 2018]. And whereas chickens lay 250–280 eggs per year, domesticated ducks can lay 300–350 eggs per year [Laatsch 2023]. Moreover, domesticated ducks possess the ability to sustain themselves and reach maturity through a comparatively straightforward diet comprised of locally accessible feed. Duck meat and eggs stand as exceptional reservoirs of high-quality protein, energy, various vitamins, and minerals. Additionally, feathers serve alternative purposes, such as bedding material for warmth [Dean and Sandhu 2023]. These domesticated ducks have also been found to be more productive than chickens [Laatsch 2023].

In addition, ducks are classified as waterfowl and inherently need to swim, but the majority of domesticated ducks do not need to swim and have lost the ability to fly. Ducks' feathers are usually not long enough to fly, their muscles are not developed to fly and they are not suitable for escaping predators, making them vulnerable to predation [Griffler 2018]. Thus, as a result of the domestication of ducks, they were modified to make them easier for humans to raise.

### Duck-shaped Stone Weights

The avian sleeping positions are categorized as follows: 1. lying on its back or with the bill positioned beneath the shoulder blades, recognized as the classic sleeping posture; 2. bill forward or resting sleep posture; and 3. head resting on the ground [Amlaner and Ball 1983]. Moreover, the stone duck weights found within the British Museum collection, referred to as 'sleeping duck,' distinctly portray a duck in a resting position. Ducks commonly sleep in a single-file formation, with the outer birds often keeping one eye open as a defensive measure against potential external threats [Hackett 2020: p. 60]. A hematite weight originating from Ur in Southern Mesopotamia, housed within the British Museum collection, aligns with this case. Its dimensions are recorded as 9 × 18 mm, with a weight of 4.9 grams [The British Museum Collection No. 118572].

An additional specimen is an Old Babylonian duck-shaped weight crafted from white stone, part of The Van Egmond Collection [The Van Egmond Collection No. 156]. Dating back to the period between 1925 BC and 1595 BC, this weight exhibits a duck form with distinct features: an elongated neck encircling the body, a head lying flat at the center of the back, and a flattened underside. Measuring approximately 20 mm and weighing 2.2 grams, it is speculated to represent one-third of the standard Paleo-Babylonian weight in shekels [The Van Egmond Collection of Near Eastern Seals and Related Artifacts 2023]. Notably, similar duck-shaped artifacts from the Paleo-Babylonian era, albeit varying in weights and sizes, have also been unearthed [The Van Egmond Collection of Near Eastern Seals and Related Artifacts 2023]. These items were discovered as a set of three, further indicating their potential use as weights [The Van Egmond Collection Nos. 146–148].

### Conclusions

This study aims to address whether the stone weights dated to 2000 BC depict the motif of 'wild ducks' or 'domesticated ducks'. Considering that the commencement of domestication traces back approximately 3,000 years in Mesopotamia [Ashton 2014: p. 83], the 2000 BC timeframe falls within the intermediary phase of this process. Consequently, it is presumed that the motif likely derived

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1) On the other hand, recent zoological inquiries propose an alternative origin for domesticated ducks, positing that they might not have derived from mallards or tin ducks, but potentially from an, as of yet, undefined or unexamined wild duck population [Guo *et al.* 2021].

inspiration from ‘wild ducks’. However, the inquiry persists regarding the merchants’ preference for this motif, as ducks, before their domestication, lacked fertility and therefore couldn’t symbolize prosperity akin to frogs. To advance this investigation, an examination of the significance of duck motifs is imperative not only in the context of contemporaneous lifestyles but also within the realms of beliefs and cultural customs.

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### 【Online Collections】

The British Museum

*Explore the Collection*, (online) [https://www.britishmuseum.org/collection/object/W\\_1848-1104-66](https://www.britishmuseum.org/collection/object/W_1848-1104-66) (Museum

No. 91220), and [https://www.britishmuseum.org/collection/object/W\\_1927-0527-45](https://www.britishmuseum.org/collection/object/W_1927-0527-45) (Museum No. 118572), accessed on 31 Dec. 2023.

The Van Egmond Collection

*The Van Egmond Collection of Near Eastern Seals and Related Artifacts*, Duck Weights and Seals, (online) <https://thevanegmondcollection.org/duck-weights/> (Nos. 146–148 and No. 156), accessed on 31 Dec. 2023.