Off-Metal Strikes and Transitional Coinage in the Bengal Presidency: The Case of a Copper "Half-Rupee" in the Name of Shah Alam II

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ABSTRACT

This paper examines a curious copper coin described as a "half-rupee" struck in the name of Shah Alam II (r. 1760-1806) under the jurisdiction of the Bengal Presidency of British India, which appears outside the standard catalogue specifications for the silver half-rupee series of the Presidency. By situating this specimen in the broader framework of Bengal Presidency minting, the Mughal-British political interface, and the transitional coinage systems of late-eighteenth and early-nineteenth century eastern India, this study argues that the piece is best viewed as an off-metal strike (OMS) or experimental issue reflecting fiscal pressures, metallurgical irregularities, and the evolving monetary regime of the region. After a review of Bengal Presidency coinage under the East India Company and Mughal suzerainty, the paper offers a typological and metallurgical discussion of the copper anomaly, considers possible causes (metal shortage, overstriking, experimental alloys), and assesses its significance for numismatic scholarship and monetary history. The conclusion calls for further metallurgical analysis and hoard studies to clarify the circulation status of such anomalies.

Keywords: Bengal Presidency, Shah Alam II, Mughal coinage, East India Company minting, off-metal strike, monetary transition, colonial India.

INTRODUCTION

The coinage of the Bengal Presidency occupies a critical juncture in South Asian monetary history, sitting at the intersection of the declining Mughal imperial authority and the rise of British colonial financial control. The region known as the Bengal Presidency (also called the Presidency of Fort William) emerged from the trading and territorial expansion of the East India Company, and at its peak it covered large parts of what is now eastern India, Bangladesh and beyond [1, 2, 3, 4]. The presidency issued its own coinage, often in the name of the nominal Mughal Emperor, even as the Company's fiscal and minting authority gradually grew [4, 5].

In parallel, the Mughal Emperor Shah Alam II (born Ali Gohar, reigned first 1760-88, then 1788-1806) presided over an empire whose real power had dramatically contracted [6]. The nominal authority of the emperor remained relevant, especially in coin-issuance: coins in his name continued to be struck in Bengal and other territories under Company suzerainty.

It is within this liminal period of overlapping sovereignty and minting regimes that the coin under discussion occurs: a copper coin with a weight of approximately 8.9 g, diameter 24.8 mm, thickness 2.2 mm, letter-pattern near identical to contemporary silver half-rupee issues of the Bengal Presidency in the name of Shah Alam II (circa 1830). According to standard catalogues, the silver half-rupee of the Bengal Presidency for the name of Shah Alam II was struck at about 5.5–6.5 g, diameter ~22–23 mm, thickness ~2.0 mm. The much heavier copper piece raises questions of its status: Is it an off-metal strike (OMS), a deliberate pattern/experiment, or a mis-attributed coin?

This paper explores this anomaly in the broader numismatic context: the Bengal Presidency minting practices, the Mughal-British monetary transition, and possible technical explanations for off-metal strikes. It argues that the piece likely represents a transitional issue produced under unusual circumstances (metal shortage, minting transition) and contributes to our understanding of late-colonial East Indian minting.

The Bengal Presidency as an administrative unit of the British Indian territories emerged from the earlier provincial structure of Mughal Bengal and the expansion of the East India Company. According to historical sources, the Company first established factories in Bengal from 1612 onward [3]. In 1757 the Battle of Plassey, and in 1764 the Battle of Buxar, decisively shifted sovereignty: in the Treaty of Allahabad (1765) the Mughal Emperor (Shah Alam II) granted the East India Company the Diwani (revenue-collection) rights over Bengal, Bihar and Orissa [7].

The Company's minting rights in Bengal expanded accordingly. The series of coins struck in the name of the Mughal Emperor but under Company authority became a hallmark of the region: the Bengal Presidency issues often bore the emperor's name, mint location (Calcutta sometimes termed Murshidabad or Bangal), and secret mint-marks such as crescents [8]. Standard works note that the Presidency issues imitated earlier Mughal coinage designs in order to facilitate acceptance among the local population [5].

The catalogue of Bengal Presidency coins records a wide range of denominations (rupee, half-rupee, quarter-rupee, copper pice, anna, etc.) and shows that minting continued under the name of Shah Alam II well into the early nineteenth century. For example, Numista lists the half-rupee silver struck in the name of Shah Alam II with weight ~5.5–6.5 g and diameter ~22–23 mm [9].

The Mughal currency system had been robust during its high period (1556-1707): the standard silver rupee, gold mohur, copper dam/pice formed a stable tri-metallic system [10]. But by the eighteenth century, the empire was in evident decline: Shah Alam II himself ruled over a fragmented polity and was heavily reliant on British protection [11].

From a monetary perspective, the twilight of Mughal sovereignty yielded interesting hybrid coinage: coins struck in the emperor's name but under provincial or colonial control, off-metal or experimental strikes, and eventual transition to British-style coinage. The essay by Beaulieu (2016) explains how in the Bengal Presidency the pice (copper fractional coin) was struck from 1795 under the Bengal Provincial Minting regulations, naming Shah Alam II, but with fixed "frozen" regnal years to avoid devaluation by money-changers [12]. Thus, the coin-issuance at this juncture reflects overlapping authorities: the emperor as nominal sovereign, the Company as practical minting authority, and the evolving monetary demands of a colonising regime.

The Bengal Sultanate, 1205–1576, ruled a populous country blessed with a consistent surplus production of agricultural commodities and textiles which they redistributed through their system of state revenue and expenditure [13, 14]. Also, traders drew on this surplus for the Indian Ocean trade. The Bengal Presidency's coinage under the East India Company marked a gradual shift from Mughal designs to European-style machine-struck issues. Early Presidency issues often retained Persian inscriptions, Mughal legends and weight standards; later machine-milled pieces (from the 1830s onwards) introduced English legends, milled edge, and changed weights/metals. The Wikipedia entry on the "Coins of British India" notes that although each Presidency had its own issues, a unified coinage across India was introduced in 1835 [5]. The existence of off-metal strikes and pattern coins further signals a transitional phase: experiments in copper, alloy shifts, and issues of legality and acceptance in local markets. As one forum post notes, such pieces were sometimes struck but not legal tender, their value lay in metal content and collector interest rather than circulation [15].

In sum, the Bengal Presidency coinage under Shah Alam II provides a fascinating case of numismatic intersection: the Mughal monetary legacy, the East India Company's minting experimentations, and the impending modernization of the Indian monetary system. Objective of this study was to examine OMS Half Rupee of Shah Alam II

The investigation of this anomaly follows a typological and deductive method:

1. Review known weight/metal/size ranges for the relevant issue series.
2. Compare the anomalous specimen with those ranges to assess deviation.

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3. Explore possible explanations (off-metal strike, pattern/experiment, mis-labelled) in light of contextual historical evidence (metal shortages, mint policy, transitions).
4. Situate the speculation within the broader monetary history of the region (Bengal Presidency, Mughal decline).
5. Identify directions for further research (metallurgical assay, hoard evidence, die-link studies).

No destructive testing has been performed on the specimen; the analysis is based on physical measurement, comparative typology and historical/numismatic data.

RESULT AND DISSUASION

The specimen under consideration is a copper coin bearing the name of Shah Alam II, attributed to the Bengal Presidency, and described as a "half-rupee". Obverse and reverse of the copper coin shown in figure 1.

Figure 1: Copper Half Rupee of Shah Alam II

The analyzed coin displays a set of distinctive physical and stylistic attributes that set it apart from the standard half-rupee issues produced by the Bengal Presidency in the name of Shah Alam II. It weighs approximately 8.9 grams, a figure notably greater than that of the conventional silver half-rupee specimens. The diameter, measured at 24.8 millimetres, reveals a marginally broader flan, while the thickness, about 2.2 millimetres, indicates a sturdier planchet than is typical for the series. Details measurement of the coin shown in below figure 2.

Figure 2: Details Measurement of Copper Half Rupee of Shah Alam II

The inscriptions and ornamental script bear a remarkable resemblance to those on authenticated silver half-rupees from around 1830. The arrangement of Persian legends, regnal numerals, and decorative elements suggests that the same or closely related dies were employed in its production. This correspondence in engraving style reinforces the conclusion that the coin was struck within the same minting tradition as its silver counterparts.

The most striking deviation, however, lies in its metal composition. Instead of the expected silver, the piece is struck entirely in copper, introducing a significant material discrepancy. This substitution of a base metal for a precious one implies that the coin was not part of the regular monetary output but rather an off-metal strike or trial piece, possibly produced for experimental, commemorative, or emergency purposes within the Bengal minting system.

By contrast, standard catalogue data for silver half-rupee issues of the Bengal Presidency in the name of Shah Alam II indicate weight ~5.5–6.5 g, diameter ~22–23 mm, thickness ~2.0 mm. Photo of similar standrad half rupee is shown in figure 3 [16]. This discrepancy (particularly the heavier weight and copper metal) raises questions of attribution, function (circulation vs pattern vs off-metal strike), and die/weight standards.

Figure 3: Standard Similar Half Rupee of Shah Alam II

Referring to Numista's listing for the Bengal Presidency under Shah Alam II: the half-rupee silver listing weight matches the ~5.5–6.5 g range [9]. Coin Archives further lists half-rupee (23.5 mm, 6.16 g) for RY 19 in the name of Shah Alam II [8]. Thus the 8.9 g copper coin lies outside the normal known spec.

The anomalous coin's copper metal, heavier weight (8.9 g) and larger diameter (24.8 mm) contrasts significantly with standard silver half-rupee issues of the Bengal Presidency. The letter-pattern (legend in Persian/Urdu in the name of Shah Alam II, the mint indication of Calcutta/Murshidabad, regnal year mark) suggests die source related to the standard series. Yet the metal and weight do not align.

In numismatic terms, such anomalies may be classified as off-metal strikes (OMS), coins struck using the dies of a standard issue but using a different metal (or alloy) than standard. They may be experimental strikes, pattern pieces, trial issues, or stray production due to metal substitution. The presence of a heavier weight may indicate copper bar or thicker flan, or it may reflect an intention to approximate the silver coin's physical size in copper metal.

Some possible explanations are as below-

1. ***Metal shortage or alloy substitution***: In the early nineteenth century, silver supply in India faced constraints and rising bullion values. The East India Company may have permitted or conducted striking in lower-value metal as a cost-saving measure or temporary expedient. The use of copper in a nominal "half-rupee" format may signal a value judgment disconnected from intrinsic metal value (token/representative money) rather than full silver equivalent.
2. ***Experiment/pattern piece***: The specimen may represent a trial struck in copper to test public acceptance, minting machinery or whether a lower-value coin could substitute the silver half-rupee. The fact that the legend matches the standard series suggests it was not a completely separate design but rather a trial off-metal strike.
3. ***Mis-attribution or mis-reading***: It is possible that the coin is mis-labelled as a "half-rupee" but was actually a different denomination (for example, a larger copper denomination) or that the die was reused late into the presidency period, and the recorded weight and metal are non-standard because of

later overstriking or local re-striking. Yet the specimen's size and legend strongly link it to the silver half-rupee series in the name of Shah Alam II (circa 1830).

4. ***Circulation anomaly / hoard strike:*** It may have been struck for circulation under emergency, thus outside the usual standards, for instance during a coin shortage or war-time exigency, and then not regulated like the standard issue. Given the presidency's complex environment of multiple authorities and minting pressures, such ad hoc issues cannot be ruled out.

Given the weight of evidence, the off-metal strike hypothesis appears most plausible: the specimen appears to use the standard dies of the silver half-rupee (legend matches), but uses copper, and its heavier weight suggests an attempt to replicate the physical size/appearance of the silver coin. It may therefore have functioned as a token substitute in a period of silver shortage or an experiment to push copper coinage into higher denominations.

Supporting factors are:

- The Bengal Presidency had a history of copper issue regulation: for example, the copper pice issue of 1795 in the name of Shah Alam II under the Bengal Mint Committee [12].
- The numismatic record shows many varieties of Presidency issues in the name of Shah Alam II, including silver rupee, half-rupee, quarter-rupee, copper anna/pice denominations [9].
- The political-monetary environment was one of transition: the Mughal Emperor's name on coins, vested British mint authority, experiments with alloy and denomination, raising the possibility of unofficial strikes.

Thus, the copper "half-rupee" may be best catalogued as a rare off-metal strike of the Bengal Presidency in the name of Shah Alam II, likely non-standard, possibly experimental or emergency-issued, and certainly of interest to numismatists and monetary historians as a marker of the transitional coinage regime.

The presence of such off-metal strikes broadens the known typology of Bengal Presidency coinage, highlighting that the standard catalogue weights/metals (e.g., silver 5.5–6.5 g half-rupee) are not exhaustive. It suggests that collectors and researchers should be alert to variant metals/alloys and weights, and that hoard/archaeological evidence may yet reveal more such anomalies. The catalogue by Paul Stevens, *The Coins of the Bengal Presidency*, acknowledges unlisted pieces and urges further research [17].

Furthermore, such anomalies reflect the complex minting context of the Presidency: overlapping authorities (Mughal emperor, Company mint masters), evolving standards (transition to machine-milled coinage), and practical constraints (metal supply, circulation demands). From a numismatic standpoint, these variants deserve systematic documentation, metallurgical testing (to confirm alloy), and die-link studies (to verify die identity with known standard issues).

From a monetary history perspective, the coin underscores three themes:

1. ***Metal shortage and substitution:*** The heavier copper coin suggests that the intrinsic metal value (copper) may have replaced the standard silver content in order to maintain token value in circulation when silver bullion was scarce. This aligns with broader patterns in late Mughal/early British India, where silver scarcity and bullion flows complicated currency systems [18].
2. ***Transition of sovereignty and symbolism:*** Even as the Mughal emperor's real power waned, his name continued to appear on coins struck by the Company's Bengal mints, signalling continuity of sovereignty in form, if not in substance. The copper coin thus stands at the nexus of symbolic imperial continuity and material colonial transition.
3. ***Monetary experimentation in colonial contexts:*** The East India Company, faced with administrative and fiscal challenges, appears to have experimented with coinage formats, including copper issues at higher denominations. The Beaulieu article documents how the pice issue of 1795 in the name of Shah Alam II was authorized via regulation and minted at Calcutta, Benares and Farrukhabad [12]. The copper "half-rupee" may therefore reflect further such experimentation, albeit perhaps limited and not standardised.

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This study is constrained by the lack of destructive or non-destructive metallurgical testing of the specimen, absence of hoard context, and the fact that off-metal strikes are often undocumented in formal catalogues (hence difficult to quantify). To deepen understanding, the following are recommended:

- ***Alloy analysis (XRF or ICP-MS)*** to determine the copper content, potential silver or other alloying metals, and compare with standard copper and silver issues of the Presidency.
- ***Die-link and planchet studies*** to compare edge treatment, mint-marks (crescent, secret marks), flan characteristics, and die features with standard silver half-rupee dies of the same regnal year. If identical dies are used, this strongly supports the off-metal strike hypothesis.
- ***Hoard/archaeological investigations****:* Identifying finds of such anomalies in documented hoards would establish circulation status (versus isolated experimental piece).
- ***Mint archival research****:* Archive records of the Bengal Mint Committee, East India Company mint instructions and accounts may yield evidence of experimental copper denominational issues or metal substitutions around the time in question.

CONCLUSION

The copper coin struck in the name of Shah Alam II, attributed to the Bengal Presidency and described as a half-rupee, constitutes a numismatic anomaly of considerable interest. Its divergence from standard silver half-rupee specifications (in metal, weight and diameter) suggests that it is best interpreted as an off-metal strike, likely experimental, emergency-oriented, or produced under metallurgical constraint. In doing so, it illuminates the transitional monetary phase in Bengal: where Mughal imperial symbols, East India Company minting practice, silver scarcity and early colonial coinage reforms intersected.

By situating this specimen within the broader historical context of Bengal Presidency minting, Mughal-British relations, and the shift to colonial monetary systems, this paper underscores the importance of anomalies in advancing both numismatic scholarship and monetary history. Future work, metallurgical testing, die-link studies and hoard analysis, can refine our understanding of such transitional issues and help map the full typology of Bengal Presidency coinage.

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