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Roman Coins from the Mackenzie Collection at the British Museum

by

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# 1. Introduction<sup>1</sup>

Soon after his arrival in India in 1783, Colin Mackenzie (1754-1821) began to collect diverse *materia antiqua* with the aim of writing a history of India.<sup>2</sup> He later became the first Surveyor General of India and this role, coupled with his military campaigning in India, Sri Lanka and Java provided him with ample opportunity to explore and record historical sites and acquire important manuscripts and artefacts, including over 6,000 coins.<sup>3</sup> Mackenzie's collection was among the largest and most wide-ranging to be put together in India during this period. After his death, his widow, Petronella Bartels, sold much of his collection to the British East India Company (EIC) for the then princely sum of Rs 1,00,000.<sup>4</sup> After the closure of the EIC's India Museum in 1878, part of its numismatic collection was transferred to other museums, but most were sold at auction. In 1995, the unsold residue, comprising about 10,500 coins, was discovered in the British Library's India Office Collections and transferred on permanent loan to the British Museum. In December 2011, about 4,000 of the India Office Loan Collection (IOLC) coins were identified with Mackenzie's collection. Among these were 70 Late Roman Bronze (LRB) coins that proved central to the rediscovery of a significant part of Mackenzie's numismatic collection. The 70 coins, which are catalogued in the Appendix below, fit the profile of the many thousands of fifth to seventh century AD LRB coins found in South India and Sri Lanka and published by R. Krishnamurthy and R. Walburg respectively.<sup>5</sup>

<sup>1</sup> I am very grateful to Elizabeth Errington for the opportunity to work with the Roman coins in the Masson and Mackenzie Collections under the aegis of the Masson Project in the Department of Coins and Medals at the British Museum. I also owe considerable thanks to Joe Cribb, Sam Moorhead and Robert Bracey who shared their knowledge and insight so generously. Reinhold Walburg kindly read through the article and catalogue and his comments saved me from many errors. This work could not have been done without them. All mistakes remain my own.

<sup>2</sup> J. Howes, *Illustrating India: the Early Colonial Investigations of Colin Mackenzie* (New Delhi, OUP, 2010), p. 2; C.E. Buckland, *Dictionary of Indian Biography* (London, 1906), p. 262; C. Allen, *The Buddha and the Sahibs: the Men who Discovered India's Lost Religion* (London, 2002), p. 117.

<sup>3</sup> H.H. Wilson, Mackenzie Collection. A Descriptive Catalogue of the Oriental Manuscripts and Other Articles Illustrative of the Literature, History, Statistics and Antiquities of the South of India Collected by the Late Lieut. Col. Colin Mackenzie, Surveyor of India, Vols.I & II (Calcutta, 1828).

<sup>4</sup> Howes, *Illustrating India*, p. 227; Allen, *Buddha and the Sahibs*, p. 123. The sum is 100,000 rupees (one lakh) written in the Indian numbering system.

<sup>5</sup> R. Krishnamurthy, *Late Roman Copper Coins from South India: Karur, Madurai and Tirukkoilur* (Chennai, 2007, 2<sup>nd</sup> ed.), and R. Walburg, *Coins and Tokens from Ancient Ceylon. Ancient Ruhuna. Sri Lankan-German Archaeological Project in the Southern Province*, vol. 2 (Wiesbaden, 2008).

# 2. Comparison of Mackenzie's Roman coins with those from South India and Sri Lanka

Literary sources and archaeological material have long attested the trade between various Indian kingdoms and Roman Egypt,<sup>6</sup> although the trade between India and Egypt, which was primarily indirect in nature, began long before the rise of the Roman empire. It has been suggested that systematic trade between Egypt and India began in the late first century BC with the annexation of Egypt. This allowed the Romans to sail from the Red Sea, taking advantage of the monsoon winds and making some direct journeys. Archaeological evidence indicates that this trade continued to flourish until a decline in the mid-third century AD.<sup>7</sup> The fourth century saw a resurgence of these trading relations and Roman involvement may have continued until the sixth and possibly into the seventh century.<sup>8</sup> Solidi dating from the second phase of the Indo-Roman trade have been found in India, although more bronze coins of this period seem to have survived. The LRB coins were mainly found in Tamil Nadu and southern Sri Lanka and a comparison between the three sets of coins, those from Tamil Nadu (presented by Krishnamurthy), Sri Lanka (presented by Walburg) and the IOLC coins, is both interesting and revealing.

Period	Date Range	Mackenzie Coins	Tamil Nadu	Sri Lanka
Ι	317-324	2	0	1
II	324-330	0	0	4
III	330-346	2	5	109
IV	346-361 <sup>9</sup>	8	36	103
V	361-378	5	0	82
VI	378-383	2	40	11
VII	383-408	41	535	910
VIII	408-425	2	33	137
IX	425-450	2	0	64
Х	450-474	1	68	9
XI	565-578	1	0	0
	4 <sup>th</sup> -5 <sup>th</sup> century	4		
Total number o	f coins	70	717	1430

*Fig. 1.* Number of coins by period, shown graphically in Fig. 2. Note that the four IOLC coins dated to the  $4^{th}-5^{th}$  century AD, but which cannot be identified more specifically, are not included in Fig. 2.

<sup>&</sup>lt;sup>6</sup> For ancient sources, see, for example, Pliny *Natural History* 6.101-106; Strabo *Geography* 2.5.12; and the *Periplus Maris Erythraei*: L. Casson, *The Periplus Maris Erythraei*. *Text with Introduction, Translation, and Commentary* (Princeton, 1989). A considerable number of recent books and articles discuss various aspects of the trade. For a good overview, see, for example, R. Tomber, *Indo-Roman Trade: from Pots to Pepper* (London, 2008).

<sup>&</sup>lt;sup>7</sup> Tomber, *Indo-Roman Trade*, pp. 154, 161.

<sup>&</sup>lt;sup>8</sup> Tomber, Indo-Roman Trade, p. 161.

Krishnamurthy's collection of LRB coins from Tamil Nadu comprises over four thousand coins, but their poor state of preservation meant that only 717 have been identified. Of the Roman coins found in Sri Lanka, Walburg presented 1430 with reliable provenance. Figs 2 (above) and 3 (below) compare all three sets of coins. The periods used have been adapted from those of Walburg in order to include Krishnamurthy's coins and those from the Mackenzie collection.



Fig. 2. Proportions of coins by period.

Despite the considerable difference in the number of coins available for comparison from the three groups, they show a very similar distribution. All three groups demonstrate an increase in finds of coins minted in Period IV and Period VII. Only the coins from Tamil Nadu show a third peak of coins minted in Period x. The Mackenzie and Tamil Nadu coins peak in Period IV while those found in Sri Lanka do not show a peak in this period, but rather an overall increase in finds of coins minted between AD 330 and AD 378. All three collections show an identical, dramatic peak in coins minted in Period VII (AD 383-408). The Mackenzie and Sri Lanka coins then show a gradual decline in coins minted between AD 408 and AD 474, although the Mackenzie collection includes one coin minted in Period XI. In contrast, the Tamil Nadu coins show a sharp decline in coins of this period, with no coins minted in Period IX, followed by a peak in Period X and another sharp decline in Period xI for which period no coins were recorded. The similarity between the Mackenzie and Tamil Nadu coins minted in Period IV, and between the Mackenzie and Sri Lanka coins minted in AD 408-474, suggests that the Mackenzie collection may comprise coins from both Tamil Nadu and Sri Lanka. Since Krishnamurthy was able to identify only 717 coins from his collection of over 4,000 LRB coins, it is possible that the Tamil Nadu coins include coins that would show a similar, gradual decrease from Period VIII to Period XI, rather than the current peak in Period X.

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The comparison thus suggests that the Mackenzie coins were acquired in South India and possibly Sri Lanka. The South Indian connection is supported by other evidence. Under the heading 'Ancient European' coins in Wilson's catalogue, 170 otherwise unidentified coins were recorded as having been acquired in Mahavalipur (more commonly known as Mahabalipuram) and Cudapa (modern Kadapa), both of which are in South India (see map, Fig. 3). Given the very poor state of preservation of the overwhelming majority of the LRB coins found in South India, it seems reasonable to suggest that the 170 coins were in fact LRB coins. After all, the poor condition of the IOLC Roman coins meant that even after they had been cleaned it was not possible to identify all of them precisely.9 Furthermore, Mackenzie dispatched his Maratta translator, Babu Rao, to the Tamil Nadu coast, including Mahavalipur, in order to collect gold and copper Roman coins.<sup>10</sup> Mahavalipur/Mahabalipuram was an important ancient city on the north-east coast. It was the principal port of the Pallava dynasty ( $c.4^{th}-10^{th}$  centuries AD) from which the Pallavas maintained contact with Sri Lanka, and LRB coins have been found there.<sup>11</sup> Cudapa ('Kadapa') is the name of both a city and a district in the modern-day province of Andhra Pradesh just under two hundred miles north-west of Mahabalipuram and approximately five miles south of the Penna River. Kadapa falls within the territory of the ancient Chola Empire. The Periplus Maris Erythraei does not mention Kadapa itself, but does mention three ports that very probably belonged to the Chola kingdom, Argaru, Kamara and Podukê.<sup>12</sup> The Romans were known to have traded with the Cholas, and Roman coins have been found at Kadapa.<sup>13</sup>

When the India Museum was closed, nine sherds of a small earthenware pot were transferred to the British Museum via the South Kensington Museum (South Kensington Register, p. 29, no.1120; EIC India Museum no. 14). One of the notes associated with it reads: 'Fragments of earthen vessel found with Roman coins found at Vellaloor in Coimbatore'; Jennifer Howes has suggested that the handwriting is likely to be that of Mackenzie.<sup>14</sup> A slightly fuller note appears in the Register: 'Fragments of earthen vessel, found with Roman coins at Vellaloor in Coimbatore,

<sup>9</sup> R.H.C. Tufnell, *Hints to Coin Collectors in South India, Parts I and II* (Madras, 1887-88), Part II, p. 4, mentions how poor the condition of such coins are, writing 'On the obverse of all that I have met with appears an emperor's head, but so worn that with one or two exceptions the features are well nigh obliterated. In one or two specimens a faint trace of an inscription appears running around the obverse, but hitherto I have not come across a single specimen in which more than one or two letters are distinguishable.' M. Mitchiner, *Coin Circulation in Southernmost India* (Maharashtra, 1995), p. 94, notes 'Many of these late Roman small copper coins are no longer well enough preserved to identify them by reading the emperor's name. Some general attributions can be made on the basis of coin size and reverse design.'

<sup>10</sup> Wilson, Mackenzie Collection, vol. 2, p. ccxlvii.

<sup>11</sup> M. Mitchiner, *The Coinage and History of Southern India. Part One: Karnataka – Andra* (London, 1998), pp. 116-18; Mitchiner, *Coin Circulation*, p. 13; some coins were illustrated by M. Wheeler, 'Roman coins, first century BC to fourth century AD, found in India and Ceylon', Appendix I, pp. 116-121, to *Arikamedu; Ancient India 2, Bulletin of the Archaeological Survey of India* No. 2 (1946), nos. 24-25. Arikamedu is an ancient port on the east coast of India.

<sup>12</sup> Periplus Maris Erythraei 59.20.1, 60.20.6.

<sup>13</sup> For example, see R. Sewell, 'Roman coins found in India,' *JRAS* October 1904, pp. 591-637, at 599, 602. Sewell mentioned that Roman gold coins dating to AD 68-217 had been found in both the Cuddapah (Kudapa) and Nellore districts.

<sup>14</sup> Personal correspondence. Jennifer Howes is curator of India Office prints, drawings and photographs at the British Library.

and 24 copper or bronze coins.' Some of the late Roman bronze coins in the IOLC collection may well be associated with these sherds, but it is difficult to date the sherds precisely, partly because the ceramic chronologies for this region are not yet firmly established. The type appears to be a variant of russet-coated and painted black and red ware from the Early Historic period (c.300 BC- AD 400).<sup>15</sup>



Fig. 3. Map of findspots.

### 3. Hypotheses for the presence of LRB coins in South India and Sri Lanka

LRB coins found in South India and Sri Lanka began to be studied in greater detail during the nineteenth century. Hypotheses were put forward to explain the reasons behind the presence of so many of these low-denomination coins in South India and southern Sri Lanka. Tufnell, writing in 1887-88 about coins found in Madura, suggested that they were 'struck on the spot and were not importations from Rome', the reason being that such coins were 'not the kind of money that one would expect the rich Roman merchant to bring in payment for the luxuries of the East'. He believed that they pointed to the existence of settlements of Roman agents who collected local produce and conveyed it to the ships of their employers when they arrived in port. He further suggested that these coins were 'struck specially for the purpose of trade with a pauper population... They are of so small a value as to be what one would expect to find in use when dealing with a people so poor as the early Hindus.'<sup>16</sup>

Sewell took a similar line in 1904, writing 'though as a general rule it may be held that the presence of Roman coins does not necessarily imply the presence of Roman traders, it seems with regard to Madura almost impossible to account for this state

<sup>15</sup> Roberta Tomber kindly examined the sherds and forwarded details and a photograph to her colleagues V. Selvakumar, K. Rajan and Gwen Kelly to help identify them.

<sup>&</sup>lt;sup>16</sup> Tufnell, *Hints to Coin Collectors*, Part 2, pp. 2-4.

of things except on the supposition that Roman subjects had taken up their residence here and made the city their home, temporary if not permanent.<sup>17</sup> Given the limited evidence about such coins from South India in the late nineteenth and early twentieth centuries, it is not surprising that Sewell interpreted them as evidence of a Roman settlement. He also agreed with Tufnell that the coins were used to make small, daily purchases from the local Indian population. In contrast, in 1886, W. Elliot had proposed that 'these poor copper pieces could only have been dropped by mariners and traders frequenting the places where they now lie.' This view appears to have been based on their find spots in or near dunes and sand-knolls by fishing hamlets on the seashore.<sup>18</sup> Elliot gives no indication that he believed these coins were used by Romans or Indians for trading purposes in South India. In 1924, H.W. Codrington produced the first important work on those coins found in Sri Lanka. On the basis of a quite detailed analysis, he found that numerous bronze coins, usually rather worn, were found at almost every port in Sri Lanka (except Trincomalee) and also at a variety of locations in the interior. This led him to suggest that these coins 'formed the currency of the Island.<sup>19</sup>

Similarly, modern scholarship presents a range of opinions about the presence and use of LRB coins in South India and Sri Lanka. In general, the two regions tend to be dealt with separately and, when they are discussed together, it is often assumed that the LRB coins arrived, and were used, at both places in the same or a similar way. Walburg's pioneering investigation clearly showed that this was not necessarily the case and that regional distributions and history need to be taken into account in order to present a plausible hypothesis for each region. He proposed that LRB coins were most probably shipped as merchandise into Sri Lanka from South India during the second quarter of the fifth century AD, and were not imported directly to Sri Lanka from the Mediterranean world. Furthermore, Walburg's research suggests that these coins, and their imitations, probably functioned as 'special purpose money' for essentially monastic purposes, for example, as donations to monasteries, whereas punch-marked coins and their imitations were used as 'all purpose money' (or general currency) in Sri Lanka.<sup>20</sup> This is in contrast to, for example, Burnett who suggested that the LRB coins were used as coinage in Sri Lanka while some also functioned as dedications in a religious context, for example those found at the Jetavanarama stupa in Anuradhapura.<sup>21</sup> Mitchiner likewise thought that the LRB coins

<sup>17</sup> Sewell, 'Roman coins found in India', pp. 614-15.

<sup>18</sup> W. Elliot, Coins of Southern India (London, 1886), p. 35.

<sup>19</sup> H.W. Codrington, *Ceylon Coins and Currency, Memoirs of the Colombo Museum*, Series A, no. 3 (Colombo, 1924), pp. 31-53 at 33.

<sup>21</sup> A. Burnett, 'Roman coins from India and Sri Lanka' in O. Bopearachchi, and D.P.M. Weerakkody (eds), *Origin, Evolution and Circulation of Foreign Coins in the Indian Ocean* (New Delhi, 1998), pp. 186-7. On p.185 and, more recently, in personal communication with the author (4 July 2012), Burnett suggests that the available evidence regarding the pattern of finds in both South India and Sri Lanka indicates that the material arrived at one or more points within the region and was then diffused across a wider area. Burnett emphasised, however, that this is not a firm conclusion and further research may shed more light.

<sup>&</sup>lt;sup>20</sup> Walburg, Coins and Tokens from Ancient Ceylon, p. 43.

were acceptable currency in Sri Lanka but did not specify how and by whom the currency was used.  $^{\rm 22}$ 

For South India, B. Chattopadhyaya proposed that the imported Roman currency supplemented the apparently 'inadequate' supply of local currency.<sup>23</sup> Krishnamurthy suggested that Romans, or possibly their agents, resided at Madurai, Karur and Tirukkoilur, where the majority of the late Roman bronze coins have been found, and that they and the local population used these coins for their daily commercial transactions.<sup>24</sup> Mitchiner hypothesised that in the AD 330s the Romans began making bulk payments for their purchases in copper coins. He also suggested that some southern Indian kingdoms accepted payments made with copper coins and others accepted only gold; he differentiated between the monetary and nonmonetary economies of South Indian kingdoms: the Pandyas, Cholas and Vels of Karur accepted the bronze coins, while the Kongu Rattas, Cheras and Ay did not.<sup>25</sup> Although Burnett's contribution was written for a seminar that focused primarily on Sri Lanka, he also looked at those coins found in South India and interpreted the evidence as suggesting that the LRB coins circulated as coins in this region.<sup>26</sup> MacDowall proposed that, like the gold and silver Roman coins before them, the bronze coins exported to South India in the later fourth and early fifth centuries were valued for their metal content.<sup>27</sup>

The ancient Greek and Phoenician coins found in South India pose an additional problem. While few authors have dealt with the LRB coins found in South India, even fewer have studied the Hellenistic copper coins also found there. Krishnamurthy has interpreted their presence as indicating a continuation of the direct trade between South India and the Mediterranean world undertaken initially by the Phoenicians from the start of the first millennium BC and, later, by Hellenistic Greeks.<sup>28</sup> D. Roller similarly argues that the mainly second century BC Greek coins found in and around Karur arrived via direct Greek trade to South India that began with Eudoxus' voyage. He finds it 'implausible' to believe that the Greek coins appeared only during Roman trade with India.<sup>29</sup> Although Mitchiner agrees that the Phoenician coins are likely to have arrived in India prior to the Roman conquest of Egypt in 30 BC, he is more circumspect about the Hellenistic coins. He suggests that while some of the Hellenistic coins may have arrived with Phoenician traders, others may well have remained in

<sup>22</sup> Mitchiner, Coinage and History, p. 117.

<sup>23</sup> B. Chattopadhyaya, *Coins and Currency Systems in South India, c. AD 225-1300* (New Delhi, 1977), p. 117.

<sup>24</sup> Krishnamurthy, Late Roman Copper Coins, p. 4.

<sup>25</sup> Mitchiner, Coinage and History, pp. 122-3.

<sup>26</sup> Burnett, 'Roman coins', pp. 183, 187. For the seminar, see Editors' Note in Bopearachchi and Weerakkody (eds), *Origin, Evolution and Circulation*, p. v.

<sup>27</sup> D.W. MacDowall, 'Foreign coins found in India in view of the monetary systems operating in the countries of their origin', in D.W. MacDowall and A. Jha (eds), 4<sup>th</sup> International Colloquium, Nashik, Indian Institute of Research in Numismatic Studies, 8<sup>th</sup>-10<sup>th</sup> January (Nashik, 1995), pp. 9-14 at 13.

<sup>28</sup> R. Krishnamurthy, *Ancient Greek and Phoenician Coins from Karur, Tamil Nadu, India* (Chennai, 2009), pp. 73-4.

<sup>29</sup> D.W. Roller, 'A note on Greek coins from Tamilnadu', in *Numismatic Digest* 19 (1995), pp. 37-41 at 39-40.

circulation until they were shipped to India during the first and second centuries AD.<sup>30</sup> Burnett more convincingly argues that these coins arrived in South India and possibly Sri Lanka at the same time and in the same way as the LRB because they fit the profile of hoards found in the eastern Mediterranean that date to the later Roman empire.<sup>31</sup>

# 4. Future work

An in-depth study of the LRB coins found in South India is long overdue. Research is needed that takes into account, for example, the precise locations in which these coins were found, hoard compositions (where available), the archaeology and history of the region, and a comparison with the LRB coins found in Sri Lanka. It is moreover important to consider the history and coinage of the later Roman Empire in order to ascertain why particular issues appear to be better represented than others. Moorhead, for example, surmises that the presence of these LRB coins in South India and Sri Lanka might show the extension of the Mediterranean '*nummus* economy' to the region.<sup>32</sup> Burnett<sup>33</sup> and MacDowall<sup>34</sup> have raised important questions about the value of such coins within the Roman Empire and the effect of, for example, the decree of AD 396, recorded in the Theodosian Code (11.21.2), which stated that 25 pounds of bronze were valued at one gold solidus. A comparison of the LRB coins from South India and Sri Lanka with those found in, for example, Butrint, Egypt and other regions of the eastern Mediterranean would be helpful in determining whether the *nummus* economy did indeed stretch to South India and Sri Lanka.

The absence of a detailed and firmly established body of evidence makes it very difficult to move beyond these hypotheses. The current evidence suggests, however, that the LRB coins were indeed shipped from a region where their value was low (the Roman empire) to a region where their value was higher (India). It also seems reasonable to suggest that the coins may have functioned as convenient ballast used by merchants engaged in the Indo-Roman trade. Furthermore, while some LRB coins may have been valued for their metal value alone in South India, it is likely that they were used as currency in both South India and Sri Lanka. A detailed study of these coins will allow the wider implications of the trade to be evaluated. Such research would help illuminate the scale and duration of trading links between the Mediterranean world, South India and Sri Lanka, as well as provide a more detailed insight into the market for and consumption of Indian goods and commodities in both the Eastern and Western parts of the Roman Empire.

# APPENDIX: 70 IOLC Roman coins thought to have been acquired by Mackenzie in South India and/or Sri Lanka

<sup>&</sup>lt;sup>30</sup> Mitchiner, Coin Circulation, pp. 84-5; id, Coinage and History, pp. 110-14.

<sup>&</sup>lt;sup>31</sup> Burnett, 'Roman coins', p. 184.

<sup>&</sup>lt;sup>32</sup> T.S.N. Moorhead, 'The coinage of the later Roman Empire', in W. Metcalf, *The Oxford Handbook* of Greek and Roman Coinage (Oxford, 2012), pp. 601-32 at 624.

<sup>&</sup>lt;sup>33</sup> Burnett, 'Roman coins', p. 186.

<sup>&</sup>lt;sup>34</sup> MacDowall, 'Foreign coins found in India', p. 13.

No.	Date	Reverse Inscription	Reverse Type	Mint	Ruler	<b>Obverse Inscription</b>	Ref.	Freq.	IOLC
1	317-320	IOVI CONS-ERVATORI CAESS	Jupiter standing left.	Antioch	Licinius II	D N VAL LICIN LICINVS NOB C	RIC 29	1	4759
2	321-324	IOVI CONS-ERVATORI	Jupiter standing left.	Heraclea	Licinius I	IMP C VAL LICIN LICINIVS P F AVG	RIC 52	1	4758
3	335-337	GLOR-IA EXERC-ITVS	Two soldiers, one standard.	Alexandria	Constantius II	CONSTANTINVS IVN NOB C	<i>RIC</i> 66	1	4761
4	335-341	GLORIA EXERCITVS	Worn. Two soldiers, one standard (?).	ż	Constantius II	Illegible	ć	-	4760
5	347-348	VN-MR	Emperor standing right.	Constantinople	Constantine I	DV CONSTANTI-NVS PT AVGG	<i>RIC</i> 68	1	4762
6-8	347-348	VOT/XX/MVLT/XXX D N CONSTA-NS P F	Legend within wreath.	? Heraclea	Constans- Constantius II	D N CONSTAN-TINVS P F AVG	RIC 76, 47	ŝ	4763, 4764,
		AVG~VOT/XX/MVLT/ XXX							(Hera- clea) 4765
6	351-355	FEL TEMP- REPARATIO	Soldier advancing left, spearing falling horseman.	Heraclea	Constantius II	D N CONSTAN-TINVS P F AVG	RIC 90	-	4767
10-12	355-361	SPES REI-PVBLICAE	Emperor standing left.	Constantinople	Constantius II	D N CONSTAN-TINVS P F AVG	<i>RIC</i> 151	ε	4768, 4769, 4770
13	355-378	Illegible	i	ć	j	Illegible	ć	_	4795
14	366-367	SECVRITAS - REI PVBLICAE	Victory standing left.	Constantinople	Valens	DN VALENS - PF AVG	LRBC 2088	1	4774
15-16	366-367	SECVRITAS - REI PVBLICAE	Victory, wreath, palm.	Constantinople	Valentinian I	DN VALENTINI-ANVS PF AVG	LRBC 2087	2	4772, 4773
17	366-375	GLORIA RO- MANORVM	Emperor dragging captive right and holding	Constantinople	Valens	DN VALENS - PF AVG	<i>LRBC</i> 2086/2107	1	4771
18	378-383	CONCOR-DIA AVGGG	Roma seated, facing.	Constantinople	Gratian	DN GRATIA-NVS PF AVG	<i>LRBC</i> 2121	1	4776

reg. IOLC	4775	4780, 4786,	4787, 4784, 4781, 4778,	4787, 4784, 4781, 4782, 4778, 4779, 4779, 4779,	4787, 4784, 4781, 4782, 4778, 4779, 4779, 4779, 4778, 4788,	4787, 4784, 4781, 4781, 4782, 4779, 4779, 4788, 4788, 4777, 4783, 4777,	4787, 4784, 4781, 4782, 4778, 4779, 4779, 4779, 4788, 4788, 4788, 4789, 4789	4784, 4784, 4781, 4782, 4779, 4779, 4779, 4779, 4785, 4788, 4788, 4783, 4783, 4783, 4783, 4783, 4789	4784, 4784, 4781, 4782, 4779, 4779, 4776, 4785, 4788, 4788, 4788, 4789, 4789, 4789, 4723, 4723, 4723, 4723, 4723, 4723, 4723, 4723, 4723, 4723, 4723, 4723, 4779, 4779, 4779, 4779, 4778, 4779, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4778, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4770, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779, 4779,	4787, 4784, 4781, 4782, 4779, 4779, 4776, 4785, 4785, 4783, 4777, 4783, 4777, 4783, 4777, 4783, 4773, 4789         1       4785, 4773, 4783, 4773, 4789	4787, 4781, 4781, 4782, 4779, 4779, 4776, 4776, 4788, 4788, 4788, 4783, 4783, 4789, 4791, 4791,	4/87, 4781, 4781, 4782, 4779, 4779, 4776, 4785, 4777, 4788, 4788, 4788, 4777, 4789, 4789, 4791, 4791, 4794, 4794, 4794,	4787, 4781, 4781, 4782, 4779, 4779, 4776, 4785, 4777, 4788, 4777, 4788, 4777, 4789, 4771, 4789, 4791, 4794, 4794, 4794, 4794, 4798, 4802, 4803, 4803, 4803,
Ref. I	LRBC 2536 1	LRBC 8 2761ff., 8 2182	2183, 2184/2192, 2568ff.	2568ff. 2568ff. <i>LRBC</i> 2156 1	2568ff. 2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2568ff.,	2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2568ff., 2570/2578	2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2570/2578 2570/2578 1 <i>LRBC</i> 2183 1	2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2568ff. 2570/2578 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1	2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2568ff. 2570/2578 2570/2578 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2790 1 <i>LRBC</i> 2790 1	2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2568ff. 2568ff. 2570/2578 2570/2578 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2571 1 <i>LRBC</i> 2571 1 <i>LRBC</i> 2571 1 <i>LRBC</i> 2581, 2 2205	2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2570/2578 2570/2578 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2571 1 <i>LRBC</i> 2581, 2 <i>LRBC</i> 2581, 2 <i>LRBC</i> 2581, 2 <i>LRBC</i> 2794 6 <i>LRBC</i> 2794 7 <i>LRBC</i> 2794 7 <i>LRBC</i> 2794 7	2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2568ff. 2570/2578 2568ff. 2570/2578 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2571 1 <i>LRBC</i> 2581, 2 2205 <i>LRBC</i> 2581, 2 2205 <i>LRBC</i> 2205, 6 2797-2794	2568ff. 2568ff. 2568ff. <i>LRBC</i> 2156 1 <i>LRBC</i> 2185, 2 2568ff. 2568ff. 2570/2578 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2183 1 <i>LRBC</i> 2571 1 <i>LRBC</i> 2571 1 <i>LRBC</i> 2581, 2 2205 <i>LRBC</i> 2581, 2 2797-2794 6
<b>Obverse Inscription</b>	DN THEODO-SIVS PF AVG	Illegible		DN VALENTINIANVS PF	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG Illegible	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG Illegible Illegible AVG	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG Illegible DN THEODO-SIVS PF AVG DN HONORIVS PF AVG	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG DN ARCADIVS PF AVG Illegible DN THEODO-SIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG	DN VALENTINIANVS PF DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG Illegible DN THEODO-SIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG DN ARCADIVS PF AVG Illegible DN THEODO-SIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG	DN VALENTINIANVS PF AVG DN ARCADIVS PF AVG DN ARCADIVS PF AVG Illegible DN THEODO-SIVS PF AVG DN HONORIVS PF AVG DN HONORIVS PF AVG DN HONORI-VS PF AVG DN HONORI-VS PF AVG DN ARCADI / HONORIJ- VS PF AVG
Ruler	Theodosius I	Theodosius I		Valentinian II	Valentinian II Arcadius	Valentinian II Arcadius	Valentinian II Arcadius Maximian	Valentinian II Arcadius Maximian Theodosius I	Valentinian II Arcadius Maximian Theodosius I Honorius	Valentinian II Arcadius Maximian Theodosius I Honorius Honorius	Valentinian II Arcadius Maximian Theodosius I Honorius Honorius Arcadius- Honorius	Valentinian II Arcadius Maximian Honorius Honorius Arcadius- Honorius	Valentinian II Arcadius Maximian Theodosius I Honorius Honorius Honorius
Mint	Cyzicus	Antioch(2), Constantinople (4), Cyzicus(2)		¢.	? Constantinople (3), Cyzicus (2)	? Constantinople (3), Cyzicus (2)	<ul> <li>?</li> <li>Constantinople</li> <li>(3), Cyzicus (2)</li> <li>Constantinople</li> <li>(2), Cyzicus (2)</li> </ul>	? Constantinople (3), Cyzicus (2) (3), Cyzicus (2) (2), Cyzicus (2) Cyzicus	? Constantinople (3), Cyzicus (2) (3), Cyzicus (2) (2), Cyzicus (2) Cyzicus Antioch	? Constantinople (3), Cyzicus (2) (3), Cyzicus (2) Constantinople (2), Cyzicus (2) Cyzicus (2) Antioch	? Constantinople (3), Cyzicus (2) Constantinople (2), Cyzicus (2) Cyzicus Antioch ? ?	? Constantinople (3), Cyzicus (2) Constantinople (2), Cyzicus (2) Cyzicus Antioch ? ? Constantinople	? Constantinople (3), Cyzicus (2) Constantinople (2), Cyzicus (2) Cyzicus Antioch ? Constantinople
Reverse Type	Constantinopolis, globe, sceptre.	Victory, trophy, captive.		Legend within wreath.	Legend within wreath. Victory, trophy, captive.	Legend within wreath. Victory, trophy, captive.	Legend within wreath. Victory, trophy, captive. Victory, trophy, captive.	Legend within wreath. Victory, trophy, captive. Victory, trophy, captive. Emperor, labarum, globe.	Legend within wreath. Victory, trophy, captive. Victory, trophy, captive. Emperor, labarum, globe. Emperor to front.	Legend within wreath. Victory, trophy, captive. Victory, trophy, captive. Emperor, labarum, globe. Emperor to front. Emperor standing facing.	Legend within wreath. Victory, trophy, captive. Victory, trophy, captive. Emperor, labarum, globe. Emperor to front. Emperor standing facing.	Legend within wreath. Victory, trophy, captive. Victory, trophy, captive. Emperor, labarum, globe. Emperor to front. Emperor standing facing. Emperor standing facing.	Legend within wreath. Victory, trophy, captive. Emperor, labarum, globe. Emperor to front. Emperor standing facing. Emperor standing facing.
Reverse Inscription	CONCOR-DIA AVGGG	SALVS REI-PVBLICAE		VOT/X/MVLT/XX	VOT/X/MVLT/XX SALVS REI-PVBLICAE	VOT/X/MVLT/XX SALVS REI-PVBLICAE	VOT/X/MVLT/XX SALVS REI-PVBLICAE SALVS REI-PVBLICAE	VOT/X/MVLT/XX SALVS REI-PVBLICAE SALVS REI-PVBLICAE SALVS REI-PVBLICAE GLORIA ROMANORVM	VOT/X/MVLT/XX SALVS REI-PVBLICAE SALVS REI-PVBLICAE SALVS REI-PVBLICAE GLORIA GLORIA ROMANORVM ROMANORVM	VOT/X/MVLT/XX SALVS REI-PVBLICAE SALVS REI-PVBLICAE SALVS REI-PVBLICAE GLORIA ROMANORVM GLORIA ROMANORVM GLORIA ROMANORVM VIRTVS EXERCITI	VOT/X/MVLT/XX SALVS REI-PVBLICAE SALVS REI-PVBLICAE GLORIA GLORIA GLORIA GLORIA ROMANORVM GLORIA ROMANORVM VIRTVS EXERCITI VIRTVS EXERCITI	VOT/X/MVLT/XX SALVS REI-PVBLICAE SALVS REI-PVBLICAE SALVS REI-PVBLICAE GLORIA GLORIA GLORIA GLORIA GLORIA VIRTVS EXERCITI VIRTVS EXERCITI	VOT/X/MVLT/XX SALVS REI-PVBLICAE SALVS REI-PVBLICAE SALVS REI-PVBLICAE GLORIA GLORIA ROMANORVM GLORIA ROMANORVM GLORIA ROMANORVM VIRTVS EXERCITI VIRTVS EXERCITI
Date	378-383	27 383-392		383	383 383-392	383 33 383-392	383 383-392 383-392 383-393	383 383-392 383-392 383-393 383-393 393-395	383 33 383-392 383-392 383-393 393-395 393-395	383 383 383-392 383-393 383-393 393-395 393-395 393-395 393-395	383 383-392 383-392 383-393 393-395 393-395 393-395 393-395 44 395-401	383         383           383         383-392           383-392         383-392           383-395         393-395           393-395         393-395           393-395         393-395           44         395-401	383       383       383       383-392       383-393       383-395       393-395       393-395       393-395       393-395       14       395-401
No.	19	20-2		28	28 29-3	28 29-3	28 29-3 34	28 29-3 34 35	28 29-3 34 35 36	28 29-3 34 36 37-3	28 29-3 34 35 35 37-3 39-4	28 29-3 36 37-3 39-4	28 29-3 35 36 37-3 39-4

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## SUSHMA JANSARI

No.	Date	<b>Reverse Inscription</b>	Reverse Type	Mint	Ruler	<b>Obverse Inscription</b>	Ref.	Freq.	IOLC
45	395-401	VIRTVS EXERCITI	Emperor with spear and shield, on horseback.	Nicomedia	Arcadius- Honorius	DN ARCADI-VS PF AVG	LRBC 2440	1	4800
46-48	395-401	VIRTVS EXERCITI	Emperor standing facing.	Constantinople	Arcadius	DN ARCADI-VS PF AVG	LRBC 2205	c,	4792, 4793, 4799
49	395-401	VIRTVS EXERCITI	Emperor standing facing.	Constantinople	6	DN [ARCADI / HONORI]- VS PF AVG	LRBC 2205	1	4827
50	395-408	CONCORDIA AVGG	Constantinopolis seated facing.	Constantinople	6	Illegible	LRBC 2210	1	4796
51	395-409	CONCOR-DIA AVGGG or CONCORDIA AVGG	Roma seated facing.	Constantinople	6	Illegible	<i>LRBC</i> 2121/2210	1	4797
52-60	406-408	GLORIA	Three emperors standing,	ć	ć	Illegible	LRBC 2801-	6	4805,
		KOMANOKVM	tacıng.				2804, 2214		4806, 4807,
									4808,
									4809,
									4010, 4811,
									4812, 4825
61	408-423	GLORIA ROMANORVM	Two emperors standing, facing.	ć	Theodosius II	DN THEODO-SIVS PF AVG	LRBC 1876	1	4813
62	423-425	SALVS REI-PVBLICAE	Victory advancing to the left.	Rome	Iohannes	D N THEODOSI-VS P F AVG	<i>RIC</i> 1912ff.	1	4814
63-64	425-435	Illegible	Cross in wreath.	Eastern	Theodosius II	D N THEODOSIVS P F	RIC 440ff.	1	4815,
				(Thessalonica,		AVG			4816
				Heraclea,					
				Constantinopre, Nicomedia.					
				Cyzicus, Antioch					
				or Alexandria)					

ЙО.	Date	<b>Reverse Inscription</b>	Reverse Type	Mint	Ruler	<b>Obverse Inscription</b>	Ref.	Freq.	IOLC
65	457-474	Illegible	Leo I's regular Latin	Heraclea	Leo I	D N LE-ON VG	RIC 682ff.	1	4817
			monogram within						
			wreath.						
66	565-578	Illegible	ż	ż	Justin II	Illegible	<i>DOC</i> I 60a	1	4823
67-70	4thC-	Illegible	i	ż	j	Illegible	ż	4	4818,
	5thC								4819,
									4820,
									4821

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