Here I will publish a catalogue of joint Aksumite and Roman gold find spots for Aksumite gold coins in Yemen as a brief listing, little data is available for the Roman coins of the al-Madhārība hoard: there were not even images of them in the publication. Similar material does exist, however, and I will use this to discuss wider questions of the use of Aksumite and Roman gold coins in Yemen. The evidence so far indicates that although Aksumite and Roman coins were hoarded together in Yemen, their circulation and use beforehand were very different.

My paper therefore sets out the nature of the evidence so far for the connection (or lack thereof) between the two states’ gold coins, through both weight standard and find spot. I will then present new evidence for the interaction of gold coins in Yemen, building on Munro-Hay, with further information on coins donated to the British Museum in 1904, and the publication of coins brought to the British Museum for identification in 2007. These groups will also be compared to the Aksumite and Roman gold coins from Yemen in the Kunsthistorisches Museum from DH Muller’s 1898-99 expedition (cf. Hahn 2000: 285). I will then conclude by discussing the function of gold coins in Yemen in the 6th century CE, and the possible uses for Aksumite and Roman gold in this system. I will also explore links to similar coins found in India to enhance the picture of gold coin movement and use throughout the Indian Ocean area in the 6th century CE.

I will firstly outline the theory that there was a relationship between Aksumite and Roman gold coins, which has been widely accepted, especially in dating the beginnings of Aksumite coinage (see below). There are a number of aspects of the argument which do not stand up to scrutiny. It has been assumed that Aksumite gold coins initially followed a Roman gold coin weight standard, but it has never been clearly demonstrated nor why the Aksumite administration might have done so. I will summarise the arguments below and then take a fresh approach to the practicalities of such a linked system.

Aksumite and Roman gold coins have been linked through their joint find spots. There is a variety of evidence concerning coin finds from Yemen, including unpublished material. An examination of find spots for Aksumite gold coins in general, and Roman gold coins in Ethiopia, Eritrea, and India, as well as Yemen, will lead into a discussion of mixed groups of Aksumite and Roman coins. Here I will publish a catalogue of joint Aksumite and Roman gold coin finds from a private collection (Private 2007), the British Museum (BM 1904), and the Kunsthistorisches Museum (KHM 1904).

My presentation of the coin evidence will lead into a discussion of the clearly different treatment of Aksumite and Roman coins in Yemen. The history of coin use in Yemen indicates an unusual relationship with coinage. In the 6th century CE, this includes imitation coins and graffiti (or scratch-marks). The use of graffiti/scratching is peculiar: the evidence shows that there is something methodical occurring probably in the area around modern Aden at this period. There is also one example of deliberate defacement, possibly in connection with the invasion of the Aksumite king Kaleb in defence of Christians in the area in 520 CE. All of this unusual activity is restricted to the Roman coins found alongside Aksumite coins. The finds of late Roman and Aksumite gold coins in India become clearer in this context, as events in 6th century Yemen are likely to have had a causal effect on the number of these coins coming to India.

Finally, I will argue that although there is an association in find spot for Aksumite and Roman gold coins, this does not mean that there is a political (or economic) connection through weight standard or circulation. In fact, the demonstrably different treatment of Aksumite and Roman coins in Yemen indicates that their circulation and use were distinct until the upheavals of the 6th century CE. At this point, the Aksumite and Roman gold coins were united in hoards. There are difficulties in sourcing information about Aksumite and Roman coins from Yemen, and it is likely that hoards have been broken up and sold internationally. My paper looks in detail at the condition of coins with a known Yemeni provenance, and a group which I attribute to Yemen. The methods which I use can be used in future to analyse possible Yemeni provenances for coins which currently lack context.

Note: I will use Munro-Hay/Juel-Jensen 1995a references throughout the catalogue, hereafter ‘MH’. Although there have been a number of changes to the attribution and chronologies of Aksumite coins (cf. Hahn 2000 for another numbering system; Hahn/West 2016: 17 for a concordance of MH and Hahn 2000 numbers), the purpose of this article is to examine joint finds of Aksumite and Roman coins in Yemen, their possible circulation there, and treatment. I will not therefore comment further on chronology or attribution since any questions on these aspects do not affect the conclusions of my study.

The Weight Standards of Aksumite and Roman Gold Coins

Munro-Hay is the strongest proponent of a link between Aksumite and Roman weight standards, which has been influential in thinking about the production of Aksumite coinage and its relationship with Roman coinages (MH: 36-37; cf. Phillipson 2012: 283). More recently however, Hahn (2000: 289-291) has modified and questioned the weight standard argument. Phillipson (2012: 183) has also cast some doubt on precise moments of standard change in Aksumite coins, suggesting that ‘the inferences drawn are best regarded as hypothetical pending further evidence’ (Phillipson 2012: 183 n10). Modifications have centred on the moments of change in the weight standard of Aksumite coins, rather than questioning the central point that the Aksumites drew inspiration from Roman coins. The same presumption that Aksumite coinage is initially based on Roman weight standards has continued to apply in publications up to the present day (cf. Hahn/West 2016).

The only scholar to suggest that the link between Aksumite and Roman weight standards be questioned is Darley in her unpublished thesis (2013). In particular, Darley (2013: 191) suggests that given the proprietary approach the Romans took to gold coinage, the fact that Aksum minted in gold from the beginning suggests that they were not as politically or economically close to Rome as some have suggested. Further, Darley cautions against seeing Aksumite coinage purely in relation to Rome (192). This is a wise starting point to look at the supposed links afresh.

There are two separate questions to consider: 1) Did the Aksumites start out with the same weight standard as contemporary Roman coinage? 2) Did the Aksumites shift their weight standard to reflect Roman changes? These questions are not necessarily connected. The exact weight standard for gold coins at different periods in Aksum is difficult to pin down due to the paucity of examples for many of the kings (see estimates in Hahn 2000: 288-289).
The supposed shift in the Aksumite weight standard is particularly problematic: it is unclear when the shift happens and, practically speaking, the supposed match in the weight standards is neither exact nor particularly useful. Firstly, it is clear from the weight data available that the gold standard began to decline under Ousanas and continued under Ezana, thereafter levelling off. There is therefore no abrupt change to the weight standard, which one might expect if the Aksumite kings were following a Roman policy (cf. Hahn 2000: 290).

Secondly, the final coin minted under the Christian Ezana is the coin that corresponds to the ‘9 siliqua piece’ identified by Munro-Hay/Juel-Jensen (MH: 36). The shift to a lighter weight standard under Ezana is, however, linked to a theoretical weight of 1.65 g for 9 siliquae. Therefore, the Roman coins which were actually produced were solidi with a weight of 4.5 g under Constantine. There were 24 siliquae in a solidus and therefore, theoretically, 9 siliquae were 1.65 g. This does not seem so far off the average Aksumite gold coin of 1.60g. However, multiplied up to make a full Aksumite solidus the Aksumite weight standard would deliver a coin of around 4.26g. There also would not be a full number of Aksumite coins to make a solidus’ worth – it would be 2 2/3 coins. This looks much further away from a usable (and comparable) exchange in the weight standard. If the 9 siliqua equivalence had been chosen deliberately then it is hard to see why as for practical use it is most inconvenient. It would certainly not make Aksumite coins ‘freely convertible’ against Roman coins (cf. Finneran 2007: 205). If the equivalence was deliberately chosen for reasons other than practical ones it would have been extremely obscure and unclear who the intended audience was. To make the coins comparable they would have to be weighed so it is hard to see the reason for the same theoretical weight standard. I think it is therefore clear that Aksumite gold coins did not track the weight standard of Roman gold coins, though the issue of the initial weight standard needs more data to be resolved.

We do not know much about the internal affairs of the Aksumite kingdom. However, the final settling of the reduced weight standard comes towards the end of Ezana’s reign. We certainly know that this was a period of change in the kingdom as the state adopted Christianity as the official religion (cf. Phillipson 2012: 111-118). It is therefore possible that other administrative reforms took place at this time, possibly due to additional expenses involved in the changeover of the state’s apparatus with the new religion. The reduction in weight standard does not appear to be linked, directly at least, to the reduction in gold content of the coins. The decline of gold content in Aksumite coins was steady throughout their production and is indeed one of the methods used to determine the chronology of that production. Whether the Aksumite administration began their coinage at the same weight standard as Roman coinage or not, they do not appear to have used weight standard as part of any joint economic system. It remains possible that Aksumite and Roman coins operated together in some way other than simply as bullion: whether these factors are post-production or by design remains unclear.

**Coin Evidence**

The most influential of joint Aksumite and Roman coin finds is the al-Madhāriba hoard (Munro-Hay 1989), but there are also individual finds of Aksumite gold coins in Yemen, and other finds of Aksumite and Roman coins together in Yemeni contexts. In the early 6th century CE Yemen was not under Roman or Aksumite control. Brief Aksumite control only came after King Kaleb’s invasion of c. 520 CE and continued under his viceroy for only about five years. If one sets aside the assumption that the coins must be operating on the same weight standard and so likely to be circulating together, then joint finds should be re-assessed to see what can be said about the association of Roman and Aksumite coins at this period.

I shall present here the find spots for Aksumite gold coins and how the discovery of the al-Madhāriba hoard has affected our view of the circulation of these coins. I shall present an overview of the evidence for Roman gold coins in Ethiopia, Eritrea, Yemen, and further east in order to frame the context for the movement of gold coins in this region. I will also present here mixed coin groups from Yemeni contexts: firstly those which were donated to the British Museum in 1904 (BM 1904), only briefly and partially published by Munro-Hay (1989a: 83-84); the coins acquired in Aden by DH Müller during an expedition of the Austrian Academy of Sciences to Yemen in 1898/99 and sold to the Kunsthistorisches Museum in 1904 (KHM 1904) (cf. Hahn 2000: 285 incl. note 12); and finally, coins brought for identification to the British Museum in 2007 (Private 2007), hitherto unpublished.

**Find Spots of Aksumite and Roman Gold Coins**

At first glance there are significant differences between the production and circulation of Aksumite gold coins and that of
Aksumite silver and bronze coins. Firstly, although all Aksumite coins were first inscribed in Greek, under subsequent kings Greek was used on the gold coins alone while Ge’ez (the local language of Aksum) was used on silver and bronze coins. Ge’ez was only finally used on gold coins under the reign of Gersem (c. 600 CE), the last Aksumite king to strike in gold. Secondly, the find spots for gold coins are mainly outside Ethiopia and predominantly in Yemen. Silver and bronze coins are mainly found in northern Ethiopia, Eritrea, and Egypt. Together these differences have been used to demonstrate that Aksumite gold coins were produced specifically for trade purposes, unlike the more locally circulating silver and bronze coins (cf. Finneran 2007: 205; Phillipson: 2012: 74).

This picture of Aksumite gold coins today is heavily influenced by the discovery of the al-Madhāhrāba hoard in Yemen (Munro-Hay 1989a). Before the discovery of this hoard, the find spots for Aksumite gold coins were fairly evenly spread between Ethiopia/Eritrea and South Arabia.

A good way to illustrate this point is to look at the find spots described by Anzani (1926) and to see what effect the al-Madhāhrāba hoard has on the picture. Of the 157 gold coins listed by Anzani, 115 have find spots. All of these find spots are either in South Arabia or in areas once part of the Aksumite kingdom (Ethiopia and Eritrea).

![Note: Diagram showing the distribution of find spots of Aksumite gold coins according to Anzani (1926).](Image)

**Fig. 2. Distribution of find spots of Aksumite gold coins according to Anzani (1926)**

The split between find spots recorded in Anzani is roughly equal. Of the 115 gold coins with find spots listed by Anzani (1926), 53 were found in Ethiopia or Eritrea, while 62 had Arabian, mostly Yemeni, provenances. This even split was drastically altered by the discovery of the al-Madhāhrāba hoard. The 868 Aksumite gold coins in the hoard now give the impression, as Munro-Hay himself stated, ‘all gold Aksumite coins with any provenance come from South Arabia’ (1991c: 411). This statement is far too sweeping – it is not clear whether the al-Madhāhrāba hoard was an anomaly or whether larger gold finds might be made in Ethiopia or Eritrea. Over the last hundred years or so there has been a more regular discovery of gold coins in Ethiopia or Eritrea: for example, the excavations by Partbeni in 1908 at Adulis which uncovered 42 Aksumite gold coins (Casson 1981: 114).

The weight given by the al-Madhāhrāba hoard to a predominantly Yemeni origin for Aksumite gold coin finds also appears to be supported by the provenance of gold coins in major public collections. Find spots are recorded for a number of Aksumite bronze and gold coins in the British Museum collection, for example:

**Table 1: Find spots of Aksumite bronze coins in the British Museum**

<table>
<thead>
<tr>
<th>BM Registration Number</th>
<th>Authority/Metal</th>
<th>Findspot</th>
<th>BM Catalogue Number (Munro-Hay 1999)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1915,0205.1</td>
<td>Joel AE</td>
<td>Aden</td>
<td>452</td>
</tr>
<tr>
<td>1925,0902.2</td>
<td>Hātaz AE</td>
<td>Eritrea</td>
<td>529</td>
</tr>
<tr>
<td>1869,0101.1</td>
<td>Armah AE</td>
<td>Ethiopia</td>
<td>572</td>
</tr>
<tr>
<td>1933,0106.85</td>
<td>Anon AE</td>
<td>Dalmatia</td>
<td>-</td>
</tr>
<tr>
<td>1934,0903.60</td>
<td>Anon AE</td>
<td>Gaza</td>
<td>-</td>
</tr>
<tr>
<td>1869,0101.3</td>
<td>Ousanas AE</td>
<td>Ethiopia</td>
<td>41</td>
</tr>
<tr>
<td>1926,0108.82</td>
<td>Ezanas AE</td>
<td>Qaw el-Kebir (Upper Egypt)</td>
<td>68</td>
</tr>
<tr>
<td>1926,0108.83</td>
<td>Anon (time of Ezana) AE</td>
<td>Qaw el-Kebir (Upper Egypt)</td>
<td>91 (mistakenly listed as 83 in catalogue)</td>
</tr>
<tr>
<td>1868,1242.1</td>
<td>Anon (time of Ezana) AE</td>
<td>Lake Ashangi (Ethiopia)</td>
<td>90</td>
</tr>
<tr>
<td>1868,1219.1</td>
<td>Ouazebas AE</td>
<td>Adulis</td>
<td>247</td>
</tr>
<tr>
<td>1925,0902.1</td>
<td>MHDYS AE</td>
<td>Eritrea</td>
<td>293</td>
</tr>
<tr>
<td>1869,0101.2</td>
<td>Anon (time of Ebana) AE</td>
<td>Ethiopia</td>
<td>322 (mistakenly listed as 1896,0101.2)</td>
</tr>
</tbody>
</table>

Table 2: Find spots of Aksumite gold coins in the British Museum

<table>
<thead>
<tr>
<th>BM Registration Number</th>
<th>Authority/Metal</th>
<th>Findspot</th>
<th>BM Catalogue Number (Munro-Hay 1999)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1915,0108.81</td>
<td>Ezana AV</td>
<td>Aden (300 km north of)</td>
<td>75</td>
</tr>
<tr>
<td>1915,0108.78</td>
<td>Eon AV</td>
<td>Aden</td>
<td>290</td>
</tr>
<tr>
<td>1908,1006.6</td>
<td>Eon AV</td>
<td>Aden</td>
<td>391</td>
</tr>
<tr>
<td>1904,0404.1</td>
<td>Ebana AV</td>
<td>Aden (200-300 miles north of)</td>
<td>303</td>
</tr>
<tr>
<td>1870,0301.1</td>
<td>Ebana AV</td>
<td>Aden</td>
<td>304</td>
</tr>
<tr>
<td>1915,0108.79</td>
<td>Ebana AV</td>
<td>Aden</td>
<td>305</td>
</tr>
<tr>
<td>1872,0507.1</td>
<td>Ebana AV</td>
<td>Aden</td>
<td>306</td>
</tr>
<tr>
<td>1925,0805.1</td>
<td>Ebana AV</td>
<td>Aden</td>
<td>307</td>
</tr>
<tr>
<td>1915,0108.80</td>
<td>Kaleb AV</td>
<td>Aden</td>
<td>408</td>
</tr>
</tbody>
</table>

There are historic links between the United Kingdom and Yemen and it is highly likely that these links distort the picture of find spots of coins held in the British Museum. Similarly, Oxford’s connection to Ethiopia, through the charity Oxfam, is made clear by the gold coin of Endubis found at Aksum in the Ashmolean collection. This was donated by Ras Mengesha Seyo, governor-general of Tigray Province, to Oxfam and subsequently lent to the Ashmolean in 1968 (West 2002: 10 no 1; 28). Therefore it is essential not to treat a single source of information as a random sample. The picture is further affected by the interrupted nature of excavations in Ethiopia, Eritrea, and Yemen due to regional instability.

Roman gold coins have been found in Ethiopia, Yemen, and India. In Ethiopia, Roman coins have been found separately from Aksumite coins and the date of their deposition is unclear (see MH: 34). Coins from the Antonines to theodosius II are found in ‘several places in Aksumite Ethiopia and Aksum-dominated southern Arabia’ (cf. Phillipson 1999: 63-64 and 71). Roman coins have been found in Yemen, but as with other ‘foreign’ coins, the reported finds are few and far between (cf. Munro-Hay 1991c: 411; Potts 2010: 66-68). The best and largest known exception is the al-Madhāhrāba
hoard. This is a mixed Aksumite and Roman gold hoard and the groups I will discuss below have similar compositions. There are other hints, however, that more Roman (and Aksumite) gold coins were found in Yemen, but not recorded as local finds. For example, Kaiky Munchejee (or Muncharjee) (1873–1955) was an Indian trader resident in Aden who built up a large collection of South Arabian antiquities, most of which eventually went to the Aden Museum. Sidebotham (1986: 19 n18; cf. Jamme 1955) reports that there are Roman gold coins in the Munchejee collection: four coins of Constantius II, coins of Jovian and Valentinian, and one smaller unidentified gold coin, which is probably an aureus of the 1st century CE. Anzani (1926) lists Aksumite coins from the Munchejee collection – exclusively gold and from the reigns of Ezana-Kaleb (see Anzani 1926: nos. 43, 102, 106, 121, 126, 129, 188, 190). Although Anzani only lists one coin (no. 43, Ezana) as from ‘Arabia Meridionale’, it is probable that Munchejee formed his collection in Aden from local finds given the nature of his broader collection.

Roman gold coins are found in India. The peaks of Roman gold coin finds in India are in the 1st–2nd centuries CE, tailing off by the time of Caracalla (died 217 CE) and resuming again from the mid-4th century CE (cf. Falk 2015:109). Although this general pattern of finds has not changed since Sewell’s listing (1904), further finds have not been reported to fill out the picture. Turner (1989) lists all the finds up to the emperors of the 3rd century CE known up to 1980s and the late Roman coins are listed by Darley (2013: Appendix 1). The late Roman coins in the Akki Alur hoard and held at the Madras Government Museum are particularly significant (cf. Darley 2013: 281-284), as is the joint late Roman and Aksumite ‘Mangalore’ hoard (Nawartmal 1998).

I will now summarise the evidence for mixed Aksumite and Roman gold coin finds in Yemen. The al-Madhārība hoard has already been fully published, although details of the Roman coins are not as full as those of the Aksumite coins in the hoard. A catalogue is available in Munro-Hay (1989a) and will not be repeated here. I will however catalogue the Aksumite and Roman groups in the collection of the British Museum (BM 1904) and recorded there (Private 2007), and in the Kunsthistorisches Museum, Vienna (KHM 1904). This will facilitate a full discussion of these joint finds following the catalogue. The evidence I will present below offers a more nuanced approach to Aksumite gold coins. The idea that they were purely for the ‘export market’ can be challenged if the context of their movement and association with Roman gold coins is fully understood.

The al-Madhārība Hoard

The al-Madhārība hoard, published by Munro-Hay (1989a), contained a mixture of Aksumite gold and Roman solidi, totalling 1,194 coins: 868 Aksumite and 326 Roman coins. It was found approximately 70 km west of Aden, supposedly in a clay pot which was not preserved, and the hoard was deposited at the National Museum in Aden. Munro-Hay describes it as the first recorded joint find of Aksumite and Roman coins together (1989a: 83). The composition of the hoard ranged from Ezana (c. 340 CE) to Kaleb (c. 520 CE) and Constantiius II as Caesar (from 324 CE) to Theodosius II (408-450 CE). Of particular note are the 538 coins of Ebana (c. 450 CE), which vastly increased the number of examples known of this king.

The hoard represents the largest number of Aksumite gold coins found together and its scale changed the picture of gold findspots presented by Anzani (1926), as noted above. The al-Madhārība hoard means that the roughly equal split between African and Arabian provenances is now very heavily skewed to Yemen. It is not clear how representative this single find is, especially since reporting of hoards may not be reliable under present political circumstances in Yemen. Hahn (2000:285) notes that the large numbers of later Aksumite gold coins appearing on the market in recent years may well have come from hoards like the al-Madhārība hoard.

The extraordinary number of Aksumite coins in the al-Madhārība hoard has meant that commentary focuses on the Aksumite coins and not on the Roman solidi. Unfortunately, Munro-Hay only published a brief listing of the Roman coins without any photographs. However, it is useful to look at the coins as a group as this may offer some information about why such coins were hoarded together.

Munro-Hay was not correct to state that the al-Madhārība hoard was the first recorded find of Aksumite and Roman coins together. He acknowledged himself later in the publication (1989a: 87) that DH Müller sold a similar group to the Kunsthistorisches Museum in 1904 (cf. Hahn 2000: 285). Similarly, Munro-Hay’s reference to the coins donated to the British Museum in 1904 (1989a: 83-84) is only partially correct as he missed the solidus of Constantius II from the group. In the following sections I shall present the previously known two groups of Aksumite and Roman gold coins at the British Museum and Kunsthistorisches Museum, and add another group recorded in recent years at the British Museum. These three groups of associated Aksumite and Roman gold coins will then be discussed in the context of the al-Madhārība hoard.

Coins Donated to the British Museum by Ali Farah in 1904 (BM 1904)

In 1904 Ali Farah, of the Eastern Telegraph Company, Aden, donated three gold coins to the British Museum: one Aksumite coin of Ebana, one imitation of a solidus of Constantius II, and a solidus of Constantius II minted in Arles. On 2nd May 1904, Barclay V Head recorded Ali Farah’s donation of April 1904 and this was marked out for ‘Special Thanks’. The archive of Cable and Wireless is held at the ‘Telegraph Museum, Porthcurno, and contains the records of companies, including the Eastern Telegraph Company, which were subsumed into Cable and Wireless. According to the archive an ‘A Farrah’ entered service at Aden in December 1890, attaining a senior role in December 1892, and remained employed until his death in June 1909 (details supplied by Dr Jenny Lee, Collections Manager). Although there is a discrepancy in the spelling of ‘Farah/Farrah’ it is probable that it is the same individual.

All three coins were said to come from Yemen: the registers state that the Aksumite coin (1904,0404.1) was from ‘200-300 miles north of Aden’, and the other two (1904,0404.2-3) were ‘from the hinterland of Aden’. Confusingly there is also a note on the ticket with 1904,0404.3 stating that the coin was found in the ‘same district as Aksumite coin from same donor’. It is therefore likely that all three coins came from the same area, but were not necessarily part of a hoard when Ali Farah acquired them. Munro-Hay (1989a: 83-84) only refers to the coin of Ebana and the imitation: I cannot find a publication reference for the genuine coin of Constantius II. It is probable that the coins, separated into the groups I will discuss below have similar compositions. There are three groups of associated Aksumite and Roman gold coins will then be discussed in the context of the al-Madhārība hoard.

Ebana 450-500 CE

Type: MH 71

Obverse: Bust of Ebana right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses +CNH+CAF+ACA+CAC

Reverse: Bust of Ebana, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ANA+BBC+ACA+CBC.
**Coins Sold by DH Müller to the Kunsthistorisches Museum in 1904 (KHM 1904)**

DH Müller led an expedition of the Austrian Academy of Sciences to Yemen in 1898/1899 (cf. Sturm 2015; Macro 1993) and acquired a group of 35 gold Aksumite and Roman coins in Aden. He subsequently sold the coins to the Kunsthistorisches Museum in 1904. The 31 Aksumite coins have been noted previously, particularly in comparison to the al-Madāhīrība hoard. Munro-Hay (1989a: 87) mentions this group as part of a hoard, but only mentions the Aksumite coins and notes the similarity of composition of the Aksumite material to the al-Madāhīrība hoard. Munro-Hay uses the KHM 1904 group to support the idea that the al-Madāhīrība hoard was probably buried in the mid-6th century during the upheavals of Kaleb’s invasion. Similarly Hahn (1984: 131) only refers to the 31 Aksumite coins in the group and later (2000: 285) notes the Aksumite coins while comparing the composition to the al-Madāhīrība hoard and only mentions the four Roman coins in a footnote (n. 12).

Although there are only four Roman coins in this group, they are important for analysing the use of Roman coins in Yemen. Two of the coins are less worn than other examples and display fewer scratch-marks, while one example is heavily scratched and the images defaced. Looking at the Roman material of the KHM 1904 group adds much to the understanding of gold coin use and circulation. Many of the Aksumite coins are illustrated in Munro-Hay/Juel-Jensen (1995a) but there are a few misplaced images in their plates. I have noted this in the catalogue below where relevant.

**Ezana c. 340-360 CE**

**Type: MH 49**

Obverse: Bust of Ezana, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses +HZA+NAB+ACI+ΛEV

Reverse: Bust of Ezana, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ΑΛΗΝ+ΑΣΩ+ΜΙΤΒ+ΙCI

**Eon c. 400 CE**

**Type: MH 59**

Obverse: Bust of Eon, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses +CAC+CIN+CA+ΛΑΦ

Reverse: Bust of Eon, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ΕΨΝ+ΒΙΣ+ΙΑΝ+ΑΛΦ

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1. AV, BM 1904.0404.1, 1.58 g, 12.00, 17 mm (obv. Ebana holds sceptre; in inscription, Ge’ez N; above head, H (South Arabian letter Z); BMCAK 303)

**Constantius II 337-361 CE**

Imitation of Mint: Constantinople (15th March 351-6th November 355)

**Type: RIC VIII 96?**

Obverse: *FL IVL CONSTANTIVS PERPV AVGV*. Constantius II facing and cuirassed; wearing crested and diademed helmet, spear diagonally over right shoulder; on left arm shield decorated with horseman riding down enemy

Reverse: *GLORIA – REI – PVBLICAEE – CONS*. Roma and Constantinopolis enthroned, the former facing, the latter turned to the left. Between them they support a shield inscribed *[VOT/XXX/MMVT/XXX]*. Roma holds spear in left hand; Constantinopolis holds sceptre in left hand and rests right foot on a prow

2. AV, BM 1904.0404.2, 3.66 g, 6.00, 20 mm (obverse inscription scrambled; reverse inscriptions scrambled)

**Mint: Arles 233 (6th November 355-Spring 360)**

**Type: RICVIII 233**

Obverse: *FL IVL CONSTANTIVS PERPV AVGV*. Constantius II facing and cuirassed; wearing crested and diademed helmet, spear diagonally over right shoulder; on left arm shield decorated with horseman riding down enemy

Reverse: *GLORIA – REI – PVBLICAEE – CONS*. Roma and Constantinopolis enthroned, the former facing, the latter turned to the left. Between them they support a shield inscribed *[VOT/XXX/MMVT/XXX]*. Roma holds spear in left hand; Constantinopolis holds sceptre in left hand and rests right foot on a prow

3. AV, BM 1904.0404.3, 3.67 g, 11.00, 20 mm (11 scratches on obverse)
5 AV, KHM GR 31260, 1.58 g, 12.00, 17 mm
6 AV, KHM GR 31272, 1.60 g, 11.00, 16 mm
7 AV, KHM GR 31280, 1.59 g, 12.00, 16.4 mm

Anonymous c. 400–450 CE

Type: MH 63

Obverse: Bust of Aksumite king, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses +CAC+CIN+CAX+ACA

Reverse: Bust of Ebana, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +AN+A+BAC+

8 AV, KHM GR 31257, 1.5 g, 1.00, 16.9 mm
(This KHM accession number used for an example of Kaleb MH 107)

Ebana c. 450 CE

Type: MH 71

Obverse: Bust of Ebana, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +CIN+CAX+ACA+CAC

9 AV, KHM GR 31259, 1.53 g, 11.00, 17.1 mm
10 AV, KHM GR 31261, 1.50 g, 11.00, 16.5 mm
11 AV, KHM GR 31262, 1.57 g, 12.00, 16 mm
12 AV, KHM GR 31267, 1.61 g, 12.00, 16.8 mm
13 AV, KHM GR 31274, 1.50 g, 11.00, 15.6 mm
Obverse: Bust of an Aksumite king, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +CIN+CAX+ACA+CAC

Reverse: Bust of an Aksumite king, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ANA+CAC+ACA+CAC

Anonymous (under Ebana) c. 450 CE

Type: MH 71

Obverse: Bust of an Aksumite king, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +CNI+CAX+ACA+CAC

Reverse: Bust of an Aksumite king, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +CYN+CAX+ACA+CAC

Anonymous (under Ebana) c. 450 CE

Type: MH 82

Obverse: Bust of Nezool, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ΘΕΟΥ ΥΧΑΡΙ ΤΙΑ

Reverse: Bust of Nezool, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +BACILEYNEZOWA

Anonymous (under Ebana) c. 450 CE

Type: MH 73

Obverse: Bust of an Aksumite king, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat stalks, in a
**Ousas c. 500 CE**

*Type: MH 85*

**Obverse:** Bust of Ousas, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses +OYCACB+ACIAEYC

**Reverse:** Bust of Ousas, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ΘΕΟΥΕΥΧΑΡΙΤΙΑ

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**Ousanas c. 500 CE**

*Type: MH 87*

**Obverse:** Bust of Ousanas, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses +OYCANACBACIAEYC

**Reverse:** Bust of Ousanas, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ΘΕΟΥΕΥΧΑΡΙΤΙΑ

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**Kaleb c. 500-520 CE**

*Types: MH 92-106*

**Obverse:** Bust of Kaleb, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses XΑΗΒΒΑCIAEYC (variants of)

**Reverse:** Bust of Kaleb, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses YIOCΘEZENA (variants of)
29 AV, KHM GR 31264, 1.58 g, 1.00, 16.8 mm, MH 103?

30 AV, KHM GR 31265, 1.56 g, 12.00, 16.9 mm, MH 100

31 AV, KHM GR 31269, 1.56 g, 12.00, 17.1 mm, MH 99

32 AV, KHM GR 31270, 1.57 g, 11.00, 17.2 mm, MH 106

33 AV, KHM GR 31271, 1.5 g, 11.00, 17.3 mm, MH 99

34 AV, KHM GR 31273, 1.55 g, 11.00, 17.3 mm, MH 106

### Constantius II 337-361 CE

**Mint: Antioch (Late 347-6th November 355)**  
**Type: RIC VIII 83**

**Obverse:** FL IVL CONSTANT—TIVS PERP AVG. Constantius II draped and cuirassed, pearl diademmed  
**Reverse:** GLORIA – REI – PVBLICA E – SMANS/SMANH. Roma and Constantinopolis enthroned, the former facing, the latter turned to the left. Between them they support a wreath inscribed VOT/XXX/ MVLT/XXXX. Roma holds spear in left hand; Constantinopolis holds sceptre in left hand and rests right foot on a prow

35 AV, KHM RÖ 35946, 4.55 g, 11.00, 21.6 mm (SMANS)  
**NB** This coin is not the original Müller coin, but is believed to be the same type (K Vondrovec, pers comm). The state of wear or scratching on the original coin is not known: it was exchanged for the coin which is now in the KHM RÖ 35946 with the Bachofen collection in the early 20th century.

36 AV, KHM RÖ 35947, 4.41 g, 5.00, 20.9 mm  
(oververse: 11 scratches) (SMANH)

**Mint: Antioch (6th November 355-3rd November 361)**  
**Type: RIC VIII 162**

**Obverse:** FL IVL CONSTAN—TIVS PERP AVG. Constantius II facing and cuirassed; wearing crested and diademmed helmet, spear diagonally over right shoulder; on left arm shield decorated with horseman riding down enemy  
**Reverse:** GLORIA – REI – PVBLICA E – SMANH. Roma and Constantinopolis enthroned, the former facing, the latter turned to the left. Between them they support a wreath inscribed VOT/XXX/ MVLT/XXXX. Roma holds spear in left hand; Constantinopolis holds sceptre in left hand and rests right foot on a prow

37 AV, KHM RÖ 35945, 4.25 g, 6.00, 20.7 mm  
(oververse: at least 15 scratches)
**Valens 364-378 CE**

*Mint: Nicomedia (24th August 367-17th November 375)*

Type: RIC IX 16b

Obverse: DN VALENS—PF AVG. Valens draped and pearl-diademed, left; holding *mappa* and sceptre

Reverse: VOTA PV—BLICA – SNI. Two emperors, nimbate, seated facing, each holding *mappa* and short sceptre; the emperor on left raising his *mappa*; between letters in exergue, captives

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**Coins Shown at the British Museum in 2007 (Private 2007)**

On 26th April 2007 a group of nine Aksumite and Roman gold coins was brought to the Department of Coins and Medals for identification. The group consisted of two coins of the Aksumite king Ebana (c. 450-500 CE) and seven *solidi* of Constantius II (337-361 CE). Although rather worn they were of good condition and appearance. Die axes and weights were recorded at the time and the coins were photographed. The coins were from a private collection and no provenance was given. The catalogue and images published here are from brief notes and images I found in the British Museum when I joined the Department of Coins and Medals.

**Ebana 450-500 CE**

Type: MH 71

Obverse: Bust of Ebana, right, crowned with a triple tiara and robed; in right hand, sceptre or fly whisk; the whole flanked by two wheat-stalks, in a beaded circle. Greek legend all round interspersed with crosses +CIN+CAX+ACA+CAC

Reverse: Bust of Ebana, right, wearing head-cloth and robed; in right hand, fly whisk; the whole flanked by two wheat stalks, in a beaded circle. Greek legend all round interspersed with crosses +ANA+BAC+ACA+CEB

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**Constantius II 337-361 CE**

*Mint: Thessalonica (25th December 350-6th November 355)*

Type: RIC VIII 150

Obverse: DN CONSTANTIVS – MAX AVGUSTVS. Constantius II draped and cuirassed, pearl diademed

Reverse: GLORIA – REI – PVBLICAEE – TES. Roma and Constantinopolis enthroned, the former facing, the latter turned to the left. Between them they support a wreath inscribed VOT/XXX/MVLT/XXX. Roma holds spear in left hand; Constantinopolis holds sceptre in left hand and rests right foot on a prow

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**Greek Legend**

- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB
- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB
- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB
- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB

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**Coins Shown at the British Museum in 2007 (Private 2007)**

41 AV, 5.00, 4.15 g (obverse: at least 12 scratches)

*Mint: Constantinople (15th March 351-6th November 355)*

Type: RIC VIII 96

Obverse: FL IVL CONSTAN – TIVS PERP AVGV. Constantius II facing and cuirassed; wearing crested and diademed helmet, spear diagonally over right shoulder; on left arm shield decorated with horseman riding down enemy

Reverse: GLORIA – REI – PVBLICAEE – CONS. Roma and Constantinopolis enthroned, the former facing, the latter turned to the left. Between them they support a shield inscribed VOT/XXX/MVLT/XXXX. Roma holds spear in left hand; Constantinopolis holds sceptre in left hand and rests right foot on a prow

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**Greek Legend**

- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB
- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB
- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB
- +CIN+CAX+ACA+CAC
- +ANA+BAC+ACA+CEB

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**Ebana 450-500 CE**

40 AV, 12.00, 1.61 g

(obl. Ebana holds sceptre; in inscription, Ge’ez *N)*

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**Constantius II 337-361 CE**

42 AV, 12.00, 4.37 g (obverse: at least 5 scratches)

43 AV, 7.00, 4.12 g (obverse: at least 7 scratches)
Discussion
The catalogue of material presented above forms a good body of material to compare to the al-Madhârîba hoard. The composition of these groups of coins show a similar profile to the al-Madhârîba hoard and this is the basis for further discussion of the state of wear and scratching on the Roman coins, and the lack of these features on the Aksumite coins. There is a clear distinction between the treatment of the Roman and Aksumite coins and this allows a further discussion of the use of gold coins in Yemen at this period. The only other place which has hoards or groups of coins with similar wear and scratching is in India and so my discussion of the catalogue above will bring in examples from Indian contexts to examine possible links between finds of Aksumite and Roman gold coins in the two countries.

Composition
Although the groups from the British Museum and the Kunsthistorisches Museum are much smaller than the al-Madhârîba hoard, it is clear that they have a similar composition. Coins of Ebana and Constantius II are the most common in the al-Madhârîba hoard, and this pattern is repeated in the BM 1904, KHM 1904, and Private 2007 groupings. The KHM 1904 group is large enough to look at the range of dates involved against those of the al-Madhârîba hoard. Both groups contained Aksumite coins from Ezana to Kaleb, and both contained Roman coins from Constantius II onwards. The KHM 1904 group however only contained coins of Constantius II and Valens (364-378 CE) whereas the much larger al-Madhârîba hoard contained 326 Roman coins from Constantius II to Theodosius II (408-450 CE). The smaller groups (BM 1904 and Private 2007) emphasise the frequency of coins of Ebana and Constantius II:

44 AV, 12.00, 4.26 g (obverse: multiple scratches)
Mint: Lyons (18th August 353—6th November 355)
Type: RIC VIII 178
Obverse: FL IVL CONSTAN—TIVS PERP AVG, Constantius II facing and cuirassed; wearing crested and diademed helmet, spear diagonally over right shoulder; on left arm shield decorated with horseman riding down enemy
Reverse: GLORIA – REI – PVBLICA – SMLVG. Roma and Constantinopolis enthroned, the former facing, the latter turned to the left. Between them they support a wreath inscribed VOT/XXX/MVLT/XXXX. Roma holds spear in left hand; Constantinopolis holds sceptre in left hand and rests right foot on a prow

45 AV, 6.00, 3.99 g (obverse: at least 10 scratches)

46 AV, 6.00, 4.21 g (obverse: 2 scratches)

47 AV, 6.00, 4.23 g (obverse: multiple scratches)
The similarities of the profiles of the three smaller groups with the al-Madhārība hoard are striking. This is particularly the case with the profile of the KHM 1904 group. The only anomaly is the large number of Kaleb coins in the KHM 1904 group: this is likely to be due to the period when the coins were buried. The main focus otherwise is clearly around the coins of Ebana (450-500 CE) and Constantius II (337-361 CE). It is possible that the KHM 1904, BM 1904, and Private 2007 groups come from much larger hoards and the similarity of their profiles to the al-Madhārība hoard are due to the high number of coins of Ebana and Constantius II in these lost hoards. As noted above, Hahn (2000: 285) suggests that unreported hoards are likely to have been broken up for sale from his observations of the number of Aksumite coins of the Christian series from Ezana to Kaleb, which have appeared on the market in recent years. It is possible therefore that hoards generally did include a larger number of coins of Kaleb, just like the KHM 1904 group.

The al-Madhārība hoard is probably comprised of coins gathered at the time of the Aksumite Kaleb’s expedition to Southern Arabia in c. 520 CE. Kaleb’s conquest of parts of South Arabia at this period and his imposition of a viceroy, Abreha, followed many years of close contact and trade if not direct control (cf. Phillipson 2012: 203-206). The clear differences in condition demonstrated by the three other groups, however, suggest that the Aksumite coins hoarded probably came over to Yemen actually at the time of Kaleb’s expedition, rather than over a long period of time. Unlike the worn and scratched Roman coins, the Aksumite coins appear relatively fresh. This may suggest that they were gathered in Aksum — perhaps for some time given the range of dates — and brought over to Yemen together. It is noteworthy that the Aksumite coins are all from the Christian period in Aksum and all from Ezana to Kaleb. The coins from this period are all on the final weight standard of Aksum. Their similarity in style and weight may mean that they were stockpiled together before their shipment to Yemen. Since there is no other contextual evidence it is not possible to say whether this constituted an official treasury stock, or privately held stored wealth.

Wear and Scratch-marks

In almost all examples, the Roman coins in the three groups are very worn and scratched. Munro-Hay (1989a) does not comment on the state of wear of the Roman coins in the al-Madhārība hoard (and they do not appear in the plates), but given the similarity of composition of all the groups it is likely that these Roman coins too were worn and scratched. There has been little focus in scholarship so far on these rather battered coins, but their condition offers strong indications about the use of Roman and Aksumite coins in Yemen in the 6th century. I shall outline and interpret these key differences below to facilitate a final discussion of coin use in Yemen.

The presence of Aksumite coins into the reign of Kaleb in Yemen has long been associated with Kaleb’s invasion in c. 520 CE (cf. Phillipson 1998: 112; 124; Phillipson 2012: 203-206). This is by far the most plausible explanation, particularly since there have so far been no gold coins after the reign of Kaleb found in Yemen. The presence of Roman gold coins alongside the Aksumite coins has not been discussed very deeply, especially differences in the state of wear. Munro-Hay (1989a: 86), for example, states in relation to the al-Madhārība hoard: ‘the most that can be said is that the Roman coins do not contradict the dating of the Aksumite coins in the hoard to the period c. 330 to c. 550’. We have no further information about the wear or condition of the Roman coins in this hoard, but we do have the three similar groups of material above. The wear and the scratches which appear on the Roman coins in the three groups indicate that they were in frequent use. This is unlike the Aksumite coins in the same groups and in the al-Madhārība hoard. The difference in patterns of wear strongly indicates that the coins were not all treated in the same way. The relative freshness of the Aksumite coins, no matter their date, suggests that these coins had not been frequently circulated by the time of their arrival in Yemen (see in particular the plates of Munro-Hay 1989a). The majority of the Roman coins on the other hand show extensive wear and this indicates either that they were circulated widely on their way to Yemen, circulated extensively while in Yemen, or both. The evidence of the wear combined with the scratching most of the examples show convinces me that the coins were circulated extensively in Yemen. The overlaying of the scratch-marks demonstrates that this practice was of long duration. It is therefore possible that the Aksumite coins were not actually in use in Yemen for any long period and are likely hoarded along with the Aksumite coins following the crisis of Kaleb’s invasion. Since the coins came from two different sources — already circulating Roman coins and newly arrived Aksumite coins — the hoards were probably buried a short time after Kaleb’s invasion rather than as an immediate reaction to it. The period following Kaleb’s invasion was one of considerable unrest, which would account for the hoarding activity.

Almost all the Roman coins in the three groups have extensive scratch-marks, which are made across the fields of each obverse, particularly the right field. The only two examples which have no scratch-marks are no. 35 from the KHM 1904 group, and no 2, from the BM 1904 group. The latter however is an imitation of a Constantius II solidus whereas all the other examples catalogued are genuine. No. 35, although listed as part of the 1904 group, is in fact an exchanged coin with the Bachofen collection. The location of the original coin from this group is unknown — and neither is its condition. Unfortunately, Munro-Hay does not record whether the al-Madhārība hoard Roman coins bore scratch-marks. None of the Aksumite coins bear similar scratching. This may be because the Aksumite coins came from an area politically connected to South Arabia and so may have been more familiar. The Roman coins are usually heavily worn and so had clearly been in circulation more frequently or for much longer than the Aksumite coins. Only one example (no. 38) displays a different pattern of scratch-marks, on the reverse, and this will be explored further below.

While a few of the scratches on the Roman coins might be accidental — or through the general wear a coin might experience in circulation — the majority of the scratches are gouged deeply enough to be deliberate. On a couple of examples (nos. 41 and 45), the scratches appear to be letters. However, after comparing the possible letters to regional scripts, the scratches are not recognisable South Arabian letters. None of the scratches which look like they might be letters are repeated on other examples. Where circulations intersect therefore it appears that this is a random occurrence. For this reason I use the term ‘scratch-marks’ rather than ‘graffiti’, as I cannot see any attempt to scratch lettering into the coins. The only similar marking which I have seen is on a coin from the Madras Government Museum (Darley 2013: 284) where the scratches intersect in a similar pattern. Here too, this appears to be a random intersection of the scratches rather than a letter.

The sheer number of scratches also does not suggest an accounting or validation system. It suggests circulation, use, and constant checking for gold content. This suggestion is supported by the increased number of scratch-marks observed the more worn a coin is. It is unlikely that the scratches represent a counting or accounting method as many of the coins bear multiple scratches and their order is not clear. Such an order would no doubt be necessary for any successful accounting method.

The scratches most likely represent gold testing where the gold has been scratched with a needle or other sharp implement and the
resulting gold then tested on a touchstone. This would represent an unusual practice as normally a coin’s edge would be scraped directly on a touchstone. The find spots for these coins are all in the Aden area and so this may be a practice peculiar to a limited area of Yemen. It is possible that the Roman coins were being checked as they are of higher gold content than the Aksumite coins and may have been measured by their bullion value. The one imitation (no. 2) in the BM 1904 group indicates that contemporary copies (probably in more debased gold) were circulating which might have necessitated checks.

The separate case of deliberate defacement of the reverse of no. 38 by Darley demonstrates the same pattern of scratching as on the other coins. Here deliberate and methodical effort has been made to scratch out the faces and bodies of the two seated emperors on the reverse. The scratching is directed at the images, unlike the other examples where scratching occurs in the field(s). Additionally, the scratching occurs on the reverse rather than the obverse. It appears that the scratched crosses on the bodies are a representation of chi rho although the upper part of the rho is not clear. This probably indicates the religious turmoil in Yemen at this period: Kaleb invaded Yemen supposedly to protect Christians in c. 520 CE and, since the terminus post quem for both the al-Madhāhīrā hoard and the KHM 1904 group is the reign of Kaleb, it is highly likely that the defacement is linked to this period (cf. Yule (2013) for Christian rulers in Zafar, north of Aden).

Seeing the Roman coins of the al-Madhāhīrā hoard would offer a wealth of data if the scratching is indeed a practice peculiar to the Aden area. Unfortunately, I have not been able to secure any of the photographs and the coins themselves are currently inaccessible in Yemen. The evidence gathered so far makes strong progress however in outlining a practice specific to the Aden area in the 5th–6th centuries CE. Although the exact nature – or purpose – of this practice is still not entirely clear, the existence of this type of scratching on both Roman coins from Constantius II-Theodosius II in association with Aksumite material is diagnostic in determining the original find spots for these coins.

**Coin use and Imitation in Yemen and India**

There is a long history of the production of imitation coins in Yemen. Imitation began with the production of a local coinage based on 5th century BCE Athenian coins depicting the head of Athena on the obverse and an owl on the reverse (cf. Munro-Hay 2003: 29-30). The production of imitation coinages in Yemen and elsewhere is a phenomenon which should not be associated with forgery. The differences between imitation and forgery in the ancient world are firstly that imitations are produced of solid metal (e.g. silver or gold) and are not plated with precious metal over a base core (as ancient forgeries are), and secondly (and perhaps most importantly) that imitations were not produced with intent to deceive. They were produced to form part of an existing circulating currency or to form a new one. In Yemen it was the latter. The imitation Athenian coinage was on a different weight standard and denominational system from the outset, and differences in design – the inclusion of denominational markers in local letting, for example – make the coinage distinct. It was often the case that on the periphery of the coin using world that areas which began to mint their own coinages tried to make their initial types at least look like what a coin ought to look like. The very concept of coinage was caught up in the idea of what a coin should look like, despite the fact that these were precious metal coinages and therefore the value was in the weight of precious metal in the coin. Conceptually, a coin had to look like a coin for it to be acceptable. Inherent conservatism in coin design is an effect commonly seen throughout the production and use of coinage and innovation, even at the inception of a coinage, is not generally something easily accepted.

The appearance of an imitation Roman gold coin (no. 2) amongst the coins found in Yemen initially suggests that this practice may have continued. The imitation appears to be a Constantius II Constantinopolite type, but much of the inscription on both obverse and reverse is scrambled. It is clearly imitating Constantius II Constantinopolite RIC VIII 96 or similar. There are indications that other imitations might have been produced in Yemen. Munro-Hay (1995b) published an unusual ‘Aksumite’ coin with a Yemeni provenance from the Museum Fünf Kontinente in Munich. The obverse shows an unprecedented full standing figure of an Aksumite king while the reverse imitates the winged Victory reverses of a Theodosius II solidus. It is triple pierced, at 1 and 11 o’clock and at 6 o’clock. Munro-Hay believed that this was a genuine coin of MHYDS (and published it as such in Munro-Hay/Juel-Jensen 1995a: type 67; cf. Phillipson 2012: 188-189). Given its provenance however, and the available templates for late Roman gold in Yemen – rather than in Aksum – it is more likely that it was produced in Yemen or further east in India, where imitation was also prevalent (cf. Darley 2013: 267-272; Day 2011). Both Aksumite and Roman gold coins have been found in India, frequently with double piercing at 1 and 11 o’clock (cf. double piercing on Roman and Aksumite coins in the ‘Mangalore’ hoard: Nawartmal 1998; on Aksumite coins with an Indian provenance: Nawartmal 1999). Additionally, in parts of India there is a practice of melding two different cultural styles in Indian (Kushan) and Roman medallion combinations (cf. Göbl 1999, Errington/Cribb 1992:146; Gupta 1976; Göbl 1976; cf. Tomber 2012:139-40, 163-4 for general description of finds).

Yemen was not producing its own coins in the 6th century CE. The use of precious metal coins from other regions, and possibly the creation of imitation pieces to supplement the supply would make sense in this context. The wear and scratch-marks evident on the Roman coins above demonstrate their use and circulation in the Aden area. If this was the default coinage in circulation in the 6th century then its supplementation by imitation Roman solidi is plausible. Where those imitation coins were produced is another question, which could probably only be answered by metal analysis of imitation coins. Yemen’s history of imitation coins however indicates that an initial design is imitated and then adapted to form a unique local currency rather than a continued imitation of other coinages. I believe it is likely therefore that an imitation of a Constantius II solidus from India arrived in Yemen via trade and then entered the coin system in use around Aden (no. 2). Imitation is a known contemporary practice in India and not Yemen at this period despite previous Yemeni history. Once more is known about the Roman coins of the al-Madhāhīrā hoard, it is entirely possible that further imitations will be found.

Other evidence from India suggests a connection to similar treatment of coins. The ‘Mangalore’ hoard from Southern India, reported by Nawartmal (1998), is a mixed group of Aksumite (Ousanas-Ezana) and Roman (Constans I-Theodosius II, with an imitation of Anastasius I) gold coins. Of the 21 Roman coins and 23 Aksumite coins, 6 of the Roman and 5 of the Aksumite coins bear scratching similar to that seen on the Roman coins from Yemen published above although many were additionally double-pierced. All 21 late Roman coins (c. 347-421 CE) show similar wear to raised areas, such as the emperor’s face, as the Roman coins found in Yemen while the Aksumite coins (c. 320-365 CE) show less wear. Another possible mixed group is reported by Juel-Jensen (1994), who published an Aksumite gold coin of Ousanas which came to AH Baldwin & Sons as part of a group from India which also contained two Gupta archer type dinars of Chandragupta II (375-414 CE) and an assortment of Roman coins. The Roman coins ranged from Tiburtius (14-37 CE) to Anastasius (491-518 CE), however the dates are actually in two groups: 1st century CE and 4th–6th century CE. It is not noted whether the Roman coins have any scratching. Darley (2013: 276-284) notes definite scratching on other late Roman coins in India (from the Akki Alur hoard and coins in the Madras Government Museum), as well as slash-marking and double piercing, which is not seen on the Roman coins from Yemen.

The evidence gathered above makes it clear that firstly, Aksumite and Roman gold coins are treated differently in Yemen. Secondly, a similar scratching practice may have been in place in India, which extended to Aksumite as well as Roman gold coins. When appearing on coins in India (cf. Darley, scratching has been noted on ‘schruff marks’ without much further discussion (cf. Darley 2013: 283-284 for this observation). Looking at this practice in Yemen however, further comment can be made because the context for the coins’ use and burial is clearer. I think it is clear that Roman gold
coins were in use and circulation in Yemen before the Aksumite invasion of the 6th century CE, when Aksumite gold coins arrived, perhaps as payments, and the coins were deposited together before the Aksumite coins could enter into similar usage. The evidence for similar practices in India strongly suggests that the owners and depositors of the coins were Indian traders, or at least following Indian practices. The insecurity of the 6th century CE in Yemen might have prompted Indian traders to withdraw from Yemen, perhaps temporarily, which could provide the context for a large hoard such as the al-Madāhrāḥa hoard and for similar groups of material in India. The evidence suggests that Aksumite coins travelled as a group to Yemen, and then on to India as part of a general exodus of coins alongside Indian traders in the 6th century CE. The mid-6th century CE was a tumultuous period in general. As well as the wars in Yemen which led to the downfall of the Himyarite kingdom, the first recorded instance of the bubonic plague – ‘the plague of Justinian’ – affected wide areas of Europe, the Middle East, and Asia (cf. Yule 2013: 1134). These circumstances finally give context to the movement of Aksumite and late Roman gold coins across the Indian Ocean.

Conclusion

Previous understanding of the interaction of Aksumite and Roman gold coins in Yemen is inaccurate: the hoarding of Aksumite and Roman gold coins together in Yemen is the result of the sudden combination of two systems as a reaction to Kaleb’s invasion. The evidence suggests that Aksumite and Roman gold coins did not circulate together in Yemen despite their joint find spots. The joint al-Madāhrāḥa hoard and other groups cannot therefore be used to endorse the claim that Aksum and Rome shared a weight-standard or economic system. The freshness of the Aksumite pieces – even the earlier coins – strongly indicates that they were gathered and kept out of circulation for some time before they arrived in Yemen. The context for such an event is clearly Kaleb’s expedition in c. 520 CE. To my mind a plausible explanation for the al-Madāhrāḥa hoard and the three mixed groups catalogued above is that Roman gold coins were in long circulation and use in Yemen and that the Aksumite coins came in as payment during Kaleb’s expedition. The upheavals of this period meant that the coins were combined and immediately hoarded.

Aksumite gold coins in Yemen are only from Ezana’s Christian period onwards, i.e. after the weight standard has settled to the new (and final) standard. It is not therefore surprising that these coins were hoarded together. It is also possible that the coins on the new standard were kept together in the Aksumite treasury and brought to Yemen during Kaleb’s expedition. The similarity of wear of those Aksumite coins found in Yemen strongly suggests that these coins were stockpiled together before they were hoarded.

The changes in the Aksumite gold weight standard were for economic or political reasons which remain obscure but internal to the Aksumite kingdom. When Roman coins are found with Aksumite coins, they are usually mentioned in the context of proving that Aksumite coins followed Roman weight standards or that the coins must have circulated together. An examination both proving that Aksumite coins followed Roman weight standards or even that Aksumite pieces in India strongly suggests that Aksumite and late Roman gold coins across the Indian Ocean. The context for such an event is clearly Kaleb’s expedition in c. 520 CE. To my mind a plausible explanation for the al-Madāhrāḥa hoard and the three mixed groups catalogued above is that Roman gold coins were in long circulation and use in Yemen and that the Aksumite coins came in as payment during Kaleb’s expedition. The upheavals of this period meant that the coins were combined and immediately hoarded.

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The al-Madāhrāḥa hoard is both an essential part of understanding gold coin use in Yemen, and an intriguing puzzle. The lack of information about the condition of the Roman part of the hoard means that – for the present – we must speculate whether a similar pattern of scratching might be seen on the Roman coins. Access to this material is currently not possible and further finds in Yemen are currently unlikely to be properly reported. Building on the evidence seen so far however, it is possible to demonstrate the differing practices with Roman and Aksumite gold coins. It is also possible to say that the group of coins shown at the British Museum in 2007 are most likely to have come from Yemen, or possibly India. While there must be a note of caution – that the existence of scratching on Roman coins does not indicate that they must be from Yemen – where multiple scratch-marks appear on late Roman gold coins it is a strong possibility that the coins are from Yemen and this needs to be backed up by association with Aksumite coins without scratching.

Finally, the movement of Aksumite gold coins to Yemen and across the Indian Ocean has commonly been attributed to the ongoing movement of gold coins through trade. The Greek inscriptions on Aksumite gold coins have fostered this idea. The rapid and decline of Aksumite Greek inscriptions to the merely symbolic militates against the idea that the use of Greek was connected to trade. The consistent wear of Aksumite coins found in Yemen and Indian contexts similarly runs counter to the idea that the coins were spreading out gradually through trade. While it has been suggested that Aksumite gold coins filled the gap between earlier Roman gold and later Roman gold in India, the state of wear indicates to me that it is most likely that Aksumite and late Roman gold arrived together in India. The context of Yemeni upheavals in the 6th century CE appears to be the moment when this happened.

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Bibliography

Abbreviations:

BM British Museum, London
KHM Kunsthistorisches Museum, Vienna
RIC ed. CHV Sutherland and RAG Carson The Roman Imperial Coinage (Spink, London)

General:

Abdy (2012)
Anzani (1926)
A Anzani, Numismatic Aksumita, (Rivista Italiana di Numismatica e Scienzi Affini III).
Bracey (2009)
Casson (1981)
Darley (2013)
Day (2011)
Ed. Errington/Cribb (1992)
Falk (2015)
Finneran (2007)
N Finneran, The Archaeology of Ethiopia (Routledge).

Göbl (1976)

Göbl (1999)

Gupta (1976)

Hahn (1984a)

Hahn (1984b)

Hahn (2000)

Hahn (2006)

Hobbs (2006)
R Hobbs, Late Roman Precious Metal Deposits, c. AD200-700: Changes over time and space (British Archaeological Reports S1504, 2006).2

Jammes (1955)

Juel-Jensen (1994)


Kent (1956)
JPC Kent, ‘Gold Coinage in the Later Roman Empire’, ed. RAG Carson and CHV Sutherland, Essays in Roman Coinage Presented to Harold Mattingly (Oxford University Press), pp. 190-204.

Macrae (1993)

Munro-Hay (1984)

Munro-Hay (1989a)

Munro-Hay (1989b)
S Munro-Hay, Excavations at Aksum: An Account of Research at the Ancient Ethiopian Capital directed in 1972-1974 by the late Dr Neville Chittick (London).

Munro-Hay (1991a)

Munro-Hay (1991b)

Munro-Hay (1991c)
S Munro-Hay, ‘The coinage of Shawa (Hadramawt) and other ancient South Arabian coinage in the National Museum, Aden’ Syria 68, pp. 393-418.

Munro-Hay (1992)

Munro-Hay (1995a)
S Munro-Hay and B Juel-Jensen, Aksumite Coinage (Spink, London).

Munro-Hay (1995b)

Munro-Hay (1999)

S Munro-Hay, Coinage of Arabia Felix: The Pre-Islamic Coinage of the Yemen (Milan).

Munro-Hay/Oddy/Cowell (1988)

Nappo (2009)

Nappo (2015)

Nawarttal (1998)
H & L Nawarttal (=W Hahn), ‘Spätantikes Handelsgold in Südsindien’ in Money Trend November 1998 pp. 52-57

Nawarttal (1999)
H Nawarttal (=W Hahn) ‘Aksumite Coins in India – Some New Evidence Spink Numismatic Circular Volume CVII No 1 pp. 3-4

Oddy/Munro-Hay (1980)
WA Oddy and S Munro-Hay ‘The Specific Gravity Analysis of the Gold Coinage of Aksum’ in Metallurgy in Numismatics I (Royal Numismatic Society Special Publication 13) pp. 73-82

Phillipson (1998)
DW Phillipson, Ancient Ethiopia (British Museum Press)

Phillipson (2000)
DW Phillipson, Archaeology at Aksum, Ethiopia, 1993-7: Volume II (London)

Phillipson (2012)
DW Phillipson, Foundations of an African Civilisation: Aksum and the Northern Horn 1000BC-AD1300 (James Currey).

Potts (2010)

Sewell (1904)

Siblebotham (1986)
SE Siblebotham, Roman Economic Policy in the Erythra Thalassa: 30BC-AD217 (Brill).

Sturm (2015)
G Sturm, David Heinrich Müller und die südarabische Expedition der Kaiserlichen Akademie der Wissenschaften 1898/99 (Verlag der Österreichischen Akademie der Wissenschaften, Vienna).

Tomber (2012)
R Tomber, Indo-Roman Trade: From Pots to Pepper (Bristol Classical Press).

Turner (1989)
PJ Turner, Roman Coins from India (Royal Numismatic Society Special Publication 22, London).

West (2001)

West (2002)

West (2003)

Yule (2013)
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THE BANAS

Govindraya Prabhu Sanoor

Synopsis

Bana, the name mentioned in the Puranas, existed in Karnataka as a ruling dynasty in the early 2nd century CE with the dynastic name Brihad-Banas or ‘Greater Banas’. Although the dynastic name appears in early Kadamba inscriptions, no specific rulers’ names are mentioned. The epigraphs of the Kadambas mention the tribute levied on the Banas by their overlords. The land they ruled was known as Bana Mandala. It is only from three copper plate grants, namely the Udayendiram grant,1 the Gudimallam grant of Vikramaditya II,2 and the Mudiyannuru plate of Malladeva,3 that we come across its first ruler, Jayanandi Varman, who ruled between 782 to 793 CE. They functioned as a significant feudatory power. Little else can be found about the Banas in modern literature on Indian history. However, this dynasty, because of its important contribution to the heritage of Karnataka, should not be ignored in this manner.

The royal family of the Banas claimed their descent from the demon king, Bali, the son of Virochana. It was Bali who caused Vishnu to descend to Earth in the form of Vamana. As a doorkeeper, he functioned as Bana, the name mentioned in the Puranas, existed in Karnataka as a significant feudatory power. The mythical character Bana is none other than the devotee of Shiva who served Shiva as a doorkeeper. The royal family of the Banas ruled over the taluk of Chikkaballapur, the Kudalur grant of the Ganga king, Prithvipathi I. The Banas, Vaidumbas and the Ganga king Prithivipathi I were allied during his reign, and their opponents were the Nolambas and Telugu Chodas.

Vijayaditya I (793-845 CE), the son of Jayanandi Varman, was the second in line. During his time, Rashtrakuta Govinda III defeated Dantivarman Pallava.4 Vijayaditya thus accepted the overlordship of Govinda III. But before the Rashtrakutas could protect their new-found feudatories, the Nolamba king (who ruled with the association of the Gangas and was matrimonially related to them) conquered Gangavadi.5 At the same time, Pallava Dantivarman took advantage of the situation to attack and conquer some of the Bana territory. The territory of the Banas was thus sandwiched between two strong political powers of the time.

Malladeva (845-846 CE) succeeded next. The Chippili inscription of Madanapalle taluk in the district of Chittr registers the gift made by Malladeva Banarasa to a certain Eraya. He had only a small freedom to maintain, as most of the land his father had inherited had been wrested by the Nolambas and the Pallavas. In one of the epigraphs the king assumes the title Jagadekanalla6 and hence it is obvious that he was still able to maintain the territory that he had. He is also referred to as Vishvavallabha Malladeva Nandivarman.7 The Banas, Vaidumbas and the Ganga king Prithivipathi I were allied during his reign, and their opponents were the Nolambas and Telugu Chodas.

Vikramaditya I (846-883 CE), the son of Malladeva, ascended the throne after him.8 His reign saw several battles. On the one hand, he was able to add Sorenmati to his territory with the help of the Vaidumbas, but, on the other hand, Sorenmati was soon lost to Mahendra Nolamba after a long battle. Several inscriptions and hero-stones in a ruined village of Punganuru, mention the attack on Pulinadu by the Nolambas.9 As a feudatory of the Pallavas, Vikramaditya I had the support of the Pallavas. At the same time, he had the blessings of the Western Gangas due to his marriage with the daughter of Ganga king, Prithivipathi I. At a later date, Vikramaditya I seems to have declared his independence and gained control over the region around Mulbagi. From then onwards, the Pallavas lost their control over the Banas. King Vikramaditya I bore titles such as Bana Vijayavahara, Bana Kandarappa and Jayamuni.10

Vijayaditya II (888-909 CE), the son of Vikramaditya I, took control of the Bana territory after him. The king is also known as Mahabali Banarasa Viradhudamani Prabhumeru.11 The Nolamba king, Mahendra, was unhappy to see the Banas regaining power. He sent two of his generals with a huge army in order to invade Pulinadu, which was under Bana control. But the Banas had the support of Gandatrineeta Vaidumbu,12 who fought as an ally in the battle to drive the enemies away.

Vijayaditya II was the only king among the Bana rulers who assumed independence. The Karshanapalle inscription13 dated 4th century CE refers to the reign of Banarasa, who was also in charge of Gangavadi. The Punganuru inscription14 records a gift of a wetland to the family of Kalianiga Kandanarayana. It also mentions that the king, Vijayaditya Prabhumeru, ruled Vadugavalli. Soon afterwards, the Chola king, Parantaka I, attacked the Banas and the Vaidumbas, and the Banas were defeated by his army. Vijayaditya II died in the year 910 CE.

Vikramaditya II (909-912 CE) ruled with not much success. His name is seen in two of the copper plates, namely those of Udjayendiram and Gudimallam. Most of the territory was lost to Parantaka I of the Cholas, in which conflict the king fought alongside his father. His son Vijayaditya III assisted him during his reign. From the same Udjayendiram plates of Vikramaditya II we also know that his great-grandfather had the name Prabhumeru.
PATRAKOLA TEA GARDEN TOKENS

Col. J. Dutta & Anjali Dutta

The Patrakola Tea Garden was in Adampur, Sylhet, then in Assam, and now in Bangladesh. The garden was owned by Tommy McMeekin & Son, and managed by Finlay, Muir & Co. before 1900, and by Barlow & Co. of Calcutta in the early 1900s. Jessop & Co. replaced Barlow & Co. as the agent sometime around 1915.

Pridmore cited Heaton records that this garden had ordered 3,000 and 12,000 tokens from Birmingham Mint in October 1896 and April 1903 respectively.

Type 1
According to Heaton records, in October 1896, Birmingham Mint produced 3,000 tokens in brass with a milled edge and the legend PATRAKOLA in a semicircle above. This token has been recorded by Pridmore, but has not been illustrated before. We now present the same below. The diameter of this token is 30.90 mm. The average weight is 8.10 g. (Fig. 1).

Type 2
In April 1903, the garden obtained 12,000 tokens from Birmingham Mint but with a smaller diameter. The exact size has not been mentioned by Pridmore. The token had probably the same design as in Fig 1: PATRAKOLA in a semicircle above, a four-pointed central aperture in the centre, and a small star motif below.

Type 3
In 1915, Jessop & Co ordered from the Calcutta Mint a 28.39 mm token with all the features of the above token on both obverse and reverse, but with an additional design of a vine around the central hole extending to either side of the small star. The edge is milled and the average weight is 7.40 g.

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