



# Circulation of Arab Silver in Medieval Afro-Eurasia: Preliminary Observations

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## Abstract

Dirhams or medieval Islamic silver coins offer a unique and indispensable primary source for the study of many fundamental issues pertaining to Afro-Eurasian history during the Middle Ages that cannot be studied using any other evidence. When found in hoards, or deposits of five or more dirhams, they are especially useful, since historical numismatists can study the profiles of the contents of the hoards to discern numerous questions. Thus, the 1656 hoards, containing almost half a million dirhams, recorded to date show that close to three quarters of them were deposited not in the Muslim world, but in northern Europe from c.800 to c.1100 and that they were brought there mostly via Russia. This finding brings many questions that need answering in the future. One of the key conclusions of the present study is that this silver gravitated to silver-scarce northern Europe and was exchanged for items in great demand in the 'House of Islam' – furs and slaves.

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## Introduction

During the period c.700 to c.1100, Afro-Eurasia witnessed profound historical changes. In the lands of Islam, the 'Abbāsids overthrew the Umayyad Caliphate but, in turn, slowly succumbed to centrifugal forces. The Khazars, who created the first state in European Russia in the 650s and converted to Judaism in 837/38,<sup>1</sup> were replaced during the tenth century by the Rus' or Orthodox East Slavic state along the Dnieper and the Muslim Volga Bulğār amīrate along the middle Volga. In northern Europe, Viking raiders and traders carried Scandinavian influences from Dublin to Constantinople. Since the history of Afro-Eurasia has traditionally been treated as the history of many distinct areas, the connections which linked these diverse regions and developments are often ignored. Nevertheless, between the eighth and the mid-eleventh centuries, events in the lands of Islam, European Russia, northern and western Europe, and Iberia were very frequently interrelated. What Vikings did in Russia, for

instance, was of concern to Islamic potentates, Byzantine bureaucrats, Slavic chieftains along the southern Baltic, as well as Anglo-Saxon and Carolingian rulers.

Many of the key interrelations within medieval western Eurasia and North Africa can best be understood by examining the hoards of Islamic silver coins or dirhams from this period. These coins were the most common currency used as a medium of exchange throughout much of western and central Eurasia as well as North Africa, that is: domestically within *Dār al-Islām* or 'House of Islam' and internationally. The earliest Muslim coins essentially mimicked in weight and iconography late Sasanian drachms. After the monetary reform of Umayyad Caliph 'Abd al-Malik in 698/99, with several notable exceptions, dirhams carried only epigraphic legends and were struck at the standard weight of 2.97 g. While the dirham's weight greatly varied after the mid-ninth century, the epigraphic legends remained the norm. The restrictions on representing images (rulers and religious figures) was usually maintained in accordance with Islamic law, thereby freeing up space on the legends for Arabic (Kufic) inscriptions of the names of rulers (caliphs, heirs-apparent, amīrs, governors, and rebels) under whom the coins were struck, their dates of issue (always indicated in the *Hidjra* calendar), and the location of the mint. Consequently, unlike most other medieval coins, dirhams are datable to their exact year of production, identifiable with their precise geographic area of issue, and attributable to specific rulers. These features make dirhams excellent primary sources for the study of medieval Afro-Eurasia, especially its economic history.

The volume of information carried on dirhams and their great abundance across a vast section of the Old World permits scholars to use them as proxies to study subjects that are normally difficult, if at all possible, to address using the oft-limited medieval written sources. Thus, one can examine the mint emission of dirhams (in relative terms) by mint and year of issue;<sup>2</sup> the chronological and spatial framework of their distribution indicating trade within and outside of the Islamic world;<sup>3</sup> the direction of commercial routes and the fluctuations in commercial relations over time;<sup>4</sup> the periods coins remained in circulation in specific areas and the monetary markets;<sup>5</sup> issues related to the nature of monetary economies of certain regions or states;<sup>6</sup> and, many other subjects connected to the economic as well as political and even religious history of medieval western and central Eurasia and North Africa.<sup>7</sup>

Most dirhams are found together in groups or hoards. The approximate time of a hoard's deposit can be determined from the date of the most recent coin (= *tpq*), i.e. if the newest coin was struck in 800/801, the hoard was probably buried in or very soon after 801.<sup>8</sup> It is thus possible to determine the characteristics of the dirham hoards from a given region at any given period and to trace how these characteristics changed over time. Pursuing this analysis further, it is possible to reconstruct the circulation of dirhams or hoards containing them throughout western Eurasia

over the course of several centuries. Since each hoard is a random sample of the coins in circulation at a specific time, the study of its compositional profile can answer many key questions.

Up until very recently, the greatest obstacle to using dirham hoards as a source for the study of Afro-Eurasian history has been the lack of a single, comprehensive catalog describing all the hoards deposited throughout all of western and central Eurasia and North Africa during the Early and High Middle Ages. From the mid-1970s, the late Professor Thomas S. Noonan of the University of Minnesota began to remedy this situation by initiating the compilation of the complete dirham hoard catalog and was joined in this project by Roman K. Kovalev in 1996. The corpus contains dirham hoards (defined as a deposit of five or more coins with dirhams) dating from *c.*700 to *c.*1100. Regrettably, Noonan was unable to complete the catalog due to his untimely passing in 2001. One of the authors of the study at hand is presently closing the corpus and intends to publish it in the very near future.<sup>9</sup>

The present study provides statistics of the most basic, but perhaps some of the most interesting, data drawn from the catalog – namely, a discussion of the total number of hoards and the dirhams they contain as well as their spatial distribution from the entire region of Afro-Eurasia. In addition, this inquiry will take into account the chronology of the hoards' deposit date by decades spanning the period from 670 to *c.*1100. Taken all together, this data will afford us to begin to understand to what areas and when Islamic silver bullion in the form of dirhams gravitated to and traveled throughout the Old World.

### *A Survey of Numismatic Data Used in the Study*

At the present moment, the catalog contains information on 1656 dirham hoards, which held a total of almost half a million (486,956) dirhams; see Table 1. These hoards date by their *tpq* from the 670s to 1100 and occur in a large region of Afro-Eurasia, which will be geographically divided into macro regions. The macro regions include: (1) Near East; (2) Caucasus; (3) central Asia; (4) Europe; and (5) North Africa and Sicily.

Due to the large volume of dirhams discovered in Europe, as will be seen below, this continent was further broken down into micro regions: (1) Iberia (Spain and Portugal); (2) European Russia, Ukraine, and Belarus; (3) Sweden; (4) Finland; (5) southeastern Baltic (Lithuania, Latvia, and Estonia); (6) Poland; (7) Germany and the Netherlands; (8) Denmark; (9) Norway; (10) British and Celtic Isles; and (11) southeastern and central Europe (Czech-Slovak Republics, Hungary, and Romania).

Before engaging in the discussion of what the numismatic evidence tells us about the flow of Islamic silver bullion throughout Afro-Eurasia, it is of use to consider how the data used in this study was assembled and processed. Because the exact quantities of coins and their types discovered

**Table 1. The spatial distribution of hoards and dirhams from macro regions**

Macro-region	Number of hoards	Per cent of total hoards	Number of dirhams	Per cent of total dirhams
Europe	1348	81.4%	395,371	81.19%
Near East	121	7.3%	46,693	9.59%
Caucasus	56	3.4%	5145	1.06%
Central Asia	122	7.4%	38,134	7.83%
North Africa and Sicily	9	0.5%	1613	0.33%
<b>Total</b>	<b>1656</b>	<b>100%</b>	<b>486,956</b>	<b>100%</b>

in some hoards are not reported in published and/or archival materials, it is impossible to discern the specific number of dirhams deposited in some coin assemblages. There are cases when all that is known about certain hoards is that they contained 'some' dirhams, or only the total weight of the deposit is recorded, or reports combine Sasanian drachms or west European deniers with Islamic coins into one sum, thereby convoluting their totals. These problematic hoards, while included in the final totals of hoards containing dirhams, will be excluded from the database of deposition by decade provided in Table 3.

Another tricky type of hoard are those for which the exact quantity of whole dirhams have been noted but not their fragments, which at times can be in the hundreds if not thousands (especially from Poland and Germany where fragmentation was quite pervasive). In cases when the total weight of the fragments was not recorded, only the whole coins were considered in the total dirham database. However, when the weight of the fragments is available, we have 'reconstructed' the approximate total of these fragments into whole dirhams by averaging out the reported weight of the fragments with the standard weight of one dirham, which weighed 2.97 g. While this method of estimating the total numbers of dirhams is imperfect, it does offer us a ballpark figure that resolves the not so insignificant problem of leaving out substantial numbers of coin fragments deposited in all areas, but especially in those where fragmentation was endemic, such as along the coast of the southern Baltic.

A further complication arises when conflicting accounts (both published and archival) of the total quantity of dirhams discovered in hoards are available. In such cases, to err on the side of underestimation, we have chosen to count the lowest quantity of dirhams given in the reports.<sup>10</sup>

Lastly, due to the imprecise data preserved about some of the reported dirham assemblages, not all hoards could be broken down by decades because of their broad *tpq*. For example, all that is known about some hoards is that their dates of deposit span several decades (e.g. 845/46–879/80) because the latest coin's mint date was partially erased or cut off. Even worse are cases when all that is known is that they were deposited sometime

**Table 2. The spatial distribution of hoards with *tpq* from c.670s to c.1090s and dirhams from micro regions**

Region	Total number of hoards/ per cent of total	Hoards datable to decades	Number of dirhams: Total without decade dates + total with decade dates	Per cent of total dirhams
North Africa and Sicily	9/0.54%	7/0.58%	227 + 1386 = 1613	0.33%
Iberia	84/5.07%	65/5.36%	2376 + 39,077 = 41,453	8.51%
Near East	121/7.3%	114/9.41%	1486 + 45,207 = 46,693	9.59%
Caucasus	56/3.38%	39/3.22%	237 + 4908 = 5145	1.06%
Central Asia	122/7.36%	82/6.77%	9997 + 28,137 = 38,134	7.83%
Russia, Ukraine, and Belarus	278/16.78%	205/16.91%	92,184 + 114,934 = 207,118	42.53%
Sweden	587/35.43%	430/35.48%	15,852 + 64,358 = 80,210	16.47%
Finland	24/1.45%	21/1.73%	2 + 357 = 359	0.07%
Southeastern Baltic	83/5.01%	45/3.71%	2264 + 6439 = 8703	1.79%
Poland	158/9.53%	105/8.66%	23,583 + 13,780 = 37,363	7.67%
Northern Germany and the Netherlands	45/2.72%	31/2.56%	3782 + 7556 = 11,338	2.33%
Denmark	54/3.26%	39/3.22%	2329 + 5205 = 7534	1.55%
Norway	17/1.03%	15/1.24%	16 + 294 = 310	0.06%
British and Celtic Isles	9/0.54%	9/0.74%	0 + 159 = 159	0.03%
Southeastern and Central Europe	9/0.60%	4/0.41%	17 + 807 = 824	0.17%
<b>Total number/per cent</b>	<b>1656/100%</b>	<b>1212/100%</b>	<b>154,352 + 332,604 = 486,956</b>	<b>100%</b>

Table 3. Deposition of dirhams by decade from micro regions: quantity (number of dirhams/number of hoards)

Decades	Near East	Caucasus	Central Asia	Iberia	North Africa & Sicily	Southeastern & Central Europe	Russia, Ukraine, and Belarus	Sweden	Finland	S. E. Baltic	Poland	Northern Germany & the Netherlands	Denmark	Norway	British and Celtic Isles
670s	14/1	x	x	x	x	x	x	x	x	x	x	x	x	x	x
680s	2/1	x	x	x	x	x	x	x	x	x	x	x	x	x	x
690s	142/2	x	x	x	x	x	x	x	x	x	x	x	x	x	x
700s	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
710s	x	10/1	x	x	x	x	x	x	x	x	x	x	x	x	x
720s	280/2	89/1	x	x	x	x	x	x	x	x	x	x	x	x	x
730s	287/4	13/1	12/1	26/1	x	x	x	x	x	x	x	x	x	x	x
740s	6893/10	x	93/1	413/2	231/1	x	x	x	x	x	x	x	x	x	x
750s	3337/5	x	x	87/1	79/1	x	x	x	x	x	x	x	x	x	x
760s	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
770s	506/3	187/1	110/2	x	7/1	x	x	x	x	x	x	x	x	x	x
780s	867/4	135/4	428/3	x	x	x	31/1	9/1	x	x	x	x	x	x	x
790s	2363/5	x	x	119/1	28/2	x	x	x	x	x	x	x	x	x	x
800s	729/4	316/6	x	x	x	x	409/7	8/1	x	x	18/1	58/1	7/1	x	x
810s	14,514/8	1722/4	843/1	170/1	x	x	1644/13	63/5	x	x	251/6	19/2	x	x	x
820s	3748/5	219/2	x	x	370/1	x	2092/9	126/2	x	x	336/1	x	x	x	x
830s	295/1	429/3	247/1	50/1	x	x	1004/4	319/5	112/2	500/1	119/3	x	x	x	x
840s	952/1	236/2	271/2	x	x	x	3957/8	659/3	x	x	6/1	2103/1	93/1	x	x
850s	x	154/3	x	x	x	x	75/3	2347/9	157/1	6/1	x	152/1	13/1	10/1	x
860s	425/1	9/1	181/1	542/2	x	x	3836/13	2997/13	x	126/3	143/1	450/2	11/1	7/1	x
870s	1782/2	40/1	x	1599/4	x	x	5050/6	1751/7	893/2	38/1	x	147/2	x	x	x
880s	1040/4	x	4/1	405/3	x	x	100/1	515/6	x	x	766/1	x	x	x	x
890s	224/2	x	x	x	x	x	340/2	1289/6	x	x	308/1	x	x	x	x
900s	224/1	114/1	x	165/1	x	x	3851/7	621/9	x	6/1	940/2	x	5/1	x	36/1
910s	462/2	x	x	x	x	21/3	3388/8	3456/20	x	349/4	1064/3	37/2	302/3	x	46/4
920s	21/1	x	981/2	x	x	x	1172/9	2011/20	x	x	x	432/3	183/4	105/3	40/2
930s	1467/5	23/1	150/2	x	x	x	14,067/11	4276/30	8/1	59/3	757/5	1281/1	294/2	18/1	x
940s	1306/7	112/1	x	x	x	x	8588/8	4404/23	27/2	533/6	145/3	x	1169/3	39/1	18/1
950s	458/4	609/3	x	430/3	x	x	6713/21	15,401/68	194/3	1280/5	620/12	x	521/5	61/1	19/1
960s	1005/5	x	380/3	122/1	671/1	x	2222/4	4186/23	x	1335/2	79/3	259/2	1856/4	x	x
970s	306/4	5/1	257/3	821/3	x	x	37,997/23	5424/18	10/2	590/4	5030/7	x	255/4	x	x

Table 3. Continued

Decades	Near East	Caucasus	Central Asia	Iberia	North Africa & Sicily	Southeastern Europe	Russia, Ukraine, and Belarus	Sweden	Finland	S. E. Baltic	Poland	Northern Germany & the Netherlands	Denmark	Norway	British and Celtic Isles
980s	126/3	x	100/4	x	x	x	2927/14	2460/4	5/1	440/3	164/3	x	118/1	x	x
990s	721/5	x	76/2	20,838/3	x	786/1	1822/12	7410/50	11/1	x	979/17	1136/2	x	11/1	x
1000s	187/2	x	678/6	6422/10	x	x	8477/11	800/24	x	91/2	1205/10	46/3	22/2	20/3	x
1010s	142/3	57/1	595/8	4200/17	x	x	4276/1	551/20	13/2	347/4	197/6	983/1	335/3	9/1	x
1020s	283/3	434/1	3777/9	1052/2	x	x	x	928/23	15/1	699/1	409/6	359/3	11/1	6/1	x
1030s	96/2	x	985/9	54/1	x	x	313/2	424/10	x	22/1	198/7	x	10/1	8/1	x
1040s	x	x	5057/6	138/2	x	x	105/3	556/15	31/1	x	12/1	13/2	x	x	x
1050s	8/1	x	11,215/7	234/3	x	x	137/2	956/9	x	x	30/3	60/1	7/1	x	x
1060s	x	x	85/2	x	x	x	x	58/3	x	x	2/1	x	x	x	x
1070s	x	x	263/2	1000/1	x	x	9/1	37/3	x	4/1	x	x	x	x	x
1080s	x	x	6/1	190/2	x	x	x	228/8	x	x	2/1	21/2	x	x	x
1090s	9/1	x	1343/3	x	x	x	332/1	88/2	43/2	14/2	x	x	x	x	x
<b>Total</b>															
332,604/ 1212	45,207/ 114	4908/ 39	28,137/ 82	39,077/ 65	1386/ 7	807/ 4	114,934/ 205	64,358/ 430	357/ 21	6439/ 45	13,780/ 105	7556/ 31	5205/ 39	294/ 15	159/ 9

in the ninth through the tenth centuries, because parts of their contents were dispersed before they were analyzed and recorded. Such problematic hoards were consequently omitted from Table 3, which offers a list of hoard depositions by decades, but they were included into the overall totals from each micro and macro regions, found in Tables 1 and 2.

In light of all of the above circumstances, we are left with a total of 1212 hoards with what can be considered accurate information on the total quantities of dirhams, adding up to 332,604 coins, which can be organized into decades spanning from 670s through the 1090s. This sum will serve as the primary database for this study (see Table 3).

### *Volumes of Dirhams in Circulation*

The almost half million dirhams recorded in the catalog are, of course, only a small fraction of the actual number of silver coins minted by the various Islamic dynasties at the 273 mints registered in the catalog between the second half of the seventh and the late eleventh centuries. The volume of dirhams that were in circulation in the medieval Islamic world and the quantities minted by certain Muslim dynasties are truly remarkable even by modern standards. For instance, we know from one extant annual budget recorded by al-Muṭarrif that the ‘Abbāsīd Caliph Hārūn al-Rashīd (786–809) received in Baghdād 365 million dirhams in revenues, not to speak of the 5.18 million gold dīnārs, from the provinces in 795/96.<sup>11</sup> But, this figure is actually rather nominal, since Ismā‘īl ibn Subaih reported to al-Rashīd himself that his annual income constituted 873 million dirhams, which was ten thousand dirhams more than what the caliph’s father – al-Mahdī (775–785) – received in his treasury.<sup>12</sup> The figure 873 million appears to be not too far off the mark since, according to al-Ṭabarī, on his death in 809 al-Rashīd left more than 900 million dirhams in the caliphal treasury.<sup>13</sup> In the following century, the Sāmānīd dynasty in central Asia had an estimated annual budget of 45 million dirhams, while the military alone received twenty million dirhams a year from the Sāmānīd amīrs.<sup>14</sup> Based on the surviving dirhams and dirham hoards, Noonan had projected that just during the tenth century some 125 million whole Sāmānīd dirhams or 3750 kg of silver was exported into northern Europe from central Asia.<sup>15</sup> In fact, this trade was so intense that there are good reasons to believe that Sāmānīd mints struck dirhams specifically for commerce with the North.<sup>16</sup> In light of Noonan’s projection, it can be calculated that the entire tenth-century dirham export out of central Asia into northern Europe constituted less than three annual Samanid budgets. While the budget does not necessarily reflect the actual volume of dirhams available within the state at any given time (since it also includes goods and services), it does illustrate the magnitude of the Sāmānīd economy. Thus, it is not unreasonable to believe that some 1.25 million dirhams or 2.7 per cent of the annual Sāmānīd budget could be spent yearly in trade with northern Europe.<sup>17</sup>



The availability of 1.25 million dirhams within the Sāmānid amirate each year for export is also not at all outside the realm of probability. Al-Hamdānī (*d.*945), for instance, related that the huge silver deposits of ar-Raḍrāḍ in Yemen provided enough silver to produce some twenty thousand dirhams weekly or about one million dirhams per year (equaling 3.1 tons of silver).<sup>18</sup> While we do not know how these Yemeni silver mines compared in their productivity to those operating in the Sāmānid lands, there are good reasons to believe that the Sāmānid mines were among the largest in the Islamic world. In this way, if just one, albeit vast, Yemeni silver reserve could produce enough silver for the striking of one million dirhams per year, it would not at all be unreasonable to suggest that the two dozen or so primary and secondary mints operating under the Sāmānids could produce at least 1.25 million dirhams each year for trade with northern Europe during the course of the tenth century.<sup>19</sup> In sum, while the almost half million dirhams recorded in the catalog may seem very substantial, especially for the period in question, the volume of dirham production and circulation in the world of Islam was, of course, significantly greater.

### *The Overall Patterns*

One of the most obvious conclusions that can be drawn when examining Table 1 is that most of the Islamic silver coins have been discovered in hoards outside of the Muslim world, predominantly in Europe – 81.19 per cent of the total dirhams deposited in 81.4 per cent of the total hoards. The number of dirham hoards and dirhams discovered in the Muslim lands increases when subtracting Iberia from Europe and, quite properly, figuring it into the Islamic world, thereby raising the numbers for the Muslim lands from 18.81 to 27.32 per cent of the total. Regardless, based on the available evidence, almost three quarters of all the silver coins minted within the Muslim lands were deposited outside of *Dār al-Islām*, practically all in heathen and early Christian northern and northeastern Europe. This finding is rather striking, since this region of Eurasia is commonly considered one of the least economically developed, especially in comparison to the main states found in its confines – the Byzantine Empire, Islamic caliphate, and T'ang China. Below, we will briefly consider how, when, and why this occurred.

### 'THE SILVER ROAD'

The earliest written evidence of a commercial artery linking the Islamic world with northern Europe is attested to by Ibn Khurdādhbeh, writing between *c.*850 and 885. This master of the caliphal postal-intelligence service in Baghdād reported in his treatise on the various routes and roads of the Caliphate and beyond that a certain type of merchant, known as the ar-Rūs/Rus', traveled by ship from northern Russia via the Northern

Donets–Don river basins with their furs (beavers and black foxes) and (Frankish) swords to the southern coast of the Caspian Sea via Khazaria and then proceed south on camels to as far as Baghdād.<sup>20</sup> More detail on this route and its way back Ibn Khurdādhbeh did not record. However, in several fundamental studies based on historical numismatics, Noonan had been able to trace its geography and chronology. He established that the ninth-century dirham trade between northern Europe and the Muslim world began at the turn of the eighth–ninth centuries, that its source was the Islamic Near East (Iraq and Iran), and that it could be initiated because of the peaceful relations that had developed between the Khazar qağanate and the ‘Abbāsīd Caliphate by c.800.<sup>21</sup> Specifically, the find-spots of the hoards and their compositional profiles trace a route that ran from the Near East via the Caucasus to the lower Volga. From there it passed to the lower Don via a portage and the Khazar fortress of Sarkel. Thereafter, it went north up the Don to the Northern Donets, from where it continued further north into the Oka system and then crossed to the upper Dnepr, upper Volga, or Western Dvina and into the Baltic via the Lovat’ – Volkhov – Lake Ladoga – Neva – Gulf of Finland water-system. Based on numismatic finds and the unique graffiti found on some of the coins, Noonan had established that this ‘Silver Road’ began to function as early as c.800,<sup>22</sup> which nicely corresponds to the influx of silver into northern Europe (see Table 3). Writing in 903, Ibn Rusta and, about a century and a half later, Gardīzī noted that the Rus’ sold their pelts only for dirhams (two to two and a half dirhams per pelt).<sup>23</sup> This then explains the vast quantities of dirhams found in Russia and the Baltic with which the Rus’ maintained commercial relations.

Based on the surviving dirham hoards discovered in eastern Europe and the Baltic, the volume of the silver transfer from the Caliphate to silver-scarce Europe was very significant and, with little doubt, had a profound impact on the economic rise and development of Europe, both its western and eastern ends. This question deserves more serious consideration in scholarly literature,<sup>24</sup> but the issue that we will presently turn to is what Europe sent to the Islamic world in exchange for its silver.

#### NORTHERN EUROPEAN FURS AND SLAVES FOR *Dār al-Islām*

The fashion for fur developed in the Islamic world from an early period.<sup>25</sup> While it appears that the Umayyad rulers had a disdain towards wearing furs – perceived as ritually dirty<sup>26</sup> – and very little is known about the use of furs during the earliest periods of Islam, very soon after the ‘Abbāsīd dynasty took power in c.750 furs became a standard item of luxury among the Muslim elite. Thus, according to Ibn A‘tham al-Kūfī, ‘in 758 Yazīd – the ‘Abbāsīd governor of Armīniyah – received a dowry from the Khazar qağan which included amongst many other commodities ten carriages covered with gold and silver plaques, sables, and silks’.<sup>27</sup> The famous ‘Abbāsīd poet,

Ibrāhīm al-Mosuli (743–804), received a sable coat from one of the eunuchs of Caliph al-Mansūr (754–775) sometime early in his career.<sup>28</sup> In Baghdād, ‘Abbāsīd courtiers also wore furs during the reign of al-Mahdī (775–785).<sup>29</sup> In fact, the early ‘Abbāsīd elite, including the caliphs, extensively used furs in their dress on an everyday basis. Hārūn al-Rashīd, for example, is said to have had 4000 sable robes in his treasury.<sup>30</sup> Sables were also used at the early ‘Abbāsīd court to decorate palanquins.<sup>31</sup> In his work, *Murūdj al-dhahab* (compiled in c.934), Mas‘ūdī noted that

Arab and Persian kings take pride in their black furs, which they value more highly than those of sable-martens, *fanak* (?) and other similar beasts. The kings have hats, kaftans (*khafātīn*) and fur coats (*dawāwīj*) made of them, and it is impossible for a king not to possess a caftan or a fur coat lined with these black *burjāsī*.<sup>32</sup>

Earlier he noted that ‘One black pelt reaches the price of 100 dīnārs or even more; red ones are lower in price’.<sup>33</sup> In his work *Dhakhār*, Ibn al-Zubayr mentioned that Ismā‘īl ibn Aḥmad (892–907) – the Sāmānīd amīr – sent sable (*sammūr*) hats to the ‘Abbāsīd Caliph al-Mu‘taḍid in 893.<sup>34</sup> The same author added that Caliphs al-Ma‘mūn (813–833) and al-Muhtadī (869–870) owned kaftans lined with black and white fox fur, each priced at 500 dīnārs.<sup>35</sup> The use of furs among the elites in the Islamic world continued into the later Middle Ages. In 1025, for example, the Qarā-Khānīd Qadir-Khān gave the Ghaznavīd Amīr Maḥmūd ‘sables, minever, ermines, black fox and marten furs’.<sup>36</sup> In sum, beginning with the second half of the eighth century, the wearing of fur became well established in the Islamic world and furs were in great demand for centuries to come. As a result of this fashion, furs gravitated to the Islamic markets stretching from the Near East to central Asia during the entire course of the Middle Ages.

While some furs no doubt came to the Islamic world, especially its western regions, from northern Europe via western Europe and the Mediterranean,<sup>37</sup> there is little question that the overwhelming majority of them were carried via Russia by Rus’ merchants. Thus, aside from the accounts of Ibn Khurdādhbeh, Ibn Rusta, and Gardīzī already noted above which speak of the Rus’ trade of fox, beaver, sable, marten, and squirrel pelts, when speaking of Khazaria the Muslim author Ibn Ḥawqal wrote in 977–980 that

a large part of these furs, even the best of them, is obtained in the lands of the Rus’, and the more expensive pelts are imported from the lands of the Gog and Magog peoples; [these pelts] come to the Rus’ due to their proximity to the peoples of the Gog and Magog and their trade with them.<sup>38</sup>

These ‘Gog and Magog’ lands lay in the fur-rich Perm’ regions of north-eastern European Russia, at the foothills of the Urals, and were inhabited by various foraging Finno-Ugrian tribes who were expert hunters and trappers.<sup>39</sup> In sum, Northern Russia was a key supplier of pelts for the Islamic world and the Rus’ acted as the chief provider of this commodity that they carried there via European Russia beginning with the first years of the ninth century.

Another key commodity the Rus' provided to the Islamic world was human cargo – slaves. As with the demand for furs, the demand for slaves began with the rise of the 'Abbāsids in c.750. Thanks to the devastating plague that appears to have killed from twenty five to thirty five per cent of the population in urban areas of North Africa and the Near East in 745–752, demand for labor sharply rose in the Islamic world.<sup>40</sup> A decade after the plague, the 'Abbāsids had consolidated their political power, relocated the caliphal capital from Damascus to the new city of Baghdād in 762 which was much better geographically located for trade between the Caspian Sea and the Persian Gulf than the Mediterranean, and initiated an unprecedented production of dirhams throughout their realm which reached a crescendo by the late 770s.<sup>41</sup> Having established peaceful relations with the Khazar qağanate by c.800, the caliphate launched a massive commerce with northern Europe via the North Pontic-Caspian steppe lands of Khazaria and the Russian riverways, sending its silver northwards in exchange for slaves, furs, and other northern goods.<sup>42</sup>

Thus, as early as 811–813 European slaves or *ṣaqālība* were employed in Baghdād as caliphal guards (*al-Jarādiyyah*)<sup>43</sup> and, according to Ibn Khurdādhbeh, the ar-Rūs/Rus' who came to Baghdād to trade in the ninth century were assisted by local *ṣaqālība* who acted as their translators.<sup>44</sup> While there are no direct references to the sale of slaves by the Rus' to the Islamic world in the ninth century, it is clear that they were involved in trafficking humans in the region along the Danube during that period.<sup>45</sup> Furthermore, according to Jāhīz (d.870) we know that *ṣaqālība* came from the lands of the Khazars.<sup>46</sup> In light of the intense and, indeed, symbiotic commercial relations existing between the Khazars and the Rus' during the ninth century,<sup>47</sup> it is most reasonable to conclude that many, if not most of these slaves, were brought to Khazaria by the Rus' from northern Europe. Indeed, writing in 903, Ibn Rusta (and later Gardīzi) speaks of the Rus' raids for slaves and their sale to the Islamic world.<sup>48</sup> Since there is no reason to believe that these activities just began in 903, it is more than likely that the Rus' had been involved in the slave trade in the ninth century.

As with furs, the slave trade must have been quite substantial. Just to give an example of the magnitude of the slave domestics employed by the 'Abbāsīd rulers: Hārūn al-Rashīd was said to have had more than two thousand singing and dancing servant girls in his harem.<sup>49</sup> In his late tenth-century description of the caliphal palace in Baghdād, recalling the days of the earlier 'Abbāsīd Caliph al-Muktafī (902–908), Halāl aṣ-Ṣābī noted that his residence was staffed with ten thousand black- and white-skinned (*ṣaqālība*) servants.<sup>50</sup> The next caliph, al-Muqtadir (908–932), had at the palace eleven thousand male servants – seven thousand black-skinned and four thousand white '*ṣaqālība*' – and four thousand slave and free women.<sup>51</sup> Of course, the royal palaces and state bureaucratic apparatus were not the only employers of slaves in the Islamic lands. No doubt, they were also employed in industry, agriculture, and domestically.

### Conclusion

Dirhams or medieval Islamic silver coins provide a unique and indispensable primary source for the study of many key questions pertaining to Afro-Eurasian history during the Middle Ages. The 1656 dirham hoards containing almost half a million dirhams from across Afro-Eurasia recorded in the catalog used for the present study can shed much light on questions that cannot be answered using any other sources. Among the many questions that arise out of the statistics that this data offers is the general question of how, when, and where these silver coins traveled in and out of the Muslim world. While this study is a preliminary inquiry into the much larger question of what happened to the millions of dirhams struck in *Dār al-Islām*, it is already clear that most of them (almost three quarters) were carried to northern and northeastern Europe via the Russian riverways, mainly in exchange for furs and slaves beginning with c.800. What impact this massive outflow of silver had on the medieval Islamic civilization and the European economy, not to mention the social and political implications of the infusion of such wealth into Europe, should be the topic of upcoming studies.

### Short Biography

Dr Roman K. Kovalev's core research and teaching interests lie in the economic history of early medieval western Eurasia. He has authored 37 journal articles, 12 book reviews, 36 entries for three encyclopedias, edited two volumes of articles, and is co-editor of the scholarly journal *Archivum Eurasiae Medii Aevi*. Dr Kovalev is currently finishing a 1000-page catalog of Viking-age dirham hoards (deposits of Islamic silver coins) found throughout Afro-Eurasia in addition to articles interpreting these hoards; investigating the northern trade routes that were connected to the early medieval East-West Silk Roads; and, editing a volume of essays on the early medieval pastoral states and societies of the western Eurasian steppe zone. He has taught as Assistant Professor at The College of New Jersey since 2003 and at the University of Minnesota as a TA/graduate adjunct instructor of World History, Medieval Europe, and Early Russia between 1996 and 2003.

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### Notes

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<sup>1</sup> R. K. Kovalev, "Creating 'Khazar Identity' Through Coins – The 'Special Issue' Dirhams of 837/38," in F. Curta (ed.), *East Central and Eastern Europe in the Early Middle Ages* (Ann Arbor, MI: University of Michigan Press, 2005), 220–53.

- <sup>2</sup> Thomas S. Noonan, "Early 'Abbasid Mint Output,'" *Journal of the Economic and Social History of the Orient*, 29 (1986): 113–75; Noonan, R. K. Kovalev, "The Dirham Output of the Spanish Umayyad Emirate, ca.756–ca.929," in M. C. Hipólito et al. (eds.), *Homenagem a Mário Gomes Marques* (Instituto de Sintra: Sintra, 2000), 253–60; Kovalev, "Mint Output in Tenth-Century Bukhārā: A Case Study of Dirham Production and Monetary Circulation in Northern Europe," *Russian History/Histoire Russe*, 28: 1–4; also in *Festschrift for Thomas S. Noonan*, eds. R. K. Kovalev and H. M. Sherman (2001), 1: 245–71; Kovalev, "Dirham Mint Output of Sāmānid Samarqand and its Connection to the Beginnings of Trade with Northern Europe (10<sup>th</sup> Century)," *Histoire et Mesure [Monnaie et espace]*, 17/3–4 (2002): 197–216; Kovalev, "The Mint of al-Shāsh: The Vehicle For the Origins and Continuation of Trade Relations Between Viking-Age Northern Europe and Sāmānid Central Asia," *Archivum Eurasiae Medii Aevi*, 12 (2002–2003): 47–79.
- <sup>3</sup> Thomas S. Noonan, "Ninth Century Dirham Hoards from European Russia: A Preliminary Analysis," in M. A. S. Blackburn and D. M. Metcalf (eds.), *Viking-Age Coinage in the Northern Lands: The Sixth Oxford Symposium on Coinage and Monetary History*, British Archaeological Reports, International Series No. 122 (Oxford: BAR, 1981), 47–117; Noonan, "The Regional Composition of Ninth-Century Dirham Hoards from European Russia," *Numismatic Chronicle*, 144 (1984): 153–65; Noonan, "Ninth Century Dirham Hoards from Northwestern Russia and the Southeastern Baltic," *Journal of Baltic Studies*, 13 (1982): 220–44; Noonan, "Why Dirhams First Reached Russia: The Role of Arab-Khazar Relations in the Development of the Earliest Islamic Trade with Eastern Europe," *Archivum Eurasiae Medii Aevi*, 4 (1984): 151–282; Noonan, "When Did Dirham Imports into Tenth-Century Sweden Decline?" *Numismatiska Meddelanden*, 37 (1989): 295–301; Noonan, "Dirhems Omeyas de Al-Andalus en los Hallazgos del Proximo Oriente, Norte de Africa, Sicilia y el Caucaso," *Gaceta Numismatica*, 92 (March 1989): 25–27; Noonan, "Khwarazmian Coins of the Eight Century from Eastern Europe: The Post-Sasanian Interlude in the Relations Between Central Asia and European Russia," *Archivum Eurasiae Medii Aevi*, 6 (1985 [1987]): 243–7; Noonan, "Scandinavian-Russian-Islamic Trade in the Ninth Century," *A Wosinsky Mór Múzeum Évkönyve*, 15 (1990): 53–63; Noonan, "Dirham Exports to the Baltic in the Viking Age: Some Preliminary Observations," in Kenneth Jonsson and Brita Malmer (eds.), *Sigtuna Papers: Proceedings of the Sigtuna Symposium On Viking-Age Coinage 1–4 June 1989*, Commentationes de Nummis Saeculorum IX–XI in Suecia Repertis. Nova Series 6 (Stockholm/London: Vitterhetsakademien, 1990), 251–7; Noonan, "The Cessation of Viking-Age Dirham Imports into Poland and Polabia," *Annales Universitatis Mariae Curie-Skłodowska* 45 (1990): 67–78; Noonan, "Fluctuations in Islamic Trade with Eastern Europe during the Viking Age," *Harvard Ukrainian Studies*, 16 (1992): 237–59; Noonan, "The Vikings in the East: Coins and Commerce," in B. Ambrosiani and Helen Clarke (eds.), *Developments Around the Baltic and the North Sea in the Viking Age*, Birka Studies 3 (Stockholm: Birka Project, 1994), 215–36; Noonan, "Volga Bulgharia's Tenth-Century Trade with Samanid Central Asia," *Archivum Eurasiae Medii Aevi*, 11 (2000–2001): 140–218; Noonan and R. K. Kovalev, "Neizvestnyi klad nachala IX v. iz imeniia M. A. Obolenskogo Dmitrovskogo uezda Moskovskoi gubernii," *Arkhologicheskie vesti*, 7 (2000): 206–17 (with extensive Eng. summary).
- <sup>4</sup> Thomas S. Noonan, "When Did Dirhams First Reach the Ukraine?" *Harvard Ukrainian Studies*, 2 (1978): 26–40; Noonan, "When and How Dirhams First Reached Russia: A Numismatic Critique of the Pirenne Theory," *Cahiers du Monde Russe et Soviétique*, 21 (1980): 401–69; Noonan, "When, How and Why Dirhams First Reached European Russia: A Numismatic Critique of the Pirenne Theory," in T. Hackens and R. Weiller (eds.), *Proceedings of the 9<sup>th</sup> International Congress of Numismatics, Berne* (Luembourg: Louvain-La-Neuve, 1982), 765–70; Noonan, "Russia, the Near East, and the Steppe in the Early Medieval Period: An Examination of the Sasanian and Byzantine Finds from the Kama-Urals Area," *Archivum Eurasiae Medii Aevi*, 2 (1982): 269–302; Noonan, "A Dirham Hoard of the Early Eleventh Century from Northern Estonia and Its Importance for the Routes By Which Dirhams Reached Eastern European ca.1000 A.D.," *Journal of Baltic Studies*, 14 (1983): 185–202; Noonan, "The First Major Silver Crisis in Russia and the Baltic, c.875–c.900," *hikuin*, 11 (1985): 41–50; R. K. Kovalev, "Klad dirkhemov 913/14 g. iz der. Pal'tsevo Tver'skoi gub.," in D. G. Savinov (ed.), *Klady: sostav, khronologiia, interpretatsiia. Materialy tematicheskoi nauchnoi konferentsii (St. Petersburg, November 26–29, 2002)* (St. Petersburg: SPBGU, 2002): 160–4.
- <sup>5</sup> Thomas S. Noonan, "Monetary Circulation in Early Medieval Rus': A Study of Volga Bulgar Dirham Finds," *Russian History/Histoire Russe*, 7 (1980): 294–311; Noonan, "Andalusian Umayyad

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<sup>6</sup> Thomas S. Noonan, "A Ninth Century Dirham Hoard from Devitsa in Southern Russia," *The American Numismatic Society Museum Notes*, 27 (1982): 185–209; Noonan, "Did the Khazars Possess a Monetary Economy? The Numismatic Evidence," *Archivum Eurasiae Medii Aevi*, 2 (1982): 219–68; Noonan, "What Does Historical Numismatics Suggest About the History of Khazaria in the Ninth Century?" *Archivum Eurasiae Medii Aevi*, 3 (1983): 265–81; R. K. Kovalev, "What Does Historical Numismatics Suggest About the Monetary History of Khazaria in The Ninth Century? – Question Revisited," *Archivum Eurasiae Medii Aevi*, 13 (2004): 97–129.

<sup>7</sup> Thomas S. Noonan, "Dirhams from Early Medieval Russia," *Journal of the Russian Numismatic Society*, 17 (Winter 1984/85): 8–12; Noonan, "Why the Vikings First Came to Russia," *Jahrbücher für Geschichte Osteuropas*, 34 (1986): 321–48; Noonan, "Khazaria as an Intermediary Between Islam and Eastern Europe in the Second Half of the Ninth Century: The Numismatic Perspective," *Archivum Eurasiae Medii Aevi*, 5 (1985): 179–204; Noonan, "The Impact of the Silver Crisis in Islam Upon Novgorod's Trade with the Baltic," *Bericht Der Römisch-Germanischen Kommission*, 69 (1988): 411–47; Noonan, "The Start of the Silver Crisis in Islam: A Comparative Study of Central Asia and the Iberian Peninsula," in M. G. Marques and D. M. Metcalf (eds.), *Problems of Medieval Coinage in the Iberian Area*, 3 (Santarem: Instituto de Sintra, 1988), 119–44; Noonan, "When Did Rus/Rus' Merchants First Visit Khazaria and Baghdad?" *Archivum Eurasiae Medii Aevi*, 7 (1987–1991): 213–19; Noonan, "The Onset of the Silver Crisis in Central Asia," *Archivum Eurasiae Medii Aevi*, 7 (1987–1991): 221–48; Noonan, "Dirham Hoards from Medieval Lithuania," *Journal of Baltic Studies*, 23 (1992): 395–414; Noonan, "Coins, Trade and the Origins of Ninth Century Rus' Towns," in B. Kluge and B. Weisser (eds.), *XII. Internationaler Numismatischer Kongress Berlin 1997 (Akten – Proceedings-Actes)* (Berlin: Gasamtherstellung UNZE Verlags, 2000), 2: 934–42; Noonan, "The Impact of the Islamic Trade Upon Urbanization in the Rus' lands: The Tenth and Early Eleventh Centuries," in M. Kazanski, A. Nercessian, and C. Zuckerman (eds.), *Les Centers Proto-Urbains Russes Entre Scandinavie, Byzance Et Orient*, Actes du Colloque International tenu au Collège de France en octobre 1997 (Réalités Byzantines 7) (Paris: Editions P. Lethielleux, 2000), 379–93; Noonan, "Klad dirkhemov 876/77 gg. iz der. Khitrovka Tul'skoi gub.," in Savinov, *Klady: sostav, khronologiia, interpretatsiia*, 156–60; Noonan and R. K. Kovalev, "Klad 873/74 gg. iz Liubyni: Voiny i zakhoroneniie kladov v epokhu Riurika," in Savinov, *Klady: sostav, khronologiia, interpretatsiia*, 152–6; Noonan and Kovalev, "Bol'shoi klad dirkhemov nachala epokhi vikingov naidennyi v 2000 g. v g. Kozel'ske, Kaluzhskoi obl.," *Arkheologicheskoe vesti* 10 (2003) (with extensive Eng. summary): 149–63; Kovalev, "Creating 'Khazar Identity,'" 220–53.

<sup>8</sup> *tpq* = *terminus post quem* or the year of the latest coin in a hoard, indicating the approximate date of the hoard's deposit. The reasoning behind dating hoards based on the latest coin is connected with the logic that the hoard could not have been deposited before the youngest coin was entered into it; on the other hand, if the hoard was deposited much later than the youngest coin, it would be expected that newer coins would have been added to it before its burial.

<sup>9</sup> Thomas S. Noonan and R. K. Kovalev, *Dirham Hoards from Medieval Western Eurasia, c.700–c.1100*, Commentationes De Nummis Saeculorum IX–XI in Suecia Repertis. Nova Series 13 (Stockholm: Vitterhetsakademien, forthcoming).

<sup>10</sup> In certain cases, all that are reported is that "more than 1000" dirhams composed a hoard, or some other imprecise number. Again, in such cases, we include the absolute minimal number of dirhams from such hoards, such as "1000" in the case of the example noted above.

<sup>11</sup> Šāleḥ Aḥmad el-'Alī, "Miscellanea: A New Version of Ibn al-Muṭarrif's List of Revenues in the Early Times of Hārūn al-Rashīd," *Journal of the Economic and Social History of the Orient*, 14 (1971): 306.

<sup>12</sup> Halāl aṣ-Šābī, *Rusūm Dār al-Khilāfa/Ustanovleniia i obychai dvora khalīfov*, Pamiatniki pis'mennosti Vostoka, LXVII, trans. I. B. Mikhailova (Moscow: Vostochnaia literatura, 1983), 33 [29].

<sup>13</sup> Al-Ṭabarī in *The History of al-Ṭabarī: An Annotated Translation, Vol. 30, The 'Abbāsīd Caliphate in Equilibrium. The Caliphate of Mūsā al-Hādī and Hārūn al-Rashīd: A.D. 785–809/A.H. 169–193*, trans. C. E. Bosworth (New York: SUNY, 1989), 335 [764].

- <sup>14</sup> W. Barthold, *Turkestan Down to the Mongol Invasion* (London: Luzac, 1958), 238.
- <sup>15</sup> Noonan, "Volga Bulgharia's Tenth-Century," 206.
- <sup>16</sup> Kovalev, "Mint of al-Shāsh," 52–3.
- <sup>17</sup> *Ibid.*, 48.
- <sup>18</sup> D. M. Dunlop, "Sources of Gold and Silver in Islam According to al-Hamdānī (10<sup>th</sup> century A.D.)," *Studia Islamica*, 8 (1957): 40–2; G. I. Dzhaparidze, "Rudniki blagorodnykh metallov na blizhnem i srednem Vostoke v VIII–X vv.," in G. F. Girs and E. A. Davidovich (eds.), *Blizhnii i srednii Vostok. Tovarno-denezhnye otnosheniia pri feodalizme* (Moscow: Nauka, 1980), 88.
- <sup>19</sup> Kovalev, "Mint of al-Shāsh," 61–6.
- <sup>20</sup> O. Pritsak, "An Arabic Text on the Trade Route of the Corporation of the ar-Rus in the Second Half of the Ninth Century," *Folia Orientalia*, 12 (1970): 256–7. It should be noted that Ibn al-Faqīh, writing in the early tenth century, noted that the Rus'/Rūs traveled from the southern Caspian not to Baghdad, but to the Iranian city of Rayy. However, as noted by Pritsak (245–8, 255–6n18), this is an inaccurate account.
- <sup>21</sup> Noonan, "Ninth Century Dirham Hoards from European Russia: Preliminary Analysis," 47–117; Noonan, "Regional Composition of Ninth-Century Dirham Hoards from European Russia," 153–65; Noonan, "When and How Dirhams First Reached Russia," 401–69; Noonan, "Why Dirhams First Reached Russia," 152–282. Also see Noonan and Kovalev, "Neizvestnyi klad nachala IX v.," 211–12; Noonan and Kovalev, "Bol'shoi klad dirkhmov nachala epokhi vikingov," 149–63.
- <sup>22</sup> Noonan, "When Did Rūs/Rus' First Visit," 213–19.
- <sup>23</sup> Ibn Rusteh, *Les Atours Précieux*, trans. G. Wiet (Cairo: De La Société de Géographie d'Égypte, 1955), 159; Gardīzī in A. P. Martínez, "Gardīzī's Two Chapters on the Turks," *Archivum Eurasiae Medii Aevi* 2 (1982): 158–9, 167.
- <sup>24</sup> For a more detailed discussion of this issue, see R. K. Kovalev, "What About the 'Northern Arc'? On the Significance of Ninth-Century Islamic Silver Imports into Viking-Age Northern Europe" (forthcoming).
- <sup>25</sup> For the development of the fashion for furs in Byzantium, the Caliphate, and Tang China see R. K. Kovalev, "Commerce and Caravan Routes along the Northern Silk Road (Sixth–Ninth Centuries) – Part I: The Western Sector," *Archivum Eurasiae Medii Aevi*, 14 (2005): 55–105; Kovalev, "Commerce and Caravan Routes along the Northern Silk Road (Sixth–Ninth Centuries) – Part II: The Eastern Sector," *Archivum Eurasiae Medii Aevi* (forthcoming).
- <sup>26</sup> During his conquest of Ādharbayjān, Caliph 'Umar I (634–644) reprimanded the Kūfāns that they should "not eat except what is legally slaughtered, nor wear except what is ceremonially clean." See al-Balādhuri, *Kitāb Futūh al-Buldān* in *The Origins of the Islamic State*, pt. 2, trans. F. C. Murgotten, 2<sup>nd</sup> edn. (New York, NY: Columbia University Press, 1969), 22 [540].
- <sup>27</sup> Ibn [A'sam] A'tham Al-Kūfī, *Kniga zavoevanii (Iz vlecheniia po istorii Azerbaidzhana VII–IV vv.)*, trans. Z. M. Buniatov (Baku: Nauka, 1981), 62.
- <sup>28</sup> H. Kennedy, *When Baghdad Ruled the Muslim World: The Rise and Fall of Islam's Greatest Dynasty* (Cambridge, MA: Da Capo Press, 2004), 127.
- <sup>29</sup> Al-Ṭabarī in *The History of al-Ṭabarī: An Annotated Translation, Vol. 29, Al-Manṣūr and al-Mahdī*, trans. H. Kennedy (New York, NY: SUNY, 1990), 225.
- <sup>30</sup> M. Gil, "The Rādhānite Merchants and the Land of Rādhān," *Journal of the Economic and Social History of the Orient*, 17/3 (1974): 313n56.
- <sup>31</sup> Mas'ūdī in *The Meadows of Gold: The Abbasids*, trans. and eds. P. Lunde and C. Stone (London: Kegan Paul, 1989), 390.
- <sup>32</sup> Mas'ūdī in *A History of Sharvān and Darband in the 10<sup>th</sup>–11<sup>th</sup> centuries*, trans. V. Minorsky (Cambridge: W. Heffer and Sons, 1958), 149.
- <sup>33</sup> Mas'ūdī in *History of Sharvān and Darband*, 149.
- <sup>34</sup> Gil, "Rādhānite Merchants and the Land of Rādhān," 312–13.
- <sup>35</sup> M. M. Ahsan, *Social Life Under the Abbasids, 170–289 A.H./786–902 A.D.* (London: Longman, 1979), 75.
- <sup>36</sup> Barthold, *Turkestan Down to the Mongol Invasion*, 284.
- <sup>37</sup> For the role of the Jewish merchants (known in the ninth century as the Rādhāniya/Rāhdāniya) in this trade, see Ibn Khurdādhbih, *Kitāb al-Masālik wa'l-Mamālik/Liber viarum et regnorum*, Bibliotheca Geographorum Arabicorum, IV, trans. M. J. de Goeje, 2<sup>nd</sup> edn. (Leiden: Lugduni Batavorum, E. J. Brill, 1967), 116–17.



- <sup>38</sup> Ibn Hawqal in V.V. Bartol'd, *Sochineniia* II:1 (Moscow: Nauka, 1963), 848. For the “Gog and Magog,” see A. R. Anderson, *Alexander's Gate, Gog and Magog, and the Inclosed Nations* (Cambridge, MA: Medieval Academy of America, 1932).
- <sup>39</sup> R. K. Kovalev, “The Infrastructure of the Northern Part of the ‘Fur Road’ Between the Middle Volga and the East During the Middle Ages,” *Arhivum Eurasiae Medii Aevi*, 11 (2000–2001): 25–64; Kovalev, “The Infrastructure of the Novgorodian Fur Trade in the Pre-Mongol Era (ca.900–ca.1240),” Dissertation (University of Minnesota, 2003), ch. 1, 3.
- <sup>40</sup> M. McCormick, *Origins of the European Economy. Communications and Commerce, A.D. 300–900* (Cambridge: Cambridge University Press, 2001), 753.
- <sup>41</sup> For the rise and commercial development of Baghdād, see R. Hodges and D. Whitehouse, *Mohammed, Charlemagne & the Origins of Europe* (Ithaca, NY: Cornell University Press, 1983), 125–57. For the mint output under the early ‘Abbāsids, see Noonan, “Early ‘Abbasid Mint Output,’” Appendix D, E, 170–1.
- <sup>42</sup> It would be amiss not to note that the boom in the economy of the Caliphate during the early ‘Abbāsīd era can and should also be attributed to the so-called “Green Revolution” which came about by the transfer of new crops and agricultural technologies to the Islamic world, mostly from South Asia; see A. M. Watson, *Agricultural Innovation in the Early Islamic World: The Diffusion of Crops and Farming Techniques, 700–1100* (Cambridge: Cambridge University Press, 1983).
- <sup>43</sup> Al-Ṭabarī in *The History of al-Ṭabarī: An Annotated Translation, Vol. 31, The War Between Brothers: The Caliphate of Muḥammad al-Amīn A.D. 809–813/A.H. 193–198*, trans. M. Fishbein (New York, NY: SUNY, 1992), 142 [874].
- <sup>44</sup> Pritsak, “Arabic Text,” 256–7.
- <sup>45</sup> *Inquisitio de Theloneis Reffelstensis* (P. 250: VI) in *Nemetskie latinoiazyczhnye istochniki IX–XI vekov* (Moscow: Nauka, 1993), 62–7, map on p. 66.
- <sup>46</sup> Jāhiz in R. S. Lopez, I. W. Raymond, *Medieval Trade in the Mediterranean World: Illustrative Documents, Translations with Introductions and Notes*, Reprint edn. (New York, NY: Columbia University Press, 1990), doc. 4, p. 28.
- <sup>47</sup> Noonan, “Khazaria as an Intermediary between Islam and Eastern Europe,” 179–204; Kovalev, “What Does Historical Numismatics Suggest,” 125–9.
- <sup>48</sup> Ibn Rusteh, *Les Atours Précieux*, 163; Gardīzī in Martinez, “Gardīzī's Two Chapters on the Turks,” 167.
- <sup>49</sup> Kennedy, *When Baghdad Ruled the Muslim World*, 165.
- <sup>50</sup> Halāl aṣ-Ṣābī, *Rusūm Dār al-Khilāfa*, 25 [p. 8].
- <sup>51</sup> *Ibid.*

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