ENCOUNTERS, EXCAVATIONS AND ARGOSIES

ESSAYS FOR RICHARD HODGES

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Scandinavian monetisation in the first millennium AD – practices and institutions

Dagfinn Skre

As the logical foundation of money is to be found in money of account, it is here that we should attempt to locate its historical origins, not in the excavation and dating of money-stuff.
(Ingham 2004: 89)

The post-Roman rise in trade, urbanisation, monetisation, and kingship are prominent fields of research in early medieval archaeology and history (e.g. Henning 2007; Hodges 2000; McCormick 2001; Sindbæk 2007; Wickham 2009; regarding western Scandinavia, see Skre 2017). Are these processes dependent on each other, and if so – how? While Richard Hodges in his seminal book, *Dark Age Economics* (1982), mainly explored the first two themes, this essay will address monetisation. ‘Type A emporia’ as Hodges called Scandinavian 8th–10th-century urban communities, or ‘towns’ as I have chosen to designate them (Skre 2007, 2008), played a significant role in his book, and are the starting point of my discussion here.

The first Scandinavian coins were struck in or near these towns and appear to have been used primarily within them. Minting began in Ribe in the mid-8th century, was taken up in Hedeby from the early 9th, and in Sweden and Norway from just before AD 1000. The use of hacksilver for payment was likewise of urban origin, first occurring in Kaupang, and probably also in Birka, in the second quarter of the 9th century. In rural areas 9th-century silver hoards are few – except in Gotland, a special case.¹ From the mid-10th century, hoards containing hacksilver, including varying proportions of cut-up coins, were deposited in most parts of Scandinavia (Hårdh 1996; Kilger 2008a).

Although the first phase of coin and hacksilver use appears to have been urban, the connection between urbanisation and monetisation is not very tight. The towns’ first 2–5 decades have produced very few finds of hacksilver or coins. Nevertheless, the towns from the beginning contained copious quantities of trade goods imported from near and far, as well as evidence for commodity production for sale on site. Thus, in the initial decades, urban trade took place with limited or no use of precious-metal money as payment. There is no reason to believe that the transaction practices of this period ceased with the advent of minted and unminted silver as payment media. Probably, the Viking Age towns saw payment practices equally heterogeneous as those attested in 12th- to 14th-century Norwegian law codes and documents, when payments were made in commodities, bullion, counted coins, and weighed coins, sometimes in combination within a single transaction (below, Skre 2011: 73–5).

The looseness of the connection between urbanisation and monetisation is emphasised by the lack of urban communities in the earliest period of monetisation in Scandinavia, the Roman (1–400) and Migration (400–550) periods. Roman silver *denarii* began arriving in the 1st century AD. In the 2nd and 3rd centuries they arrived in substantial numbers and wide distribution, with particular concentration on the southern and south-eastern islands of Gotland, Öland, Bornholm, Fyn, and Sjælland (Herschend 1980; Lind 1988; Bursche 2002: 73; Horsnæs 2010). Finds on market sites and in soldiers’ purses may indicate that *denarii* were used as payment (Skre in press). Overall, before the 5th–6th centuries, the potential use of precious-metal token money appears to have been limited to the southern regions.

¹ The early hoarding of vast quantities of Islamic coins in Gotland (Kilger 2008a) was probably a result of the role played by the island’s traders as pioneers in establishing trade networks along the rivers to the east and south. Probably, these networks had their basis in contacts established in the 1st–6th centuries (below). However, it remains uncertain whether the Islamic coins circulated in Gotland in the 9th century or whether they were deposited in the ground to be used in future trading expeditions.

Gold had a much wider distribution in the Migration Period. It has been found in substantial quantities on the islands and mainland, as far north as Uppland in the east and Trøndelag in the west. Further north, finds are few and their weight is low. Unsurprisingly, when gold *solidi* began arriving in the 4th century, their first entry point appears to have been the very same southern islands rich in *denarii* finds. The gold finds on these islands contain a much higher proportion of intact *solidi*, whereas bullion predominates in finds on the mainland. In this period, these islands' links to the Continent appear to have been more developed than those of mainland Scandinavia.

The c. 1140 *solidi* retrieved in Scandinavia make up less than 5% of the 100-plus kilogrammes of Migration Period gold recovered in Scandinavia (Fonnesbech-Sandberg 1988, 1989; Klang 2013; Munch 1956; Skre in press, note 13). While a small proportion of the remaining 95% had been worked into ornaments, the vast majority is in the form of bullion: simple rings, bangles, spirals, ingots, and rods. Some of these are preserved intact; others had been cut up into larger and smaller pieces, some less than 1g (Skre in press).

The reason for the melting down of coinage into bullion that was subsequently cut up is evident. The first weighing implements, scales and weights, were introduced at the start of the Migration Period; together with weight-adjusted rings that conform to the weight-units inferred from sets of weights, these implements leave little doubt that gold was valued by weight and used in payment. The period appears to have featured a developed monetary system based in well-established practices of valuing in gold-weight units followed by cutting, weighing and paying in gold bullion. Very few market sites are known from the period, and the finds of gold are in no way limited to these sites or their vicinity.

The two periods of precious-metal token-money use – the Migration and Viking periods – are separated by a 200–400-year period from which there are few or no finds of such media.² This period's few items of gold are thin gold foil used to decorate weapons or ornaments, or to make the tiny *gullgubber*, most of which portray humans and were deposited indoors in a ritual context. Not only is cut-up gold or silver lacking in this period, there is also an absence of weights and scales. If only one or two of the three categories were lacking, a tangential factor, such as changes in hoarding practices, could be the cause. But the near-absence of all three categories suggests that there was little or no use of precious-metal money in this period.

Amidst the complex reasons for the change in payment practices c. 550–600, one factor stands out – the extremely limited availability of gold or silver. Towards the end of the reign of Justinian (518–65), there was a sharp break in contacts between Scandinavia and the Byzantine Empire, the latter a prominent source of gold at the time. Consequently, the importation of not only *solidi*, but also glass vessels and other goods that until then had been arriving in substantial quantities, was sharply affected (Ljungkvist 2009: 44–7). At the same time, the Migration Period hoarding of cut-up silver, which had happened on a small scale in southernmost Scandinavia, ceased in the mid- or late-6th century (Dyhrfjeld-Johnsen 2013).

Several questions arise from this, two of which will be addressed in the following. Firstly, if Migration Period monetisation was weakly or not at all connected to trade and markets, for what kinds of payments were they used? Secondly, in light of scholarly assumptions that Migration Period monetary terms and weight units were reintroduced in the Viking Period, how could the units and terms have survived the two- to four-century hiatus when there were little or no precious-metal money-media in use? Following a discussion of the nature of money and monetisation, I shall suggest some directions for seeking answers to these two questions.

Monetary practices

'Monetisation' refers to the process by which a medium becomes an accepted means of payment. In Viking Period Scandinavia, monetisation occurred in parallel with the rise of kingship, as kings established national coinages and enforced their use by law. The question of whether this was also the case in Migration Period Scandinavia will be addressed towards the end of this essay.

² Following the near-disappearance of gold, silver, weights and scales c. 550, in areas such as Gotland, Fyn, and Sjælland, as well as in the four towns mentioned above, two-three centuries passed before silver begins turning up in hoards. In rural regions in central and northern Scandinavia nearly four centuries passed before cut-up silver began being interred in hoards and stray finds.

Among the various perspectives on value and money in current economic theory, that which developed within Modern Money Theory (Graeber 2011; Ingham 1998, 2004; Wray 2014; Wray and Elgar 2004) appears to be most relevant for grasping early-medieval monetary practices. Two papers published a century ago by A. M. Innes (1913, 1914) have been particularly influential within this theoretical strand. In contrast to neoclassic monetary theory, which considers money as a ‘thing’ or even as a commodity (a notion commonly found across social and historic disciplines; see Ingham 1998: 4), Innes conceptualises money as a unit for measuring value. From this perspective, money as a ‘thing’ – for example, a coin or a piece of bullion – is merely a token of a promise to pay a certain quantity of value measured by that unit. A one-metre stick is not the same as a length of one metre; a one-pound coin is not the same as a pound’s worth of value. Both metre and pound are units, while sticks and coins are objects used for involving these units in human practices. As famously formulated by Innes (1914: 155): ‘The eye has never seen, nor the hand touched a dollar. All that we can touch or see is a promise to pay or satisfy a debt due for an amount called a dollar.’

The monetary practice of valuing an object involves assessing the value using the monetary unit, often called a unit of account. Value is thus not an intrinsic quality of an object, but rather a relation between the object and the potential payment as stipulated in multiples or fractions of the unit of account. An object is given value by the individual who considers it a potential object of exchange.

The MMT perspective on value accords well with early-medieval Germanic practice. The meaning of the Proto-Germanic verb **wérþan-*, datable to before AD 1 and probably based on the Indo-European verb **wer-t-*, indicates that Germanic peoples of the time understood value as a relation. The word’s basic meaning seems to have been ‘turn towards’, developing to ‘corresponding to’ (Bjorvand and Lindeman 2007: 1286–7).

This way of understanding money distinguishes between the monetary token – whether coins or bullion – and the unit for measuring value. In token money, unit and token are unified in one medium. Ingham (2004: 70, 2016: 200), following Keynes (1930), Grierson (1977), and others, calls this duality of token money its ‘unique specificity’. However, this uniquely specific medium need not be carried into every monetary transaction. If the two parties to a transaction assess the objects they carry to the exchange as having equal value measured by the unit of account, they may agree to exchange them directly without involving token money. Use of the monetary unit as a unit of account is what classifies the transaction as monetary (Ingham 2004: 89–106).

Embedded in many economic textbooks (e.g. Mishkin 2013: 44–6) is the assumption that this practice of using units of account preceded the use of token money. However, there is no historic or anthropological evidence of such a sequence (Ingham 2004: 89). The anthropologist Caroline Humphrey (1985: 48) is quite definite on this score: ‘No example of a barter economy, pure and simple, has ever been described, let alone the emergence from it of money; all available ethnography suggests that there never has been such a thing.’

Actually, it seems that the normal sequence has been the opposite: token money came first. If token-money media subsequently become scarce or absent, people begin exchanging commodities by first valuing them in that unit of account and then conducting the transaction either by exchanging commodities directly or by establishing a debt relation (Ingham 2004: 110). This was the case in late-medieval Norway (Skre 2011) as well as in the 6th–8th-century Merovingian Empire (Kilger 2008b) and in Carolingian Italy (Rovelli 2012). In Norway, units of account were normally based on weighed silver, more rarely on coinage; several Continental examples were based on the coinage system, such as the *solidus* – although no *solidi* circulated. Some scholars have referred to such use of units of account as ‘ghost money’ (Cipolla 1956: 38–42; Wood 2002: 76–8). This is a ‘post-monetary phenomenon’, writes Humphrey (1985: 49); that is, it occurred *after* the practice of valuing using units of account had become well established through the use of token money.

Geoffrey Ingham (2016: 200–1) has suggested a reason why token-money use – except in the ancient ‘command economies’ in the Near East³ – appears to be necessary to establish a stable monetary unit of account. In

³ Token money – stable units of account tied to precious-metal weight units – appears to have originated 3,000–500 BC in the highly bureaucratic societies of the Near East, Mesopotamia, Egypt, and the Indus Plain; coinage does not appear until the very end of the period. Although the circulation of token money was limited – in Egypt there was close to none – units of account were used extensively by powerful, centralised government institutions to keep track of resources, taxes, obligations, and debts (Ingham 2004: 90–101). The institutions’ use of units of account in their relations with the population ensured the units’ general acceptance. In societies where institutionalised and centralised power was weak or lacking, as in Migration Period Scandinavia, the general use of units of account cannot have come about in this fashion; only the use of token money for payment and interaction with monetised societies can have resulted in the general acceptance of monetary units.

his view, precious-metal token money has no utilitarian value to anyone apart from the goldsmith. Thus, acquisition of token money is motivated by the prospect of using it to pay in future transactions.⁴ Before the introduction of token money, customary rates may have developed through direct exchange of certain commodities; possibly, this applies to the exchange of bronze in the Scandinavian Bronze Age (Eriksson 2008; Malmer 1992; Melheim in press). However, given that bronze was used for a variety of utilitarian purposes, the motivations of the parties in actual transactions would have been partly influenced by utilitarian considerations, preventing such rates from becoming stable monetary units of account in which a multitude of commodities may be valued. The use of a token-money medium with no utilitarian value – or alternatively the bureaucratic power of command economies – was necessary for achieving stability.

Weregeld

As indicated above, both historical and anthropological evidence suggests that token money did not develop from direct commodity exchange, nor was it introduced to facilitate trade. Rather, the introduction of token money appears to have been supported by law and associated with the development of kingship and states. Discussing likely spheres where money may have been introduced among Germanic peoples, Philip Grierson (1977: 19–29) points to the *weregeld* institution known from the 5th- to 9th-century *Leges Barbarorum*, the law codes of Continental Germanic kingdoms. The detailed provisions for the compensation that a felon and his kin should pay to the victim's kin for various degrees of injuries and manslaughter demanded precise and stable units in which the value of life and limb could be assessed. Grierson (1977: 20) holds that these laws satisfy 'the prerequisites for the establishment of a monetary system' much better than any circumstance of the market.

Several Scandinavian law codes – all were committed to parchment from the 12th century onwards – contain *weregeld* provisions. Most of the codes were written down in connection with legal reforms, and several of them were influenced by that process. However, some appear to have preserved bits and pieces of ancient judicial tradition (Brink 2013). Two of them, the West-Norwegian Gulathing and Frostathing law codes, are of particular interest in this context because they contain extensive *weregeld* provisions. Furthermore, they refer to a unit of account and use some terms apparently connected to the social and economic realities of the Migration Period.

In the Gulathing law code, 103 chapters deal with manslaughter and various kinds of assault (Chs. 150–252, Eithun *et al.* 1994: 108–41) – close to a third of the codex's 320 chapters. Of these 103, 34 deal with the paying and receiving of atonements for manslaughter, the first of which reads:

The first baugr is called the hofuð baugr [head baug]. It amounts to 10 mercr [marks silver], that is, 32 kýr [cows], if the man who is slain was born to oðal right. And the man fines increase or decrease in amount from this point just as the other atonements do. If there is no son, the father takes [the head baug]; if both are living, the father takes three mercr. If he [the father] is no longer able to kill, the slayer owes him 12 aura [= 1.5 marks silver]. But if the slayer is utlagr [outlawed], there are no atonements. When the slayer dies his heir assumes the axe [the responsibility for the killing].⁵

Terms related to payment are *baugr*, *kýr*, *mercr* and *aurar*, the latter two being units of weight: 10 *mercr* equals c. 2.1kg and 12 *aurar* are c. 315g. The word *baugr* means 'what is bent', in earlier times referring to an actual precious-metal rod bent into a ring (Brøgger 1921: 36). By the time the Gulathing law was codified in the mid- and late-12th century, the term *baugr* had taken on an abstract meaning, more or less synonymous with the concepts of 'fine' and 'atonement' (Storm and Hertzberg 1895: 92–3).

As Birgitta Hårdh (1996: 134–46) has demonstrated, silver in 9th-century Scandinavia was usually forged into standardised rings, many of them weighing 2, 4, 8, or 12 *aurar*. Such rings were rarely cut up, indicating that they were used to pay rather large sums at customary rates – presumably, primarily *weregeld* atonements.⁶

⁴ There is, of course, significant symbolic value in the possession and display of wealth. Regarding connections between the symbolic and monetary value of token money, see e.g. Kilger 2015; Theuvs 2004.

⁵ This translation of the Old Gulathing law code Chapter 218 is taken from Larson [1935] 2008: 150, slightly adjusted by the author of the present chapter on the basis of the original text published in Eithun *et al.* 1994: 129 and the Norwegian translation in Robberstad 1969: 205.

⁶ The 'increase and decrease' of *weregeld* payments indicated in the cited chapter depended on the social status of the victim, and could reduce payments to comparatively small sums.

The use of cut-up silver in the 9th–10th centuries, probably for trade payments, was predominantly restricted to towns, except for Gotland (Kilger 2008a) and southernmost Scandinavia, where cut-up silver is found in rural hoards (Hårdh 1996).

It is commonly assumed among scholars that the term *aurar* (sing. *eyrir*) was derived in the Migration Period from the Roman *aureus* (gold), and that the unit's weight was derived from the Roman *uncia* (ounce; Brøgger 1921: 44; Engeler 1991; Herschend 1987; Kilger 2008b; Munksgaard 1980; Skaare 1976). No law codices are preserved from that early period, but one feature of the 12th-century Frostathing codex may be a relic of ancient *weregeld* provisions. While the Gulathing codex stipulates *baugr* in silver, the Frostathing codex specifies them in gold (Hagland and Sandnes 1994). Gold was rare in the Viking Period, but had been the dominant form of weight-adjusted precious-metal items in the Migration Period. These rings tend to stick to multiples and fractions of *eyrir*, as do sets of weights from the same period (Bakka 1978, 1981; Brøgger 1921: 39).

Although there may be reasons to doubt the antiquity of the *eyrir* unit and term (Ruthström 1993; Skre in press), the other connections between *weregeld* provisions in the Viking and Migration periods seem to be well attested. More or less all of the Migration Period gold-bullion corpus might well be interpreted as *weregeld* payments. Complete rings could have been used for major transactions, for instance the *hofuð baugr* for the killing of an *oðal* man; smaller pieces might have been cut to strike the exact weight of the smaller payments that the felon's relatives were obliged to pay the victim's kin.

It cannot be ruled out that other types of customary payments, for instance bride wealth, dowry, and fines other than *weregeld*, were made in gold. Gold used for payments in trade, however, seems unlikely. Trade payments would in fewer cases stick to the precise multiples of the weight units; thus, fewer rings would be intact and hoards would contain a substantial proportion of small fragments. Moreover, fragmentation would be more dominant in finds in areas where extensive commodity production or trade has been identified. I have not conducted a full survey of the Scandinavian material, but the two West-Scandinavian regions with the highest proportion of fragmented gold in hoards, Rogaland and the neighbouring Vest-Agder counties, have no remains of extensive commodity production (Skre in press). Conversely, fragmentation is limited in hoards found in the Old Frostathing law region, where some 300 bloomery sites produced an annual average of 20–50 tonnes of iron (Rundberget 2010: 41–4; Stenvik 2003: 124). Exchange of the many tonnes that exceeded local needs was probably conducted in non-monetary transactions within interregional aristocratic networks bound together by various types of connections, debts, and obligations.

Turning now to the question of how the terms and weight units could have survived the subsequent two to four centuries, when the absence of precious-metal money media suggests that they were not in use. The most probable explanation is that they continued to be used as 'ghost-money' units. Chapter 223 in the Gulathing law code provides a glimpse into payment practices in that period (Larson [1935] 2008: 151–2):

[...] The *weregeld* shall be paid in gold or burned [=pure] silver, if these are available. Horses may be given, but not mares; stallions, but not geldings; and no horse that has a protruding rectum or a whitish sheath or weak urinary organs or is wall-eyed or suffers from some other defect. Sheep may be given in payment, but not goats; *odal* land may be given in payment, but not land acquired by purchase. A ship may be given in payment, but not one that is rebuilt or is so old that the original rowlocks have rotted away; nor shall one give a ship with a broken prow or one that is patched with boards, unless they were laid when the ship was raised on supports. [...] Weapons may be given in payment, if they have been tested by use, [and are] whole and hard and without defect; those that the man was slain with shall not be offered. Let no one pay *weregeld* with a sword, except it be fretted with gold or silver. Wadmál or linen cloth may be offered in payment, [if it is] entirely new, or any other cloth that is new and uncut, or even cut cloth, if it is new and the payee is willing to accept it. One may pay with cloth; for men, but not for women; new cloth, and not old. Large sheep pelts may be given in payment, [if they are] new and not worn, also black sheep pelts and the finer cloth, [if it is] new and uncut. Thralls may be given in payment, if they have all been brought up at home and are not younger than fifteen winters, unless the payee is willing to take them younger. Bondwomen shall not be given to pay the *weregeld* [...]

Although the *baugr* were stipulated in gold units, the payment was often made in other media, and the gold units thus served as units of account. Such 'ghost-money' practices, probably developed when gold and

silver was scarce, would have been maintained into the Viking Period and subsequent centuries, when they are well attested.

Institutions

Scandinavian Migration Period institutions are less well known than those of the Viking Period. It was during the Migration Period that the system of *weregeld* payments using precious-metal token money appears to have been introduced, and when institutional backing would have been even more necessary than in the later Viking Period. But which institutions could have taken that role?

Some developments in 1st- to 5th-century Scandinavia suggest that the legislative development stimulated by Roman law and codified in the *Leges Barbarorum* was not limited to the Continent but took place in the North as well. Firstly, in southern and eastern Scandinavia, ‘central places’ appear to have housed regular gatherings of large assemblies that exercised judicial functions (Jørgensen *et al.* 2011; Ljungkvist *et al.* 2011). Secondly, along the western coast of the Scandinavian Peninsula, approximately 30 ‘courtyard sites’ have been found; these appear to have been *thing* sites (Iversen 2015). Both types of sites emerged in the Roman Period and were used until the end of the first millennium, although only some were used throughout the whole period.

The rise of judicial assemblies in the 1st–5th centuries and the introduction of weighing and monetary practices in the 5th indicate that Scandinavian *weregeld* provisions were developed in that period, as indeed they were in Continental Germanic kingdoms. From the 12th- to 13th-century literary evidence and law codices, the *thing* assemblies appear to have been communal institutions in which all free men or their chosen representatives gathered. Although the aristocracy and kings were prominent agents in the assembly, they did not command the outcome of cases or determine judicial provisions or procedure (Brink 2013). In the late Viking Period, kings influenced law-making through negotiations in the assembly, but this role appears to have been a recent development. Earlier in the first millennium it is probable that law-making was based predominantly in communal consensus rather than on royal power.

The royal involvement in 8th- to 10th-century urban monetisation appears to have been more significant. Rimbert (*Vita Ansgari*, chs. 11, 19) tells us that in the early 9th century, Birka had a *praefectus vici* appointed by the king, and similar arrangements probably existed in Ribe, Kaupang, and Hedeby as well, and subsequently nationwide for the national coinages. In rural regions, however, the use of silver rings for *weregeld* payments would have been based on the legal traditions that were developed and administered by local and regional judicial assemblies, the *things*. Parts of these legal traditions were later codified in laws, such as those of the 12th-century Gulathing and Frostathing codes (Iversen 2013, 2015).

Concluding remarks

This essay takes as its opening remark a quote by Geoffrey Ingham, declaring the need in monetisation studies to turn attention away from monetary media, towards units of account. True, his critique may be taken as something of a provocation by many archaeologists and numismatists. However, I believe Ingham is absolutely right – and slightly wrong. Regarding the latter; if units of account are to become a well-established practice, either an institutionalised and centralised administration of economic resources or the widespread use of token money is a prerequisite. In societies with less centralised power, where prominent institutions are of a communal nature, the excavation and dating of token-money ‘stuff’ may nevertheless be essential for understanding early monetisation.

However, I believe that Ingham was absolutely correct to emphasise units of account in tracing the historical origin of money. This perspective allows the explanation of how the process of monetisation may survive – and perhaps even progress – during centuries when no token money circulated. A narrow focus on money-stuff may lead to the conclusion that monetisation halted or came to an end, obscuring the reasons for the continuity in terminology and weight units across such lengthy periods. Furthermore, the mixture of transaction types, payment practices, debt arrangements, and the like that are well attested in 12th- to 14th-century Scandinavia, and probably no less common in the Viking Period, are difficult to explain if token-money media is the privileged type of evidence.

Turning the attention to the monetary practices of valuing and paying by means of a unit of account widens the scope of evidence available for the study of monetisation. To borrow from Grierson (1977: 12): ‘A study of the origins of money must rely heavily on inferences from early language, literature, and law, but will also take account of evidence regarding the use of “primitive” money in modern non-western societies.’

However, because the relevant first-millennium written evidence is non-existent in Scandinavia and extremely rare elsewhere in Germanic-speaking Europe, the evidence for studying monetary practices here will be even more indirect and circumstantial than suggested by Grierson. Any viable study of first-millennium monetisation in Scandinavia must be situated within a broader analysis of the social spheres and respective institutions where transactions would have been conducted. The process of monetisation must be studied against the background of the histories of judicial traditions and institutions, of bride wealth and inheritance, of production, trade, and consumption, of urbanisation, and not least of politics and kingship.

Thus, this essay’s initial question of the degree of dependence between the grand societal developments in post-Roman Europe finds a sort of answer. Seeking these connections is the only realistic avenue of research in monetisation studies, because the direct evidence on its own is so scant and skewed. I hold, however, that even if such evidence were abundant, a broad societal approach to monetisation as well as other fields is necessary all the same for a full account of early medieval economic life.

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