

A River of Gold

Coinage and the European Dark Ages

By Stephen Huston

Introduction

The Dark Ages is largely a puzzle to most numismatists. Even historians struggle to define precisely when or why it happened. It was not simply a time when a curtain of *cultural night* fell across Europe.

Europe's Dark Ages were the result of invasions, greedy leaders making very bad choices, and whole lot of disease. It grew out the Roman Empire, so let's look back at that empire around the time that the troubles began.

Before the Dark Ages

Emperor Constantine the Great consolidated his power early in the 320s CE (AD). The Roman Empire then included not only Italy, but north through Gaul and west to Spain and Britain. In the east, Rome controlled beyond the Danube to the far shores of the Black Sea, much of the Middle East, eastern trade routes to India and China, and coastal North Africa with its trade routes to the south.

Constantine's empire controlled as far as it was worth venturing from the Mediterranean Sea in all directions — the western half of the known world.

Rome collected the taxes on all commerce in its lands, a vast source of wealth flowing into the imperial treasury. It also controlled the mines, mints, and military.

Rome's empire had never been larger or richer. However, its survival required guarding a border longer than ever before. Defending it was expensive. Barbarians pressed on the frontiers from all sides.

The cost of maintaining the *Pax Romana* strained the imperial resources.

Fig 1. Gold coin of Constantine, 326/7 CE (AD)



Roman Money

In Constantine's time, a uniform Roman imperial coinage circulated throughout the entire empire. Roman coinage was based on a Gold Standard with the *solidus* — a gold coin just a little larger than a US dime — containing 4.5 grams of pure gold. It was equal to 24 silver *siliqua*, a rarely-struck silver coin which was ignored in commerce in favor of the bronze *nummus*. The gold *solidus* was worth 7,200 of the bronze *nummus* coins.

Think of the *solidus* as a \$10,000 bill, the little-used silver *siliqua* as a \$500 bill and the bronze *nummus* was more like a \$1 bill in terms of today's buying power. The gold coin was way too much to be used or even seen in the local market.

Only the government or extremely large transactions required or used gold. *Siliquae* were too valuable for most daily transactions and too small for government expenditures. Only bronze coinage circulated in the marketplace.

Fig 2. Bronze *nummus* of Constantine honoring the city of Rome



The Price of Empire

A gold *solidus* was more than a month's pay for a Roman soldier — a skilled professional under the empire. Soldiers received roughly 100 *nummia* as a daily wage. The rest of their pay was *in kind* — supplies, provisions and equipment. There were 600,000 imperial soldiers to pay. Gold was used for buying supplies and large cash payments to military officers, who dispensed pay to the troops periodically — sometimes making them wait months between payments.

Another of the government's uses of gold coin was *food doles*. The empire distributed pork to the citizens inside Rome — over 3 million pounds in some years, running up a bill with meat suppliers of 170,000 gold *solidi*. Such food doles in major cities were common, and the semi-annual *bread dole* was also huge, requiring entire fleets to carry grain from Egypt and North Africa for the residents of Rome.

Also, from the late 400s into the 500s, barbarians were being paid off with millions of gold coins on a recurring basis — extortion to avoid them raiding the empire.

Rome & Constantinople

Around 325, Constantine moved the empire's capitol east more than a thousand miles, from the ancient metropolis of Rome to a small provincial town called *Byzantion*, completely rebuilding it as *Constantinople* — the city of Constantine.

Massive projects for official buildings, palaces, churches, shrines, and public arenas were begun at government expense. A new central mint was required to provide coinage for this work and to monetize the expanding economy of the new capital and nearby regions.

Constantine's commitment to his new capital was so complete that he even stripped iconic statuary and artifacts from Rome, transporting it all eastward to decorate his new city. It was a massive undertaking which lasted many years.

The empire could hardly afford such lavish new expenses and protecting its frontiers. Priorities had to shift. Constantine's next reallocation of resources, after grabbing the art of Rome, targeted Roman Britain, the province most distant from his new eastern capitol.

Fig 3. Bronze *nummus* of Constantine to honor Constantinople



Constantine closed the London mint as he opened his new mint in Constantinople. Thus began a dramatic refocusing from the west to the east which, over the next century, amounted to abandoning the western half of the Roman Empire in favor of protecting the new eastern-facing regions ruled from Constantinople.

In the 4th Century, the Roman Empire was officially split between the East and West with co-rulers at Rome and Constantinople. Though it started as a way to protect both ends of the empire, whenever trouble struck, Constantinople took the resources it needed, leaving Rome weaker. The Emperor at Constantinople even began paying barbarians to settle in Europe to take the military and economic pressure off his eastern territories.

The Fall of Rome

In 410, the Roman empire notified the Roman outposts remaining in Britain, towns such as London and Colchester, that they should no longer expect Roman protection. *Don't bother asking — you're on your own.*

That same year, Rome itself was left with so little protection that Alaric, king of the Visigoths, was able to sack the western capital. The 5th Century had barely begun, and the empire's remaining capitol was in Constantinople, far east of Rome. Europe had fallen to the barbarians.

While emperors ruled nominally in the west for the next few decades, they were puppet rulers under barbarian approval. The last of them, Romulus, was forced to resign in 476, the same year the Vandal king in Italy began selling off pieces of the old western empire to the Visigoths, who had already taken Sicily and Spain.

Within a few years, Frankish tribes took over Gaul, and all pretense that Europe was part of the Roman Empire was gone. The barbarians had taken Europe with its mines, mints, taxes, and coinage — both circulating and held in treasuries.

The barbarians now in charge of Europe had no tradition or experience of running a government. With the wealth of the west already stashed in their personal treasure chests, they placed no priority on maintaining any government operations other than tax collections, which they enforced with increasing harshness.



Fig 4. Gold *Solidus* struck at Constantinople *circa* 450 CE
Typical of the coins used by the Roman Empire to pay off barbarian attackers

Money

The barbarian rulers of Europe had never managed a money-based economy. Their main experience with coined money was the gold they extorted by threatening the Empire. Gold was their symbol of power, not a commodity for daily use.

Their only economic goal was to take gold coins out of circulation via the tax collection systems already in place, adding that gold to their personal treasures. The few issues of coinage they struck over the next few centuries were extremely small, and were intended either to facilitate tax collection or for presentations and gifts as a show of power. No coinage was struck for public circulation!

Coinage disappeared from the marketplace. Credit and account records became the norm for keeping track of daily transactions. *Money of Account* became the means of reckoning transactions, just as had been done in pre-coinage ancient times. Much like our own time, almost all *money* existed only as accounting records, not in physical coins or currency.

Death & Taxes

A lack of circulating coinage alone probably would not have caused the Dark Ages, but other problems accelerated a breakdown of normal daily life in Europe.

The first was Taxes. With taxes still due in gold and no gold to be had, tax-payers began literally to flee the cities where tax-collecting was most concentrated. Skilled workers went to less populated areas where there were fewer tax collectors.

Markets of all types declined for a lack of coinage for daily trade. The focus of trade became local agricultural markets — the only place where food remained readily available.

In short, the cities became difficult to support, their populations shrank as taxes drove skilled laborers away, and the economy shrank as it became dependent on agriculture and farm labor instead of other skills.

With the economy in a downward spiral, little was required to nudge Europe into the abyss known as the Dark Ages.

That fatal nudge came in 542, when the plague arrived. This was not the first time plague had hit the empire, but this time the economy was already in rapid decline. And this was not the same old plague they had seen before, which killed 10–15% of the populace in a year or two, then went away.



Fig 5. Gold solidus of Justinian, 526–567
Emperor when the great plague arrived.

This time the plague stayed in Europe and moved from place to place, often returning to the same towns and regions just a few years later, and this kept up for 50 years. By 592, half of the population of the western empire had died of the plague. Less than a decade later, in 600, smallpox arrived to join the party.

Before this plague's arrival, average life-expectancy at birth was 30 years of age. During the next 3 generations, that age dropped dramatically. While some older people survived, living to the ripe old age of 25 was now an accomplishment, and everyone knew it. Old age was so rare that it was considered to be literally *unnatural*. Anyone who reached the age of 60 was thought to be chosen by God for special favor — or possibly in league with the Devil!

No Way Out

Imagine the affect on the third generation born into this agrarian society where non-farming skills were practically worthless. One did not expect to live long enough to master a profession or be trained in a craft, and the people who had taught those skills had abandoned their professions or died a generation ago.

Agricultural toil was the most meaningful work to perform in this society. It was hard, but it produced food, and no one could afford to abandon farm work for some vague hope of a better life elsewhere. Most other work had ceased, except for the military.

Show Me the Money

Europe's mines had closed for lack of labor and supervisors. Once closed for even a few months. The mines were impossible to reopen without a major work force and skilled overseers. The most productive deep levels of mines flooded without continuous pumping to keep them workable.

Europe's sources of new gold were gone.

What gold remained in the west was held in hoards by high-ranking individuals. It was used to buy luxuries when available, for gifts to other important people, and to decorate their personal possessions. These were often buried with them — either the valuable possessions or the gold itself.

Had these rulers understood what was happening, they might have remonetized the economy by paying soldiers and laborers. However, even under the Romans, stoking the economy was accomplished passively via military pay and provisions, public works projects, and urban food doles. It's doubtful that most rulers really understood the economic cycles in which they participated.

The barbarian rulers had never paid coined money for such things before arriving in Europe, and remained unwilling to do so when gold became harder to acquire.

Fig 6. Roman coin reverse depicting resettlement of barbarians on imperial land



Feudal Society

With tax-collections near zero and no stream of money to pay the military as the empire had done, the barbarian rulers adopted a system for recruiting and paying troops which had been introduced recently in the East. Land was granted to military leaders in exchange for a promise of military forces whenever needed.

These officers, now *land-lords*, were authorized to distribute portions of land to persons willing to perform military service under their control. The obligation of military duties was understood from the very start to be hereditary for them and their heirs living on the land. An individual's possession of land was his means of obtaining food and shelter in a moneyless economy, while it tied him and his heirs to the land for all time.

Europe's Dark Age *feudal system* began with a shortage of gold to pay the troops.

A River of Gold

The barbarians' gold hoards didn't just sit in their treasure chests. It became a vast *River of Gold* flowing out of Europe.

It flowed east through imperial trade routes or south across the Mediterranean via Arab traders. Much was spent acquiring luxury goods, including purple-dyed silk which cost more than its own weight in gold coins. Some was dispersed in gifts or spent on ornamentation for personal goods — shows of power and wealth.

The River of Gold flowed out of Europe, while its sources continued to dry up.

Buried Gold

The barbarians treated gold as a symbol of power, believing that powerful symbols, even actual gold coins, would be needed by the dead in the afterlife. A lot of gold was buried with dead leaders. Christian priests denounced this because the beliefs behind this tradition were not Christian.

So why wasn't buried gold dug up when it was in such short supply? Some was, and it quickly flowed out of Europe as part of the *River of Gold* along trade routes.

Dark Age gold has been found both in hoards and in graves. Why weren't these dug up?

The gold hoards found in modern times were simply lost. The whole point of burying gold coins was to hide them in dangerous times. Few people would be told where gold was hidden. Unless new individuals were told its secret location, or it was retrieved quickly, the odds were high that the last person knowing its location would die without passing along the secret. In dangerous times of warfare or unrest, *Death* did not wait for secrets to be shared.

The gold in graves was usually smaller quantities than in hoards, but the locations of these graves would have been known to many people. Barbarian laws provided harsh penalties for most crimes. Murder, for instance, could result in fines so large that a murderer or his entire family might be forced into slavery to pay off the debt. The fine for grave robbing was *twice* that imposed for murder!

A further disincentive for grave robbing — many buried objects would have been readily identifiable if they came to market. Offering a gold-handled dagger bearing a dead nobleman's emblem at the local market could result in personal ruin for one's self and possibly for one's entire family. Local markets relying on credit and accounts were not places to dispose of gold anonymously.



Fig 88. Buried gold and bronze with intricate or identifiable designs

Buried gold stayed buried. Any gold which was recovered flowed out of Europe along the routes described above.

Even if a sizable hoard was recovered soon after burial, it would have alleviated the coinage famine only locally and only for a short time, having no effect on the overall economy.

Gold Coins Prohibited

By 800 CE, when the Frankish king Charlemagne became Emperor in the West, he had already *prohibited the circulation of gold coinage!* He was hoping a new silver coinage could revitalize the economy of Europe.

Fig 8. Silver coin of Charlemagne struck c.793–812

However, Charlemagne's empire was soon fragmented under *Salic Law*, which required the division of inheritances among all male heirs. His empire was split among his sons, and their lands were later divided among their heirs, etc.

Charlemagne's silver coinage, and that of his ever multiplying descendants, became concentrated again in the hands of local rulers, each controlling lands which shrank in size every time they were passed down by inheritance.

This continued for hundreds of years. Any silver coins from these dwindling kingdoms were repeatedly reduced in weight and purity, becoming little better than small bronzes.

Gold did not reappear in Europe in sufficient quantities for commerce until the 13th Century coinages of Florence, Genoa, and Venice.

European Summary

The period known as the Dark Ages was born out of the social destabilization and economic decline of the western Roman empire. This collapse was the result of the barbarians' personal greed and failure to follow the empire's traditions of paying troops and spending on goods and services — pumping money back through the economy in a continuous cycle of taxes, government spending, and commerce.

The shift to paying the military in land rather than coin tied people to the land with a hereditary obligation of military service to *land-lords*, as well as rent.

A River of Gold flowed east and south out of Europe, draining its economy at the same time the plague eroded the knowledge on which the old society had relied. Shorter lifespans of agrarian labor resulted in the loss of most other skills and professions.

Social structures crumbled as half of the population of Europe died while the economy stagnated.

Europe did not emerge from the resulting *Dark Ages* for over 400 years.



Constantinople Coincidentally

Meanwhile, the Eastern Roman Empire with its capital at Constantinople continued in relative stability. While it had its own encounters with the plague, it maintained a healthy economy. Bronze, silver, and gold coinage circulating freely through its towns, ports, and trade routes.

Eventually known as the *Byzantine Empire*, it became a center of learning and trade, interacting with the rest of the known world for over 1,200 years. Its economic ups and downs were nothing like the Dark Ages of Europe.

Appendix

A Timeline of Related Events

- 309 Constantine introduces the Gold *solidus* coinage = 7,200 *nummus* bronzes
- 318–23 Rome at war with the Alamanni, Sarmatians, and Goths
- 325 Constantine closes the London mint
- 326 Mint opens at Constantinople, and Constantine leaves Rome for last time
- 328 Danube frontier fortified
- 330 Dedication celebration for the new capital at Constantinople
- 338 Persia attacks eastern frontier
- 341 Empire at war with the Franks
- 346 Persia attacks eastern frontier
- 348 Rome commemorates resettlement of barbarians in Gaul on its coinage (fig.6)
- 350 Persia attacks eastern frontier
Imperial usurper takes over Rome in June, but is defeated
- 352–4 Jewish, Isaurian, and Alamanni revolts suppressed
- 365–7 Alamanni encroach on imperial lands, empire goes to war, Goths revolt,
Britain overrun by Picts and Scots
- 369 Empire at war with the Franks in Gaul, and the Saxons in Europe
- 372 Mauretanian chief revolts against Roman governor
- 373 Alamanni troops recruited into the imperial army to fight the Persians
- 374 Wars against the Quadi and Sarmatians
- 375 Huns on the Danubian frontier, Visigoths try to enter imperial territory
- 378 Western Emperor, Valens, killed by Visigoths at Adrianople
Payments to barbarian invaders and tax gathering increased
- 380 Barbarians invade imperial provinces of Dacia and Pannonia
- 382 Visigoths settle in the Empire, some entering the army
Imperial Legions withdrawn from Britain
- 383 British leader Maximus invades empire, captures Gaul

- 385 Sarmatian invasion halted by Frankish leader, who is made a Roman Consul
- 386 Victory over the Greunthungi on the Danube celebrated at Constantinople
- 387/8 British invader Maximus reaches Italy, is defeated and killed by Arbogast
- 389 Arbogast (Frank in imperial service) suppresses Frankish invasion of Gaul
- 391 Goths, probably led by Alaric, attempt to assassinate emperor
- 392 Roman emperor taken prisoner by Arbogast who appoints successor
- 395 Rome begins actively recruiting Goths (10 gold soldi per year) under Alaric
- 397/8 African Revolt defeated by African recruits in imperial army
- 399 Revolt in Asia Minor, Pannonia transferred to the west
- 400 Citizens of Constantinople slaughter the Gothic recruits inside the city
- 401 Alaric invades Italy
- 410 Empire warns Britain they are no longer part of the Empire
Rome is sacked by the Vandals under Alaric
- 418 Barbarians resettled in Aquitaine (west) in exchange for military service
- 436 Roman institutions in Britain disappear
- 452 Pork distribution for city of Rome costs 170,000 gold soldi
- 455 Rome is sacked by the Vandals, gold payments to barbarians increased
- 460 Western imperial fleet destroyed by Vandal forces
Transportation of valuables considered hazardous, *food doles discontinued!*
- 476 Romulus, the last Western Roman Emperor, abdicates to save his life
Vandals sell Sicily to the Visigoths
- 481 Childeric is buried in barbarian funeral rites with his gold treasure
- 496 Franks (Clovis) recorded in Europe
- 511 Clovis dies, his 4 sons split his lands into smaller domains under *Salic law*
Theodoric (Ostrogoth) orders coinage to stop as bronze coinage disappears
- 540 Byzantine Empress popularizes purple cloaks, gold thread, jeweled crowns
- 542 Plague in Constantinople reaches Europe (stays 50 years)
- 543 Disastrous Earthquakes hit throughout imperial territories
- 547 Plague reaches Britain
- 550–3 Silk weaving looms used in Egypt
Byzantine priests steal silk worms from China
Byzantine Empire declares its silk monopoly
Payment in gold to Military and Civil Service discontinued
- 561 Small issues of gold *tremissis* in Europe for rulers' personal uses
- 580 Gold *solidus* coinage discontinued in Europe
Feudal land-payment system already in use
- 590–2 Plague in Rome & Italy
- 600 Smallpox arrives in Europe
Italy is a demonetized economy, accounting records used for commerce
Tax collection system completely breaks down
Frankish rulers try gold *tremissis* for tax collections (debased $\frac{1}{3}$ – $\frac{1}{5}$ alloy)

- 645 Sutton Hoo burial — 40 gold coins and blanks recovered in 20th Century suggests small private mint for local ruler
- 650 *Land-lords* in control of all remaining European mints
- 664 Plague still recurring — England and Ireland hit again
- 670 No official coinage being struck in Europe



Fig 9. Wamba the Visigoth struck a few gold *tremissis* in the 670s

- 700 Europe's population drops to an *all-time low for all of recorded history!*
 Plague still recurring across Europe
 Arabs trading goods for European gold and slaves
 Coins struck irregularly in tiny quantities at over 500 unofficial mints
 Royal (imperial) lands of Europe fully distributed under feudal system
 Church lands confiscated for distribution by feudal rulers
- 700+ Feudal rulers have no remaining methods for payments or taxes
 Land-lords control land, population and, thereby, the military forces
- 781 Charlemagne prohibits the striking of gold coinage
- 790 Charlemagne issues silver coinage
- 825 Charlemagne's heirs strike a gold *solidus* for presentation only
 No gold struck for circulation under the Carolingian kingdoms
- 1252 European gold coinage returns at Florence (*Florin*) and Genoa (*Genovino*)

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Illustrations

Sourced from plates in Bibliography titles or as noted below

Coin images from bibliographic sources were rephotographed and edited by the author to resize them, remove colored backgrounds, and adjust color and contrast.

Coins illustrated all have actual sizes ranging between 18mm and 22mm (millimeters).

Fig 1. Gold coin of Constantine, 326/7 CE (AD). Sutherland, Plate 539 (~20mm for *solidus*)

Fig 2. Bronze *nummus* of Constantine to honor **Rome**. Sutherland, Plate 533 (18mm)

Fig 3. Bronze *nummus* of Constantine for **Constantinople**. Sutherland, Plate 535 (20mm)

Fig 4. Gold *Solidus* struck at Constantinople *circa* 450 AD. Whitting, Plate 1 (19mm)

Fig 5. Gold solidus of Emperor Justinian, 526–567. Whitting, Plate 78 (20mm)

Fig 6. Roman bronze coin depicting resettlement of barbarians. Sutherland, Plate 551 (22mm)

Fig 7. Buried gold and bronze ornaments. Wikipedia “Staffordshire hoard” (sizes unknown)
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Fig 8. Silver coin of Charlemagne struck *circa* 793–812. Grierson, Plate 78 (19mm)

Fig 9. Wamba of the Visigoths issued a gold *tremissis* in 670s. Grierson, Plate C3 (19mm)

