

Money, Coinage & Society



Volume One

Colin J. Holcombe

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Volume One: Early and Medieval
Societies

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Preface

Money, Coinage and Society originated in the need for a general background on coins. How they were produced. Where the metals came from. What we know of their issuing authority: ruler, state, trading communities concerned. How the states prospered or didn't, their trading models and policies. And beyond that, the complex of historical, practical and aesthetic matters that made the coinage acceptable to its users and interesting to collectors in later centuries.

A more academic description would be the political economy of coinage — what coins tell us of the countries and rulers that issued the coins, their political and economic makeup, how and where their constituent metals were extracted, smelted, refined and made into the examples of numismatic art we have now, and what their designs suggest of customs and beliefs that were commonly very different from ours.

In time I came to realize that it was the social context that constituted the more pressing aspect now that looming national debts, bank bail-outs, digital transfer and quantitative easing make us wonder what money really is. David Graeber has covered some of these matters in his 2004 book on debt, but his findings remain somewhat unclear, perhaps because consumed at key points by a strong sense of moral indignation. What was needed, I thought, was a colder, more technical and sustained look at the institutions that human beings acknowledge in their everyday lives, but which tend to become reified into abstract concepts negating our common humanity. We rightly deplore religious fanaticism without realising that we too can make market forces and other self-evident matters into overriding persuasions, indeed into gods demanding unthinking obedience.

Coinage is particularly useful here because it turns abstract concepts like legitimacy and authority into tangible objects. A wealth of understandings and tacit beliefs underlies our use of a coin, not least the ease through which we can purchase goods and services from individuals who have no particular interest in our welfare. Because money is useful, it can also become over-powerful, and we find ourselves talking about the 'iron laws of the market', or the 'findings of economics', when these are not laws or findings at all, but the special pleadings of interested parties. No doubt we live in a scientific culture that expects all aspects of life to be governed by laws continuously and comprehensively applying, and this allows us to forget that mechanical science is only one way of looking at life, the limitations of which a little reading in philosophy soon demonstrates.

Nonetheless, that social context should be amenable to little essays on individual coins, I thought — until I realized that mainstream treatment of these matters was often far from acceptable. Many books and articles were surprisingly partisan, incomplete and out of date. Before writing anything, I should have to make my own summaries and assessments, which I include here in the hope that they may be useful to students wanting more than breezy generalities.

I have used secondary sources in the main, often the alternative press and contrarian historians for later events: this is not academic research so much as an attempt to make something coherent of very scattered and contested material. I have tried to draw on Internet sources wherever possible, or on books that provide a 'look inside' facility on Amazon. On occasion, where simple facts and mainstream interpretations were needed, I have also drawn on Wikipedia material, and would ask those who still compare this online resource unfavourably to the Encyclopaedia Britannica and the university presses to remember that academic research, for all its claims to be 'pushing back the boundaries of knowledge', in fact works within fairly narrow and closely

refereed terms of reference, and that the Encyclopaedia is associated with the University of Chicago and Rockefeller funds not too scrupulously obtained. Most information in fact has some hidden agenda — the desire to sway opinion, earn status or put bread on the table — and the theme here is power, and the way aesthetic, commercial and practical issues have served that end down the centuries, which we can see in coinage if equipped with the right perspectives.

So arises a rather unflattering view of modern society. The reader will find none of the pious tales that were taught at school to foster a sense of pride and confidence in our institutions, lessons which continue unacknowledged in mainstream media articles that preach to the converted, as indeed they must to maintain circulation figures and advertising revenues. Looked at plainly, our history is not an edifying spectacle, and money often brings out the worst in us: our greed, ambition and selfishness. It is easy to forget when dealing with beautiful objects like coins how much sweat, blood and sheer misery went into their production. Behind the economic trends they illustrate there commonly lie many horrors of warfare, coercive trade, injustice and exploitation. And much propaganda too: the emblems of authority and deceit are also woven into their glittering surfaces. As Glyn Davies himself remarks in his excellent *A History of Money*: 'Economists, and especially monetarists, tend to overestimate the purely economic, narrow and technical functions of money and have placed insufficient emphasis on the wider social, institutional and psychological aspects.'

But nor is the love of money the root of all evil. Money has profound capacities to do good, and there is scarcely an aspect of our contemporary world that would be possible without sophisticated trade and banking facilities. My outlook here is not far from that of numismatic historians, though I have a more critical view of economics and finance than they profess, perhaps because of working on a daily basis for

several years with professionals in those fields. That is not a criticism of their honesty or competence, as both were present in a marked degree, but of perspective. Money makes the world go round, but in more ways that they perhaps saw or acknowledged.

The limitations of these chapters should be clear. They are snapshots, summaries, and simple introductions. No one person can re-evaluate three millennia of social and economic history, even in a lifetime of reading, and many sections can only be summaries of current views, doubtless rather dry in later pages, though I hope accurate and helpful. The essays on individual coins are simply examples of what could be done, a supplement to the many handsome surveys of world coinage published by the museum and auction house presses.

References are placed after the relevant sentence when references do not exceed some fifty odd per chapter, but aggregated at paragraph ends otherwise: the renumbering necessitated by updating becomes too time consuming when chapters draw on hundreds of references. To make the material manageable I have split the book into two. The first volume covers the ancient and medieval world, but includes chapters on metal sources, mining and minting practices to the present. The second volume covers the period from the rise of modern states to the world we know today, including chapters on statehood, economics, money banking and civil rights, to end where we started, an enquiry into the real nature of money. Just as coins serve as a token of wealth, so money serves as a token for complex social interactions. That is the suggestion of these volumes: money is not an inert accounting device, not something arising from the play of market forces, and not an abstract, fully quantifiable and unambiguous matter. Money supplies are difficult to measure, as monetarists found. Simple measures like cost of living indices and unemployment figures rest on disputed bases, which can be shifted to make them more

meaningful or politically acceptable. Even the GDP contains socially positive and negative elements: hospital building and warfare, manufacturing and financial speculation, etc.

I shall have nothing to say on coins as an investment medium, beyond noting that collectors naturally expect what they have poured considerable time and money into will eventually be retrievable in cash terms. As a professional dealer, I have helped people in this field, but then with some misgivings. Nowadays I even more doubt the wisdom of this approach, and would only repeat what others emphasize. Be clear about objectives. A coin collection made for investment purposes is quite different from one assembled out of historical interest in some period or country. The first needs help from a recognized investment specialist but also the connoisseur's eye for quality, plus detailed studies of price trends and commissions applying. A small collection of choice pieces wisely grouped about a popular theme will be worth greatly more than the same money spent on a haphazard collection of indifferent pieces. Inevitably this must be so, since the unrecoverable dealer's commission of 10% on an expensive piece will swell to 50% or more on a cheap one.

The uncomfortable view of our contemporary world is something arrived at reluctantly, after many years of thought and reading, and one I unfortunately don't have the time to defend or explain. The references should do that. On other matters please drop me a line if something needs correction or qualification. I was a professional UK coin dealer in the eighties, reasonably well known, and exhibiting at international fairs and the like. My specialties were ancients, the Islamic world and far eastern issues, but even here I often had to take advice from experts who knew far more than I did then, and certainly more than I will now.

It goes without saying that coin collectors should invest in coin and sales catalogues for valuation purposes, plus a wide range of history books and articles if their acquisitions

are to come alive. I would also urge them to join numismatic groups, either their local club or the prestigious societies without whose work our pastime would be much the poorer. As in any walk of life, they will benefit from the communities in proportion to what they contribute.

Most collectors promise themselves that they will some day write up their collection, when the children are off their hands or retirement arrives, and though these articles are far from meeting that promise — and my own collection is now only a shadow of previous stocks — I shall be delighted if these pages encourage others to think beyond the usual confines of a popular and absorbing hobby.

1. Ideologies



Money and government are intertwined, and indeed have much in common. Both organize individuals for public ends, and both use ideologies, if by that term we mean the intellectual foundations of the customs, beliefs, obligations and understandings that integrate and give a common purpose to society. Examined closely, many ideologies are problematic, little more than myths, irrational frameworks that rest on nothing more fundamental than the ways men have traditionally thought and acted together. But, however fanciful or contrary to the facts, such ideologies are still essential. Few now believe in the divine right of kings, for example, but European counties in the sixteenth century most certainly did, and would have been hard pressed to find alternatives. Most nations now separate church and state, but that was not the case in medieval Christendom, and is not the case in Iran or Saudi Arabia today.

Ideologies must serve a practical end, which is to create and maintain societies that are broadly acceptable to their members. The power of kings was gradually usurped by the merchant classes in Europe, but persisted into the twentieth

century as the divine status of the emperor in Japan and China. From that status descended the panoply of power: how government functioned, and the obligations each citizen felt towards government and fellow citizens. However irrational they now appear to westerners, those divinities were part of common belief, and so acquired an extensive justification in the thought, literature and art of the times.

Today most of us live in democracies under some form of capitalism. But our democracies are far more apparent than real, and would have seemed most unsatisfactory to citizens of the Greek city states where democracy was born. Still less is capitalism a system where the market simply rules. Three centuries of European thought have shown the matter to be far more complex and hedged about by uncertainties than the maxims repeated by the business press. Economists provide essential measures of our economic well-being, but Neoliberal economics and large parts of traditional economics are intellectual frauds. The models employed are over-simple and bear little relation to the real world. Their mathematics is hypothetical, and flawed at critical points. Nonetheless, for most people, there are few alternatives. Economics pervades our lives, and GDP growth seems more important than a host of other social measures: health, sense of community, rationality, freedom or simple happiness.

Introduction to Money

Because part of the capitalist system, money enters into our everyday conceptions, and has acquired extended justifications, many of them dubious or imperfectly grasped. Indeed the concept is so habitual to us that we rarely think beyond the obvious, that money is something we earn through working at a job and what we partly pay back as taxes to support public services. Naturally, if we pursue the matter further, we have to think of banks that create the money in the first place, and of all those innumerable laws

and trade agreements and accepted practices that keep money moving in everyday transactions around the globe. But what actually *is* money?

In previous centuries we could have said that money simply meant coins. Even the precious metal wealth of the New World was preferentially shipped as coinage, doubtless very crudely made at times, but not as raw ingots of gold or silver. Each coin had a stated or face value, moreover, which made shipments easier to value. Yet coins rarely held their full face value in contained metal. The authorities had to cover the cost of minting, which was an appreciable percentage in the case of very small denominations. They also tried to make some money out of the minting process, so that on both counts coins would be to some extent a fiat currency. But it was rarely preponderantly so. Unless the coinage had been badly debased, the larger denominations were not too far off a respectable percentage of the bullion value, and indeed at times, when the ratio to one to the other shifted as cheaper supplies became available, the coin would be melted down for its contained silver or gold in excess of the face value, savage penalties notwithstanding. Additionally, there were the age-old practices of clipping, sweating, gouging, etc. so that a few percent of the metal could be extracted by the user — again unwelcome to the authorities but difficult to wholly prevent, and which in time remorselessly defaced the coinage, requiring it to be called in and re-minted.

So to that age-old question: are coins a commodity or fiat currency? Though the answer is both, in part, the question is something of a red herring. A coin exchanged hands when its user felt confident that its value would be respected, that what they had sold to gain the coin would buy in an equivalent amount of what they wished to purchase. The gold or silver gave that confidence, as did the solid workmanship and the authority of the issuer, usually the sovereign or state, but sometimes the moneyer or even a

local merchant. All three were generally important: contained metal, workmanship and issuing authority, but it was the last that proved the most vital. Ultimately, it was custom that gave value to silver and gold. Both were prized for jewellery, and have been used for such purposes since antiquity, though with local differences. Gold was the preferred medium in the west, but China needed silver for its larger payments, resulting in a price differential that Venice extensively exploited in its trading activities. Again this was custom: the precious metals had obvious advantages for coinage, but other commodities could have been used, and indeed were — cowry shells, for example, or copper in the small denominations in east Asia: the cash coins of China, Japan, Annam and Korea.

Coins were taken on trust, and had to be so accepted, as assay facilities were few and far between. Debasement of the coinage did occur in long-established and self-contained economies, however, and the Roman denarius, for example, continually declined in silver content without occasioning widespread disaffection. It was even replaced by the antonininus, ostensibly worth two dinarii, but often consisting of base metal given the thinnest of silver washes. Sometimes, of course, matters did go too far. Augustus felt compelled to introduce a splendid new coinage to mark the end of Republican Rome and its murderous wars of succession. Elizabeth I of England also replaced the woefully debased coinage of Henry VIII with standards that lasted three hundred years. But again it was the power and legitimacy of the issuing authority that finally counted, and while this was maintained all was generally well. With these intangibles comes tradition, moreover, and real novelty in coinage may not be acceptable. The usurping Chinese emperor Wang Mang (7-23 AD) issued a bewildering variety of coins, which added to his unpopularity, but was not the only reason for his overthrow. Mohammad Tughluq, from 1324 to 1351 the gifted but capricious Sultan of Delhi, tried

to press a leather coinage on his long-suffering subjects, but was ultimately unsuccessful and had to redeem the novelty with hard silver.

With these points in mind, we come to see that money does not equate to coinage, but to the customs, laws and accepted practices that make for trade and commerce in civilised nations. It is these that make such needful activities operate to the satisfaction of all parties, not the properties or innate value of coins per se. Money is ultimately only a token of how human beings conduct their affairs. For much of money's history, stretching back four millennia in the Middle East, there were no coins at all. Today, coins and banknotes make up only 3% of money: the rest is digital entries, a few key-strokes that debit one account and credit another.

Agreements to the satisfaction of all parties are extraordinary accomplishments, and their implications ramify into all aspects of our modern life. In buying a smart-phone, for example, we're no doubt aware it has been assembled abroad by workers at wages we couldn't live on, and that a lot of research, development and marketing are included in the price. But we don't need to know what parts were manufactured where, under what contracts applying, at what exchange rates, how those rates have been hedged, what factors influenced the financial exchanges, or how those factors have been calculated, assessed and communicated. Even less on our radar screen is how the factories were built, their funding requirements achieved, the training of technicians, or the education systems applying. But all these and a dozen other transactions have to be navigated to provide anything we purchase. And all the transactions involved — manufacturing, shipping, insuring, marketing, retailing — require mutual trust, proper understandings and accurate representation of the facts. Moreover, since no individual can master everything, that also means lawyers and business consultants, financial experts, actuaries to quantify risk for insurance purposes, and reporters in the

financial and mainstream press. Money is not an exterior or abstract matter, therefore, but intimately linked with activities large and small governed by a host of different rules, belief systems and tacit understandings.

Coinage first appeared in Lydia around 600 BC, and then spread rapidly, eastwards through the Persian Empire and westwards through the Greek city states. Coinage appeared a little later in India, possibly an independent development, and very differently in China, certainly independently. But just as money now serves many purposes, so coinage itself may have originated differently in the varied social structures of the day. Historians and economists disagree, though abundant coinage probably coincides with mercenary armies and the taxation needed to pay for them, only subsequently serving for trade purposes.

Coins indeed were a comparatively late development of money. Money's origins go much further back, to around 2000 BC in the temple complexes of Mesopotamia, where records had to be kept of work done for the community, and any debts still outstanding. Those records had to be permanent and not depend on fading memories, or disappear on the death of the recording official. So arose writing, concomitantly: money and writing were closely connected, as they are today. Both have an obligation to be truthful, to fairly state matters agreed or understood at the time. But a further purpose was inherent in the transaction, moreover. By involving the whole social fabric, both codified and tacit, money allowed individual efforts to be efficiently harnessed to larger social undertakings. After language, money is probably the most useful of human inventions, and little can be achieved in modern societies without its use. Or perhaps we should say its well-regulated, enlightened and life-enhancing use. Unearned wealth can generate resentment in societies with pretensions to democratic equality, and wealthy families often give conspicuously to charity. When money becomes useless, as it does in periods

of hyperinflation, society also suffers. Wide swathes of society become impoverished, power structures collapse, and desperate measures have to be introduced to maintain social order. When money usurps its power and denies any social connection — as Neoliberal market policies insist it should — the complex mosaic of affections and responsibilities that make a functioning state are also short-circuited or set aside. As will be seen when we look at the philosophy of capitalism, money so employed acts more bluntly and coercively. The wealthy and powerful become more so, leading to social divisions at home and injustices abroad.

Money therefore works in and with the state and its institutions, and indeed has to. Debts have to be repaid according to the contracts involved — matters that continually involve a complex interconnection of trust, mutual understandings, accepted business practices and fair treatment under the law that characterize successful states. Even banks have to rely on the courts, and sometimes SWAT teams, in repossessing homes of mortgage defaulters. Developing countries like the ex-Soviet Union states, where a strong tradition of such institutions is largely missing, generally also fail in their economic policies: they become corrupt plutocracies where wealth is very unequally distributed. Western countries that increasingly rely on surveillance, foreign wars, tax avoidance and intimidation to maintain their power, also decay internally, exhibiting violence, injustice and political corruption. {1-4} Inequality in Europe and America is widening. Electorates no longer trust their politicians and mainstream media outlets. State 'security' has superseded a need for transparent and accountable government. Malpractices that would send individuals to prison receive only token fines where banks and big corporations are concerned, sums often seen as simply the 'cost of doing business'.

Matters were much worse in the past, of course, even in the not-too-distant past. NATO actions in the Middle East may have killed a million and displaced many millions more, but don't approach the horrifying totals in Stalin's Russia or Mao's China. Latin American countries have seen coups instigated by the CIA in support of American business interests, but their economies are no longer based on native slave labour in the mines and plantations. Poverty became commonplace under Neoliberal shock policies, but even that social levelling was less than in the class system enforced by the medieval Church. Societies do evolve, albeit slowly and with many false steps.

Man is a contradictory animal, as much given to competition as cooperation, to acting emotionally as rationally. Most societies are hierarchical, where the resulting structure is justified by appeal to feelings and to rational arguments. *Some* control is needed to keep societies together, but that control may be relaxed or coercive, and be effected by reason or propaganda. These four axes — rational and emotional, voluntary and coercive — are indeed one way of viewing societies, and often more illuminating than the usual labels of democracies that western governments aspire to. {5}

Democracies are only one form of government, and no doubt an imperfect one. Plutocracies, monarchies, trade-based states, plunder-based empires, self-supporting agricultural communities — history has many examples of alternatives. Few governments are wholly of one form only, of course, or indeed of single interpretations by historians. But each style of government had its own way of ordering its money affairs, because money and coinage reflect social realities. Life changed markedly throughout the course of the Roman Empire, for example, and so did its money policies and coinage, whatever the coinage propaganda might assert. Today there is a widening disconnect between mainstream media stories and everyday reality, ignoring the obvious truth

that societies undemocratic in their monetary policies cannot be democratic in their social ordering. By studying past monetary policies in coinage, we can sometimes see our own positions more clearly.

Economist Views

Money is naturally viewed quite differently by mainstream economists. Here money is objectified, given a status or existence independent of the societies that use it. Money, say economic textbooks, is a *medium* of exchange, a *store* of value, a *means* of settlement (unilateral payment) and a *measure* of value (unit of account). But money is not only an instrument, argues Geoffrey Ingham: {6} it is a power that gets things done, discriminates between social hierarchies (through interest rates adjusted to reflect credit risk and so collateral) and helps perpetuate the status quo. Even in a comparatively rich country like Britain, many without assets or steady employment cannot get a bank account, and some ten percent indeed rely in emergency on loan sharks, paying ruinous rates of interest.

There are many views on the importance of money. Karl Marx, for example, deplored what the sole purpose of money had apparently become: the coercive use of human labour to create yet more money. Karl Polanyi {9} stressed the close role of politics, social classes and justice in economics, and argued that economics was always embedded in the larger social fabric. Today the dominant school of market economics sees money as a passive intermediary, an accounting or mathematical symbol annotating underlying realities, though these realities are largely over-simple models, hypothetical and unreal. {6} Indeed, much of the financial mischief in the world today arises from misconceptions that can only be called preposterous, promoted by a mainstream press to justify the status and practices of the already rich. Austerity, quantitative easing, predatory capital, widening inequality, wasteful spending on

armaments — all these and others come about because we mistake simple-minded and specious concepts for social reality.

In fact, as anthropologists have long pointed out, {8} money did not originate in barter, but in markets and taxes, both introduced by centralizing states. As far as we can tell, societies were originally communal and self-supporting, as they are today in 'primitive' communities. Everyone contributes, and the products of hunting and food gathering are shared according to need and the social structures of the community. Sometimes the transactions operate as 'gifts' where any sign of obligation or social inferiority is carefully avoided. Sometimes the products are given to the elders or chiefs, who redistribute accordingly. Money, where it is employed at all, is not used to facilitate barter, or to purchase things, but to reinforce social structures, most clearly seen in bride 'purchase' or blood money. Money is used to signify things that in fact *can't* be purchased. Money may be used to 'purchase' a wife, but that wife can't be sold again. No amount of blood money will bring a dead person back. Communities often have very complicated customs, where individuals removed by death or marriage are balanced by kinsfolk given in compensation, but everyone realizes that each individual is unique, and such compensation is a token only, a memento of social obligations. Markets using barter or money are unimportant in communal societies, because such commercial exchanges are impersonal, conducted with precisely those with whom no relationship exists.

Many of these aspects linger on in modern societies. Popular brand-names can be worth fortunes, and companies spend large sums in maintaining and defending their status. Money signifies power and status, which throws an aura of glamour around wealthy individuals. {8-9}

Money also buys a superior education, opening doors in later life through knowledge, personal skills and contacts

with those who count in public and corporate life. Money buys the best legal representation, needed in good times and bad. Money buys access to experts skilled in locating lucrative investments, and minimizing the tax obligations. Money is the political life-blood of America. Big Oil bankrolls the Republicans. Wall Street bankrolls the Democrats. Other parties, often with policies more appealing to the average voter, lack the funds to get a look in. Nor are non-capitalist governments less complicit. Xi Jinping is a billionaire, {15} and perhaps Vladimir Putin too. Money buys marketing and lobbying campaigns, and even the mainstream news media that overtly sway public opinion.

Market economies are always part of a larger picture. The first markets were simple devices designed to bring buyers and sellers together at a specific place and time to exchange goods. The traditional village fair gradually coalesced into centralised urban market centres linking different regions of the countryside with one another, and then through sea and land routes to more distant places. The rise of the annual cycle of Champagne Fairs during the Middle Ages marked an early stage in the emergence of wider markets — between Asia and Europe, then world-wide in mercantile and trading empires, and now globalisation — all based on essentially the same principle: informed self-interest. {10-14}

Markets transformed subsistence agriculture into commercial agriculture by providing farmers with an incentive to maximize production and exchange it for an increasing diversity of essential and exotic goods. Eugen Weber documented how grape farmers in an isolated corner of rural France without access to regional markets used to feed their excess grape production to the pigs, since there was only so much fruit and wine they could consume locally. Within a year of building roads and bridges to connect the village with wider markets, however, they were exporting wine to the Middle East. {16} Adam Smith explained how feudal barons controlling large extents of land had little incentive to

increase production beyond the level needed to feed their families and large contingents of armed retainers. But once linked to urban markets, they drastically reduced the number of their dependents, converting surpluses into a wide range of luxury goods. {18}

All social accomplishment comes about by generating, releasing, and channelling human energies into interactions between individuals, companies and institutions. Libertarians argue that the immense capacity of market economies for production and innovation arises out of the freedom of choice and action they accord for individual initiative, both for innovation and for organized and finely coordinated collective action. Freedom liberates productive human energies. Market opportunities direct those energies for productive purposes. The evolution of intricate networks of markets at the local, regional, national and international levels channels those energies effectively to maximize the production and exchange of goods and services. The spatial expansion of markets enhances the range and variety of goods available, and enables buyers to source products from producers with the greatest comparative advantage.

Historians would probably argue that matters are not so simple. The successful Mauryan empire of India, and that of Shah Abbas I in Iran were police states. The Nazi regime in Germany, which in four years turned a chaotic and failing country into the first economic power of Europe, markedly restricted individual freedoms. The 'robber baron' era built the foundations of American prosperity. Strikes were ruthlessly suppressed, and companies acquired by doubtful practices, but the consolidation of railways, steel foundries, factories and financial institutions into vast economic concerns were a part of the American model of business that has been successfully exported across the world.

From earliest times, economy and politics have therefore been inextricably intertwined. Freedom of production and exchange meant little without ensuring ownership and

security of property, enforcing contracts, arbitrating disputes, and protection against arbitrary seizure. Democracies and market economies therefore evolved hand-in-hand, and were mutually reinforcing. So too thrived markets in communities with the best infrastructure for transportation and communication, as well as the most skilled, literate and well-educated people. {9}

Misuse of Money

Every social organization is a mixed blessing, coming with some gains and some losses to the community concerned. At a time when the power of monarchs and emperors far exceeded the capacities of any commercial enterprise, Adam Smith opposed the mercantile policies of European governments that would promote the interests of the crown and a small community of prominent traders over the needs of the general public. He certainly didn't foresee the huge multinational corporations of today, whose economic and political power exceed the wealth and influence of all but the largest nations, and indeed possess the capacity to destroy the ecosystem of the whole planet. It was the rise of large trading corporations during the 18th century, the private transcontinental railways, and the massive industrial enterprises during the 19th century, that shifted the balance of power — from governments to producers, traders and transporters. The multiplication of social power generated by the Industrial Revolution generated unprecedented economic capacity, but also contained its own threats to human freedom and creativity.

Being hierarchical, human societies are governed by power. Even the Greeks, that most individual and democratic of peoples, elected officials to manage their affairs in times of peace and war. The feudal societies that developed from the decaying Roman Empire were much more rigidly structured, with power devolving from king to vassal and thence to peasant. Mercantile societies did not overthrow those

structures so much as occupy and transform them, allowing merchant families to gradually usurp the God-given power of the king. The latter kept the throne while he performed his duties in accordance with his civic and religious duties, and — eventually — the wishes of parliaments. But that divine right of kings, still reflected in the laws of succession, gradually metamorphosed into the laws of the market and then of financial governance as merchants turned financiers and landowners represented in both houses of Parliament. Government by wealth is no more natural than was the divine right of kings, but is part of the current fabric of society, supporting the order and continuity that mankind needs to govern its affairs. Mainstream economics necessarily treats money as an independent entity, championing the market as fair and efficient, but knows very well that its predictions are rarely correct, and that markets do not model reality. The suppositions that characterize mainstream economics also characterize our mainstream concepts of money, and necessarily include tradition.

Twentieth Century

The growth of market economies during the 20th century is inseparable from the development of political systems. That growth enabled enterprises, institutions and educational systems to provide the skills, industrial innovations and the improving transportation and communication technologies needed, all within a dense fabric of laws and judicial mechanisms that defined and protected rights and responsibilities, preserved competition, ensured fair treatment of workers and consumers, supported communities, and safeguarded the environmental rights of the present and future generations.

The central importance of this underlying social fabric is dramatically illustrated by recent attempts to rapidly introduce market economies in countries that lack the capacity for democratic governance, rule of law, and social

justice. The histories of Ukraine and other countries of the former Soviet Union over the past 25 years demonstrate how hard it can be to develop an equitable market economy in the absence of prior and proportionate development of other aspects of modern social organization.

As we have noted in passing, today's globalisation, and its associated Neoliberal economic theory, are based on fundamental errors, over-simplifications and misconceptions. {18} That we can objectively speak of and quantify money, does not necessarily mean that money as visualised actually exists as an independent entity across all possible worlds (as philosophers would put it). Or that the familiar blackboard diagrams like the clearing price set by the intersection of supply and demand curves properly represent matters correctly. Almost certainly they do not. {19} The mathematics involved can be disproved in its own terms, and though enshrined as 'the iron laws of the market', these shibboleths are not laws at all but powerful ideologies that favour vested interests. Even economists will accept that their models do not reflect reality, but largely provide fascinating mathematical possibilities to be explored in prestigious economic journals. {20-21}

Though the market economy may be the best system we have, and is everywhere expounded in economics and business texts, it is not a phenomenon of nature but a creation of our societies and chosen ways of behaviour. Far from being founded on immutable universal laws, therefore, its mechanisms are actually built around models conjured out of need. Markets as they function today are not rational, equitable or efficient, and they certainly do not maximize human welfare. {9} Even the notion of fairness and equity is undermined by current patent and copyright laws, which according to *The Economist*, accord rights far beyond what has been proven to be socially beneficial. {22} The market is distorted by uncompetitive monopolistic practices, excessive consolidation of industries by mergers and acquisitions, and

by taxation policies that favour capital investments, certain professions and the wealthy over other income groups. It is subject to powerful influence by the lobbying of vested interests, the temptations and allurements of corrupt politicians, and biased procurement practices. The market is biased by the rent-seeking of privileged communities, including licensed professionals, a feature that permeates the entire policy environment governing the operations of the market. Note, for instance, the artificial constraint on the number of medical school seats in the U.S., which has remained unchanged from 1980 to 2006 despite a 37% increase in the population, allowing doctors to extract higher fees from middle-class Americans. {23}

The efficiency of markets is very much a question of definition and book-keeping. Markets do indeed encourage efficient means of production when narrowly defined at the level of the firm. But at the same time they foster socially wasteful competitive activity, generating huge social costs, which are then treated as externalities. The bias for capital and energy-intensive technologies over labour is not a law of nature, but simply a consequence of policies that favour capital investment, that tax workers unfairly, that price energy far below its true replacement cost, and that ignore the full social costs of pollution. While the firm may maximize efficiency by replacing labour with machinery, society as a whole incurs enormous financial and social costs from rising levels of unemployment and underemployment, poverty, crime, physical and mental illness, social alienation and violence. A study by Randall Wray in the USA estimated that the social costs of rising levels of unemployment equalled or exceeded the direct cost of employing people. {24}

An Elusive Concept

Being a social construct, something created by humans for human purposes and dependent on trust between all parties, money is therefore far from being an independent or abstract

entity. Under its contemporary conception, money has increasingly turned a life-giving economic force into a repressive means of widening social divisions. {10} Monetary policy cannot indeed be dissociated from social policy, any more than can tax avoid moral issues. Tax in Greek or Roman times, for example, was not levied on countrymen, but denoted subjugation in foreigners. It coincides with the rise of armies, argues Graeber, {7} with coercion, slavery and the concept of 'honour'. Violence done to a king, or indeed anyone with higher status — to their person, kinsfolk, slaves or property — had to be avenged, and first millennium societies had complicated tables of 'honour prices'. Mediterranean peoples often measured honour prices in cattle, which were also the items sacrificed to gods. The petty kingdoms of Ireland, and probably elsewhere in Europe, measured honour prices in female slaves. Slaves were people no longer fully human, and so could be treated as commodities. With women came fertility, and complicated rules about status. From the female deity inhabiting the Middle East temple complexes, through temple prostitute, to the inhabitants of the surrounding red light districts, to wives and common prostitutes, a carefully graded scale of dress and behaviour applied. Only respectable wives could go veiled in public, and transgressors were severely punished — from which perhaps originated the seclusion and subjugation of women.{7}

Modern governments that raise enormous loans must retain the confidence of the financial institutions, which in turn impose conditions that may or may not benefit the ordinary citizen. Some critics go further, alleging that money supports a 'deep state' in America, controlling the Fed, the large corporations and armaments industry, and so largely government policy itself, at home and abroad. {1-4}

Money is therefore a concept both important and elusive, apparently straightforward but in fact hard to grasp, often obscured rather than illuminated by textbooks and business

articles. 'Politics is the art of keeping from people what properly concerns them', remarked the poet Paul Valéry, and perhaps the same applies to modern finance. Certainly Maynard Keynes and Kenneth Galbraith thought so. As we shall see, money is more diverse and fascinating than is commonly realized. Coins are only part of money, of course, today a very small part, but their history at critical periods demonstrates matters still essential to our well-being.

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2. Money Before Coinage



Money long predates the use of coins, and even writing probably originated in the need to keep records of social obligations.

Archaeological research at the 10,000 BC Gobekli Tepe site in Turkey, and at later sites throughout the Middle East, suggests that ancient cities and monuments were not constructed by slave labour but as vast communal efforts. Labour on such a scale was hard to come by, and had to be attracted by extended feasts held at times judged propitious by the solar and lunar calendars. From about 2000 BC, the focus shifted from temples to palaces, and from free, community efforts to corvée labour. So grew the need for proper records, both of the calendars and social obligations of workmen, the latter generating our sense of money. {1}

Mesopotamia

Mesopotamia saw the rise of the first city-states, whose organisation has arguably set the pattern for today's ordered community life and its stress on production. Partially sedentary societies go back to 12,000 B.C., and were strengthened by the domestication of animals around 9,000 B.C., and the growth of agricultural villages around 5,000

B.C. Contrary to textbook theory, the change from egalitarian hunter-gatherer communities to hierarchical-organised city life was not in response to scarcity, however, but the opposite: areas surrounding Mesopotamian cities were rich wet-lands teeming with plants and animal life. City growth was very probably gradual, therefore, and intermittent, with many cities periodically reverting to healthier, village-based communities. Indeed the walls surrounding Mesopotamian cities may not only have kept marauding foreigners out but its toiling inhabitants in, corralling them into labour-intensive and closely-regulated agricultural work. Nor were the consequences — diversity of employment, armies, slavery and taxation — immediately beneficial. Domesticated animals and plants were inherently less healthy than wild strains; cities became breeding grounds for disease; the concentrations of wealth led to concentrations of power, and thus to embryonic social engineering, conscription, statute-based justice, wholesale bureaucracy and taxation. Nonetheless, the rise of civilisation may well have come with a growing dependence on monocultures feeding an expanding population, i.e. on grain that had to be sown, harvested, stored and fairly distributed. In that process, by domesticating their food supplies, early city dwellers also domesticated themselves. Practical needs locked city dwellers into patterns of organisation that would later become even more specialized, each in turn being justified by tradition, cultural beliefs and social inheritance. {2}

In the Mesopotamian empires of the third millennium BC, social obligations were recorded in temple archives according to a standard unit of value (generally the silver shekel) but these accounts were not transferable, and were periodically annulled when thought too onerous or unlikely to be repaid. The priesthood mediated the obligations of society to the gods, and those obligations needed to be both recorded (therefore measured and counted) and be adjusted to social standing (tokenised, so that different activities could

be included under a common measure). At this juncture may have arisen the connection between such tallies of goods and services and the symbols of sovereignty and priesthood, i.e. gold and silver. Precious metal tokens are found among tomb goods from 3000 BC, and gold coins, when they eventually appeared, in Greece around 600 BC, may have been more status symbols of power and prestige than a means of payment. They were certainly stored in temples. {3-6}

Mesopotamian farmer-temple debts were personal, it should be noted, and could not be transferred to third parties. Nor did the silver circulate. Beyond what was loaned for purchases or trade (see below) it remained locked in the temple treasury. The loan was commonly paid back in various ways, not necessarily in silver, but in some twelve to twenty designated commodities, which were therefore 'monetised' — i.e. their value was assessed against the silver shekel standard. {4} A banking system also existed, at least in embryo. Commercial loans were made to merchants trading beyond the city state, which again attracted interest, and probably compound interest for late settlements. These records, tablets sealed inside clay envelopes (bullae), could be traded to third parties. Unlike personal loans to farmers in difficulty, however, these commercially loans were not periodically annulled. Nonetheless, there was no coinage as such, nor a need for one. Coins widely circulating would have weakened the bureaucracy by allowing private arrangements to evade or contest State control. {6} In general, lending was limited, operated at rates high by modern standards, and was only occasionally farmed out to powerful families. Nonetheless, it was an encroachment on the earlier patterns of 'primitive' societies, and one which, by combining with the warfare of competing Greek city states, eventually made coinage necessary.

Egypt

As in Mesopotamia, Egypt under the Pharaohs maintained state warehouses that stored excess grain and provided relief in times of emergency or hardship. By Ptolemaic times (i.e. well into the use of coinage), the earlier warehouses had been converted into a highly sophisticated system that linked both private and royal warehouses, and used detailed accounts in making transfers. Grain harvests were noted, stored by year in local granaries, and records kept in Alexandria. Seed corn was under the control of the state. Grain may have served as money in a system that combined the immemorial Egyptian practices with those of the Greek private household, but the world's first giro system was exceptionally smooth-running and provided many of today's banking facilities without coins changing hands. {5}

In both countries, the earlier festivals by which the great temples and monuments were built in the Middle East, had given way to corvée labour, a voluntary, in-kind substitute for taxation based around solar or lunar calendars — again requiring writing and scribes to keep proper records. Finance enters obliquely, as citizenship, landownership and a rank in the law-enforcing army became interlinked. Only the rich, able to live off their land, had independence, and continual warfare often lay behind democracy, that battle between the landless and their creditors.{8}

Medieval Examples

Even countries supplying the great bulk of European gold before new world sources became available functioned perfectly well without minting their own coins. The west African states were rich, well-governed and for long centuries controlled a vast area of the desert and savannah lands of Saharan and sub-Saharan Africa, employing largely gold dust, foreign coinage or barter for their large trade in slaves, ivory and gold that were important to the Islamic and Christian worlds. By the earliest centuries of the Christian

era there existed small kingdoms in west Africa that could smelt iron ores, fashion metal tools to improve agriculture, and create sizeable towns with an ordered administration. By 300 AD, the kingdom of Ghana had known forty kings, who ruled communities based on agriculture and the mining of gold and iron ores, so creating products that were traded with Berber people north of the Sahara. Smaller kingdoms were gradually assimilated by the 1230-1300 Mali empire of the Mande peoples, which converted to Islam in the 1500s and was then succeeded by the equally extensive Songhai empire of the 15th and 16th centuries. {9-12}

From 400 to 1500 AD, west Africa supplied much of the old world's gold from shallow veins, reefs and alluvial deposits amenable to extraction with simple techniques. The Mali empire largely controlled that gold supply, and came to rule an area comfortably larger than Europe. Indeed, the Moroccan traveller ibn Battuta descanted on its prosperity, and when its emperor Mansa Musa visited Cairo in 1324, he came with 60,000 followers and 200 camels laden with such gold, food and other goods that the gold price in Cairo remained depressed for the following twelve years. The Mali Empire flourished on trade, taxing every commodity that entered its territories. It also had three large gold mines — Bambuk, Boure and Galam — within its borders, becoming the old world's major source of gold by the early 14th century. The empire struck no coins of its own, but used gold dust and foreign coins in ways that differed between regions. Many Saharan and Sahelian towns became important staging posts: Taghaza for salt, Takedda for copper, and both for slaves. Cities of Mali became not only important trading centres, but centres of wealth, culture, and learning. {14-17}

Mali is known to us from accounts given by: Shihab al-Din ibn Fadl Allah al-'Umari, Shams al-Din Abu Abd'Allah ibn Battuta, and Abu Zayd Abd-al-Rahman ibn Khaldun. Timbuktu was adorned with libraries and Islamic universities,

and many of these flourishing cities became meeting places for poets, scholars, and artists. Gold-financed armies extended territorial conquests, but the rulers also introduced agricultural reforms. Succession was often by coups and revolts, however, and when, for example, Mari Djata adopted his general's sons, those sons waged a devastating war against each other.

The succeeding Songhai settled on the middle Niger River, and under their Sonni kings unified a large part of the western Sudan. Islam was introduced into the royal court of Songhai in 1019 but most remained faithful to their tribal beliefs. At their capital at Gao, the Songhai developed a market place where kola nuts, gold, ivory, slaves, spices, palm oil and precious woods were traded for salt, cloth, arms, horses and copper. Sonni Ali equipped the empire with a fleet on the Niger River, and a large army of some 10,000 cavalry and 30,000 foot soldiers, which effected the capture of Timbuktu and Jenne. {9-12}

The Sonni were in turn driven from power by the Muslim Askia dynasty, where kingship was accompanied by absolute and sacred power. Rulers, who could only be approached in a prostrate attitude, sat on a raised platform surrounded by hundreds of eunuchs. Taxes were paid for internal and external security. The royal court was responsible for administration and the army, but large estates also belonged to nobles, where local peoples grew agricultural products, fished, and raised animals for meat, milk and skins. Many kingdoms continued to flourish after the fall of the Songhai: the Benin in Nigeria, Ashanti in present day Ghana and Dahomey, north of Benin. The west African kingdoms relied on slaves for heavy manual work, and Askia Mohammed turned those slaves into soldiers personally loyal to the ruler. Another group of slaves, the Arbi, became potters, woodworkers, and musicians serving the palace, and slaves also worked on village farms producing food for a growing urban population. {9-12}

The Ashante kingdom of the 15th and 16th centuries also used slaves in their rich gold mines, trading for them with the Portuguese, who purchased these slaves from the kingdom of Benin. The trade continued to the early 1700s, and brought prosperity to Ashante, enabling the kingdom to shift from small to large scale agriculture. The Benin also supplied slaves to work the sugar plantations of Brazil, and the increasing power of the Ashante and Dahomey kingdoms allowed them to raid societies like the Bambara, Mende, and Fulanis for slaves. When the Benin kingdom finally abolished slavery, the Portuguese were forced to go elsewhere, and were supplanted by the Dutch and then English traders. The supplying kingdoms were initially too strong to permit colonisation, however, and the trade in slaves, ivory, rubber and gold remained under the control of Asante, Fon, and Kongo kingdoms. {14-17}

Though the British government abolished the slave trade in 1807, the measures were slow to take effect, and the west African kingdoms retained their slaves to work plantations producing palm oil, rubber, and cocoa for the growing European markets. Ironically, slavery finally ceased when these kingdoms were colonized towards the end of the 19th century by the French and British, and the former slaves became the landless lower classes. Nonetheless, it was European powers, with their genius for organization, that turned local injustice to national exploitation in their need for cheap labour in the sugar and cotton plantations of Brazil, the Caribbean and the American colonies. Portugal transported over 4.5 million Africans before 1700. Britain in the following century transported almost 2.5 million of the 6 million slaves taken from Africa. Conditions were horrendous, and many perished on the journey from the poor food, lack of medical attention and the cramped and unsanitary conditions. In time the Europeans also gained access across the Sahara and through the Senegal and Gambia Rivers, trading copper ware, cloth, tools, wine and

horses and later guns, in exchange for gold, pepper, slaves, and ivory. Guns indeed became increasingly needed for west African professional armies, and the British were selling up to 100,000 muskets a year. {9-12}

African Gold and Trade Routes

Gold occurs in reefs and veins in the Precambrian basement of west Africa, and as alluvial deposits. {12} Shallow vein and reef deposits were worked as they still are in village communities today, by small pits dug into the soft, well-weathered bedrock. The veins are small, discontinuous but locally rich. Alluvial deposits derive from the vein and reef deposits, and form screes of weathered material, the gold being washed out and gravity-sorted in stream and river gravels. Small deposits were worked by panning, the larger ones by diverting river waters into sluices and washing tables. The simple technology, primitive but effective, has now been overtaken by modern mines and dredges.

Most west African gold in antiquity came from alluvial deposits in what is now Ghana (from the 8th century), Niger (in the 12th century) and Mali (thereafter). {14} The Phoenicians and Carthaginians obtained their gold by a maritime route, but the Romans and medieval Islamic states used trans-Saharan routes that also carried salt and slaves. The routes depended on the political stability of the areas passed, and on water supplies, the latter shifting with climatic changes. Berber tribes controlled the area in the 4th-8th centuries. In the 750-1150 AD period the two trade routes were firstly north to Fez and Islamic Spain, and secondly northeast to Kairouan, Tunis and Palermo. Around 850-950 AD, when the climate grew wetter, more water-holes allowed traders to use routes leading to Tripoli and Cairo. When the climate grew drier again, the route through Sijilmasa regained its importance, then being subject to tribal peoples who, unable to live off their pasture lands, resorted to raiding the caravans, which had to pay protection money.

Climatic conditions again changed in the 1170-1270 period, and, when the Kingdom of Ghana descended into political turmoil, control passed to the new and larger kingdom of Mali. {15}

Tallies

Until the nineteenth century in England, when large stocks of tallies were destroyed, much business was carried out with wooden tally sticks. Millions were used, and if the system was simple, it was effective, indeed essential when the medieval ban on usury had to be evaded, and coinage was scarce. A strip of wood was notched and split in half, one half being kept by the government and the other by the recipient. Tallies were used to pay taxes, soldiers for military service, farmers for wheat and the poor for labour. A sophisticated market existed by the 13th century, allowing tallies to be bought, sold and discounted. For much of the Middle Ages, tallies may indeed have made up most of the money supply. {16}

Barter

Lest we suppose that barter is a discredited form of trade, rarely practised in western countries, it is worth noting how prevalent were bilateral trade agreements in the years following W.W.II — Russian grain for jet engines, Pepsi-Cola concentrate for Soviet vodka, Iranian oil for German steel plants, British missiles, American port facilities and Japanese desalination facilities. Some degree of barter possibly amounted to 40% of trade in the 1980s. {17} Bilateral trade agreements are even more extensive today, {18} as are counter-trade and counter-purchase. {19}

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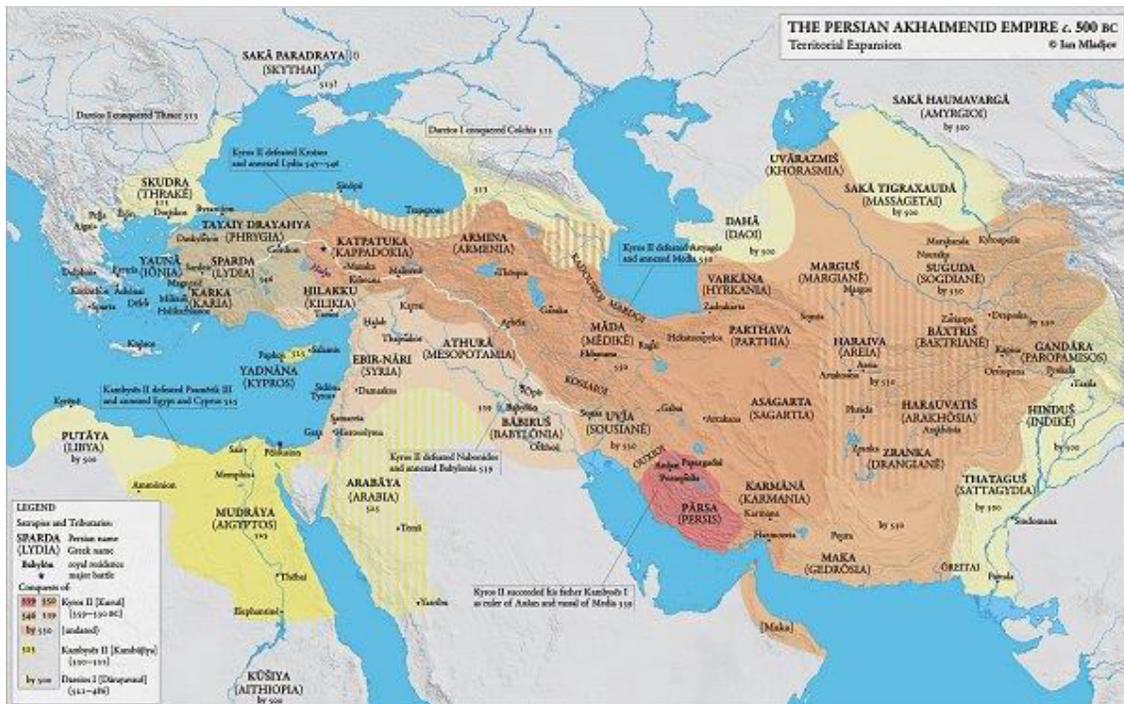
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3. First Empires



Coinage coincides with the growth of armies, and of taxation to pay them, in China, India and Europe. Chinese knives, spades and round coins only appear in any number during the Period of the Warring States. Not coincidentally, it was also the period of philosophers, who countered Legalist arguments that states needed strong laws resting on military coercion. The philosophers tried to put back what materialists had banished: the spiritual nature of man. Mo Di noted that the costs of warfare outdid its benefits, and Confucius spoke of benevolence and righteous behaviour. Because cold calculations of cost and benefit that underlie societies first employing coinage divorced man from his larger nature, the spiritual dimension had to be rationally reconceived in material entities (religion and philosophy) and conveyed to coinage. Coins should embody conspicuous trust, i.e. its features should demonstrate that the coins could indeed be used to pay taxes, public fees and legal penalties. Coins came therefore to represent power, authority and authenticity in their inscriptions, fashioning, symbolism and — in India and the near east — their use of precious metal.

{1}

Writers on warfare in early China are quite specific about the aims of warfare: it is waged for material gain. The same drive for profit underlay the war economies of other countries, though Kautilya dressed the matter up in morality and justice. Thucydides likewise spoke of honour and national prestige in debating the massacre of the Melians who had refused to pay their dues to the Athenian empire, but the economic consequences of allowing the empire to fragment in this way were also perfectly clear. {1}

That close connection of coinage with war and slavery, David Graeber sees as an inevitable component of successful foreign policy in these harsh times. Wealthy Phoenician cities, pacific in nature and slow to issue coins in the face of growing hostility from Babylon, the Greek city states and Rome, were one by one destroyed. When Sidon was taken by the Babylonians, some 40,000 inhabitants committed suicide. The silver needed to pay Alexander's mercenary armies was looted from Achaemenid treasuries, and those armies, when they destroyed Sidon in 322 BC, sold 30,000 of its inhabitants into slavery. At the end of the Punic Wars, when Rome finally eliminated its old foe, Carthage was levelled and some hundreds of thousands were killed, raped or sold into slavery. Coins were widely employed in trade, of course, but may have originated in darker and more compelling needs. {1}

Achaemenid Empire (550-330 B.C.)

Though the Achaemenid Empire is often seen through Greek eyes as an Asian tyranny bent on extinguishing European ideals of independence and democracy, Persia was in fact a triumph of statecraft, one that created the largest empire the ancient world had seen, and brought together lands extending from Egypt to northern India under one government. Its inception dates from 550 BC, when Cyrus I of Persia (r. 559–530 B.C.) defeated King Astyages of Media and annexed Iran and eastern Anatolia. The Lydians of

western Anatolia, allied with the Babylonians and Egyptians, counter-attacked under King Croesus, but their defeat led to Persia's rapid conquest of the Middle East, and subsequently of Egypt by Cyrus' son Cambyses in 525 B.C. {2}

When Cambyses died en route to Persia, Darius I (r. 521–486 B.C.) emerged as king. He promptly set about centralising government, building roads and palaces, but also appointed satraps (governors) that enjoyed considerable autonomy. Revolts of the Ionian city states brought him into collision with the Greeks in 498 B.C. The erring states were re-incorporated into the empire four years later, but not mainland Greece, which defeated the Persian forces at Marathon in 490 B.C. {2}

Darius' son Xerxes (r. 486–465 B.C.) tried to bring mainland Greece into the empire, but his large armies were outwitted by guerrilla tactics. Though the Spartans were defeated in battle and Athens sacked, the resourceful Greeks won a naval victory at Salamis in 479 B.C. Xerxes was then obliged to quell a Babylonian uprising, and the Persian army remaining was defeated by the Greeks at the Battle of Plataea in 479 B.C. {2}

Xerxes seems to have been assassinated. His son Artaxerxes I (r. 465–424 B.C) had to crush revolts in Egypt and establish garrisons in the Levant. The empire remained intact under his successor, Darius II (r. 423–405 B.C), but Egypt regained its independence under Artaxerxes II (r. 405–359 B.C), to be later reconquered by Artaxerxes III (r. 358–338 B.C). When he was assassinated, as was Artaxerxes IV (r. 338–336 B.C.), the throne fell to Darius III (r. 336–330 B.C.), a second cousin, who faced the armies of Alexander III of Macedon. Fortune and superior Greek hoplite armies finally won the day for Alexander, but on his early death the conquests were divided between generals, and Achaemenid lands became the Hellenistic kingdoms of the Ptolemies, Seleucids and Indo-Greeks. {2}



Achaemenid Empire: Darius II - Artaxerxes II (423 - 359 BC). Au Daric, ca. 400 BC. (8.27 g, 17 mm). Obverse: King in kneeling-running stance right, holding spear and bow. {7}

About social life in the Achaemenid times we know very little, but it seems to have retained its mix of local cultures and languages. Traditionally, Persian society had three classes — a warrior aristocracy, a priesthood, and a labouring class of farmers and herdsman, and to this structure was added a patriarchal tribal lineage, and no doubt the social distinctions of the peoples conquered. Royal inscriptions were trilingual, in Old Persian, Babylonian and Elamite, but most subjects remained illiterate.{3-5}

In art and religion the Achaemenid rulers were eclectic, local varieties being allowed while they assumed overall administration of the empire. The Zoroastrian calendar was adopted by Artaxerxes I, for example, but other religions, and possibly various strains of Zoroastrianism seem to have been tolerated, at least for periods locally. {3-5}

It is for their splendid palaces that the Achaemenids were celebrated. Materials, styles and craftsmen were drawn from all quarters of the empire, and the mix moulded into a distinctive Persian taste for sophisticated exuberance. The Achaemenids were also great craftsmen in tableware, jewellery, weapons and pottery. {5}

Agriculture was the mainstay of the empire, but equally important was the large and well-trained army, the law and the government devolved to satraps, the last tending to become independent and indeed hereditary rulers. The first armies were tribal levies, but these were soon replaced by professional corps, led by the '10,000 immortals', 1,000 of whom formed the king's personal bodyguard. {5}

Coins proper are a Greek invention, and the concept returned from its westward dissemination in the coinage of the Persian satraps on the edges of the Achaemenid Empire, notably in Anatolia. The coins illustrated below employ Aramaic for their legends, but are Greek in design and execution. {9}



Tarsos. Ar stater of Mazaios, Satrap of Cilicia. 361/0-334 BC. Ar Stater 24 mm 10.77 g. Obverse: Baaltars seated left, torsos facing, holding grapes, grain ear, and eagle in right hand, sceptre in left. TN to left BALTRZ (Baaltars) in Aramaic to right, M below throne. Reverse: lion attacking bull. MZDI (Mazaios) above.. Monogram below. (SNG Lev 106; SNG Bn-) {9-11}

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4. Greek City States



Socially and individually, the Greeks were a fiercely individual people, {1} and each city state (polis) controlled its surrounding territory. That polis typically contained an urban area, often fortified, and a sacred centre built on a natural acropolis or harbour. Each polis was in contact with others through trade, treaties and wars, but was otherwise, in its political, judicial, legal, religious and social institutions and practices, an independent entity. {2}

The Athenian leader Cleisthenes introduced a system of political reforms in 507 BC that he called *demokratia*, or 'rule by the people'. Three separate institutions made up the *demokratia*: the *ekklesia* (a sovereign governing body that wrote laws and dictated foreign policy), the *boule*, (a council of representatives from the ten Athenian tribes) and the *dikasteria* (the popular courts in which citizens argued cases before a group of lottery-selected jurors). Cleisthenes' invention spread to other cities, abolishing the political

distinctions between the Athenian aristocrats (who had long monopolized the political decision-making process) and the middle- and working-class people who manned their armies and navies. Demokratia did not extend to slaves or foreign residents, however, of whom there were 150,000 and 10,000 respectively in mid-fourth century Athens, (in a city of 100,000 fully-fledged citizens). In fact only male citizens over the age of 18 could take part of the democratic process, so that the active citizens in practice numbered only 40,000.

Any active citizen could attend the ekklesia, which made decisions about war and foreign policy, wrote and revised laws, and approved or condemned the conduct of public officials. Ostracism, by which a citizen could be expelled from the Athenian city-state for 10 years, was also among the powers of the ekklesia. The group made decisions by a simple majority vote. To prevent a permanent class of civil servants, positions on the boule were chosen by lot and not election, though the wealthier and more influential citizens were probably more represented than others. Each day, more than 500 jurors were chosen by lot from a pool of male citizens older than 30 for the dikasteria, whose decisions by majority wielded unlimited power. Jurors were also paid for attendance, but not handsomely. {2}

Freedom (eleutheria) in the Greek city states meant not only 'participating democracy' (as opposed to our representative democracy) but onerous duties. Indeed it was through honourably serving its polis that the Greek citizen became most fully himself. City states were small, and most citizens knew each other, though their wealth and social status could be very different. If aristocrats had the leisure to educate themselves and become wiser and more effective rulers, aristocracies could also become self-perpetuating tyrannies. Equally well, an unrestrained democracy, or rule by an untutored mob, could degenerate into anarchy. The best-run states kept some balance between the two, tyranny and

mob-rule, guided by that Greek sense of moderation in all things.

Though the Athenian system began to change into more of an oligarchy under Pericles (around 460 BC), the people governed themselves for 186 years — debating and voting individually on issues great and small, making Athens a decidedly democratic, autonomous, aggressive, and prosperous state. {3}

The Delian League

In 477 BC, a year after the second Persian invasion, several hundred Greek states formed a military alliance to prepare for future invasion, seek revenge against Persia, and organize a means of dividing the spoils of war. Key to the alliance was a common navy, whose construction was supervised by Athens. States not supplying ships agreed to pay a tax into the League's treasury, which was moved from Delos to Athens, ostensibly for safety reasons but also to fund the Parthenon and other building projects. Over time, Athens also progressed from soliciting ships, men and armaments to imposing a tribute for its own purposes. {4-7}.

In short, the alliance became an empire. Pericles instituted quasi-colonies (cleruchiai) that served to garrison the territories, and various offices (opiskoopoi and archontes), to collect the tribute. Only the Athenian coinage was legal tender, moreover, and in trade with Athens the coinage of other states had to be exchanged for Athenian coinage at established money-changers, or recoined (with the seigniorage going to Athens). When the simmering discontent broke out into the Peloponnesian War (431–404 BC), only Chios and Lesbos would contribute ships to Athens, which was duly defeated by Sparta with Persian help. Athens lost its pre-eminence, and access to the Laurion silver mines. {4-7}.

Nonetheless, Athens was able to form a second confederation of Aegean states, and from 378 to 355 BC led

a defence against Spartan and Persian threats. {4}. The previous and unpopular tribute system was wisely replaced by *sintaxeis* — irregular contributions levied only when needed, and spent quickly. With the rise of Thebes, however, which defeated Sparta in 371 BC, and caused Athens' rapprochement with Sparta, came more unrest and the eventual demise of the second confederation. Greek independence and inter-city warfare finally ended with Philip II of Macedonia, who brought Greece and surrounding territories under his control. When he was assassinated in 336 BC, his son Alexander began the great conquests that ushered in the Macedonian kingdoms. {8-9}.

Coinage in Greece



Athens (c.454-431 BC) Ar Tetradrachm. Obverse: helmeted head of Athena facing right. Full crest type. 17.05g, 23mm. (Sear 2526v., Starr Pl. 22 No. 3, Svoronos Pl. 11 No. 7.) {5}



Reverse: Owl within incuse square. Olive sprig and crescent moon left. Greek 'Athe' right (abbreviation for 'of the Athenians') {5} The olive sprig refers to olive oil production, important to the Athenian economy (with silver, pottery and provision of mercenaries.)

The origins of Greek coinage, the extent of its symbolic and economic uses, and whether indeed it was a commodity or

fiat coinage are contentious issues. {10-12} Scholars vehemently disagree — as is the case in many classical coinage issues. {13} Economists, while accepting the symbolic origins of coinage, stress its utility, and argue that small pieces of weighed silver, and then small denominations themselves, preceded the use of the larger denominations collectors are familiar with. No doubt the ability to strike their own coinage was one sign of the independence so dear to Greek hearts, but in fact cities often enjoyed this freedom when under Macedonian and then Roman rule. Nonetheless, many in the wealthy elite of Athens did prefer to invest in silver mining rather than the more aristocratic practice of land-holding, and Athens seems to have been earlier than most city states in lending out temple treasuries to meet the heavy costs of ship building.

Athenian Owls

Athenian 'owls', i.e. tetradrachms, are a popular series with collectors. They were legal currency for centuries in Aegean countries, and all the great names of classical Greece will have handled them. The coins come in several types before and after the period of Greece's greatness, and there are many variations within the main types. Rarities exist, of course, but in general the coins were minted in great numbers from Laurion silver at a time when Athenian coinage formed the one legal tender across the Delian League. {14-19} The tetradrachm was too large a denomination for everyday use, moreover, and being restricted to large payments or stores of wealth, is often preserved in a collectable condition.

Imperial Roman issues were changed frequently, but not these tetradrachms. Throughout the classical period (510-323 BC) when Greece, and Athens in particular, were laying the foundations of western civilisation {9} — its great achievements in art, architecture, theatre, literature and philosophy — these coins retained their rather primitive form.

By Greek numismatic standards the Athenian tetradrachms are not particularly attractive. Athena's head is crudely shaped, and the reverse owl looks like a child's toy. Clearly the stress was on convenience and continuity. The coins were indeed kept at high silver content, which no doubt emphasized the probity of Athenian institutions, and strength of the city's naval and military forces. Many coins do show test cuts, however, showing either that counterfeiting was a problem, or that image and workmanship weren't alone sufficient to command confidence, making the owls, in part at least, a commodity coinage.

Dating the Series

For so abundant a coinage, the Athenian tetradrachm is unusually plagued with dating problems. Reid Goldsborough, on whose admirable article this section is based, has grouped the many varieties into five types. {15}. The archaic type was minted from 510 BC (when democracy was instituted under Kleisthenes) to 480 BC. Preceding them were 'crest owls', minted from 545 BC but the many different types suggests they were issued by various aristocratic families rather than the state. The intermediate style (also known as late classical, Hellenistic or intermediate) probably dates from around 392 BC to 200 BC, when Athens had limited autonomy under the Hellenistic kingdoms. About the other types there is an extraordinary range of opinion between authorities, catalogues and auction houses — depending on the weight attached to various slender lines of evidence. {15}

Varieties exist in all the types. Goldsborough notes these: {15}

'1. Athena has a wider, smiling mouth that can appear as a smirk rather than a short mouth that's neutral in affect or that curves slightly downward, forming a frown.

2. Athena has a more protruding rather than a flatter face.

3. The eye of Athena is smaller and more symmetrical, with the curve forming the upper half mirroring the curve forming the lower half, rather than the two sides being asymmetrical.

4. The floral scroll on Athena's helmet is smaller rather than larger.

5. The owl has shorter rather than longer claws.

6. The legend consists of smaller rather than larger letters.

7. The incuse square is more clearly visible on the coin's flan rather than being off it.'

He suggests the earlier of types were perhaps issued between c. 454 and 431 BC, with the last date corresponding to the start of the Peloponnesian War. Stylistically, they are closer to the owls minted between 478 and 454 BC. The later types were issued in great numbers, with many dies and engravers making grouping difficult, though Athena may have lost her smile when Athens was no longer pre-eminent.

The problems are these:

1. The lack of documentary evidence: Greeks did not think these mundane matters worth recording, or the records have not survived.

2. Owls were issued in great numbers by Athens, but may also have been copied (i.e. minted) by other states to avoid the seigniorage involved.

3. Because not used in everyday commerce, the tetradrachms tend to turn up in unreported hoards rather than carefully documented excavations. Important

information is lost when hoards are clandestinely sold on the black market.

4. We know the geology of the Laurion veins with their complex mineralogical patterns, but don't have the mining records — making dating/grouping by their contained base metals or trace elements next to impossible (not to mention the influence of the refining process and silver from other sources being added to the mix.)

5. We don't know the significance of the varieties — do they point to different period, different mints, or are they simply random, changing with each die-cutter?

The Athenian Empire

The Delian League did not start as an empire, not one of those entities characterized by Greg Woolf as:

'political systems based on the actual or threatened use of force to extract surpluses from their subjects. . . Pre-industrial empires could not support large governmental institutions and so secured their power by promoting a community of interest among elites within the empire, and a sense of imperial membership based on participation in ruler worship and adherence to imperial cultural and symbolic systems. Economically, however, empires were first and foremost tributary structures, and much of the limited energy at their disposal was devoted to ensuring adequate supplies of cash, labour and agricultural produce from the areas under their control.' {13}.

The League did eventually win an important victory over the Persians in 451 BC, but the high-handed Athenian manner also generated discontent and several revolts, all of which were quickly suppressed, sometimes savagely. The punishment of the Mytilenians, for example, was death to the entire male population, later commuted to death of the leading 1000 ringleaders, and redistribution of the land in the entire island of Lesbos to Athenian shareholders. Even dissent could bring reprisals. When the Melians refused to

join the League, their city was conquered, the males put to death and the women sold into slavery. {5}.

We have to bear these facts in mind when reviewing its celebrated figures. The ancient world was brutal, made more so by frequent wars, savage treatment of captives and wholesale massacres (not unlike China's Period of Warring States, when its own coinage emerged). Modern historians have moved beyond the idealisation of figures like Pericles (c. 495 – 429 BC), so useful to public schools turning out future legislators of the British Empire, to characters much more complex, devious and fascinating. {18} Even that great funeral oration clearly had its propaganda value: Athens was not a full democracy, {21} and did not live up to those inspiring ideals. {22}

What Athens did have was an imperial policy. It set standards in many walks of life, used its democratic institutions to enforce its will on surrounding states, and (with Corinth and Delos) insisted on being the commercial hub of the known world — much as London would become, and then New York. To do so, Athens had to control the coinage, to ensure that Athenian currencies and practices prevailed throughout the Aegean, and were seen to do so. The Carthaginians were not a threat to Greek commerce — they did not mint coins till the mid-fourth century — and Athens was part of a Macedonian kingdom when Rome began to assert itself. Indeed it was Macedonia in the person of Alexander who conquered swathes of west Asia and extended the Athenian pattern of coinage to what is still the common form today: the head of some personage on the obverse, and the representation of some deity on the reverse.

The larger point — as has been emphasized throughout the book — is that human societies are complex. Exemplary improvements in one area of life may be missing from others, or indeed derive from regressive policies elsewhere. The Greek world laid the foundations for the European

civilisations, but was accompanied by practices that would seem repellent today: phallic cults, slavery, savagery in war, harsh treatment of women. Its great dramatists could highlight man's injustices, but societies did not generally change, preferring to accept 'that was how life was'. In a similar way, our own academics and social theorists may disclose inconvenient truths behind the newspaper headlines and mainstream media commentary, but have little influence beyond a specialist readership. Societies are governed by power, and human beings have generally enough trouble getting through their everyday struggles with job, family and future to worry overmuch about abstract truths, overseas justice or increased personal freedoms that carry onerous responsibilities.

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5. The Celts



The Celts were a group of Indo-European peoples who spread over much of Europe from the second millennium to the first century BC. Linguistically they survive in the Celtic speakers of Ireland, highland Scotland, the Isle of Man, Wales, and Brittany. The oldest unequivocal archaeological evidence comes from 700 BC graves at Hallstatt, near Salzburg, where chieftains used iron implements and traded for Greek luxury items such as bronze and pottery vessels. By the mid 5th century BC the La Tène culture, with its distinctive art style of abstract geometric designs and stylized bird and animal forms, emerged among the Celts centred on the middle Rhine. Trade seems then to have been more with Etruscans than the Greeks. From the 5th to the 1st centuries BC, the La Tène culture accompanied migrations of Celtic tribes into eastern Europe and westward into the British Isles. {1}

The first European societies probably practised a primitive communism, where food was jointly produced and jointly

consumed by family units. By Celtic times these families had aggregated into clans or tribes, co-operating with each other in producing distinctive goods and exchanging men and women in marriage. Strict codes applied. Killing or injuring someone from another tribe saw the offending tribe pay blood money. Offences against a same tribe member saw the offender outlawed, probably a death sentence when a livelihood outside these extended families was exceptionally difficult. {2}

Origins of the Celts

The Celts first appear in history when the Greeks invaded the Aegean area, learning bronze working from the native inhabitants and soon turning out superior weapons themselves. Around 390 BC, the Celts sacked Rome, and remained a constant menace to Italy until their defeat at Telamon in 225 BC. Caesar's account of the Helvetii suggests that these were large tribes of free warriors under tribal chiefs. The object was conquest and settlement, and their migrations were accompanied by women and children. In western Europe the first Celtic invaders were the Gaels around 700 BC. They were followed two centuries later by the Bryons, who had learned the use of iron. A third wave of invaders, the Belgae from northern Gaul, arrived in England around 100 BC, mixing and intermarrying with their predecessors and native Iberian stock. {1}

Information on Celtic institutions comes from classical authors and ancient Irish literature. The tribe had three social levels: king, warrior aristocracy, and freemen farmers. The druids, who were occupied with magico-religious duties, were recruited from the warrior class but ranked higher. There may also have been a semi-servile class who were exploited by kings and landowners once the tribe settled into a sedentary existence. As in other Indo-European systems, the family was patriarchal. The economy was based on mixed farming, and, except in times of unrest, single

farmsteads were initially the usual order of things. Variations in terrain and climate allowed cattle rearing to be more important than cereal cultivation in some regions. The earlier light plough, which required two ploughings of square-shaped fields, gave way with the Belgae to iron-tipped heavy ploughs drawn by four or eight oxen. Hill forts provided places of refuge, but warfare was generally open, consisting of single combat as much as general fighting. Villages sprung up under the Belgae, and these were stockaded affairs in contrast to the hamlets and scattered homesteads of earlier



invaders. The Belgae also kept in close contact with their Gaulish cousins, and traded with southern European and Mediterranean peoples. The Brythons employed iron bars resembling half-finished swords for currency, but the Belgae struck gold coins in imitation of Macedonian gold staters. La Tène art indeed bears witness to the aesthetic qualities of the Celts, and they also prized music and many forms of oral literary composition. {1, 2}

Because inscriptions, when they occur at all, generally refer to individuals rather than tribes, coins among the Celts may well have originated in special purposes: ritual, tribute, payment for military services, diplomatic gifts, dowries or gifts between specific members of the Celtic aristocracy. In this they resembled gold torques, which were certainly not used for trade. But once the coins were distributed, and their prestige diminished, then a secondary use for barter or trade became possible. Large issues were often payments to mercenary Celtic troops. Antigonas Gonatas of Macedon (283-239 BC) employed Celts at the rate of one stater per man, owing them each 30 talents (or more than 90,000

staters in all) at the end of the war. Perseus, the last King of Macedon, employed a force of Gaetae comprising 10,000 cavalry and 10,000 infantry. The foot soldiers were to receive 5 staters each, the horseman 10 staters and Clonicus, their leader, 1,000. Early coins were generally faithful copies of Greek originals, but became increasingly corrupted, when even the letters became ornamental.

The later appearance (2nd century BC) appearance of silver and bronze coinages in northern Gaul coincided with the Celtic oppida (fortified settlements) — urban centres that had evolved from a subsistence economy to craft specialisations also importing Roman goods. Coins in turn may well have evolved from one-off special purposes to general commercial purposes, i.e. from ritual donations and blood money to everyday exchange in trade and barter. {3}

Iconography of Celtic Coins



As is well known, Celtic coins began as copies of the coinage of Greek, Macedonian and Roman peoples that Celtic tribes came into contact with through trade, war, and acting as mercenaries for. The first copies were often like their originals if rather crude, lacking their balance, finish and authority, but gradually developed in directions of their own, becoming more abstract and decorative, the individual features detaching themselves and turning into religious figures or symbols. {4-7}

Thus the tetradrachm of Philip II of Macedon shown above becomes a decorative pattern in the gold stater shown opposite, one struck by the Triovantes, a Celtic tribe of 1st century BC Britain. {4} The head has become an ornate cross, and the reverse shows a horse galloping around free-wheeling motifs. Some authors believe these

motives had religious significance. The Celts regarded the sun and moon as gods, for example, and where the wheel appears above the horse — as here — it will have represented the sun, perhaps alluding to its fiery passage through the heavens. {8-9} Other symbols here may again represent the sun and possibly a thunder-bolt: the Celts had sky deities but also spirits of the earth and the otherworld.

At their best, coins indeed displayed what is common to all Celtic art: 'an exquisite sense of balance in the layout and development of patterns. Curvilinear forms are set out so that positive and negative, filled areas and spaces form a harmonious whole. Control and restraint were exercised in the use of surface texturing and relief. Very complex curvilinear patterns were designed to cover precisely the most awkward and irregularly shaped surfaces.' {10}

The Celts were led by a warrior aristocracy, given to fighting and feasting, and ornamenting themselves with marks of status: gold torques, bracelets and armlets. Wooden figurines are also found, sometimes in large quantities, and may be votive objects, standing proxy for human sacrifice (which may have been given gladly, to propitiate the gods and favour success in battle and farming {11}). In short, Celtic coins may have served several purposes, perhaps originating as talismans or reminders of the supernatural order and then sinking into the mundane as currency, a view that foreshadows our understanding of debt as both a moral obligation and a commercial transaction.

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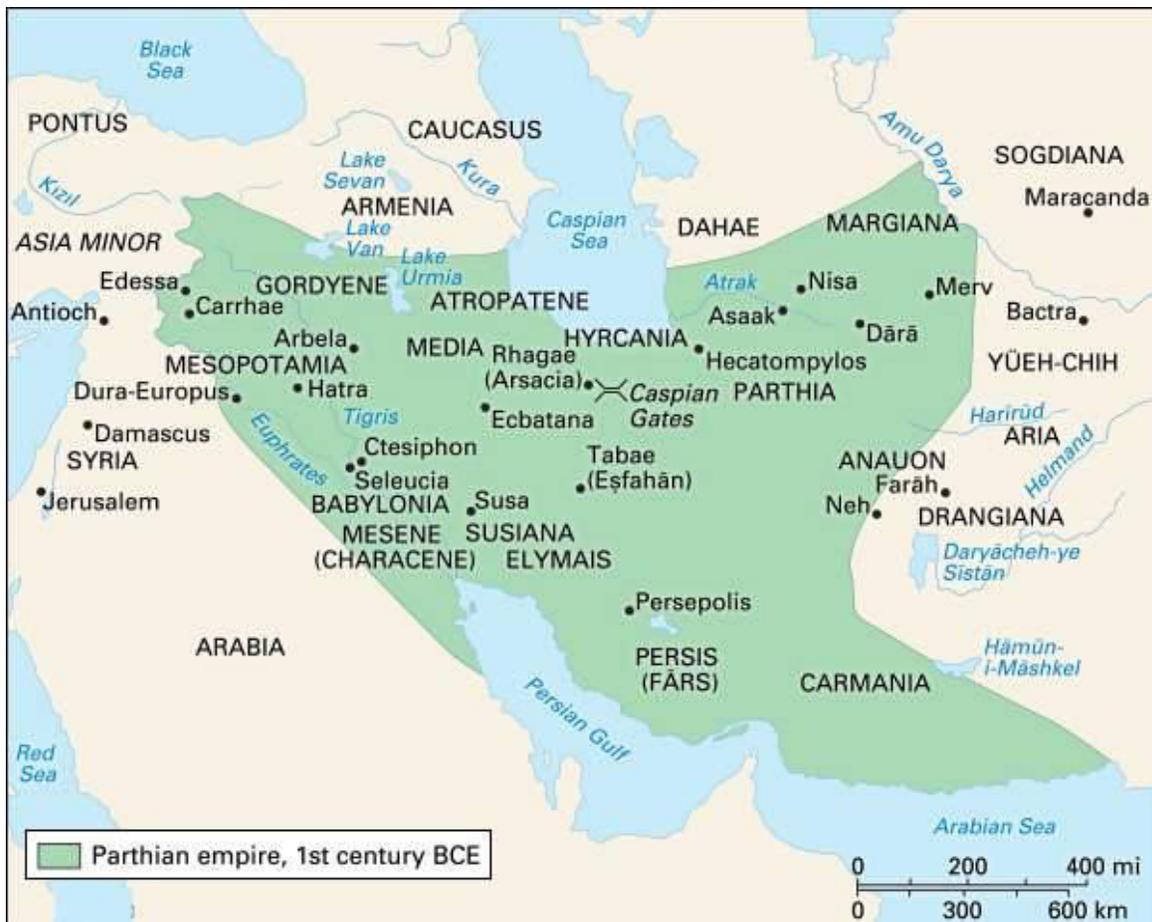
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6. Confederations



Parthian Empire

The Parthians or Arsacids (247 BC–224 AD) occupied the eastern realms of the former Achaemenid Empire (550-330 BC) {1} that had become the Seleucid Hellenistic kingdom (312-63 BC) {2} after conquest by Alexander. Parthia was a natural entity, extending from the Caspian Sea to the Persian Gulf and reaching almost to the Mediterranean. Today this vast area is largely one of deserts and inhospitable mountains, but the land was more fertile two millennia ago, and held many flourishing cities, often built in the style of the Greek city state.

The Parthians have suffered from a bad press. Their war-like qualities have been emphasized by Roman sources, particularly the arrow-shooting skills of the light cavalry and their heavy cataphracts. The Parthian Empire was a decentralised administration, certainly, with satrapies enjoying sufficient independence to issue their own coins on occasion, but the empire was not a disorganised rabble of

wild tribesmen. Little has survived the subsequent Sasanian takeover and the Arab conquests, but these scattered remains point to a cultivated people building on a rich and multicultural inheritance.

What little is known of the Parthians comes from outside sources, supplemented by rock inscriptions, scattered cuneiform tablets and, most importantly, their coinage. {3} The earlier coins — drachmas and tetradrachms, and just possibly some presentation gold pieces — were modelled on Greek lines and indeed employed Greek legends on their reverses. In the last coins of the empire, this Greek has degenerated into meaningless decoration supplemented by good Aramaic, i.e. the empire had thrown off its Greek heritage and reverted to its original Achaemenid roots.{5}

Art, architecture, religious beliefs and royal insignia show the Parthian state was a varied mixture of Persian, Hellenistic and local elements. There was no standing army, and power was somewhat decentralised. The Parthians ruled from Nisa and then Ctesiphon (south of modern Baghdad), but also allowed semi-independent satraps to form at the fringes of the empire, largely outside what is Iran today. In the west the Parthians were opposed by the Seleucids, from whom they had seized territory, and in the east were threatened by the newly arrived Yueh Chih, the tribal peoples who were to form the Kushan Empire. As the Parthians expanded westwards they came into conflict the Kingdom of Armenia, and then the late Roman Republic. After the Parthians annihilated the large army of Crassus at the Battle of Carrhae in 53 BC, they expanded into the Levant, but could not hold these territories against Roman forces, and indeed the Romans captured the cities of Seleucia and Ctesiphon on several occasions. {3-4}

Mithradates II



Greek coins, Parthia, Mithradates II, 129 – 88, Tetradrachm, Seleukia c. 129-88, AR 15.64 g. Obverse: diademed bust of Mithradates I.



Reverse. BASILEWS – MEGALOU - APSAKOU Parthian archer seated r. on omphalos, holding bow; in outer r. field, palm branch. In exergue, EPIFANOYS / TV. (Shore 67. Sellwood 24.4.)

Under Mithridates II (121-91 BC), the Parthian Empire reached its greatest extent. Mithridates the Great came to the throne at a perilous time, when the Parthians were suffering military defeats in the east and west, but not only restored order, but took Armenia and extended Parthian rule to the Euphrates. More threatening were the Yueh Chih tribesmen in the east, who had destroyed the Indo-Greek kingdoms and were advancing on Parthian lands. Yet Mithridates reconquered lost territories, and even wrested Seistan from these central Asian peoples that would eventually form the Kushan Empire. Towards the end of his reign, Mithridates faced a rebellion from his nephew, which was put down by Gotarzes I, son and successor to Mithridates. {6}

Mithridates II also improved the administration of the empire, and replaced the Babylonian styles of temples by more Hellenic/Parthian ones. {6}

The Parthians are remembered most for their military skills. Horsed archers could shoot accurately in all directions,

giving rise to the 'Parthian shot'. The main fighting force, led by the aristocracy, was the cataphract, however: heavily-mailed cavalry that was rightly feared by the Romans. In fact, though they originated as wild tribesmen from central Asia, the Parthians soon became a civilised people, adopting some of the Macedonian and then Roman customs, though not in marriage. Parthian kings could marry their nieces or even half-sisters. In one isolated case, Queen Musa in fact married her son. {6}

Parthia was by no means an isolated backwater. The first tribesmen used Greek on their coins, which indeed look like those of the Seleucids and Indo-Greeks. The country was always part of international trade routes, moreover, connecting Rome with China, and bringing new ideas, customs and material goods. {3-4}

Development of the Parthian Coinage



*Parthia. Ar tetradrachm. Phraates IV (38-2 BC) 12.33 g. 28 mm. 35 BC
Obverse: Short-bearded Phraates IV facing left, wearing*

Parthia. Ar Drachm. Phraates III. (70 BC-57 BC) 4.12 g 20.5 mm. Obverse: Bearded Phraates left, wearing diadem and torque ending in

Parthia. Osroes II (190 AD) Ar drachm. 3.67 g. 18 mm. Obverse: long-bearded Osroes II facing left, wearing tiara with pelleted

<i>diadem and torque, and with a wart on his brow. Dotted border.</i>	<i>seahorse. Dotted border. Reverse: Archer seated on throne right. Square legend around</i>	<i>crest, ear flaps and segmented necklet. Reverse: Archer seated on throne right. Hartabi Malka in Aramaic at top. (King Artabanus) ΛΙΙΥ...in square legend (ΛΙΙΥ... i.e. repeated pattern of Greek letters Λ and Ι). Mint mark: Α, Γ and Τ. (Agbatana i.e Ecbatana, Hamadan). {5}</i>
<i>Reverse: ΒΑΣΙΛ[ΕΩΣ] ΒΑΣΙΛΕΩ[Ν] ΑΡΣΑΚΟΥ ΕΥΕΡΓΕΤΟΥ ΔΙΚΑΙΟΥ [Ε]ΠΙΦΑΝΟΥΣ [ΦΙ]ΛΕΛΛΗΝΟΣ (BASILEOS BASILEON EUEGETOU ARSAKOU DIKAIΟΥ EPIPHANOUS PHILELLENOS Seleucid year 278 (35 BC) : Of the King of Kings Arsaces, Benefactor, Just, God Manifest, Philhellene) HOC ΠΑΝΗ (EOS PANE: Syrian year 278) {3}</i>	<i>ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΑΡΣΑΚΟΥ ΕΥΕΡΓΕΤΟΥ ΕΠΙΦΑΝΟΥΣ ΦΙΛΕΛΛΗΝΟΣ (BASILEOS MEGALOU ARSAKOU EUEGETOU EPIPHANOUS PHILELLENOS: Of Great King Arsaces, Benefactor, God Manifest, Philhellene) Minted Ecbatana . BMC Greek (Parthia) 2, p.45 Sellwood 1980 38.3</i>	

For most of its duration, the Parthian Empire issued coins in the Hellenistic or Indo-Greek fashion. Tetradrachms were struck occasionally, with some base metal issues, but the bulk of Parthian coinage is in silver drachms. The king appears on the obverse, realistically modelled in the round, and the reverse bears an inscription in good Greek arranged on four sides around a central figure, usually the seated figure of a Parthian archer, but sometimes a Greek god or local goddess. {4} In the last century of its existence, when it suffered inroads from Roman legions, and some civil wars, the Greek degenerated into meaningless letters and dots, though this 'decoration' is sometimes supplemented by a line of good Aramaic. Such Aramaic lines appear on the coins of Mithradates IV (c. 140 AD), Vologases IV (147-208 AD) Vologases V (191-208 AD), Osroes II (c. 190 AD) and of Artbanus IV (216-224 AD). Greek-style portraits also

become more schematic in time, a process mirroring changes from Indo-Greek to Kushan coinage. But why was a blundered Greek legend maintained on coin reverses when few or none could read it?

Possibly by tradition, because it provided continuity with the past: the same denomination was appearing with much the same weights, purities and designs. Perhaps Greek die cutters were also employed in the early Parthian Empire, and though these skills became scarcer in troubled times, something approaching the earlier coinage was still needed. In a similar fashion, the coins of the Crusader kingdoms imitating well-made Islamic issues often employed blundered Islamic legends, which gave them legitimacy in the kingdoms concerned and acceptability to infidel mercenaries, but not to Muslim states, where the legends had religious significance.

Since coins rarely contained the full metal content of their face value, most issues were to some extent a fiat coinage. But whereas the Crusader pieces passed muster by their contained silver alone, Islamic pieces needed more, a legitimacy, something issued by a rightful ruler who invoked God's blessing on his reign. Similarly, the late Parthian coins may have had legitimacy within the borders of the empire, but have been valued by their silver content only when they were shipped further afield, to Rome sometimes, but more probably eastwards to China.

Aramaic

Aramaic is an ancient Semitic language, and it was an Aramaic dialect of the Assyrians that became the lingua franca of the Near East from the eighth century BC onwards, to be eventually adopted by the Achaemenid or Persian Empire. Coins were struck in this language, for town commerce and army payments, and Alexander the Great continued the practice a little at first, before issuing the great floods of Greek silver needed to pay his mercenaries. Shortly afterwards, when the lands of Alexander's conquest

became Hellenistic kingdoms (here the Seleucids), the administration, language and coinage also became Greek, and it was these Greek customs that the Parthians adopted to rule the lands they had seized. {10} But no doubt the Aramaic continued in the speech of local people, and this Aramaic rose to official acceptance again when Greek customs died out in the last century of Parthian rule. A conquered people gradually assimilating their rulers is a common feature of empires: witness the gradual return to original (Greek) roots in the eastern Roman Empire, Jin Tartars (to Chinese), Norman England (to Anglo Saxon customs), Ilkhanid Persia (to Islam).

Between Two Worlds

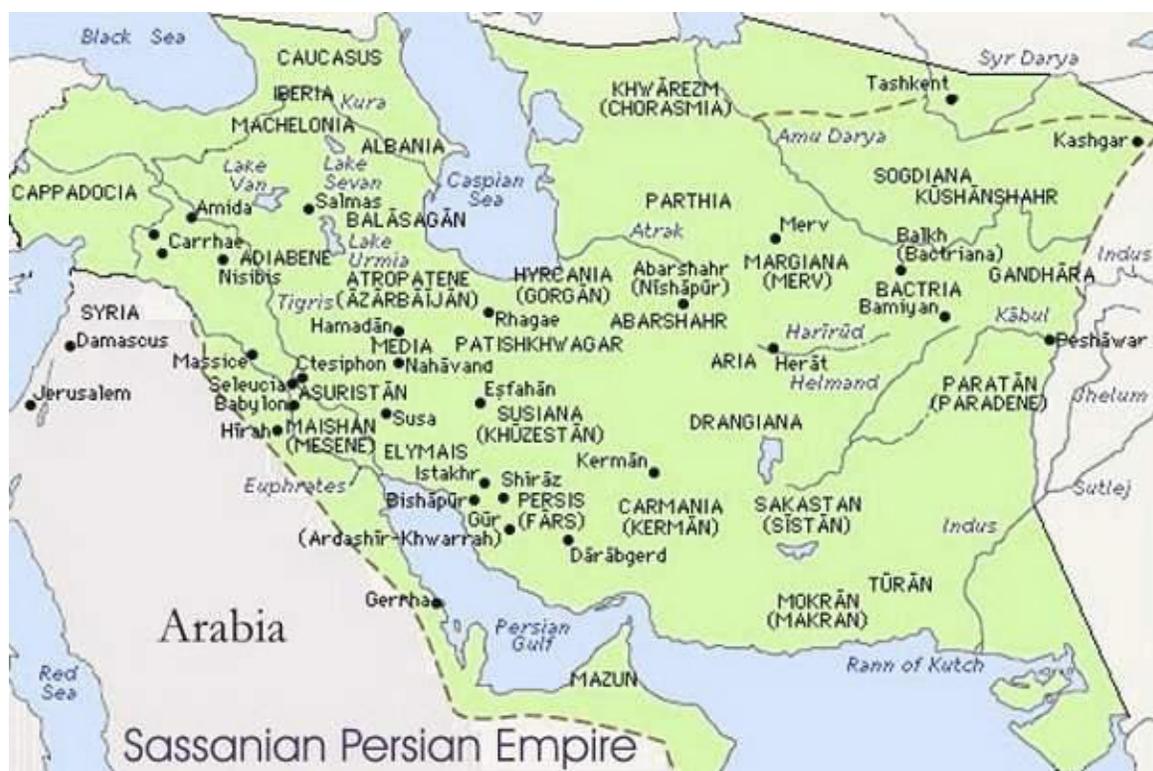
The Parthian kingdom was a successful fusion of nomadic and sedentary ways of life, and, unlike many such fusions (e.g. Mongol Persia and China), largely remained so. Until the last years of Parthian rule, the older civilization (Achaemenid and Seleucid) seems not to have assimilated the new. The kingdom certainly continued the monetised society of the Seleucids but preserved the fighting abilities of the Aparni steppe warrior by rigidly dividing society into two classes. To the lower class belonged peasants and townsmen. To the aristocracy belonged the Aparni 'freemen', who practised horse riding and warfare. The two-fold division into cataphracts and the horse-archers was also of steppe origin. Contacts were maintained with the nomads of middle Asia and the Caspian-Pontic steppes, moreover, notably through alliances and political marriages. {11}

Sasanian Empire

The Sasanian empire was created around 224 AD when Ardashir I, a descendant of Sasan, convincingly defeated the Parthians. Under Shapur I (241-272 AD) the central government was strengthened, the coinage reformed, and Zoroastrianism made the state religion. In the pomp and

splendour of their kings, the Sasanians saw themselves as the successors of the Achaemenid Persians, and their expanding territories quickly brought them into conflict with Rome. In a battle near Edessa in 260 AD, the emperor Valerian was captured, treated shamefully and died in captivity. The Romans indeed found the centralised Sasanian Empire a more serious foe than the earlier Parthians, and were largely obliged to leave their eastern border at Palmyra, a caravan city in Syria. By the end of Shapur I's reign, the Sasanian empire stretched from the Euphrates to the Indus and included modern-day Armenia and Georgia. Territories were lost under succeeding rulers, but restored by Shapur II (309-379 AD), who re-established control over the Kushans in the east and campaigned in the desert against the Arabs.{18-21}

Fluctuating Fortunes



Wars with Rome saw Sasanian control again exerted in northern Mesopotamia and Armenia. In the fifth century, the Sasanians came into conflict with the Hephthalite (white) Huns, who had created an extensive tribal empire centred on Afghanistan.



Bahram I. 273-276 AD. Au Dinar. Weight 7.39 gm. Obverse: Crowned and cuirassed bust right. Legend: MaZDaYaSN BaGI VaRaHRAN MALKAN Malka AIRAN MiNUVhaTRI MiN YaZDAN Wa ANAiRAN (The Mazda worshipper, the divine Bahram, the king of kings of Iran and non-Iran who is descended from the Gods) in crude Pahlavi.



Reverse: Fire altar with attendants; taurus symbol to right of flames. Legend: NURA ZI VaRaHRAN ('Fire of Bahram' in crude Pahlavi right and left) Göbi I/1; cf. Paruck 105; Alram 705.

The Sasanians were initially forced to pay tribute to the Huns, but recovered independence under Khosrow I (531-79 A.D), who defeated this menacing threat. Later wars of succession, and with the Byzantine Empire, weakened the Sasanians, however, and Arab armies united under Islam defeated them in 642 AD. The last Sasanian ruler, Yazdegerd III, died in 651. {18-22}

The Parthians may have struck gold coins — the evidence is fragmentary and disputed {6} — but the succeeding Sasanian dynasty did indeed mint a handsome series of dinars and multiple dinars for prestige and probably presentation purposes. {24-26, 29}

Sasanian rulers can be identified by their individual crown shapes, {27} but for the other details the legends have to be deciphered. The script is Pahlavi, a form of Aramaic, read from right to left, but where a Semitic alphabet has been forced to serve an Indo-European tongue, (as it would again in Persian). {28}

The short vowels are left out. Some Semitic words are still written in their Semitic form, particularly the numerals. Letter shapes are often ambiguous, and scribes sometimes wrote

one letter when they meant another. All this makes Sasanian coins difficult to read, though the Sasanian dynasty is well documented: events, rulers and their reign periods. {28}

Religion

As to be expected in countries forming the great silk route, many religions were practised in the area appropriated by the Sasanians. {30-31} The state religion was Zoroastrianism, however, one of the world's most ancient religions and, as to be expected in a regime aiming to recapture its early splendour, was the religion of the earlier Achaemenid Empire. Zoroastrians worship the one God (Ahura Mazda) and believe fire represents God's light or wisdom, revealed to them by the Prophet, Zoroaster. Prayer takes place several times a day in a fire temple or Agiary, an image of which typically appears on the reverses of their coins, in great detail on their earlier issues.{32-33}

Manichaeism originated in Sasanian Persia in the person of Mani, a nobleman of good standing who tried to synthesize a new religion from the best aspects of pre-existing religions, His views were entertained seriously by Ardashir I, who was keen to adopt the means to assert his new authority, but less so by Bahram I, whose concerns centred more on religious and social uniformity within the Sasanian empire. Mani was tried, executed and made a public exhibition of in the Sasanian manner, his flayed body afterwards being stuffed with straw (as was that of the captured Roman emperor Valarian) as a warning to all.{34-35}

However sensible or innocuous it might seem, Manichaeism was seen as a major heresy, one denounced by established religions of the time, but still collecting millions of followers. Manichæism was a religious dualism, the clash of good with evil, and the doctrine grew rapidly, maintaining its hold in the Middle East until the second millennium, but spreading west as far as France and Africa and east to northern India, western China, and Tibet to an uncertain date. With that

dualism came asceticism, a stress on sexual purity, and an acute sense of a world-wide mission. Women were especially attracted to the religion, which awarded them more equal status. Mani was unusual, however, in writing the tenets himself, rather than trusting his disciples to hand them down correctly {34-36}

Mani was seen by his followers to be one of the divinely inspired prophets that included Zoroaster, the Buddha, Jesus Christ (and later Muhammad and Bahá'u'lláh) sent out into the world to rescue the true message from the corruptions of the times. Manichaeism arose in a highly cosmopolitan culture, in full awareness of antecedent west Asian religions such as Zoroastrianism, Christianity, and various pagan and Gnostic sects, as well as the Hindu, Jain, and Buddhist traditions of south Asia. Zoroastrianism is also dualist, but Manichaeism was closer to Indian thought in seeing souls not only in human beings, but in all things, even inanimate matter. That soul, moreover, is a collective entity, an emanation of the deity, broken into individuals only temporarily through their admixture of evil. Human beings are only one small part of a universal process of struggle and liberation of the world soul, a soul that carries with it all positive properties, such as life, growth, beauty, and brightness, and where evil contributes to the mixture only death, decay, ugliness, and gloom. Zoroastrians seek to expel evil from the world, but Manichaeans see the world as unperfectable, a temporary scene of conflict and suffering from which, like Buddhists, we escape through understanding. In its various ramifications, Manichaeism had a wide influence on Asian thought, notably the Gnostic strains of Sufism and Shi'ism. {36}

Manichaeism

Why the opposition? It was not merely denounced as heresy, but its adherents hunted down and extirpated — in the Persian Empire, the Roman world, Tang China, the

Abbasids and in medieval France. St. Augustine himself was a lapsed Manichaean, who repented afterwards with:

'I still thought that it is not we who sin but some other nature that sins within us. It flattered my pride to think that I incurred no guilt and, when I did wrong, not to confess it... I preferred to excuse myself and blame this unknown thing which was in me but was not part of me. The truth, of course, was that it was all my own self, and my own impiety had divided me against myself. My sin was all the more incurable because I did not think myself a sinner.' (Confessions, Book V, Section 10)

At this point we might anticipate the discussion on depth psychology (Mughal India) and note the suffering believers of different faiths inflict on each other by taking psychological perspectives as literally true. Why shouldn't the human soul be a battleground of good and evil, or light and darkness? Because we deny God His purpose, or larger dimension? Other religions are not as faith or scripture based as Christianity or Judaism, and Buddhists do not recognize a God at all.

In looking at Sasanian coinages, therefore, which will seem so foreign to western numismatists, we are seeing the record of a splendid court and its rituals which nonetheless became the seedbed of ideas that were to spread across the world from China to Europe and alarm clerics in more secular ages with ideals of simplicity, purity and material poverty.

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7. Roman Empire



From Republic to Empire

Alexander employed mercenary hoplite armies, which were funded by captured booty, notably the vast silver treasuries of the Achaemenid empire. {1-2} The later Macedonian kingdom economies were much like those of Rome, based on agriculture, construction, commerce, trade and mining. {3}

Beginning with the overthrow of its kings, traditionally dated to 509 BC, and ending in 27 BC with Augustus assuming the mantle of empire, the Roman Republic fought and overcame surrounding states to become the foremost military and economic power of the Mediterranean world. Alliance and conquest over the first two centuries brought Roman rule over most of the Italian peninsula. During the Carthaginian wars of the following century, Rome acquired north Africa, Spain, and what is now southern France. Two centuries later, towards the end of the 1st century BC, the Republic had expanded to include the rest of modern France, Greece and the eastern Mediterranean countries. The last century

saw the conquest of Gaul and Numidia, more conquests in the eastern Mediterranean, and then calamitous civil wars, which only ended when Octavian imposed centralised government on its unstable and over-extended territories. {4-5}.

Vital to its rise to power were three characteristics of the Republic: the sheer professionalism of its army, the law-based legislature that made life endurable for its conquered peoples, and the indomitable belief of the Romans in their right to rule. {4}

Prior to the Punic Wars, the Roman Republic resembled a Greek city state with relatively free yeoman farmers forming the basis of a prosperous, self-sufficient economy. But the long wars with Carthage, with the Macedonian kingdoms and with the Celts — at first defensive and then offensive — turned Rome into a plunder economy. The empire relied on booty in its expansive phase, sending tax collectors into conquered territories, which were secured by a network of roads and garrisons. Subsequently, and increasingly in the late empire, the military machine had to be supported by taxes that fell on the poorer and weaker sections of the populace. Most citizens were productive, however, and slaves were used either for the more menial tasks (mining, labour on larger estate) or as status symbols for the aristocracy. {6}

After territorial expansion, the economy became much more varied and self-supporting, though silks were imported from China and grain from north Africa. Inscriptions record 268 different occupations in the city of Rome, and 85 in Pompeii. {3}

But governments did veer towards plutocracies, and individuals, as today {7}, could become enormously wealthy. Though the Empire clamoured for peace when Gaius Julius Caesar Octavianus became its sole ruler on the death of Mark Antony in 30 BC, it still harboured much animosity and

unfinished business. People remembered the great proscriptions where politicians had murdered thousands of leading Roman citizens for no other reason than needing their property to continue their bid for power. They recalled the tens of thousands who had perished in the civil wars, whose effects still blighted the provinces from which men and supplies had been extracted. And Rome was still a turbulent and dangerous place, periodically beset by street mobs and lacking the architecture worthy of a world power. All these matters Octavian set about remedying in his secretive and long-headed way. {8-14}

Mindful of his great-uncle's assassination, Octavian restored the outward façade of a free Republic, with government ostensibly vested in the Senate, the executive magistrates and legislative assemblies. Behind the scenes, however, he firmly retained the powers invested in him by the Senate — supreme military commander, tribune and censor — and ensured that legions were stationed so widely around the Empire that mutinies would not easily coalesce into another claimant for the throne. He secured peace with the Parthian Empire, enlarged Rome's borders by annexing Egypt, Dalmatia, Pannonia, Noricum and Raetia, and protected those borders further with tributary buffer states. He fostered the arts, and embarked on a wholesale reconstruction of Rome, making it worthy of the power it enjoyed. {8-14}

But resentment naturally persisted. Anyone rising to the top of Roman politics was bound to make enemies, and Octavian had been especially ruthless, calculating and treacherous. Opposition saw little mercy. Offspring by Caesar and Mark Antony in Egypt were quietly done away with. Perusia, which had supported Mark Anthony's wife and brother in an insurrection against his rule in Italy, was marked out for exemplary punishment: the city was looted and burned, and some 300 Roman senators and equestrians believed sympathetic to the insurrection were executed. With eventual success, however, and particularly with the title

Augustus that the Senate conveyed on one who still modestly entitled himself 'first among citizens', a new Octavian emerged. Or perhaps appeared to. Historians disagree over whether the change was real or simulated, but the new Augustus could now afford to show more clemency and statesmanship, and these qualities the successful politician now sought to promote. His slight but intelligent features appeared in statues throughout the empire. Poets of modest backgrounds like Virgil and Horace composed edifying encomiums. And the splendid new coinage struck in gold, silver and base metal was made into a universal propaganda platform. {8-14, 21}

Rome's Republican coinage had been largely in silver: solid but rather dull pieces that simply bore the Consul's and moneyer's names and traditional legends. All this changed in the civil wars when claimants needed large issues to pay their armies. The coins were smaller, not so well finished, and commonly bore the leaders' portraits on the obverse and some identifying image or propaganda legend on the reverse. August improved on the practice. In his early pieces he appeared as avenger and liberator. Later he appeared as ruler and Rome's beneficial god. The portrait gradually became standardized but was subtly modified to appeal to all who used coinage, which was the vast majority of citizens. For employment in the eastern provinces, Augustan issues adopted a Hellenised look: a stylish portrait, modest legends and empty spaces left on the flan to emblazon the real beauty of workmanship. Often the reverse images would allude to a particular province: a handful of corn for Chios, for example, or the crocodile for Egypt. Coins struck for use in the west were more aggressive in appearance: the liberator displayed his full titles and accomplishments, and the reverse emphasized the military victories, or the trust reposed in him by the Senate, often shown by civic wreath or a bold SC: Senatus Consulto, by decree of the Senate. {8-14, 21}



*Roman Empire: Augustus
(27 BC-AD 14). Ar denarius
3.82 g. Struck 19-18 BC at
Spanish mint of Emerita.
Obverse: CAESAR
AVGVSTVS, Bare head
right*



*Obverse: CAESAR
AVGVSTVS, Bare head
right Reverse: OB CIVIS
SERVATOS, Oak wreath
with ties up in centre. (RIC
I 40a; RSC 210) (For
rescuing all his fellow: i.e.
benefactor)'*

Image was what counted, and Augustus' long reign and intrinsic power ensured the image was suitably maintained. C(aius) CAESAR IMP(erator) often appeared on obverse legends. Imperator alludes his official appointment as joint commander against Antony in January 43 BC, though Augustus was an indifferent general at best: indeed hostile sources called him a coward who left the fighting to others. Caesar refers to Julius Caesar's will by which Augustus was posthumously adopted as the great man's son: something Antony had little time for, and which rested on uncertain legal bases. But the young Augustus relentlessly pushed his claims, and basked in his great-uncle's glory when Caesar was made a god of the Roman Senate in 42 BC. The relations of Augustus with the legislature were as tangled and dubious as Caesar's had been, however. Augustan coins commonly record membership of two priestly corporations (Pontifex and Augur) at ages too young for him

to be properly eligible, and the election to his first consulship, which was carried out by force. An officer marched into the Senate to show the hilt of his sword shouting, 'If you won't do it, here's what will!' {8-14}

Like all good politicians, Augustus more created and drew on emotions than presented unpalatable realities. He appealed to the traditional customs of Italians in calling himself Son of a God, Chief Priest and Father of the Nation. That he was ruler of the army was not mentioned, nor that he also exerted widespread control in that peculiarly Roman way of the rich and their 'clients'. Certainly there was a popular will which could be whipped up to fury, and which it was unwise to foil, but Rome had never been fully democratic, even in Republican times, and those who wanted things done — preferment, or justice beyond what could be secured by the courts, which needed money for advocates and bribery — quietly sought favours from those who had powerful connections. By such invisible ties, by favours extended and astutely called in, the Empire was effectively governed. {8-14}

Augustus had learned the lessons of power from an early age, and wisely kept his own council. He was intimate with very few, it seems, or those records have disappeared, as indeed has the vast mass of the Roman historical record. Coins survive, but have to be carefully read, as much by what they omit as what they say. Their propaganda value was exploited by all Roman emperors, but not all were as intelligent, industrious and long-lived as Augustus. Few questioned the claims that sometimes went beyond the plain facts. Following the Battle of Actium in 31 BC, where he defeated Antony and Cleopatra, the young Augustus struck coins show ARMENIA CAPTA or RECAPTA (Armenia captured or recaptured) as in a victory parade, though Augustus never sent his legions to such inhospitable regions and Mark Antony, who did invade the country on his way to Parthia, suffered an inglorious defeat. {14-21}

Was the propaganda convincing? Certainly the great majority seems to have gone along with the fictions. Cities vied with each other to emulate the marbled streets, temples and buildings of Rome, and in each of these appeared portraits or statues of the man who had done so much to bring peace and prosperity. Senators closer to Augustus were probably more sceptical. In the words of the third-century Dio Cassius: 'From now on most things that took place began to be kept secret and confidential. Even when public announcements are made, they are distrusted because they cannot be confirmed; for there is a suspicion that all sayings and actions are related to the policy of the rulers and their staffs. As a result there are many rumours about things that have never happened at all — and many things that have certainly happened are quite unknown.' {8-14, 21}

Octavian lived modestly and travelled without bodyguards. He made a show of respecting the Senate's wishes, and later allowed others to serve as consuls, but power nonetheless rested on his control of the army. The man himself was not in the least intimidating: of slight stature but well-proportioned, he became rather neglectful of appearance in later years. His health was never better than indifferent. But the guarded, often cold manner concealed one of the most powerful political intellects in the ancient world. He enlarged the public utility of the Roman world by constructing bridges, roads, public baths and government buildings. A disparate empire, one welded together by conquest and war, was given a common identity and faith in its destiny. Writers and poets celebrated his accomplishments. Augustus introduced a splendid new coinage, and ensured that taxes were proportionate and could be paid. {8-14}

After 41 years of rule, the empire covered 6.8 million sq. km and ruled over 70 m. people, some 21% of the world's population. Its economy was agrarian-based and largely self-

contained. Silk was imported from China at ruinous prices, and coin hoards in India show a trade in Indian gems and southeast Asian spices, but these formed a small part of the economy. The Mediterranean lands produced wines and olive oil; the northern provinces supplied wool and animal hides; foodstuffs were grown on vast latifundia in Italy, and grain imported from Egypt and north Africa. Little of what the empire produced was of interest to India or the Han empire of China, however, and transactions here were enabled by silver. {8-14}

Propaganda

One of the great fascinations of Roman imperial coinage — and the series is deservedly popular for the opportunities it offers to collectors of all financial means — the rarest pieces are beyond most pockets, but a representative collection can be built up relatively cheaply — is the extraordinary range of image and information that appears. The obverse — usually the emperor but sometimes other important figures or motives — stamps authority on the issues: behind the coin stands the full power of the emperor and Roman state. On the reverse pours out an unending stream of propaganda — divinities and images alluding to the prosperity of the state and its continuing achievements. Even the uneducated could read a little Latin, and coins served as TV news today: to mould public opinion and persuade the common citizen that government was legitimate and responsive to their needs. {8-14, 21}

Just as the emperor's portrait appeared in pleasing statuary throughout the empire, so the portraiture on Roman coinage was especially fine and immediately recognisable, even on worn coins, though the portraits could also be idealized, as those of Augustus and Nero notably were. Coins also portrayed important relatives, especially wives, who are shown in the latest clothes and hair-styles. Although a poor soldier, Augustus was keen to glory in his victories, but also

display the virtue, piety, justice and clemency with which he treated his enemies after Actium. Like all good politicians, Augustus appealed to the necessary fictions of the state, and is depicted as Son of a God, Chief Priest, Father of the Country, and no reference appears of his suborning the institutions of the State, or seducing the army with bonuses. {11}

The messages conveyed on Roman coins sometimes varied with the metal involved: the rich used the gold aureus, the poor were familiar with copper. {12} Most of the events depicted are 'true' in the sense that they actually happened, and the information they convey can be useful to the historian, but the depictions are also slanted to include claims and interpretations thought needful by the State. As with all historical records, coins have to be used with care and a proper grounding in what can and cannot be safely deduced from the evidence. {19}

Character of Augustus

However he appeared in his rise to power — dissimulating, cowardly, spiteful — the list of unfavourable, indeed un-Roman characteristics, is a long one — Augustus became by far the most talented and hard-working of the Roman emperors. Michael Grant says of him:

'Augustus was one of the most talented, energetic and skilful administrators that world has ever known. The enormous, far-reaching work of reorganisation and rehabilitation that he undertook in every branch of his vast Empire created a new Roman peace, in which all but the humblest classes benefited from improved communications and flourishing commerce.. The autocratic régime which (learning from Caesar's mistakes) he substituted for the collapsing Republic — although challenged, from the outset, by a number of conspiracies — was to have a very long life. It brought stability, security and prosperity to an unprecedented proportion of the population for more than two hundred

years; it ensured the survival and eventual transmission of the political, social, economic, and cultural heritage of the classical world — Greek and Roman alike, and it supplied the framework within which both Judaism and Christianity were disseminated.' {11}

So which was the real Augustus? The ambitious young upstart with no military experience that neither Antony or Cicero would take seriously? The remorseless politician complicit with proscriptions in which 300 senators and 2000 other gentry, all mostly innocent of Caesar's death, were done away with and their property seized? The revengeful schemer who made a savage exhibition of his power in the Perusine War? Or the wise and beneficent statesman? Probably all four. Octavian/Augustus grew in stature and character as he increasingly identified with the new Rome he was building. People rise to the occasion, and good government operates through the institutions that channel and encourage the better part of our human natures. Perhaps because mindful of his own transgressions, Augustus laid the practical foundations of a Mediterranean empire that in its eastern form developed and endured for 1500 years.

End Notes

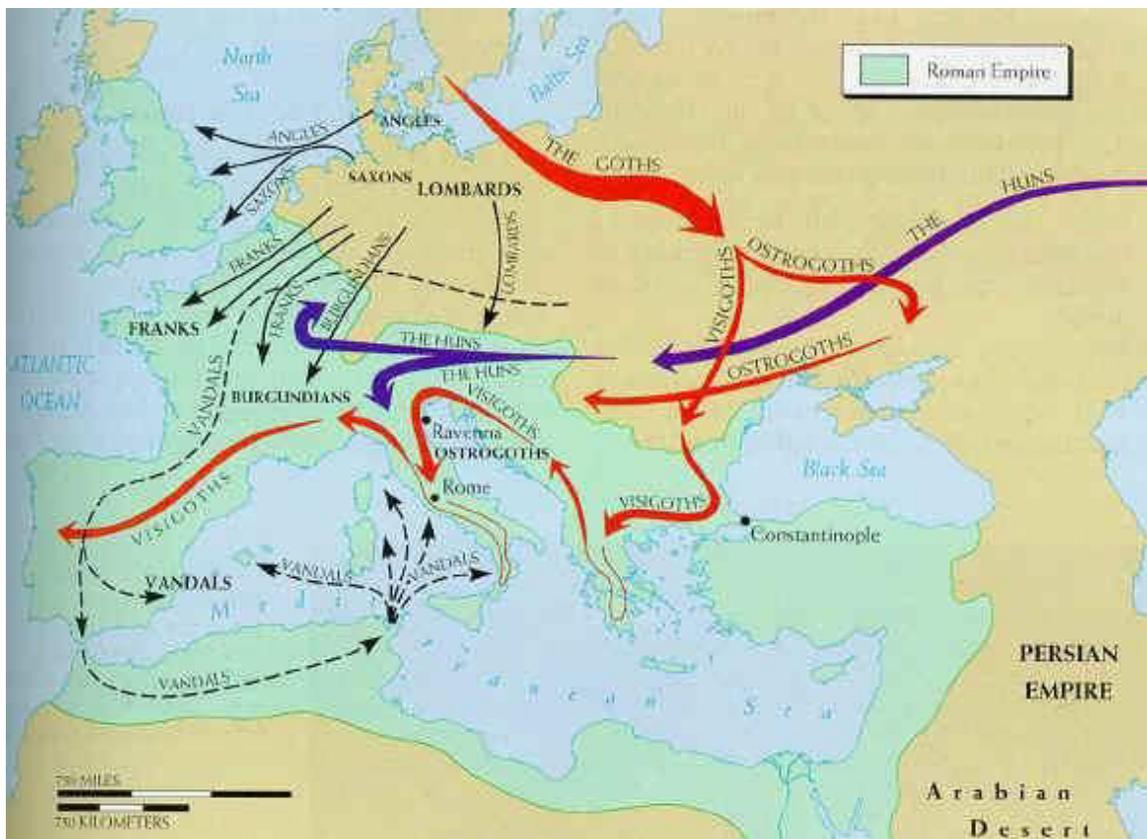
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8. Later Roman Empire



States do not invariably proceed to greater economic prosperity: they can equally well recede into poverty and social chaos. Because so many parallels are drawn between our failing institutions of today and the end of the Roman Empire, parallels that can be over-simple if not clearly false, it is worth looking at matters in some detail.

Weakened by barbarian inroads, wars of succession, rampant inflation and a fading ethos of civic duty, the Roman Empire of the early 4th century was very different from the splendid entity founded by Augustus three and a half centuries earlier. Yet the concept survived. The military caesars of the late 3rd century dealt effectively with barbarian invasions, civil strife, economic disorder, and plague. Diocletian reformed the treasury, attempted to control prices and replaced the single emperor by a tetrarchy. Constantine introduced the solidus — a coin that was to last a thousand years — founded Constantinople in the east, and made Christianity the official religion of the later Roman Empire. {1}



Roman Empire. Crispus (AD 317-326 Ae follis. 19mm 3.03 g. Struck AD 326 at Rome. Obverse: CRISPVS NOB CAES, (Crispus Noble Caesar) laureate, draped and cuirassed bust left



Reverse: PROVIDEN-TIAE CAESS, (Foresight of the Caesars) camp-gate with no doors and two turrets, star above; R (wreath)T. (RIC VII 288; LRBC 517) {2}

Crispus was the eldest son of Constantine by Minervina, who was either a concubine or commoner first wife of the emperor. He was born some time between 295 and 305, and was executed on Constantine's orders in 326, possibly for an affair with Faustus, Constantine's official or second wife — who was herself executed shortly afterwards. {2}

Imperial marriages in these troubled times were often made and unmade for dynastic reasons. Constantine's mother had been set aside when her husband sought an alliance with the emperor Maximian, for example, and in 307 Constantine himself allied with the Italian Augusti by marrying Fausta, the daughter of Maximian and sister of Maxentius. {2}

Whatever the circumstances, Crispus was brought up properly, tutored by Lactantius, and soon proved himself a

capable and loyal son. Together with his younger half-brother Constantine II and first cousin Licinius, he was named Caesar by the two Augusti in March 317. He married a young woman called Helena in 322, who bore him a son in October 322. Wife and son thereafter disappear from historical record, if only because all three suffered 'damnatio memoriae' — their names were deleted from official documents and monuments. {2}

But, initially at least, Constantine had every reason to be proud of Crispus. The young man led victorious campaigns against the Franks and Alamanni in 318, 320 and 323. He joined his father in visiting Rome during 322, and was awarded an enthusiastic home-coming. {2}

Crispus also joined his father's war with Licinius, and in his 324 naval victory at the battle of Hellepont proved himself an exceptional soldier and general. Crispus was assigned further legions, and won another important victory outside Chrysopolis. {2}

The two victories helped Constantine encompass the final defeat of Licinius, which left the Empire with only one Augustus. Crispus was honoured by depictions on coins, statues, mosaics, cameos, etc. However extraordinary must seem the affair which ended Crispus' life and reputation, information comes from two independent sources, and seems the least unlikely of several possibilities. The entanglement with Faustus may have been real, or only alleged by a Faustus jealous of Crispus' successes, but Constantine certainly possessed a quick temper. In other respects he was an outstanding emperor, a brilliant general and energetic administrator, who stamped his character as no other on the later Roman state. {2}

Taxes, paid in coin, were levied throughout the empire, but proceeds went largely to Italy, and to the ever-important frontier armies. There were brief wars of succession, but second-century emperors mitigated the threat by adopting

sons where necessary, and the immense task of administrating the later empire was divided between two Augusti and two Caesars. Septimus Severus (193-211) expanded the army to 400,000 soldiers against increasing barbarian threats, and improved its pay, but the cost was heavy taxes that fell increasingly on the less well-off. And the barbarians still broke through repeatedly in the third century, where disaster was only averted by a series of formidable military emperors. Diocletian (306-37) and Constantine the Great (306-37) then overhauled and reorganized the empire's administration, allowing German immigrants to settle within its borders. These Franks, Visigoths, Ostrogoths, Vandals, Burgundians and even Huns later enrolled in Roman armies and became outstanding soldiers. Constantine also embraced the Christian faith, which became the official state religion, a momentous event only briefly interrupted by Julian the Apostate's 361-3 reign. {3-9}

The empire was always one of great disparities in wealth and power, underpinned by slave labour and military repression, and along these fault lines the empire gradually came apart. The causes were various, both internal and external, and though probably not fatal individually, remorselessly combined into a final century and a half of calamity. The motives of the barbarian invasions was plunder, but they were also threatened by the Huns, who had broken into their realms around 370, destroying the Ostrogoth kingdom and driving 200,000 Visigoths across the Danube into the eastern empire. The emperor met the deluge at Adrianople in 378, and was overwhelmed: the cavalry fled, the soldiers were slaughtered and the emperor's own body was never recovered. {8-9}

Unity was essential in such perilous times, but rulers quarrelled with each other, and often with their own armies. The barbarians were bought off with treaties and subsidies, and, although allowed to settle extensively, were not assimilated. Rather than allow new blood to revitalize and

defend Roman society, the barbarians were despised and heavily taxed. The outstanding generals of the period — Stilicho (359-408) and Aetius (396-454) — who could have stemmed the invasions — were eventually murdered by court intrigues. The Ostrogoths poured across France. The Visigoths invaded Italy. Rome was besieged for the third time in 410, and briefly occupied. The Huns, who had built a vast empire in the 430s stretching from Russia to the Baltic, invaded Gaul in 451. A major battle checked their progress, but they invaded Italy the following year, sacking Milan and other principal cities. The sudden death of Attila gave some respite, but the Vandal Gauseric landed at Ostia, sacked Rome, and carried off into captivity the widow of Valerian II and her two daughters. {8-9}

Ricimer (405-72) the imperial commander-in-chief gave some continuity of effort in following fifteen years, making and unmaking emperors, but the emperor Majorian's (457-61) offensive against Gaiseric in Cartagena ended disastrously. Help did not come from the eastern empire, and Spain was finally occupied by the Visigoths. When Orestes, formerly Attila's secretary, gave the imperial throne to his son Romulus Augustus, who was then deposed by Odoacer, the imperial commander of German troops in Italy, the Roman empire was clearly at an end. {8-9}

Each problem had added to others. Roman armies, often led by non-Italians and far from Rome, made and unmade emperors. In the 150 years preceding Constantine, nearly 80 generals were acclaimed emperor by their troops, indeed 30 alone between 247 and 270. The armies themselves, nominally large enough to deal with all barbarian threats, became progressively demoralized and ineffective, more a terror to the Roman provinces in which they were quartered than to the enemy. Gain and career advancement took the place of defending the fatherland, and troops commonly deserted at the first sign of trouble. Yet, however notional, armies had to be maintained, and the taxes for doing so fell

largely on the rural poor, who increasingly abandoned their fields and took refuge with large landowners who could repel tax collectors and the military draft. Provincial governors converted the latter to gold. The rich and the free poor of Rome escaped taxation altogether, and Rome happily continued in its extravagant ways. Some 300,000 citizens were entitled to free bread in the fourth century, and 175 days in the year were given up to public festivals. The emperor was commonly not at Rome at all, but in provincial capitals, or increasingly at Ravenna when his safety was at risk. His contact with troops and the populace became more tenuous, being widened by elaborate protocols and layers of bureaucracy. {8-9}

Politics was a thankless and dangerous occupation, and the outstanding individuals, who had once joined the senatorial class, resided quietly in their estates or joined the Church. Imperial policies, which had alienated the rich and ruined the poor, were no kinder to the middle classes. The eastern empire enjoyed a generally honest and efficient administration — a reason for the long survival of Byzantium, plus its shorter and more easily defended borders — but officials in the west were compelled to extract taxes from their fellow citizens or suffer the same penalties: fines, imprisonment, flogging or execution. Legislation bound the rural poor to the land, and councillors likewise were not allowed to change their profession or travel abroad without special permission. {8-9}

The western Roman empire became a vast prison camp, but the oppression and regimentation of all but the rich only hastened its decay. Spies were everywhere, and 'All temperate and just liberty of speech was destroyed and everyone trembled at his own shadow.' {7} A burgeoning bureaucracy blunted orders and peculation prevented revenues from going where they were most needed. What coins there were — they grew progressively fewer and smaller — stoutly proclaimed victories and the benefits of the

Roman state, but the claims were illusory. Emperors of the east and western empires did not cooperate, any more than did the Augusti with their Caesars. Stilicho, who had the opportunity several times of decisively defeating Alaric, preferred to divert him into attacking the eastern empire. Theodosius II required that a large slice of the western empire be added to his realms before he would recognize Valentinian. And when Marcian (450-57) was proclaimed eastern emperor, the west delayed acknowledgement — causing Marcian to withhold his subsidy to Attila in the hope of diverting that leader's attention to the west, which is indeed what happened. The Catholic and Orthodox Churches increasingly fell out over doctrinal matters, and many churchmen opted out common life altogether, becoming priests and ascetics. The Christian faith itself, an obscure sect when made the official religion of Rome, and certainly no stranger to persecution, became increasingly intolerant, hunting down heresies and so further fracturing the social fabric. Roman education had always been narrow, serving public roles that were now largely nonexistent, but the many schools and universities scattered across the empire became more conventional still, prizing verbal skills in preference to anything practical or constructive. Augustine's *Civitas Dei* was not a political tract but a theological one, and many believers turned their thoughts from the corruption, squalor and repression around them to another and kinder world. {8-9}

Breakdown of Social Order

That the Roman Empire lasted so long, despite all the difficulties, is a tribute to an idea. However oppressive it became in the end — and many town and rural workers fled to large estates or even beyond its frontiers — Roman citizens realized that hardship with order was better than no order at all. The Roman silver/base metal coinage was crudely made in periods of the third century, and again at very end of the empire, but the gold issues, the aureus and

the solidus, continued unchanged in their high standards of workmanship, and even the bronze issues, which diminished in size and frequency, were still intricately wrought, appearing jewel-like amid the steady break down in creature comforts, artistic standards and personal security. Until re-established as legal tender by the Byzantine nummus, the bronze coins became a talisman, a reminder of what life had been, and interpretation of social life needs to be seen through the historical record, as is always the case with coinage. Historians who praise the last Roman century as a necessary prelude to modern Europe, {10} or a shift to community-based societies, {11} should not count on Roman coinage for support. Life behind the resplendent symbolism seems to have been grim indeed.

Parallels with our Modern World

Rome was quite unlike our modern world, and George Orwell's 1984 threatens to be our future far more than any militarized 'plunder society'. The Roman Empire did not make territorial gains after Trajan's conquests, moreover, though it did become more polarized, with taxation falling on the poorer classes. Several points are worth making.

The Roman world became increasingly divided between the 'haves' and 'have nots'. Belief in the public ethos was gradually lost, and surveillance stepped up. But even in the early days of empire, under Augustus, astute commentators noted that while many things claimed by the Senate did not happen, many things happened without public knowledge. Lip service to Roman institutions was expected — which was why the Jews and the early Christian Church were persecuted. Whether the average citizen fully believed in the Roman pantheon of gods we cannot really know, but most acted as though they did because the gods were part of the social fabric that gave significance to their lives. So, most probably, is viewed market theory today by thinking citizens: the absurdities are evident enough, but it is a part too of our

contemporary world, how we justify society and train our students to understand their place in work and leisure. It is one that is not easily replaced, since men will generally prefer order, stability and simplicity to the truth of matters, or even to individual freedom unless driven to extremes of injustice.

Left-leaning sociologists predicting the fall of the American empire have indeed employed such ethical arguments. Johan Galtung, {12} for example, believes that both the Roman Empire and western capitalist countries were and are inexorably driven by their ideologies to expand beyond their optimal functioning, leading to ceaseless wars abroad and civil unrest at home. When the cost of empire outweighs its benefits, the unresolved contradictions will compel the USA to relinquish its global hegemony, possibly by the 2020s. {13}

But ethical concerns are only one factor. {14} Though the Roman Empire was far less complex than our western societies, it took a combination of many factors working together for a long period to bring about decline and fall. America may very well lose its global pre-eminence to China and other countries, but a complete disintegration of American society seems unlikely. The other factors are far from comparable.

Eastern Empire: Greek Imperial Coinage

City states round the Mediterranean had struck their own coinage for centuries, often in base metal but occasionally silver and gold, and, though these diminished to a handful under Augustus, they were to expand again under later Roman rule to several hundred mints. The coins were commonly made in Rome, just as two millennia later the British mints turned out coinage for British colonies, but the coins were lively, local and individual. The reigning emperor, his wife or important member of his family generally appeared on the obverse, and some local scene or deity

featured on the reverse. In the last is found much local history: the names of men of local importance — magistrates, priests and the like — and information on legends, festivals, statues and buildings that would otherwise be lost to us. {18} Moreover, though these coins are of variable workmanship, some as well struck as imperial issues, some rather rough and ready, they give us the flavour of local Roman life as it was until the coinage reforms of Diocletian in 294 AD largely swept away such local expressions. {19}

Types

Non-imperial coinages are commonly grouped into four types:

City coinages

Coinages of provincial leagues (koina)

‘Provincial issues’

Coinage of client kings

Most belong to the first category, were generally struck in bronze, and served as small change for local needs. But in the early empire days, under the Julio-Claudian emperors, civic bronze coins were also made in Spain, Gaul, Italy, Sardinia, Sicily, Africa Proconsularis, and Mauretania. Later, under the Antonines, civic coinage became a feature of the eastern empire only. Cities also struck issues to celebrate ‘alliances’ with others cities. {20}



*Greek Imperial Coinage:
provincial issues. Marcus
Aurelius and Commodus as co-
emperors. Struck 177-80 at
Antioch in Seleucia. 26 mm.
12.42 g. Obverse: aureate-
headed bust of youthful
Commodus wearing
paludamentum. AYT KAIC*



KoMMOΔOC C&B around.

Reverse: eagle standing on thunderbolt, facing, and head turned right, with spreading wings, holding wreath in beak, star between legs, ram's head in exergue. ΓΕΡ ΚΑΡ ΔΗΜ ΕΞ Δ ΒΠΑΤ Β (Ξ shaped as Z) around. (McAlee (Commodus) 7)

Generally, we don't know why some cities were allowed to mint their own coinage, beyond recognizing that the practice awarded them polis status, i.e. some political and cultural independence within a fabric of shared symbolism. {21} Greek was the lingua franca of the eastern Roman world, as it would become in the Byzantine Empire, and these coins, otherwise so Roman looking, reconnected their users with the Hellenistic past. Affluent Romans sent their sons to study in Athens, of course, and the better educated across the empire used Greek and Latin interchangeably.

Output varied. Some cities produced very few coins, and only to mark a suitable occasion. Conversely, some of the larger cities struck coins almost continuously until the coinage reform of Diocletian. Particularly abundant were the coinages of Alexandria (Egypt), Caesaria (north-central Israel) and the cities of Moesia (Balkans) {19}

Alexandria with Cleopatra's treasure and rich grain lands was the prize that fell to Augustus after Actium, and the province remained the private fief of the emperor. Its economy is reasonably well known through papyri finds, but is probably not representative of the empire as a whole. {22} The province used a low grade silver tetradrachm whose debasement paralleled that of the Roman denarius, declining in weight and purity until the last issues were practically bare copper. {19}

Reverses depict Egyptian gods, animals and other scenes of interest, and commonly show the date according to the Alexandrian calendar. The Greek numeral or word follows the symbol 'L' for year. Also issued in base metal, but with an amazing variety in reverse types, were drachms and their fractions. {19}

Variety

David Sear's {25} is the standard catalogue, but generally lists just the one coin of each city for each ruler. Many more exist, and can often be acquired cheaply.{19}

Doug Smith on Ancient Coin Forum provides an excellent introduction to the series. {19} The Roman Provincial Coinage Online project is in another realm altogether. At present it covers the periods AD 96–192, 238–244 (Asia only) and 249–254, but may include other periods in time. The database contains information on 24,475 coin types, based on 107,173 specimens, of which 19,263 have images. {20}

The economic aspects of Roman provinces is a vast area of specialised study, but the extensive bibliography provided by Christopher' Howegego's Ancient History from Coins would be an admirable place to start. {21} Serious students will probably need university library access.

In short, nothing shows the bustling vitality of Roman life better than its city coinages. Roman imperial coin issues are an enormous series, almost intimidating, with new pieces struck to commemorate important events appearing every few months. Within its smaller orbit, Greek imperial coinage is equally astounding, allowing the collector of modest means to build up a rewarding collection, and one where important discoveries can still be made. {19}



Greek Imperial Coinage: provincial league coinages. Ae Koinon of Macedonia. Antoninus Pius 27 mm. 11.95 g. Obverse: laureate-headed bust of Antoninus Pius wearing cuirass and paludamentum facing right. KAICAP ANTΩNEINO C around. Reverse: thunderbolt with four wings. KOINON MAKEDONΩN around and facing inward. (AMNG 261, BMC 155)



Greek Imperial Coinage: alliance coinages. Ae 37 25.86 g. City of Cybara in Phrygia. Faustina II (wife of Marcus Aurelius) c. 166-175, probably 172. Magistrate Kl. Philokles. Obverse: draped bust of Faustina facing right. ΦΑΥCΤΕΙΝΑ CΕBACTH around. Reverse: left: veiled goddess standing facing right, having ? fruits in folds of dress: to right: Zeus seated facing left and holding eagle and long sceptre. ΕΠΙ ΚΛ ΦΙΛΟΚΛΕΩC ΚΙΒΥΡΑΤΩΝ Κ ΙΕΡΑΠΟΛΙΤ(ΩΝ) ΟΜΟΝΟΙΑ around. (BMC 96, L. Weber,



Greek Imperial Coinage: client king coinages. Au aureus. 20 mm 7.66 g. Bosphoran kingdom of northern Black Sea. Sauromates II (A.D. 180-192) Obverse: draped bust of Sauromates II wearing diadem and facing right. Club to right. BACIΛΕΩC CAYΠΟΜΑΤΟΥ around and facing outward. Reverse: laureate head of Commodus wearing paludamentum facing right. ΕΠΥ around. (Frolova, p. 171, pl. XXX.4-14)

End of Empire

The Greek peninsular was incorporated into the Roman province of Macedonia after the Battle of Corinth in 146 BC, but territories and cities retained some independence. The revolt of Athens and other cities was crushed by Sulla in 88 BC, however, and the territories further devastated in the Roman Civil Wars. As throughout the Roman world, prosperity returned with Augustus, when Corinth became the capital of the province of Archaea, and Athens an important centre for learning, philosophy and the arts. {23-24}

Greek influence indeed came to permeate the entire Roman Empire, just as the Kin tartars and Mongols succumbed to the concepts of the higher civilisations they had conquered. Many Roman emperors developed an admiration for things Greek, and its language became a favourite of the educated elite in Rome. Roman poets developed Greek models. Roman architecture became a blend of Greek styles. Roman statuary also emulated the Greek, though was generally more robust and realistic, lacking the brio, idealisation and sensitivity of Greek art at its best. And if Greek statues were hauled off to Italy to decorate the villas of the wealthy, the Romans also built temples, arches and markets in Greece itself. The Pax Romana was the longest period of peace that the squabbling Greek cities ever enjoyed, and the Romans made a genuine attempt to foster their well-being and prosperity. {24} Roman rule was indeed a period of cross-fertilisation, when the Roman genius for law, order and social organisation was wedded to more ethereal Greek considerations.

In the second and third centuries, Greece was divided into various provinces, each with some autonomy, and began to turn Christian under Constantine. Later came the

depredations of the Goths and Vandals, but these tribal peoples were eventually driven off to found their own kingdoms in the western Roman Empire. In contrast, the east remained relatively prosperous and unified, and Greece grew into an economically important part of the eastern Roman and then Byzantine Empire. {24}

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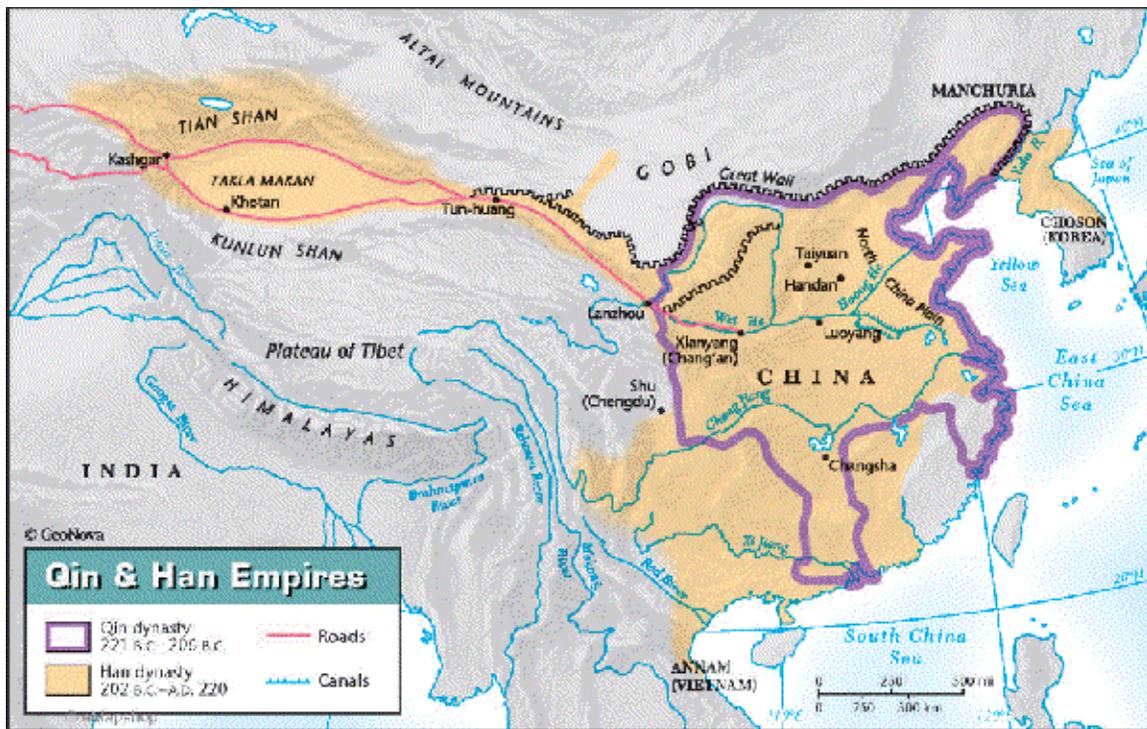
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9. Chinese Bureaucratic Empire



Throughout its imperial history, from the Qin (221-206 BC) to the Qing (AD 1644-1911) dynasties, China was governed as a centralised bureaucracy. {1-2} Everything — public works, irrigation, roads, canals, security, administration of the towns and cities, law and justice, and frontier security — was supervised by various grades of officials who reported to ministers and thence to the emperor, who held the 'mandate of heaven'. {3} Until 700 AD, the more important officials were generally nobles or relatives of the emperor, but from Tang times the bulk were selected by the imperial examination system theoretically open to all, i.e. appointment was on merit. {4} Most emperors took their duties seriously, particularly those of the early Qing dynasty (1662-1796) who were exceptionally sensible, hard-working and long-lived rulers. The Chinese civil-service system gave the Chinese empire stability for more than 2,000 years and provided one of the major outlets for social mobility, serving as a model for the later civil-service systems in other Asian and western countries.

The Qin dynasty (221-207 BC) established the first centralised Chinese bureaucratic empire. Recruitment was based on recommendations by local officials, a system

initially adopted by the succeeding Han dynasty. But in 124 BC, under the reign of the Han emperor Wudi, an imperial university was established to train and test officials in the techniques of Confucian government. The Sui dynasty (581-618 AD) adopted this Han system, but applied it much more systematically, adding rules that officials of a prefecture must be appointees of the central government rather than local aristocrats, and that the local militia were to be subject to officials of the central government. The Tang dynasty (618-907 AD) created a system of local schools where scholars could pursue their studies, and this system gradually became the major method of recruitment into the bureaucracy. By the end of the Tang dynasty, the old aristocracy had largely disappeared, and their position was taken by the scholar-gentry. This nonhereditary elite would eventually become known to the west as 'mandarins', a reference to Mandarin, the dialect of Chinese they spoke. The civil-service system expanded to its highest point during the Song dynasty (960-1279 AD). Public schools were established throughout the country to help the talented but indigent, business contact was barred among officials related by blood or marriage, relatives of the imperial family were not permitted to hold high positions, and promotions were based on a merit system in which a person who nominated another for advancement was deemed entirely responsible for that person's conduct. The higher levels of the bureaucracy required passing the *jinshi* degree, and after 1065 the examinations were held every three years for those who had passed qualifying tests on the local level. {5-6}

Under the Ming dynasty (1368-1644 AD), the civil-service system reached its final form, and the succeeding Qing dynasty (1644-1911) virtually copied the Ming system wholesale. No man was allowed to serve in his home district, and official's positions were rotated every three years. The recruitment exam was divided into three stages, but only achieving the *jinshi* made one eligible for high office. Other

degrees gave one certain privileges, such as exemption from labour service and corporal punishment, government stipends, and admission to upper-gentry status (*juren*). Elaborate precautions were taken to prevent cheating, different districts in the country were given quotas for recruitment into the service to prevent the dominance of any one region, and the knowledge tested became limited to the Nine Classics of Confucianism. As such, it bore no relation to the candidate's ability to govern and was often criticized for setting a command of style above thought. The examination system was finally abolished in 1905 by the Qing dynasty, which was itself overthrown in 1911-12. {7}

Wang Mang and the Xin Dynasty: AD 7-23

To the intricate and bureaucratic government of imperial China there were always two threats. One came from the top, from the inner sanctum of ministers attending the emperor, where personal rivalries and/or ill-thought-out ideas of agrarian reform could unsettle the traditional ways of the Chinese peasant and imperil the empire at large. China had rich farmers and prosperous merchants, and the life-styles of civil servants high in the bureaucracy could be astonishingly lavish, but the economic backbone lay in the millions of its poorer peasants, who tilled the rice paddies and just about survived.

The second threat came from natural disasters. Rice was stored to cover bad harvests, and irrigation systems carefully maintained, but there was a limit to preparedness. Epidemics were as widespread as those in Europe, and no better handled, though there were none of the disgraceful pogroms or burning of witches. But against the flooding of the Yellow River, aptly called 'China's sorrow', there was no final protection. Levees were built up, but could be breached by a river swollen by unseasonable rains, when vast areas parts of low-lying China would be flooded. Millions displaced

and starving were millions who could overturn the best of government machinery, and the fear then, as it is today, is widespread social disorder that turns to revolution. Wang

Mang's usurping government suffered both calamities.



Throughout its population growth from 18 to 58 millions {8-9}, the prosperous western Han dynasty (206 BC to AD 7) used three denominations only — first the ban liang (half ounce or twelve zhu), then, from 118 to 115 BC the wu zhu (five zhu) and, intermittently, the scarce san zhu (three zhu: not shown).



Gold was used for making large payments, especially abroad, and as a store of value, but it did not circulate. {10}

Weights, sizes and calligraphy of cash pieces could vary a little, probably depending on period, province and metal supplies, but all three coins were standardized, and stoutly cast in copper with some admixture of tin, lead and iron. {11} Some 220 million ban-liangs were cast every year, {12} and served the full breadth of Chinese society — for payment of taxes on wealth and business, for officials' salaries, and for food and other purchases. Millet sufficient to feed a family for a month cost 75 cash, for example, and a labourer could be hired for 150 cash a month. At the other end of the spectrum, beyond the wildest dreams of villagers, a horse cost 4,400-4,500 cash. The poll tax for most adults was 120 coins annually, 240 coins for merchants, and 20 coins for minors. {9,12} At average rates of population growth and wealth, each Chinese would have handled one to two thousand cash a year — a crude simplification, but sufficient to show how widely employed were these simple coins. China's vast peasant population depended on them for their everyday needs, and a contented peasantry made for a contented

country. All this the enterprising Wang Mang {13} managed to confound.

As the new emperor, he instituted land reform, claiming all land henceforth belonged to the empire, and should be redistributed more equitably. A 'sloth' tax punished those unwilling to work, or who left land uncultivated. He set up a state economic adjustment board to control prices of food and textiles. He abolished slavery, imposed an income tax, and set up state monopolies on liquor, salt, iron, coinage, forestry, and fishing. And to mark a new economic order, he



introduced a new system of coinage. The wu zhu was retained, but to it in AD 7 was added a da quan wu zhu, worth a nominal 50 wu zhu, and the beautiful yi da ping wu qian knife coin with gold-inlaid characters, today a treasured collector's item, but then worth a nominal five thousand zhu. But who was going to exchange real goods for such an arbitrary denomination, by fiat imposed and no doubt as quickly disavowed? Two years later came a yet more bewildering system of tortoise shells, cowries,

gold, silver, round copper coins and a further knife coin. {10} The peasants naturally refused denominations so easily counterfeited, and the coins did not circulate, even at the threat of immediate exile to China's borders. {13} But trade and farming were badly damaged, and all such innovations had to be withdrawn in AD 14, to be replaced by two other coins, a new type of knife and a round coin. But the country had been turned upside down enough, and in the unrest that followed the flooding of the Yellow River and consequent famines, Wang Mang's Xin dynasty was overthrown.

Much is contradictory about Wang. {14} He was born on the edges of the royal family in a far from lucrative or influential position. Appearing an honest and abstemious official, his conspicuous Confucian virtues promoted him first to imperial attendant and then a sub-commander of the imperial guards.

Impressed by his reputation, the emperor then made him Marquess of Xindu and Chamberlain for Attendants. The higher the post Wang was promoted to, the more humble he appeared. Wealth he gave away to scholars and colleagues, and the modest official was renowned for having only one wife and no concubines. In 8 BC, at the age of 37, having contrived to have his rival executed for treason, Wang Mang was made commander of the armed forces. To this post he brought self-discipline, capacity and intelligence, promoting officers for ability more than social connections. {7-9}

The Emperor Cheng died suddenly in 7 BC, and his nephew Crown Prince Lui Xin ascended the dragon throne. Wang Mang remained in position, as powerful as ever, at least until he clashed with the ambitious Empress Dowager Fu, when he quietly resigned his post and was careful to take no further part in politics. He stayed a popular figure with the new emperor, however, who indeed received constant petitions for Wang Mang's return to the capital. But in 1 BC, the new emperor also died, suddenly and without naming an heir. Grand Empress Dowager Wang seized the moment, summoned Wang Mang back to Chang'an, and put him in charge of the army and government. The infant Crown Prince Jizi of Zhongshan became the Emperor Ping, and Wang Mang was installed as regent. {7-9}

Perhaps with no alternative, Wang moved swiftly to remove opposition. Threatening members of the royal family were demoted, graves of past rivals were desecrated, hostile officials relieved of their posts, and a personality cult encouraged to make Wang the inheritor of Zhou prophecies. He assumed an unheard-of title, the Duke of Anhan, and married his daughter to the Emperor Ping. In 3 AD, discovering dissent against his over-reaching policies in the person of his own son Wang Yu, he had the son commit suicide, the plotters tortured, and their extended families exterminated. When, in 5 AD, the young emperor seemed to be outgrowing his heart condition, and so likely to elude his

tutelage, Wang had the 13 year-old-boy poisoned with spiked wine. There were certainly more legitimate successors, but the regent, in his new role of 'acting emperor', selected the one-year-old Yin, giving him the title crown prince only, rather than emperor. Wang also re-instituted the five grades of nobility of the old Zhou dynasty, suspiciously it seemed to the imperial Liu clan, who instigated several revolts. The ease with which Wang eliminated rivals persuaded him to take the mandate of heaven himself. So was created the new Xin Dynasty. In twenty years of dissimulation and aspiring ability, Wang Mang had undone the most rationally-governed country on earth. {7-9}

Thereafter it was not plain sailing, or even sensible sailing. Wang antagonized the Xiongnu, those threatening Turcoman tribesman previously bought off with tributes and titles. He required that their leader, Chanyu Zhi, return Wuhan hostages he had taken in lieu of tribute, and accept a new seal that reduced their title from 'ferocious slave' to 'respectful slave'. Chanyu Zhi therefore prepared for war, but the emperor struck first. He had Chanyu's sons kidnapped, and eventually executed, though the northern provinces suffered Xiongnu reprisals, which did not endear Wang to his people. To the south-western tribes, Wang was no more conciliatory, again stirring up rebellion by needlessly demoting their leaders. Similar policies to Korean tribes and the Xiyu kingdoms brought the same result: rebellions and hardships for the Chinese living in the border regions. {7-9}

But Wang demanded more than submission of surrounding regions in the old Zhou manner. He wanted China itself to return to Zhou standards, and spent much time having the ancient systems researched and implemented. Or not implemented. Wang often avoided delegating, employed eunuchs, and refused to pay salaries until the new order was established, something that took years to achieve. In the meantime, officials had to live, and corruption became

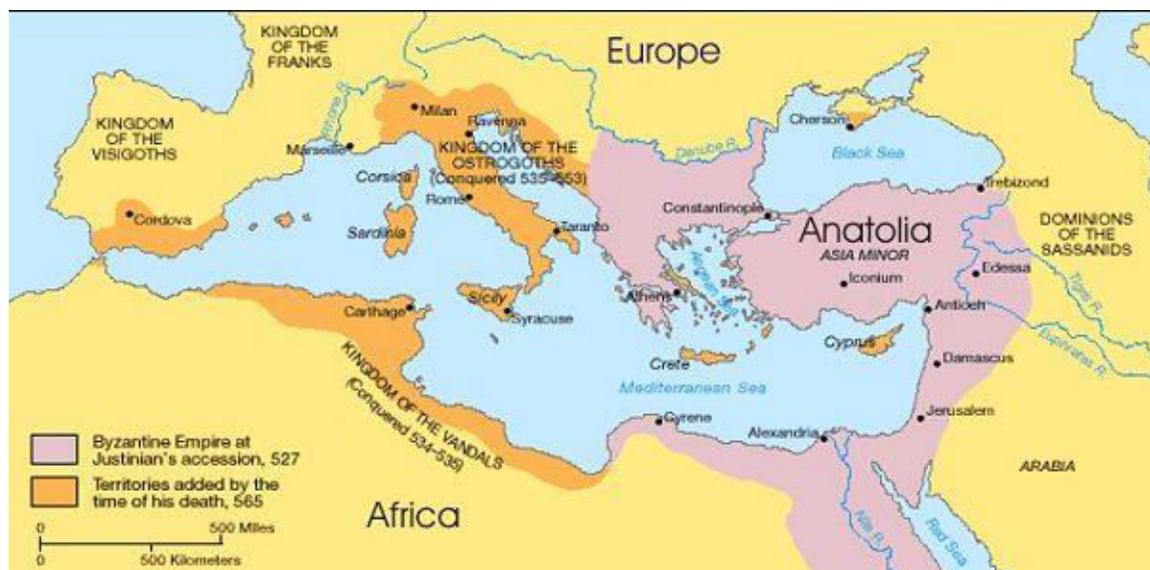
endemic. Not until 16 AD did Wang finally settle on a new salary system, which was to depend on the prosperity of the state, a highly contentious and subjective matter. {7-9}

Order was severely tested by these policies, but held until AD 11, when the Yellow River overflowed its banks and precipitated a famine in Jing Prefecture (modern Hubei, Hunan and southern Henan). Wars, corruption and hunger slowly took their toll. By AD 17, rebellions had become widespread, but Wang still put them down by force. Peace overtures by the Xiongnu he spurned in AD 18, and changed the heir presumptive two years later, weakening unity in the Wang family. Agrarian revolts were now serious, and the peasant armies won important victories over government forces in Nanyang. {7-9}

At last, early in AD 23, Liu Xuan proclaimed himself Emperor Gengshi of the new Han dynasty. The rebels were in fact far from united, but later that year disposed of an army of 43,000 sent against them. Liu Xuan now sent his own army against Luoyang and Chang'an, which gathered support on the way and in October AD 23 sacked the capital. {7-9}

Whatever Wang Mang had attempted in land and slavery reforms, he had broken what was even dearer to the peasant's heart: their expectations of care from the emperor and the unchanging rightness of tradition. The emperor was murdered, his body mutilated, and his tongue-less head preserved as a warning to those who would defy the will of heaven. No doubt the Xin Empire would have survived had the flooding of the Yellow River and famine not declared the mandate of heaven lost, but those unnecessary experiments with coinage, made out of an exaggerated reverence for distant Zhou times, also severed a vital link with custom and authority, necessary to all societies. The succeeding Eastern Han Dynasty went back to simple wu zhus.

Other Bureaucratic States: Byzantium



Equally bureaucratic was the Byzantine Empire, with the emperor also afforded divine status. During its first three centuries of its existence, the empire followed the systems established by Diocletian and Constantine, where civil and military duties were kept strictly apart, and offices were based on membership or not of the Senate. With the loss of territories to Islam, the senatorial class remained in place, but a new, more court-centered system emerged, supported by a nobility that was either metropolitan based or provincial, the last having large land holdings but no military forces of their own. The aristocracy became more important in later centuries, where a comparatively small number of families (80 civil and 64 military) bound the empire together. {34}

Protocol were as exact and intricate as those of Imperial China, and court life passed 'in a sort of ballet', with precise ceremonies prescribed for every occasion — to show that 'imperial power could be exercised in harmony and order' and 'reflect the motion of the Universe as it was made by the Creator'. Again as in China, eunuchs became increasingly important, even drawing their members from the ranks of the aristocracy. {34}

Byzantine coinage also forms a very regular series: a gold solidus and a copper nummus (with 40 nummi making the follis), both reformed by Anastasius in 498. A silver

hexagram and miliarion were struck only occasionally. The solidus underpinned international trade and remained of good design and fineness until the 11th century. {35-38} Though Byzantium was not a theocracy, {36} the gold coinage does reflect the ornate and hierarchical appeal to heavenly authority.



Leo VI Au Solidus. Constantinople, ca 908-912 AD. +IhS XPS REX REGNANTIUM, (Christ Pantocrator King of Kings) Christ seated facing in lyre-backed throne, raising right hand in benediction & holding Gospel in left, CONOB in exergue



LEON ET CONSTANTINVS AVGVSTI ROMANORVM, (Leo and Constantine, Roman Augusti) Leo VI & Constantine IV standing facing, both crowned and wearing loros, each holding cross on globe, patriarchal cross between them. Sear 1725; DOC 2.

The copper coinage is much more functional, and the 40 nummia follis and its fractions were issued through to the 12th century, when the assaria, tournesia and follara make their appearance. {37, 39}



Justinian I, Ae Follis. Constantinople. 527-565 AD. DN IVSTINIANVS PP AVGVSTVS (Our Lord Justinian, Perpetual Augustus), helmeted, cuirassed bust facing holding cross on globe and shield; cross to right



Large M, ANNO to left, cross above, regnal year to right, (40 nummi: year 15) officina letter below, mintmark CON (Constantinople) . (132 known combinations). SB 163, DOC 37-61.

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10. The Saka Peoples



The Saka were nomadic peoples who had been driven from their homelands around 130 BC by the arrival of the Zuezhi, an Indo-European people that had themselves been displaced from the Gansu corridor by Mongol peoples some time around 170 BC. The Saka were called Scythians by the Greeks, and seem to have been Iranian-speaking Indo-European nomads who deployed chariots in battle, sacrificed horses, and buried their dead in barrows or mound tombs called kurgans. The migrations came in overlapping waves, probably more complexly than is recorded by their coinage,

in which there is much borrowing and amalgamation of styles. Each group emerges into history as they strike coins whose similarities may nonetheless conceal differences in languages and social customs.

These tribal migrations had a profound effect on surrounding countries. 'Barbarian' hordes hastened the end of the western Roman Empire, and, in settling, became the forebears of modern Europe and so America. China was invaded by the Jin tartars, the Mongols and the Manchus. In India the Saka settlements were followed by the empires of the Delhi Sultans and the Mughals.

Most left their record of conquests and splendid courts on literate peoples, so that numismatic evidence only supplements what is known from other sources. Rather different is the situation with the Saka peoples, where the abundant and varied coinage is the main source of information we have of them. Many rulers, like those of the Indo-Greeks, are indeed only known through their coinage, and then not with certainty: many attributions are still contested, despite extensive work in recent years.

The Kushans: Huvishka I

Gold Coinage

The Indo-Greeks struck occasional gold coins during their two centuries of rule in northwest India, {1} but the styles are a continuation of the Greek stater rather than a proto-dinar as such. The abundant silver and base metal coinage of the succeeding Indo-Scythians shows a lively depiction of ruler and deities but by western standards the sheer beauty of the Greek issues is missing, and indeed the artistic quality gradually falls off {2} during their 2nd century BC to 4th century AD rule over north-west India and Afghanistan. {3} Quality improves in the Kushan coinages but the images again lack the Greek modelling in the round, that splendid combination of freedom and compactness. {4}

The Kushans (60-375 AD)



*Gold Dinar of Huvishka I. (AD 260-292).
Weight 7.94 gm. Obverse: nimbate,
diademed bust of king left on cloud, holding
mace in right hand and filleted spear over left
shoulder.*



*Gold Dinar of Huvishka I. (AD 260-292).
Weight 7.94 gm. Obverse: nimbate,
diademed bust of king left on cloud, holding
mace in right hand and filleted spear over left
shoulder.*

The Yuezhi, an Indo-European nomadic people inhabiting part of Kansu until 174 BC (when they were driven out by the Hiung-nu or Huns), conquered Bactria in the 2nd century BC and divided the country into five chiefdoms, one of which was the Kushans. {5-11}.

Under Kaniska I and his successors, the Kushans became one of the four great Eurasian powers, ruling over most of the northern Indian subcontinent, Afghanistan, and parts of central Asia. {12-16}

Much of what we know about the Kushans comes from their coins, which follow the styles of the preceding Greco-Bactrian rulers: a Hellenistic image of the king on one side and a deity on the other. Roman mint influences appear in later issues, where the gold is also debased with silver. The gold probably came from trade with the Roman empire, which, according to Pliny, poured out specie payments annually of 100 million sesterces to India, Arabia and China for luxury items like silk, pepper, muslin and gems. {15}

Many coins bear the individual royal symbol or tamgha, which appears on the reverse of the coin here. {15}

Scripts

The early coins used the Kharosthi script, and the later ones a modified Greek — Scythic Greek, where the letter forms are altered and an extra letter added: ρ denoting 'Sh'. The Kharosthi can be difficult to read. The T D R B and N all look rather similar, allowing words to be transliterated in several ways.

Kharosthi was introduced into the Afghanistan and north-west India in the early part of the 5th century BC as a result of the eastward spread of the Persian Empire, and derives from Aramaic, retaining its Semitic source by being read from right to left. Kanishka used good Greek, but this is modified into Scythic Greek (read from left to right) under later rulers. The very last rulers, more Kushan chieftens, employed Brahmi. {46} The obverse inscription in the coin above is in Scythic Greek and reads 'King of kings' (ρ AONANOpAO) 'Hunishka' (OOepKI) 'the Kushan' (KOpANO). {52-5, 70}

Eclectic Nature of Indian Culture

Early Indian numismatics is a difficult field. {46} For centuries some areas had no coinage at all. The coins that do appear often lack inscriptions, and supporting evidence for dynasties and local rulers is generally limited to temple inscriptions, reports of travellers, and religious texts not over-concerned with this passing world of shadows. Indian religion was not rigidly doctrinal, moreover, but based on community, prayer and ritual. Under the Kushans, originally animalists and perhaps content to see the life-spirit assume different forms in different peoples they had conquered, that contentment became religious toleration. Indeed, if they encouraged any religions at all, it was Buddhism, {24} where the world is seen as a delusion: exactly what would make a subject people more accepting of a foreign yoke. Monasteries and

secular buildings were often lavishly decorated and supported. {70}

Nonetheless, as new dynasties commonly do, the Kushans emphasized their legitimacy by supporting local customs and patronizing the arts. The Greek language continued to be used, at least for administration, and there was much borrowing of words between Greek and Indian languages. {53 18}

The fluid or eclectic nature of early Indian religion and art is also found in its coinage. {57 22}



Bactria: Demetrios I (200-185 BC) Ar Tetradrachm reverse: Herakles standing facing, holding club and lion skin in left hand, and crowning himself with his right hand ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ monogram in lower left field. {38 3}

Indo-Scythians: Vonones (c. 100-90 BC) Ar Tetradrachm reverse: 'Maharajabhrata dhramikasa Spalahorasai' in Karosthi. Zeus or Herakles standing facing holding thunderbolt and leaning on sceptre. KHI monogram in left field. (MIG 682; Whitehead 372). {39 4}

Kushans: Huvishka (AD 152-192) Au Stater or Dinar reverse: ΟΥΡΩ, Shiva, nimbate, standing left, pouring water from flask and holding thunderbolt, elephant goad, trident, and he-goat or antelope by the horns; tamgha in left field. (BMC 97-99; MK 308; Cunningham 89). {40, 70 5, 35}

Numismatic authorities, even Indian ones, {64} are often inclined to see artistic excellence through western eyes.

Quality in coinage thus declines from Indo-Greek standards, picks up a little in the Kushans, a little more in the Guptas, and makes a final flourish in some of the more splendid Mughal issues. But it may be wiser to use aesthetic standards that distinguish between different life views. The Demetrios piece above is a masterpiece of numismatic art — no one has ever doubted that — but also represents a peculiarly Greek view of man's place in the world. Under the Indo-Greeks, the city states became small kingdoms, partly adopting the Buddhist faith, and thereby cut off from Mediterranean events, indeed being surrounded by hostile powers: the restive steppe peoples to the north and native Indian kingdoms to the south. That vulnerability we can sense in this coin with its empty spaces on the flan, the legend not integrated with the figure, and with Heracles crowning himself. Greek art is an idealisation, moreover, where the human body, usually displayed in its unclothed form, is the foundation of all beauty and proportion. Balance and mathematical order underlie these conceptions, and art is created for the joy of the spirit, or the simple animal happiness of being alive. That isolation or defiance of local events — Heracles has succeed against all odds — is everywhere present in this idealisation: it is beautiful, but unreal. {30}

The Indo-Scythian coins introduce some new motifs, notably obverses with the king on horseback, and various deities on the reverse. And, as if to represent their dual world, the obverses bear Greek legends and the reverses Karosthi ones. But now the figure, Heracles or Zeus, is not an idealisation of the human form, and is not resplendently naked but wears a waist-high robe. His is not an elegant figure, moreover, but has something of the willowy Korosthi characters.

Different again is the Kushan coin, where Heracles has become Shiva, a process that can be documented in temples and temple inscriptions. {22} The nimbused and

four-armed Shiva is wearing trousers, possibly those of the steppe nomads, and he is holding various objects of Indian significance. The monogram has become the tamgha. More importantly, Shiva's depiction is integrated into the other features of the coin, including the beading. Kanishka, the first great Kushan ruler, adopted deities with Greek names and iconographic forms: Helio, Salene and Hephaistos. But he soon replaced Greek on his reverses by Scythian Greek, and introduced a host of male and female deities with Iranian names: Mithra (sun), Mao (moon), Oada (wind) Athsho (fire), Nania (nature goddess), Ardocksho (counterpart of Lakshmi), the Buddha and so on. Was this to appease his subjects, to extend an animalistic mythology, to play safe with all heavenly powers, or to emphasize the international nature of his empire? We can only speculate, though the process is a common one in folk tales and local mythology, {26-28} and one congenial to the syncretic Indian mind that dislikes the rigid doctrinal divisions of the Islamic and Christian faiths.

But we shouldn't overdo the contrast. Buddhism split into several schools and many sects, often mutually antagonistic. Nor was Buddhism ever a simple contemplation or mindless reverie: the literature is vast, and the Chinese repeatedly sent missionaries to obtain authentic writings from India. Buddhist monasteries engaged in large-scale lending, moreover, becoming extremely wealthy and indeed powerful — when they were often despoiled or suppressed by indigent rulers, in India and China.{23-24}

We know little about Kushan society. Most of our knowledge of the Kushan rulers comes from their abundant coinage, and the few contemporary accounts are not flattering. The Kushans were called a brutal lot — formidable in warfare, prosperous from agriculture and trans-Asian trade, but negligent in religious duties. {18} If the later Mongols and Delhi Sultans are any guide, the Kushans may have remained a military elite, perhaps even speaking their own

language (about which there is much debate), and only gradually succumbing to local customs. So were the Normans in England, of course, and the Manchu in China. But gradually the two classes coalesced, each learning from the other, and the elite coming to appreciate and adopt the laws, customs and beliefs that had governed the country for centuries previously.

Azes I Tetradrachm and the Indo-Scythians

The Indo-Scythians were another of the Saka tribes, {36-7}, numismatically important, but about whom we otherwise



know very little. {48-9} As they affect India, the histories — greatly simplified {40, 42-3} — are as follows:

The Sakas advanced into the Indo-Greek kingdoms of Bactria around 80 BC, though pockets of these Indo-Greek peoples persisted, and for decades continued to issue coins.

The first group of Sakas known through their coinage is called the Vonones-Maues and Azes group, and probably flourished from about 80 B.C. to their end under Azes II around AD 20 (if Azes II in fact existed: some now doubt this).

The second group, led by Gondophares, conquered the empire of Azes II and took over areas of the Kabul valley from the Kushan Kujila Kadphises. They ruled Afghanistan, Pakistan and north-west India for much of the first century AD, and are usually called the Indo-Parthians. Their coinage is influenced by Parthian models, but there is little evidence that they were otherwise related.

The most powerful of the Saka empires were the Kushans, who ruled north-west India and surrounding areas between A.D. 60 and 300. Among their rulers was Vima Takto, long known to numismatists as 'the nameless king' since his coins only showed the legend 'King of Kings, Great Saviour (Soter Megas), until the discovery of the Rabatak inscription helped connect his name with coin titles. Vima Takto's empire covered north-western Gandhara and greater Bactria towards China, to which he sent embassies..

The Kshatrapas or Western Satraps also owe their origin to Saka peoples but use Brahmi on their coins rather than the Kharosthi of the Indo-Scythians and Kushans. Their 1st to 4th century rule ended when they were defeated by Chandragupta II and their lands absorbed into the Gupta Empire.

To further complicate a confusing picture there are the Kushano-Sasanids or Kushanshas (also called Indo-Sasanians), who were a branch of the Sasanid Persians that pushed out the Kushans in north-west Pakistan during the 3rd and 4th centuries. They were in turn displaced in 410 by

the invasions of the Huna people, but were to re-establish themselves after the Sasanids defeated the Hephthalites in 565.

Finally, around AD 408, another tribal people arrived and occupied parts of Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Pakistan, India and China. These are the Hephthalites who, in kinship or alliance with peoples called Huna (or White Huns), made serious inroads on the Sasanian and Gupta territories before being expelled to their northern tribal lands around A.D. 670. {36-7}.

The Indo-Scythians (80 BC - AD 20)



Indo-Scythians. Azes I, AR Tetradrachm, 58-20 BC. 9.63 g. Taxila mint. BASLIEWS BASILEWN MEGALOU AZOU in Greek (Great King of Kings Azes) around Zeus standing left, holding transverse sceptre and raising right hand.



Reverse: MaHaRaJaSa RaJaDIRRaJaSa AYasA in Kharosthi (Great King Azes) around Nike standing right, holding fileted wreath and palm branch. RPU monogram in field. (Bop. Series 8A; Mitchiner MIG 729a.)

The Indo-Scythian coins adopt features of the later Indo-Greek coinage, notably the Buddhist symbolism where divinities form the vitarka mudra with their right hand, or introduce the Buddhist lion. In addition, kings are commonly shown on horseback, either in armour or wearing nomadic tunics. Contemporary Gandharan sculptures also show foreigner in soft tunics, sometimes wearing the typical Scythian cap. These are very different from representations

of Kushan kings, moreover, who wear thick, rigid tunics, represented in a more simplistic manner. {38}

The Indo-Scythians occupied parts of the silk route, along which travelled not only trade but Buddhist missionaries from China. Indeed there was a cross-fertilisation, and even from archaeological sites much further north, in Khotan, for example, come Roman seals and intaglios, Indo-Scythian coins and Greco-Buddhic frescoes. {37}

Indo-Scythian coins commonly use Greek for the obverses and Kharosthi for their reverses. Part was no doubt a continuation of Indo-Greek traditions, which blended Hindu, Buddhist and ancient Greek customs and religious practices, The Indo-Greeks were particularly prosperous, farming rich agricultural lands and adopting not only Greek technologies but Chinese too in metal-working. {39} Kharoshti in fact postdates Brahmi, but derives from Aramaic, being introduced into north-west India from the Achaemenid Empire in the 5th century BC. {40-1} It may well have been the language of Indo-Greek administration, the Greek being retained for ritual purposes.

Greek deities appear on the reverses, but there are also Indian elements: elephants, bulls and Indian deities. Gandhara art, a fusion of Greek and Indian traditions, is commonly attributed to the Indo-Scythian period, but some may be earlier. {39}

The advance of Maues into Indo-Greek territories seems to have been gradual and largely peaceful, moreover, the two territories being cemented by marriage alliances and continuing to strike their own coinages. {40}

The Indo-Parthians (12 BC - AD 130)

Much is uncertain or conjectural about the Indo-Parthians, history being largely based on their coinage, but the kingdom seems to have begun with Gondophartes I, a minor chieftan in eastern Iran who conquered parts of the Kushan empire and the Indo-Scythian kingdom in Afghanistan, Pakistan and

north-west India after the death of their Azes II. Unlike the Indo-Scythians, the Indo-Parthians were Zoroastrians in religious orientation, but seem otherwise to have been similar, depending on agriculture and trade. Coins struck in the western areas of rule, in Seistan, follow Parthian models, but those in other areas are similar to the Indo-Scythian issues, employing Greek and/or Kharosti, the latter having some peculiarities of script. Abdagases, the successor to Gondophares, lost much of his uncle's conquests to the Kushans, and later rulers were largely confined to Seistan. {44-5}

The kingdom after Gondophares may have resembled a loose affiliation of rulers more than centralised government, and five distinct areas can be numismatically identified. {45} Sanabares was an ephemeral usurper in Seistan, for example who employed only Greek on his coins, {46} perhaps to assert his dubious legitimacy. Like the Indo-Scythians, the Indo-Parthians issued coins in silver and base metals, but Abdagases II also struck gold for presentation purposes. {45}

The Kshatrapas

The Kshatrapas were a fairly distinct and long-lived kingdom around Gujarat that saw 27 rulers over 350 years. Their kings may have been vassals of the Kushans, or remained in friendly alliance with them. The coins initially use Kharoshthi, Brahmi and Greek script, but later only Brahmi, together with pseudo-Greek script to convey the Prakrit language employed by the Kshatrapas. A few legends are in Sanskrit. {51} There was much trade with Rome, and traveller's tales happily provide some local colour that is largely missing from other Saka societies: {52}

'There are imported into this market-town (Barigaza), wine, Italian preferred, also Laodicean and Arabian; copper, tin, and lead; coral and topaz; thin clothing and inferior sorts of all kinds; bright-colored girdles a cubit wide; storax, sweet

clover, flint glass, realgar, antimony, gold and silver coin, on which there is a profit when exchanged for the money of the country; and ointment, but not very costly and not much. And for the King there are brought into those places very costly vessels of silver, singing boys, beautiful maidens for the harem, fine wines, thin clothing of the finest weaves, and the choicest ointments. There are exported from these places spikenard, costus, bdellium, ivory, agate and carnelian, lycium, cotton cloth of all kinds, silk cloth, mallow cloth, yarn, long pepper and such other things as are brought here from the various market-towns. Those bound for this market-town from Egypt make the voyage favorably about the month of July, that is Epiphi.'

The Kushano-Sasanids (AD 230-750)

The Sasanians, shortly after Ardashir I's victory over the Parthians, extended their rule into Bactria, and then into western Pakistan under Shapur I (240–270). The area was known as the realm of the Kushanshahs or 'Kings of the Kushans', becoming in time a distinct territory. Around 325, for example, the Sasanian empire proper was ruled by Shapur II, but the north-western part was controlled by the Kushanshahs, who maintained their rule until the arrival of the Kidarites (Huns or Yuezhi {60-4}) .

Both the Kushans and the Kushano-Sasanids were overrun by the Hephthalites, but the Kushano-Sasanids recovered some authority after the Hephthalites were defeated in 565 AD by an alliance between the Gokturks and the Sasanians. Nonetheless, the Kushano-Hephthalites set up rival states in Kapisa, Bamiyan and Kabul. The Sasanians fell to the Raashidun Caliphate in the mid 7th century. The Kushano-Hephthalites, were replaced by Shahi in the mid 8th century, and this Hindu kingdom also conquered Bactria and Gandhara, thus replacing the Kushano- Sasanids until the arrival of Islam in Pakistan.

The Indo-Sasanids issued an extensive coinage with legends in Brahmi, Pahlavi or Bactrian, sometimes inspired from Kushan coinage, and sometimes more Sasanian. {57}

Saka Influences on Indian Coinage

In contrast to Greek art, which models firmly and concisely in the round, Saka art is linear, fluid and decorative. Art works excavated from steppe tombs are based on animals hunted or domesticated. Deer antlers, horses manes and even feline claws proliferate into curls and spirals until they are lost into the decoration, which becomes an end in itself. {37}

Late Parthian and Sasanian coins become more schematic in design, where the original Greek conception degenerates into rigid lines and blobs. In the Saka coinages of the Indo-Scythians the reverses also become schematic, but more fluid, especially when integrating figures into Kharosthi scripts. Coins of the Indo-Parthians and Indo-Sasanians imitate Parthian and Sasanian styles respectively, albeit rather crudely. Coins of the Kshatrapas anticipate the fluid fullness of Gupta styles. The Hephthalite, when not content to simply counterstrike Sasanian issues with tamgha (symbols), are often crudely made on Sasanian patterns, but the coins of the Nezak Huns are very different. These are rich, almost florid treatments of bust and fire-altar, where the constituent parts are scattered exuberantly about the flan but still cohere into recognisable and pleasing shapes.

The Hephthalites (AD 450-570)

The Hephthalites — also called White Huns because of the light complexions — probably first inhabited south-west Mongolia, from which they were expelled in the 5th century by the Juan-juan, another powerful Mongolian tribe. Within decades, they had expanded westwards to become a great power in the Oxus basin, one that threatened the Sasanian empire and Saka kingdoms. In turn they conquered the

Kidarites, the Kushans and (in 484) half the Sasanian empire. Peroz (459-484) was taken in battle and Kavad (488-496) was obliged to seek Hephthalite aid to regain his crown in 498. From their capital at Piandjikent (65 km south-west of Samarkand) the Hephthalites controlled a large area, their rulers generally making Badakshan their summer residence and wintering in Bactria.

With their western border stabilised, the Hephthalites extended their influence into the Tarim Basin. Between AD 493 and 556, they invaded Khotan, Kashgar, Kocho, and Karashahr, sending embassies to the Northern Wei Chinese kingdom (439-534). On the death of the Gupta ruler Skandagupta (455-470), they entered the Indus valley and the Ganges, destroying everything in their path. Buddhists were persecuted, and all monasteries burned.

For 30 years the Hephthalites ruled north-west India practically unhindered. But the Gupta emperor Bhanugupta defeated them in 510, and they were driven out of India by the kings Yasodharman and Narasimhagupta shortly afterwards. Between 557 and 561 the Sasanian emperor Khusru I allied himself with newly-arrived Turkic tribes to fight these invaders, finally killing the Hephthalite king in an epic battle near Bukhara, and forcing their withdrawal from Sasanian lands around AD 570.

The Hephthalites were typical nomads. They built no towns and even their kings ruled from camps that moved with the pasturing needs of their animals. Numismatic and epigraphic evidence shows they used a debased form of the Greek alphabet for administration, which they probably took from the Kushans. Otherwise, they may well have been illiterate, without a script for everyday needs. The language may have been Iranian, Mongoloid or Turkic: opinions differ. Coins and archaeological sites show that they elongated their skulls by binding them in infancy, and Chinese travellers reported them as polyandrous, i.e. several brothers could marry the one wife. {65-8}

Most Hephthalite coins are as brutish as their people: overstruck Sasanian issues and crudely made Sasanian imitations. A few — e.g. coins of the Alcons — are magnificent in their flamboyant way. Some four groups of Hunnic coins can, in fact, be distinguished, probably indicating four successive, and partly overlapping, waves of migration — by the Kidarites, the Alcons (Kāpīśa-Kabul area), the Nēzak kings (5th century south of the Hindu Kush), and the Sasanian Hephthalites. {69-71}

Syncretic Nature of Coinage

The fluid or syncretic nature of early Indian religion and art is also found in its coinage.



Indo-Greeks
Menander I Soter c.
155-130 BC. Ar
Tetradrachm 24mm,
9.93 g. Obverse:
diademed and
draped bust right.
Reverse: Athena
Alkidemos left; Σ to
left, monogram to
right. (Bopearachchi
Serie 12A; SNG

Indo-Scythians.
Vonones, with
Spalahores, c. 75-60
BC. Ar tetradrachm.
Obverse: BASILEWS
BASILEWN MEGALOU
VONONOU. King on
horseback riding right,
in cataphractus &
carrying a whip &
lowered spear .
Reverse: Zeus

Indo-Parthians.
Gondophares (20-10
BC) 3.34 g. Obverse:
diademed bust facing
left. Reverse:
Gondophares seated
facing right, Nike
behind. Legend
around in blundered
Greek: possibly
originally BASILEOS
SOTEROS

ANS 764-7.)

standing facing, holding long spear & thunderbolt, monogram under left arm, in Kharosthi script Spalahoraputrasa Dhramiasa Spalahorasa, or Spalagadames son of Spalahores. (Senior-65.3, M-681)



Western Kshatrapas, Indo-Sasanids Nahapana (r. c. 53-99 AD) Ar drachm 16 mm 2.22 g. Obverse: King Varhran King's bust right, with Greek legend around. Reverse: Stylized thunderbolt and arrow, with Brahmi legend Rajno Kshaharatasa Napanasa on left margin and Kharoshthi legend

Nezak Huns, Napki Malka, Ae drachm. 7th Century AD. Kabul-Zabul area. 25mm x 26mm, 3.43g. Obverse: Bust of 'Napki' type wearing winged- headdress surmounted by bull's head right. Reverse: altar with attendants with large wheels on their heads. (Göbl

Rajno Chaharatasa
Nahapanasa on right
margin. (Senior 303)

222; Mitchener 1510)

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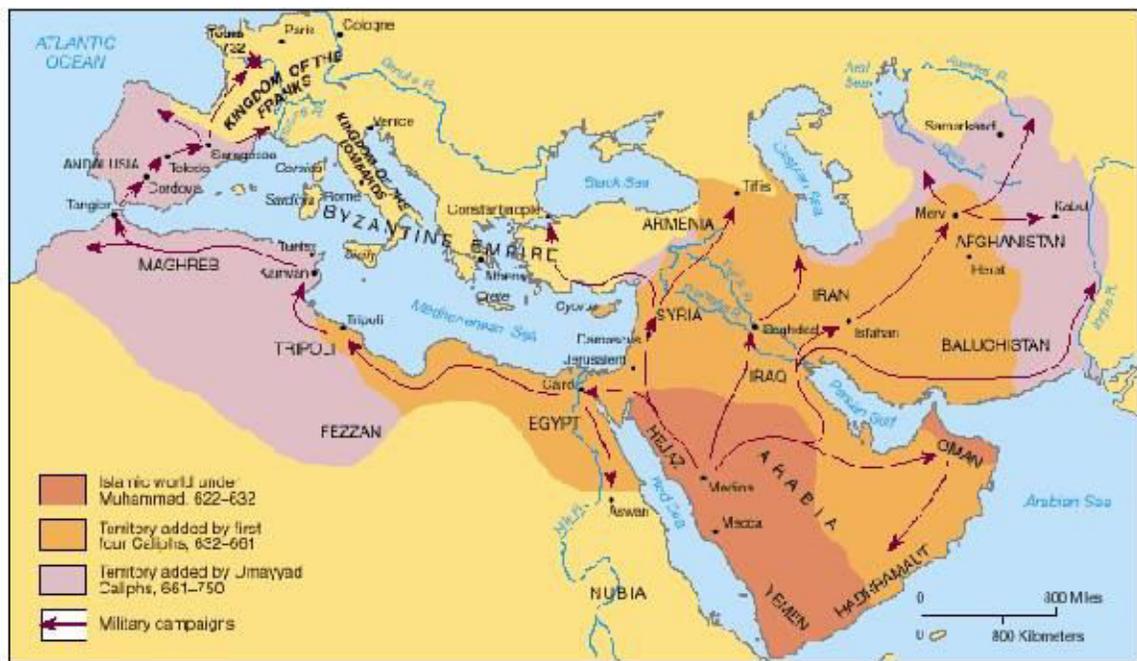
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11. Early Islamic States



The Arab Conquest

The Arabs first attacked Sasanian territory in 633, when general Khalid ibn Walid invaded Mesopotamia, but lost ground when the general was transferred to the Byzantine front. A second attack came in 636 when Saad ibn Abi Waqqas won the Battle of Qadisiyyah and took west Iran from Sasanian control. Caliph Umar ordered a full invasion of the Sasanian empire in 642, and this was completed around 651.

These well coordinated, multi-pronged attacks were directed from Medina, several thousand miles from the battlefields, a triumph for the Caliph, though many cities later rose in revolt. Arab reinforcements succeeded in putting down the rebellions in time, and imposing the rule of Islam, but often at great cost.

Conversion to Islam in Persia was generally slow and violent, with Zoroastrian scriptures burnt and priests executed. For generations many Persians maintained their original language and culture, as the Arab-Sasanian coinage indicates. Some recent historians have questioned the official narrative (which derives from western sources), suggesting the Sasanian Empire was decentralised, and

indeed more of a 'confederation' with independent Parthian forces. {5-10}



Arab Sasanian Ar Drachm. 'Ubayd Allah b. Ziyad, Silver Drachm. Minted at Tisfun in 63 AH (Walker p.72; Baloch 19; Album 12)

Obverse: Portrait of governor as Sasanian king with the governor's name written in Pahlavi script. Besm Allah (in the name of God) in lower right margin.



Reverse: Zoroastrian fire altar with attendants: year of issue on left and mint at right. {1} {4}

The first decades of Muslim rule in Iran saw Sasanian coins minted as before, showing the continuity of administration and economic life in the early years of Muslim rule.

But when Yazdegerd died in AD 651, the words Besm Allah in Arabic were added. The mints included Basra, Susa, Bishapur, Darabgerd, Estakr, Arrajan, Gur, Yazd, Zaranj, Marw, Nishapur, Hamadan, Ray, Nehavand, Isfahan, several in Kerman province, and a few as yet unidentified. Diameter and weight varied considerable (from 2 to over 4 grams) but silver fineness was better than 90% and generally around 95%. In the year 79 AH (698-99 AD) a new standard was introduced at Damascus and at nearly thirty mints throughout the east. The new dirhems bore nothing but date,

mint and religious inscriptions, all in Arabic, but the Sasanian-style dirhems continued a little longer at a few mints, notably in Fars, where they were issued along with the new dirhems. The last date for a regular Arab-Sasanian drachm is 85 AH (AD 704-5) {1, 10-14}

The Sasanian Empire

Though the Sasanian shahs tried to bring the country under direct rule, often by turning villages into towns with skilled working communities administered by governors collecting tax revenues, the land-owning nobles seem to have retained some autonomy, enough to occasionally overthrow the ruler. Agriculture, widely diversified, was the basis of the economy, though there was also mining, quarrying, forestry, an army, a priesthood and skilled trades organised as corporations in the cities or attached to the royal workshops. Quite how society — royalty, nobility, 'free citizens', prisoners of war, and slaves — was organised is not clear, nor the status of the many Christian communities, who may have been private entrepreneurs. But transcontinental trade was an important ingredient, and there were numerous fairs and markets. {14-15}

Sasanian power had been weakened by the military adventures of Khosrau II against the Byzantines, and by disastrous wars with the Hephthalites, or white Huns. But the causes of Sasanian defeat have been modified by recent historians to include internal struggles with the Parthians, who remained fighting forces within a decentralised Persian confederacy, and the part played by small, semi-independent Arab principalities forming a buffer zone to the Byzantine territories. Khosrau II was assassinated in February 628, and the Arab conquest may indeed have been earlier than once supposed, perhaps 628 to 632. {5}

New Arab State

As we know from papyrus records in Egypt, the first Arab administrations simply replaced the local governors with

Arab ones. The Sasanian treasury was sacked, and other plunder no doubt carried off, but the Arab-Sasanian dirhems were probably struck for tax payments, i.e. the country continued along its earlier lines, though with frequent uprisings and Zoroastrian repression. It was clearly better to have some authority shown on these early Arab coins, even an obsolete authority, than no authority at all.

The Arabs brought new concepts to their conquered lands. Literacy was encouraged, as was knowledge of the Qur'an. Agriculture was still the mainstay of economic life, but land was distributed in a more egalitarian way. Anyone, whatever race or gender, could buy plots of land for farming or house construction. Indeed one of the Prophet's companions protested against the excessive concentration of wealth under 'Uthmān's caliphate and argued for its redistribution. Taxes (e.g. Zakat and Jizya) were collected to provide income the needy: the poor, elderly, orphans, widows, and the disabled. Governments were also expected to stockpile food supplies in case disaster or famine struck. The Umayyad Caliphate, though regarded by Islamic commentators as too worldly, {16-17} thus created the first welfare state. {18}

Indeed the whole nature of society slowly changed in the first four centuries of Islamic rule, which introduced concepts that were to influence medieval Europe. Islamic Persia was not feudal, but based on the concept of a just community, where trade and commercial activities were encouraged within a framework of partnership (mufawada) and early forms of capital (al-mal). It was a monetised society that also used cheques and promissory notes, trusts and loans, ledgers and assignments. Many facilities were independent of the state. The Qur'an prohibited usury, but there did in time arise banking-like groups of merchants (Karimas) who controlled trade across the Islamic world. Development into a full capitalist system was prevented by landowners (ikta), however, and by state monopolies. In short, it was neither a

proto-capitalist, nor a socialist society of wealth redistribution, but one governed by custom (al-urf), reason (al-'aqi) and consensus of the jurists (al-ijim) where wealth was not despised but had nonetheless to be acquired and spent to the benefit of all. In practice, Islamic states were no more examples of shining Muslim rectitude than were Christian states models of compassion and charity, of course, and warfare was endemic in later dynasties, as much with other Muslim states as against the infidels. {18}

From Mixed to Reform Coinage: Currency War

Initially, the Umayyads employed silver Sasanian coins in Persia, and gold and copper Byzantine coins in Syria and Egypt. But, in an attempt to unify the Arab world, the Caliph Abd al-Malik ibn Marwan (685-705 CE) introduced a Umayyad gold coin in 691 or 692. This new dinar also showed three figures on the obverse, replaced the Byzantine cross on the reverse with three steps and a column topped by a sphere, and added an Arabic legend. Though similar in weight, design and purity to the Byzantine solidus, it was not acceptable to the Byzantines, and Justinian II struck a new solidus with the head of Christ on the obverse and an image of himself robed and holding a cross on the reverse. The Caliph's response to this challenge was to issue a new dinar in 693. Here the obverse showed the upright figure of the caliph, wearing an Arab headdress and holding a sword, with the testimony of Islam inscribed in the margin. The reverse bore the same column on three steps and the sphere, but a new legend appeared around the margin: 'In the name of God this dinar was struck in the year four and seventy.'



Umayyad Ar dihem of al-Walid I Herat mint, 93 AH. (Album 128) Central legend: la ilah illa Allah wahdahu la sherik lahu (there is no God except Allah. He is alone. No partner to him. Marginal legend: bismillah zuriba haza ed-dirhem bi-Herat fi sanat thelath wa tis'in (by the grace of God was struck this dirhem at Herat in the year three and ninety)



Central legend: sura 112. Allah ahad Allah es-Samad lem yalid wa lem yulad wa lem yakun lahu kufu ahad (Allah is One. Allah is the Eternal. He did not beget and he was not begotten, and there was not to Him equal a single one.)

Marginal legend: sura 9: 33. Mohammed rasul Allah arsalahu bi-'l-huda wa din el-haqq li-yuzhirahu 'ala ed-din kollihi walau kariha el-mushrikun (Mohammed is the messenger of Allah. He sent him with the Guidance and a religion of the truth in order that he might cause it to be bright over the religion, all of it, although polytheists dislike.) 27 mm, 2.85 g. {3, 21}

Perhaps not many were struck as only eight now survive, but again the Byzantine emperor responded by striking a new coin in imitation of the dinar. Finally, therefore, in 697, the caliph abandoned the attempt at a parallel currency, and introduced a design that was to serve throughout the Islamic world for centuries. Figurative representation was replaced with verses (suras) from the Qur'an. Round the reverse margin ran another sura, but on the obverse margin was a standardised statement of the denomination, mint and AH year: 'By the grace of God was struck this dinar at (city name) in the year (written out in full)'. The new dirhem was

similar (shown above) and modelled on the Sasanian dirhems, but smaller and lighter. These changes were thought important: all previous coinage, Arab and Byzantine, had to be brought in for immediately reminting, on pain of death. Umayyad gold coins were generally struck in Damascus, but silver and copper coins come from many towns and cities, their number increasing as Islam conquered more of north Africa and Spain.{19-20}

As before, silver and gold were probably minted for tax purposes and large commercial transactions, but a diverse and complicated copper coinage was struck for local needs. To deter abrasion and clipping of the gold and silver coins, merchants in both empires employed weights and measures, generally metal in the Byzantine Empire, and glass in the Muslim. {22}

Both empires lay on the western end of the international silk routes, which brought not only silks designed for Christian and Muslim luxury markets (though silk was also made locally), but spices, ceramics, and gunpowder. Exported the other way to China were carpets, jewels, metals (particularly silver), dyes, drugs and glassware {24} Recent reassessments of the silk route suggest that the trade was often small and locally fragmented, however, though still serving as a conduit for ideas, religions and technologies. {14} Trade in western Asia itself concentrated on gold, ivory and slaves via the north African coast, and slaves, wood products, amber and furs from the Black Sea areas controlled by Byzantium.

Though Christians and Moslems sensibly traded with each other, there were also wars by sea and land at frequent intervals between the 7th and 11th centuries. The Umayyads repeatedly invaded Byzantine lands, but Byzantium itself survived sieges until later Ottoman times. A fortified and depopulated buffer zone was created in the Taurus Mountains after the second Arab siege of 718, however, and the Byzantines began their own destructive but unsuccessful

raids after 740. Arab fleets were later to conquer Crete, Malta and Sicily, and raid as far as France and the Dalmatian coast. {23}

Just as money grows out of the values, beliefs and customs of societies, giving them commercial advantages, we see that denominations are themselves not created en vacuo, but grow out of previous coinage traditions.

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12. Medieval Islamic Societies



Extensive trade is a feature of advanced societies, and was indeed the basis of prosperous Muslim societies in north Africa, the Middle East and Asia. Islam was founded by a businessman, of course, but business in the Muslim world followed rather different principles. Property was sacrosanct, being a way for Muslims to fulfil the obligations of their faith. Theft, fraud, and injustice (i.e. taking unfair advantage) were prohibited by the *shari'ah*, the Islamic law, which was studied by legal scholars who stood apart and independent of government. Man was not naturally wicked, moreover (i.e. not born into sin), but was sternly tested in life, where *falâh* (prosperity) refers to this life *and* the next. Though usury was forbidden, banks in practice charged an arrangement fee, and initiated many modern practices, including cheques, and credit payments, practices that were introduced into Europe through the Knights Templars. Merit was not measured in terms of wealth or poverty, however, but as to how that wealth was acquired and used. {1} Ethics indeed guided all aspects of life. {2-3} Because integral to Muslim society, merchants were widely respected — not relegated to the lower orders as in imperial China, nor seen as parvenus beside the landowning classes of western Europe. Naturally, there were darker aspects: slave-trading, aggressive wars,

oppressive treatment of religions other than the Christian and Jewish faiths, but commerce was not at odds with the spiritual life.

Muslim societies today face many difficulties, some arising from the nature of Islamic society, some more related to their history, which has been no less troubled than those of the Christian west. But three differences may be crucial: {4}

Muslim society is based on the just and caring community, not the free individual. There is no Church as a separate entity, but only institutions of scholars who continually interpret and reinterpret the Prophet's teachings for modern times and specific occasions. Islam therefore permeates all levels of life, and is not something set aside for Sunday church going or private belief.

Men and women live in separate spheres of life, only freely intermixing in the privacy of the home. Women's subjugation should not be exaggerated, however. Mohammad laid down strict instructions on the respect and rights of women, and indeed women played a larger part in early worship, as they did in early Christianity. Women have also entered universities and the workplace in Afghanistan, Iraq and Libya, at least until western-funded religious fundamentalism overthrew these more secular societies.

As do Jews, though less ethnically based, Muslims believe in a destiny. Faith gives them the status of a chosen people, and the shocks of the Crusader and Mongol victories have not been forgotten. Even more disturbing to the faithful has been the slow penetration of western ideas into Muslim countries, often placing them under insensitive officialdom.

Medieval Islamic Dynasties

Initial conquest over, Muslim states were often content to thrive on the inland trade routes that brought silver to China and a vast array of costly merchandise in the opposite direction: silk, porcelains, spices and manufactures that

could not be had in the Middle East, and still less in undeveloped western Europe. Tolls had to be paid at each stage of the journey, but the routes were kept free of brigands, and comfortable caravansaries offered lodging and safe storage of goods.

Many of the central Asian empires were not built on trade, however, but on undisguised plunder, particularly those ruled by nomadic Turkoman peoples who periodically invaded from steppe-lands north of the Himalayas: the Kushans, Ghaznavids and the Sultans of Delhi. The Ghaznavid Empire was founded by Abu Mansur Sebuktigin, a Turkish slave governor serving the Samanid Emirs of Bukhara in the provincial city of Ghazni, south of present-day Kabul. Conquests were dramatically extended by his son, Yamin ad-Dawlah Abul-Qasim Mahmud Ibn Sebüktegin, more commonly known as Mahmud of Ghazni, who made his father's capital the centre of a wealthy empire covering much of today's Afghanistan, eastern Iran Pakistan and northwest India. {5}

Between 1000 and 1025 AD, Mahmud mounted some twelve to seventeen (accounts differ) on the rich Hindu kingdoms of the Indian subcontinent. The Chandellas of Khujaraho, the Pratiharas of Kanauj, and the Rajputs of Gwalior were no match for his formidable armies, and places like Kanauj, Mathura, and Thaneshwar were stripped of the treasures, the temples desecrated and many thousands killed. The most infamous was the destruction of the Shiva temple at Somnath, on the southern coast of Kathiawar in Gujarat, where Muslim chronicles suggest that 50,000 Hindus died in battle or its aftermath. The Shiva lingam was smashed by Mahmud himself, weapons, idols and jewellery amounting to some 6.5 tons of gold carted off, and even the intricately-carved doors of the temple transported to Ghazni, where they later adorned the entrance to Mahmud's tomb.

Though the Ghaznavids became great patrons of literature, and brought India into the Asian trade routes, they also

initiated the millennium-old struggle between Hindus and Moslems. The Arab geographer, Alberuni, who attended Mahmud's court and wrote an account of India, wrote of these raids that 'the Hindus became like the atoms of dust scattered in all directions and like a tale of old in the mouths of people. Their scattered remains cherish of course the most inveterate aversion towards all Moslems.' Ghazni today boasts three small minarets only to commemorate its vanished splendour: minarets that are beautifully decorated in kufic tile-work but truncated and only precariously standing on the outskirts of a town that largely exists to serve the tourist trade. In Mahmud's day the city was a centre of learning, commerce and worship, a splendid court life, and hub of trade across the Asian continent. Here Fidowski wrote his famous epic of Persia, dedicating his *Namnah* to Mahmud — until the emperor reneged on payment, when scurrilous verses on the empty promises of kings were added. With the death of Mahmud in 1030, at the age of sixty-two, India was free of invasions for another fifty years.

None of the succeeding Sultans of Ghazni had Mahmud's warlike spirit, though the dynasty continued in name for over a hundred years. Persian lands to the west gradually fell to the Seljuks, however, and the eastern parts of the empire were conquered by the Ghorids and then the Sultans of Delhi, all of them Turkish warrior peoples. The Rajput clans, who had reasserted themselves after Mahmud's death, were in the 1192 battle of Tarain defeated by Mahmud of Ghur, who had issued out from his rocky fastness in northern Afghanistan. The Indian forces were led by Prithviraj Chauhan, whose wife's final speech to her husband became a rallying cry in the years afterwards. 'Oh Sun of the Chauhans, none has drunk so deeply both of glory and pleasure as thou. Life is an old garment: what matters if we throw it off? To die well is life immortal.' But the battle of Tarain in Kurukshetra was decisive for the Muslim cause.

'For miles the stricken field was bestrewn with castaway flags and spears and shields, and heaped bows, jewelled swords and plumed casques, exquisitely chiselled and damascened gauntlets, breast-plates and gaily-dyed scarves, intermingled with the countless dead.' Mahmud continued on his triumphal progress through Ajmir, Gwalior and Delhi. In 1194, his generals took Benares and then Bihar, where the slaughter of Buddhist priests effectively destroyed that religion in India. Bengal fell next, and by 1200 all northern India was under Muslim rules, save only Rajputana, Malwa and part of Gujarat. The loss in Hindu prestige and culture was enormous, but local rulers, quarrelsome, chivalrous and dependent on cumbersome tactics with elephants, were no match for drilled cavalry and archers united under a crusading faith.

The conqueror was assassinated on the banks of the Indus in 1206, probably by members of the heretical Ismaili sect who, in the words of Juvaini, the historian of Ghengis Khan 'turned the bright day into black night for the army by destroying the king, and spoiled for him the flavour of the food of life.' Mahmud's command fell to his generals, most notably to one Kutub-ud-din Aibak, who assumed the title Sultan of Delhi. Kutub died in a polo accident in 1210 and was succeeded by Iltutmish, his son in law, under which Delhi was embellished by a great mosque and the still-to-be-seen Kutub Minar tower. The Sultans of Delhi protected India from the Mongol hordes under Ghengiz Khan, but had their own ways of extracting wealth from their Indian subjects. {4-5}

Islamic Empires: Ottomans

The Ottoman Empire (1299-1923) once included Turkey, Egypt, Greece, Bulgaria, Romania, Macedonia, Hungary, Israel, Jordan, Lebanon, Syria, and parts of the Arabian peninsula and north Africa, an area amounting to 19.9 million sq. km. in 1595. The Ottomans suffered defeat at Timur's

hands but went on to capture Constantinople in 1453, and reach the walls of Vienna in 1529 and 1683. For three hundred years the Ottoman army, supplied by the latest armaments and supported by the 12,000-strong janissaries, was the most formidable fighting machine in the world. The empire reached the height of its power in the reign of Sulayman I, but expansion was checked at the Battle of Lepanto (1571) and then in defeats by Venice and the emerging Safavid state. Paradoxically, as the Ottoman empire became the last great Muslim power, and its sultan the Khalifa, the state proved unable to stem the rising power of Russia north of the Black Sea. Areas were ceded to Russia by the Treaty of Kuchuk Kainorj in 1774, and again in 1792 and 1812. Christian powers were given privileges within the empire, beginning with the French, who supplied diplomatic services against the Habsburgs. Christians and Jews indeed placed themselves under certificates of protection, and so came to control trade with Europe and edge out Muslim rivals. Decline set in markedly after the Crimea War, and the empire was dismembered following defeat in W.W.I. {6-11}

Suleyman I (1494-1566)



*Ottomans: Suleiman I Au dinar.
Misr 19mm, 3.47gm. AH 926*

*Obverse: "Sultan Suleyman
Shah bin Sultan Selim Shah
azze nasruhu zuriba fi Misir
sanat / 926" (Sultan Suleiman
Shah son of Selim Shah / May
his victory be glorious / minted
in Cairo / year / 926)*



Reverse: Inscriptions in four lines within border of pellets.

Legend: "Darib al-nadr / sahib al-'izz wa'l-nasr / fi'l-barr wa'l-bahr (The striker of precious metal, the Master of Glory and the Victorious on land and sea)

Suleyman I (Kanuni Sultan Suleyman), known in the west as Suleiman the Magnificent, and in the east as the lawgiver (kanuni), for his legal reforms, was remarkable man. From 1520 to 1566, he ruled an Ottoman Empire at the height of its power, prestige and prosperity, leading armies to conquer the Christian strongholds of Belgrade, Rhodes, and most of Hungary before his ambitions were checked at the Siege of Vienna in 1529. A good deal of the Middle East was annexed from Persia, and north Africa as far west as Algeria. The Ottoman fleet also dominated the seas, from the Mediterranean to the Red Sea and the Persian Gulf.

To add to those accomplishments, he was an outstanding poet, goldsmith and patron of the arts. His marriage to a harem girl — Roxelana, then Hurrem Sultan — was equally unusual, as was the sultana's influence on the court and sultan.

Organization of the Ottoman State

The Ottoman state was intricately organized through checks and balances, ostensibly divided between a landowning class that commanded armies, administered and taxed, and a subject class, largely agricultural but including merchants and workshop artisans. Further organization came in Sufi orders, brotherhoods and communities (*millets*) with their own rites, education, justice systems, charities and social

systems. Each *millet* answered to the Sultan. A parallel legal system of lawyers, bureaucrats and judges came under the authority of the grand vizier. The *devshirme* or janissaries began life as the Sultan's bodyguards, but soon had administrative roles in government, the military and the arts. While advancement was by merit, as it was until the eighteenth century, the state was exceptionally cohesive, surviving ethnic unrest, and rule by mediocre sultans and corrupt viziers. {6-11}

In its decline, however, the empire increasingly suffered the defects of its own excellence. {7, 8-11}

The empire drew its wealth from territorial expansion, traditional monopolies and a tax on land and agricultural products. Roads, so necessary for trade and the transporting of those agricultural products, were not generally improved, however, though a system of caravanserai was extended into the Balkans. Their safety was improved in the eighteenth century, after the Jelali revolts, but that was no more consistent a state policy than the maintenance of the powerful navy built by Bayezid II. The navy suppressed piracy, protected shipping and transported armies, but did not otherwise interfere with the sea trade, the empire preferring to tax a free-trade system. Wheat was transported from the Aegean and the eastern Mediterranean, spices from Red Sea and Persian Gulf, and wheat and lumber from the Black Sea. Only briefly in the sixteenth century did the state undertake its own trade in spices. {6-11}

Technological advances cut travel times in the nineteenth century, from Venice to Istanbul in 10 days by steam ship from the customary 15-81 days by sail, for example, and carried larger tonnages, 1000 tonnes rather than the earlier 50-100 tonnes. Indeed Istanbul handled 10 million tonnes in 1900, up from 4.5 million tonnes in 1873. But 90% of shipping was owned by European interests, and a similar picture held for road transport. Steam engines speeded the transportation of agricultural products to the coast for export,

but 10,000 camels were still employed to serve the railway stations. Employment gains were modest. Low salaries, a sparse population and expensive sources of capital did not encourage industrialization. {6-11}

The Ottoman Empire was essentially an agrarian society where taxes on land supplied 40% of state revenues. Most worked on small family holdings, where only part of the crop or livestock production went for export. Families also produced handicrafts, and nomads supplied animal products and textiles. Agricultural techniques were gradually improved, however, and tens of thousands of ploughs and even combines were in action across the Balkans, Anatolia and Arab lands by 1900. Agriculture was also extended into poorer soils, particularly by refugees. Agricultural schools and model farms proliferated, and the value of Anatolian agricultural products rose 45% between 1876 and 1908, and tithe products by 76%. Generally, however, the local wheat could not compete with cheap imports of American grain, and there were periodic economic and political crises. {6-11}

The middle class was small, and generally comprised non-Muslim merchants and bankers and bureaucrats, who were part of the establishment, protecting their positions and resistant to change. Indeed the seventeen sultans after Suleyman (1566-1789) were men of little knowledge of or interest in the outside world. The average periods of rule were half those of the previous sultans, and many incumbents were incompetent if not mentally defective, being brought up wholly within the harem and so open to its influence. {6-11}

Gradually the empire lost the power to tax its commerce, and the ideal of service to the state was replaced by self interest. Governors in Arab lands became independent, and attempts by strong viziers like Ibrahim Pasha (1718-30) and rulers like Selim III (1789-1807) were thwarted. Under the cry 'Islam is in danger' the janissaries formed an alliance with the *Ulama* to curb modernizing practices and central rule. {6-11}

Guilds began with the Sufi Ahi Brotherhood in the 13-14th century, which merchants and craftsmen saw as an extension of Muslim faith. True guilds were widespread in the 16th century, and ran workshops and even small factories. Domestic consumption increased, and steam-powered silk weaving factories appeared in the 1830s. Silk and carpet factories were employing 100,000 workers in 1914, mostly women. Wages were low, however, and locations shifted from urban areas to even lower-paying rural ones. Guilds controlled quality, gave some price protection, but products were gradually displaced by cheaper foreign products, first Asian and then European. {6-11}

The Ottoman Empire only slowly joined the industrial west. Global trade increased 60 fold in the nineteenth century, but only 10-16 fold within the empire. Cotton exports to France and England did double between the late 17th and late 18th centuries, but then shrank in the face of competition from industrialized mill production. Luxury goods, manufactured by the Ottomans or re-exported, also fell throughout the 18th century, and the direction of trade shifted: high quality goods were imported and raw materials exported. Nonetheless, there were no balance of payments problems until the later 19th century. {6-11}

Bureaucratic and military expenditures were funded by taxation, and both expanded through the 18th and 19th centuries. There were some 2,000 civil servants at the end of the 18th century, but 35,000 in 1908. Until 1850 there was no appreciable foreign debt, but nor was there a reliable Ottoman banking system. The government raised money for development with bond issues between 1854 and 1876, but Egypt in particular ran up large debts at the end of the century. Repayment of loans for railway, port and public utility developments consumed increasing proportions of tax revenues, and put the economy in foreign hands. {6-11}

Corruption spread as the empire declined in power. Bribery, purchase of office, favouritism and nepotism became

commonplace, and officials would often borrow to buy the administration of provinces, which they would then plunder to repay loans. The *devshirme* or janissaries became an hereditary class, no longer created afresh from foreign slaves and so answering solely to the sultan. {6-11}

European shipping increasingly sidelined silks, porcelain and handicrafts brought from the east, and the growth of the Safavid state also stemmed or added costs to the overland silk routes. Nonetheless, the European threat did not at first call for a transformation of the Muslim state. European inventions could be simply purchased and installed — armaments, and then schools and institutions for scientific advancement. The empire did not suffer the attentions of Christian missionaries, and the old ruling order was not swept away, as was the case in India and north Africa. But the secular nature of European society, with its clear division between church and state, came increasingly to question the nature of Ottoman rule. Capitalism challenged the Qur'anic prohibition of usury. The European concept of rights challenged the Qur'anic acceptance of slavery. And the belief in equality challenged the traditional view of women — a man's right to four wives, to easy divorce, and to the seclusion of women in the harem or home. More threatening was the monolithic idea of the state's control over all aspects of physical and human resources, limited by law but still expressing the 'popular will'. Even education, focussing on the individual, was at odds with the Qur'anic revelation that legislated for the whole society. {6-11}

But European technology was clearly superior to Ottoman, if not benign. Change had to come, and a start was made by Mahmud II (1808-39). The janissaries were eliminated, and a modern army constructed and trained by Prussian officers. Schools taught European languages, and by 1863 all commercial, criminal, maritime and land legislation were based on codes of French origin. Edicts of 1839 and 1856 declared that all subjects, Muslim or not, were equal before

the law. A new constitution was introduced, although unsuccessfully, in 1876, and Abdul Hamid (1876-1909) espoused a pan-Islamic ideology. Yet the Young Turks who seized government in 1908 imposed parliamentary rule by fiat, and troubles in the Balkans and Libya gave their administration a military focus, which caused the empire to unwisely join the Axis powers and so suffer defeat in W.W.I. {6-11}

It was Mustafa Kemal (1881-1938), later called Ataturk, who wholly secularised the Ottoman state. He defeated the Greeks who had occupied Rumelia and western Anatolia in 1922, and made peace with the Allies the following year. The sultanate was abolished in 1921, and the caliphate in 1922. The last heir of Osman was put on the Orient Express and bundled off to Paris. Islam became a private affair, a matter of individual conscience, and the *Shariah* was no longer the basis of law. Turkey is now a regional power, with an economy that grew 5% p.a. between 2002 and 2012. Nonetheless, the modernization has been carried out by a westernised elite with mixed support in the countryside, and Turkey still faces threats from those actions: capital flight, Kurdish and Islamic insurgency, and blowback from US Middle East policies. {12-15}

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13. Medieval China: Song Dynasty



Cash: Chinese Cast Coinage

Coins proper begin in Lydia in the seventh century BC, and in China shortly afterwards. In both areas, however, and probably more generally, true coins were preceded by token coinages: metal rings and axes in Europe and a great variety of objects in China: tortoise shells, cowry shells, gold foil, spade pieces and knives. Spade pieces come in many thousands of types, grouped by scholars and collectors by shapes and inscriptions and ascribed by find locations to the many changing kingdoms that were consolidated into the first Qin Empire (250 BC-220 BC). {1-5}

True spade pieces probably appeared in the Eastern Zhou period (770-476 BC) and were followed by knife pieces, and then by round coins that are the prototypes of the cash coins

issued practically unchanged in China and adjacent countries for over two thousand years. Finds show that spades, knives and early round coins often circulated together, suggesting that all were a tally for wealth if not an enabling medium of trade as such. Importantly, however: though round coins had appeared sporadically before, indeed were cast in many calligraphic varieties by the 350-220 BC Zhou and Liang States, their appearance in huge quantities of standard appearance begins with the first Empire and is clearly related to its administrative needs. {1-5}



*State of Yan (300-222 BC) Ae Round coin.
Obverse: Ming Hua. Reverse: plain. 25mm 2.6gm.
Hartill 6.21*

Cash coins are small change, and prices were often set in strings rather than individual coins. A string generally consisted of one thousand coins strung together by a cord through their square central holes, but that thousand could be varied according to the province and the commodity being purchased. Larger transactions commonly employed gold, silver or bales of silk, of course, but cash coins were essential to the peasantry, and a contented peasantry made for a peaceful and governable empire. {1-5}

Chinese History to the Northern Song Dynasty

From Neolithic roots, a complex bronze age civilisation arose on the north China plain soon after 2000 BC, one characterized by writing, metal-working, domestication of the horse, class stratification and a political-religious hierarchy ruling a larger area from a cult centre. Of the earlier Xia dynasty there is no certain archeological evidence, but the

Shang dynasty (c. 1700-1046 BC) may have ruled from five successive capitals, and certainly employed religion and ritual to back its military supremacy. Around 1050 BC, the Shang were overthrown by the Zhou dynasty (1045-256 BC), which in turn fragmented in the Spring and Autumn period (771 to 476 BC) into rival states. The elaborate chivalry with which Zhou warfare was first conducted descended into blood-soaked barbarism in the following period of the Warring States (403-221 BC), only ending when the Qin finally overcame its rivals and created China's first empire in 221 BC. The emperor Shih Huangdi imposed a centralised uniformity throughout the country, in currency, writing and administration, but is remembered less as a statesman than as a ruthless tyrant who met criticism with summary execution, moved hundreds of thousands of prominent families from the provinces to his capital at Xianyang, burnt books that were not simply practical manuals on agriculture, medicine or divination, and subjected millions to hard labour in constructing his palaces and the Great Wall. {6-11}

The first empire fell apart on the death of Shih Huangdi but was followed by the joyous and outward-looking Western Han dynasty (206 BC- 220 AD). The arts flourished, Chinese suzerainty was extended to central Asia, and the examination system introduced to select and train administrators. {6} The Han dynasty was founded by Liu Bang (temple name, Gaozu), who assumed the title of emperor in 202 BC. Eleven members of the Liu family followed in his place as effective emperors until the dynastic line was challenged by Wang Mang, who established his own regime under the title of Xin until AD 25. The Eastern Han dynasty continued with Liu Xiu (posthumous name Guangwudi), and thirteen descendants who ruled until 220, when the country split into three separate kingdoms. Chang'an (modern Xi'an) was the capital of the Western Han empire, and Luoyang of the Eastern Han. {6-11}

From the disorders and many rival states and kingdoms that followed the collapse of the Han dynasty rose the splendid Tang dynasty (AD 618-907), renown for its poetry and extension of the examination system. The structure of the new central administration resembled that of Wendi's time, with its ministries, boards, courts, and directorates. Local government in early Tang times had a considerable degree of independence, but each prefecture was in direct contact with the central ministries. In the spheres of activity that the administration regarded as crucial — registration, land allocation, tax collection, conscription of men for the army and for corvée duty, and maintenance of law and order — prefects and county magistrates were expected to follow centrally codified law and procedures, but could interpret the law to suit local conditions. {6-11}

In the succeeding Song Dynasty (960-1279) — shrinking to the Southern Song when the north was lost to Jurchen tribesmen — Chinese society reached its apogee of wealth and refinement. Its founder, Taizu, stressed the Confucian spirit of humane administration, and reunified the whole country. He took power from the military governors, consolidating it at court, and delegated the supervision of military affairs to able civilians. A pragmatic civil service system was the result, with a flexible distribution of power and elaborate checks and balances. Each official had a titular office, indicating his rank but not his actual function, a commission for his normal duties, and additional assignments or honours. Councillors controlled only the civil administration because the division of authority made the military commissioner and the finance commissioner separate entities, reporting directly to the ruler, who took the important decisions. In doing so, he received additional advice from academicians and other advisers who provided separate channels of information and checks on the administrative branches. Similar checks and balances existed in the diffused network of regional officials. The

empire was divided into circuits, which were units of supervision rather than administration. Within these circuits, intendants were charged with overseeing the civil administration. Below these intendants were the actual administrators. These included prefects, whose positions were divided into several grades according to an area's size and importance. Below the prefects there were district magistrates (subprefects) in charge of areas corresponding roughly in size to counties. {6-11}

Song Economic Life (960-1279 AD)

Readers who imagine that no alternative exists to capitalism, should consider Song China, incomparably the richest, most diversified and best-governed economy of its time. China trade stretched across the world: to islands in the south-east Pacific, to India, to the Middle East and to east Africa. The ships were large, stoutly constructed and employed maps and compasses. Wealthy merchants and landowners strove to educate their sons for entry into government service, the upper echelons of which were lavishly rewarded. Industry was equally dynamic. Per capita iron output rose six-fold between 806 and 1078, and China may have been producing 125,000 tones/year by 1078. Copper sufficient to cast 6 billion cash coins/year in 1085 came from numerous small mines, of which some fifty alone were shut down between the years 1078 and 1085. {23} All mining, smelting and fabrication of iron, steel, copper, lead, tin and mercury were government monopolies, though some competition was later allowed the private sector, with beneficial results. Coal replaced charcoal as the country was stripped of its forests. Steel was used for armour, swords, spears and arrowheads, but most went into agricultural implements, notably the plough. Cotton was grown in central China, tea and sugarcane plantations increased, and Suzhou became famous for its silk production. Towns and cities saw a bustling commercial life. There were 50 theatres alone in Kaifeng, four of which could entertain audiences of several

thousand each. The pleasure districts — where stunts, games, theatrical stage performances, taverns and singing girl houses were located — were packed with food stalls that stayed open virtually all night, and there were also traders selling eagles and hawks, precious paintings, bolts of silk and cloth, jewelry of pearls, jade, rhinoceros horn, gold and silver, hair ornaments, combs, caps, scarves, and aromatic incense. {12-18}

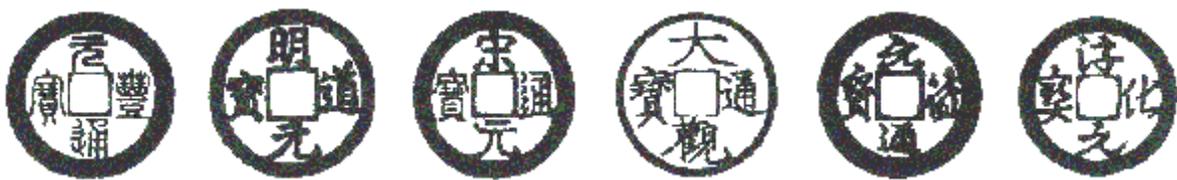
The government set social norms by defining crimes and their punishment; it anticipated crop failures and provided relief measures; it encouraged hygiene, public medicine and associated philanthropies; it recruited and tested public officials; it constructed and maintained roads, canals, bridges, dikes, ports, walls and palaces; it manufactured matériel and armaments; it managed state monopolies and mines and supervised trade. The numbers were large. In a population reaching 120 million, over 1 million belonged to the army and some 200-300,000 registered as civil employees (of whom 20,000 were ranked as officials). Most taxes were paid in kind, but payment by money increased throughout the dynasty, probably reaching a quarter to a third of the government's revenues. Larger transactions employed silver ingots and bolts of common silk cloth, and merchants issued notes of credit, at first privately but soon taken up the government. Factories were set up to print banknotes in the cities of Huizhou, Chengdu, Hangzhou, and Anqi, and were often large: that at Hangzhou employed more than a thousand workers. Issues were initially for local use, and were valid only for 3 year period. That changed in late Southern Song times when the government produced a nationwide standard currency of paper money backed by gold or silver. Denominations probably ranged from one string of cash to one hundred strings (each of a thousand coins odd). {12-18}

The Song was not a military state, but the army was large and well-trained, latterly in new techniques. The Song could

also put to sea a formidable navy. Nonetheless, it was diplomacy that China traditionally preferred, binding surrounding powers by treaty and tribute systems. That statesmanship went sorely amiss when the Northern Song allied themselves with the Jurchen tribesmen to conquer the threatening Tibetan Liao dynasty in 1125 (shown as Western Hsia in the map above). When the Song quarrelled over the division of spoil, the Jurchen promptly invaded northern China, and took the young emperor, his father Huizong and most of the court into captivity. Though they were never released, ending their days staring at forests and wild tribesmen, a scion of the family did evade capture to found the smaller Southern Song state. The Jurchen occupied northern China as the Jin regime, which gradually became sinicized. The reduced Song made Hangzhou its capital, when court life regained its old splendour and sophistication. All three kingdoms — the Liao, the Jin and the Song — were eventually overrun by the Mongols, who founded their own Chinese dynasty, the Yuan, in 1279. {12-18}

Northern Sung Calligraphic Variations

Cash coins of the Northern Sung dynasty employed six styles of calligraphy:



Seal Script Orthodox Clerkly Slender Running Grass
Script Orthodox Orthodox Gold Hand Writing



All these calligraphic types show variations that can run into many tens or even hundreds per issue. Those illustrated above are one cash coins of the Emperor Hui Zong (1101-

25) and read Shen Song yuan bao (i.e. the reign name of the 1101-06 period) in running script. Gorny {19} lists only 10 varieties, but the author's collection had 35. The variations probably represent mint controls, each indicating a particular mint and year, but the details have been lost. {2}

The cash coins of the Southern Song are a more regular series, though sometimes less well made. The emperor used the one period title throughout. The year of the reign and sometimes the mint are shown on the reverse. The previous calligraphic variations are much reduced or absent.

Chinese Calligraphy

Confucians stress the personal qualities in correct behaviour, and this is no better reflected than in calligraphy, which is held in the highest regard — in everyday correspondence, in official documents, in painting and coinage.

The earliest logographs (used in the Shang, but originating in the late Neolithic Longshan culture of 2600-2000 BC) were engraved on the shoulder bones of large animals and on tortoise shells. This jiaguwen (oracle bone script) was followed by a form of writing found on bronze vessels associated with ancestor worship and so known as jinwen ('metal script'). That bronze script became universal when China was unified in the 3rd century BC. Xiaozhuan ('small seal') script followed, characterized by lines of even thickness and many curves and circles, and probably developed to meet growing demands for record keeping. Each word tends to fill up an imaginary square, and a passage written in small-seal style has the appearance of a series of equal squares neatly arranged in columns and rows, each of them balanced and well-spaced. Because this small seal script cannot be written quickly, a fourth style was devised: the lishu, or official style. Squares and short straight lines predominate, but vary in thickness. To allow for artistic variation, a fifth style gradually evolved: the zhenshu or

regular script, which is still used for books and government documents. Finally, in the xingshu, or running script, even these controls were relaxed, and the Northern Song coinage in particular displays a wide range of individual hands, often beautiful and verging on abstraction.

For millennia calligraphy has been an art form. The combination of technical skill and imagination, acquired by laborious practice, must provide interesting shapes to the strokes and create beautiful structures from them without any retouching or shading. Most important of all, there must be well-balanced spaces between the strokes. The fundamental inspiration of Chinese calligraphy, as of all arts in China, is nature. In regular script each stroke, even each dot, suggests the form of a natural object. As every twig of a living tree is alive, so every tiny stroke of a piece of fine calligraphy has the energy of a living thing. Printing does not admit the slightest variation in the shapes and structures, but strict regularity is not tolerated by Chinese calligraphers. A finished piece of fine calligraphy is not a symmetrical arrangement of conventional shapes but something like the coordinated movements of a skillfully performed dance — impulse, momentum, momentary poise, and the interplay of active forces combining to form a balanced whole. {42}

Chinese Use of Paper Money

Cash coins are cumbersome, and required large quantities of copper, lead and zinc. In 1073, for example, the Northern Song issued some six million strings of cash, each containing a thousand coins. The Northern Song alone issued over 200 million strings of coins, many of which found their way to inner Asia, Japan, and south-east Asia, where they often became the preferred coinage. China had numerous copper mines in Yunnan {1} and elsewhere, but the output was small, and overseas supplies never to be counted on. Cash also leaked across borders in small

trading transactions, for all that iron, and sometimes lead, coins were issued in peripheral provinces, and exotic imports largely balanced by the demand for Chinese silks and ceramics. Metal was also lost through the practice of burying coins with the dead to pay their passage to the other world. {23-24}

Paper notes were therefore replacing cash in burials in the 6th century, and bearer notes (hequan) began to be used by merchants for long distance trade in later Tang times: traders deposited valuables with corporations and were issued bearer notes that could be redeemed as needed. The authorities were not slow to extend the idea, and merchants were encouraged to deposit metallic currencies with the Government Treasury in exchange for official 'compensation notes', called fey-thsian or flying money. Indeed the continuing metal shortages, and the sheer volume of cash coins required for a booming economy during the Song dynasties, obliged the authorities to issue notes, which became a government monopoly in 1024. Paper money also overcame problems of local and incompatible currencies, though it led to further flights of metal overseas. Prices were quoted in paper money terms, which caused price inflation at times, particularly in the Southern Song, when it became profitable to melt down cash to make copper utensils and musical instruments. {26}

Generally, at least in Northern Song times, the paper currency was fully redeemable and the experiment was a success, indeed was vital in avoiding the deflationary effects of metal shortages. During the following Yuan dynasty, however, coin output was small, or its use even banned, and paper money made the only legal tender. Because these issues of the paper money were nation-wide, however, and were not backed by metal, there were continuous crises of confidence and periods of rapid inflation. {2, 26}

Inflation continued in the early Ming dynasty, and paper issues were suspended in 1450, although notes remained in

circulation until 1573. Only in the very last years of the Ming (1643-4), when the capital was threatened by the Manchu, was paper money reissued. Generally the Ming used a private system of currency for important transactions. Silver, originating overseas, began to be used as a currency in Guangdong province, and from there the custom had spread to the lower Yangtze region by 1423, when it became legal tender for payment of taxes. All provincial taxes had to be remitted to the capital in silver after 1465. Salt producers had to pay in silver from 1475, and then corvée exemptions from 1485. Silver was supplied by overseas trade, being mined in Europe and the New World, and thence making its way in complex network of transactions across Europe and Asia, or more directly from Spanish possessions in the Philippines. This silver was not minted, however, but cast as ingots (sycee or yuanbao) weighing a nominal liang (about 36 grams) although purity and weight varied from region to region. {2, 26}

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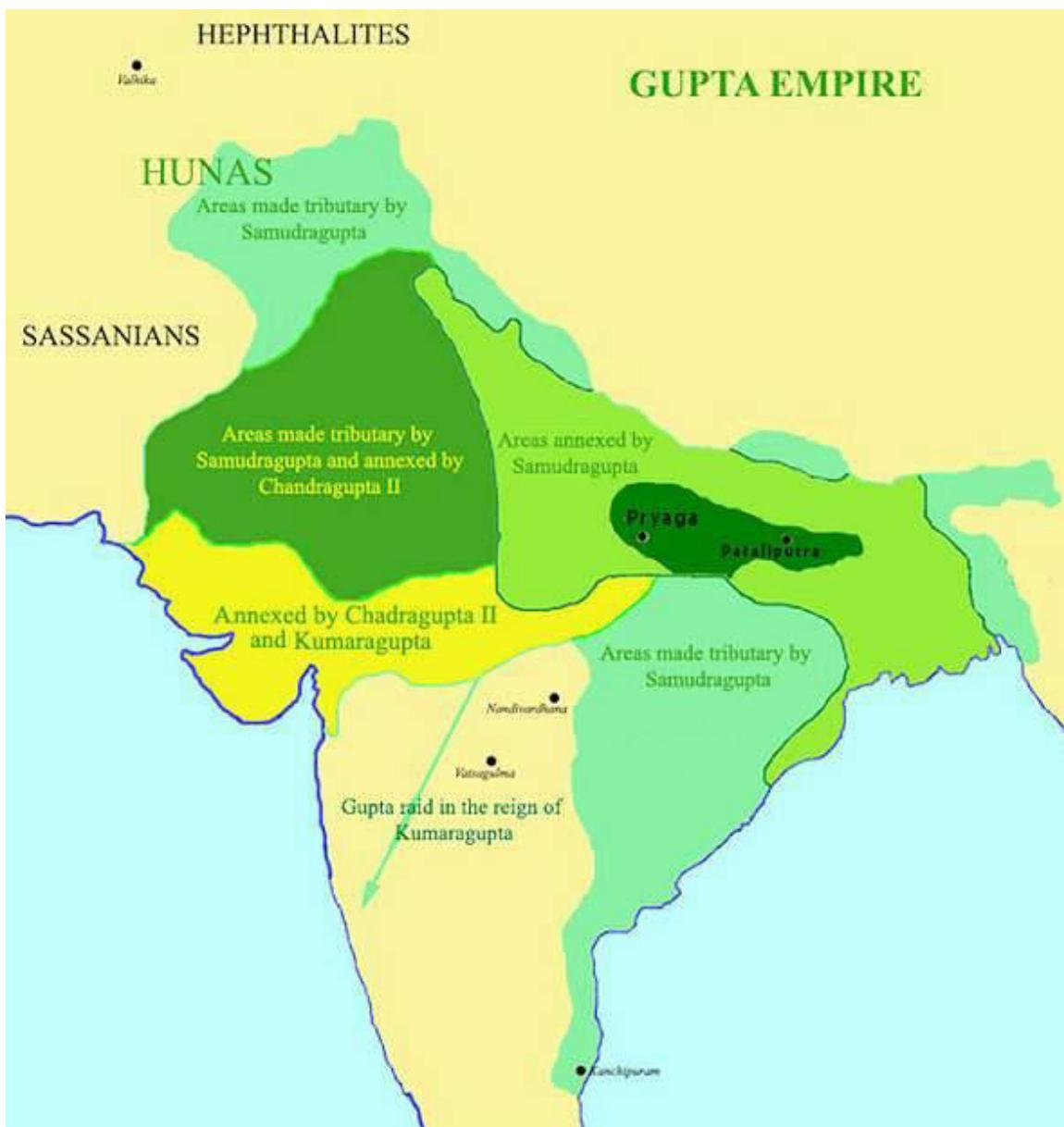
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14. Medieval India



The Guptas

The 500 year period between the collapse of the Mauryan empire in 185 BC and the rise of the splendid Gupta empire saw many small kingdoms war with each other in northern India. But when Chandragupta I ascended to the throne in AD 320, he revived many principles of Mauryan government and paved the way for his son, Samudragupta, to create an extensive empire. The Gupta empire was not marked by enormous material wealth or extensive trade, but by its creativity. The visual arts, architecture, literature and scholarship flourished under Samudragupta's successors. Chandragupta II gave great support to artists and craftsmen, actually paying for their work — unusual in ancient civilizations. Nalanda University was founded, Kalidasa

wrote his great poetry, and the scientist Aryabhatta surmised that the earth was a rotating sphere, calculating the solar year to within 3 hours of its correct value. Narrative histories, religious and meditative thought, and lyric poetry emerged to enrich, educate, and entertain the people. Scholars wrote essays on subjects ranging from grammar and medicine to mathematics and astronomy. The Ajanta Caves in southern India are world famous, and are matched by magnificent architecture and sculpture elsewhere. The Gupta rulers practised Hindu rituals and religions — they were Vaishnavas — but there was widespread religious freedom: statues to Buddha and Shiva also appear. The empire weakened under White Hun invasions, and disappeared altogether around AD 550. {1-5}

The Gupta era produced the decimal system of notation and made advances in metallurgy. Their gold coins, the first characteristically Indian on the sub-continent, are particularly attractive. They were called the dinara after the Roman denarius aureus — a reflection of Indian trading contacts with the west and the export of Roman coinage as bullion to India. The Guptas probably obtained the gold and minting skills from Kushan, Roman or Byzantine sources, though their style is very different. {1-5} The artistic excellence lies in the images of rulers and deities depicted, their vitality and fluid exuberance rather than their Brahmi script, which is often blurred and/or off the flan. {6}

Changragupta II

Under Chandragupta II (c.380-c.415) and his immediate successors, the Gupta empire reached its height of prosperity. The Chinese traveller Faxian (337– c.422 AD) noted the absence of capital punishment, of land or poll tax, and that citizens seemed to emulate each other in the practice of virtue. Rest houses were provided for travellers, and the capital (Ujjain) had an excellent hospital. {7}

By marriage and conquest, Chandragupta II expanded his empire to Kashmir in the west and Orissa in the east. The Western Kshatrapas were taken into the empire, and the marriage of his daughter brought Vakataka realms into Gupta control. {7}

The Guptas issued a lavish gold coinage, and Chandragupta II both continued his father's designs and added several new types, such as the Horseman type and the Lion-slayer. After conquest of the Western Kshatrapas (Gujarat), Chandragupta II also issued silver coins — small pieces for the convenience of peoples he had conquered, based on the previous design but replacing the reverse three-arch-hill by the Gupta garuda symbol. {7}



Gupta Empire. Chandragupta II (375-415 AD) Au heavy gold dinar. 8.25 g. Obverse: king in tribhanga position with the bow and arrow and wearing a cholaka (an ancient warrior's uniform modified from a Kushan version) and short, tucked dhoti. Sash whip is tied to waist. Chandra under left arm. Legend (off flan): Devasrimaharajadhirajasri Chandraguptah.



Reverse: Goddess Lakshmi seated on lotus, holding a lotus in one hand and a diadem in the other. Legend (in Brahmi): Shri Vikramah. (Reverse variety N). {2}

Agriculture was the basis of the Gupta Empire, but that agriculture was supplemented; by crafts on a semi-industrial scale and trade with China and Byzantium, all activities being greatly aided by ready loans provided at reasonable rates by Buddhist monasteries. Merchants and other traders were organised into guilds, to which were assigned certain rates of tax. Textile weaving flourished, including silk, muslin, calico, linen, wool and cotton goods, some of which were exported. {5}

Many crafts were also note-worthy: ivory working, stone-cutting, the carving of jasper, agate, quartz, carnelian, lapis-lazuli and similar semi-precious stones. Craftsmen also fashioned articles in gold, silver, copper, iron, bronze and lead. While pearl fishing was popular, pottery was far more important. {5}

Following the conquest of Gujarat, the Gupta rulers also minted silver coins, plus some uncommon lead and copper issues. Trade extended to China (silk), Ceylon (spices) east Africa (ivory), Byzantium (precious metals) and other European countries. The Gupta is often called 'the golden age', and like the Mauryan before it (and the Han dynasty of China), the country was at peace and open to the free flow of commodities, skills and ideas. {5}

Ajanta, Ellora and the Bagh cave paintings show the popularity of Buddhist philosophy, but each centre has its distinctive style. Elegance is characteristic of all, however, which is also evident in its coinage. {5}

Art and Coinage

Chandragupta I minted gold coins showing a king and queen on the obverse, and a goddess atop a lion on the reverse. Samudragupta issued gold coins in six different types, and just possibly copper coins in two types. Chandragupta II struck eight types of gold coins (standard, archer, lion-slayer, crouch, king and queen on couch, horseman, chattra and chakraviikrama) and then small silver coins based on those

of the Western Kshatrapas that he had conquered. After that conquest he seems to have minted lead coins, and some nine types of copper coins. Kamaragupta I continued the Gujarat silver types, and expanded the gold types to fourteen (archer, lion-slayer, chhara, tiger-slayer, asvamedha, lyrist, king and queen, karttiker, swordsmen, elephant-rider, elephant-rider-come-lion slayer, rhinoceros-slayer and apratigha). There were eight or nine different copper coins, and lead pieces that were round, square or rectangular. Skandagupta's issues in lead, silver and gold are much more restricted in types, which may indicate troubled times. Coins of the later Gupta were poorer in types, in execution and in gold content (falling from 70% to 50%). {9}

The gold pieces of Samudragupta, Chandragupta II and Kumaragupta I have the greatest claim to be numismatic works of art. The royal male figures, like their counterpart on Indian temples of the period exude muscular strength and vitality. The female forms, queens or deities, have soft, graceful and slender appearances, and though the legend is often blurred or off the flan, the individual letters tend to be part of the design, i.e. be aptly placed. {9}

In short, the gold coinage promotes the divine nature of the Gupta rulers, reflecting the well-known literary idea of 'God dwelling on earth'. Though they allowed other religions to flourish, the Guptas were careful to reflect their Vaishnava faith on coin reverses. Neither the Buddha nor Mahavira appear, only divinities associated with the Vaishnava and Sakti sects. Particularly telling are the deities associated with the Ganga and Yamuna rivers, which ran through Gupta territories. As is common in India, many of the figures show syncretism, a blending of features taken from different religions or sects. Artistic quality always depended on the skills of local die-cutters, but quality falls off after Skandagupta, the figures becoming stiff and mechanical,

suggesting that art reflected the material prosperity of the empire, {9}

Divine Kinship

Reverses of Gupta coins depict the preoccupations and duties of the Gupta kings: leading armies, attending the appropriate rites and ceremonies, honouring their ancestors and hunting. There is no depiction of the everyday activities of their subjects because such matters were irrelevant. Kings were not ordinary mortals, not the 'first among equals' but elevated, semi-divine beings. Nonetheless, the individual qualities of the kings could be alluded to: their musical accomplishments or skills in the hunt.

The silver and copper issues are much more utilitarian, and respect the traditions of the conquered peoples. Chandragupta's silver coins are modelled on the previous issues in Gujarat, and there are equivalent (but rare) silver issues for the eastern parts of the empire where a peacock has replaced garuda. As always, coinage serves several purposes, but here a cleavage is apparent. The gold issues celebrate the Gupta kings. Issues in other metals serve practical purposes and emphasize social continuity.{8-9}

Post-Gupta India

Much of India went back to a patchwork of small states between the eighth and twelfth centuries: largely self-supporting villages that were centred on a local court and/or religious centre. {22} There were periodic attempts to found small empires — Pratiharas, the Palas and the Rashtrakutas in the north, and the Cholas in the south — but Sind fell to the Arabs in the eighth century, and within two centuries various Turkic tribes had conquered parts of north and western Asia, setting up sultanates with a strong Persian culture. In the late twelfth century appeared new Turkic invaders, who created the Delhi Sultanate in northern India and came close to conquering the whole country. The Sultanate fragmented in the fourteenth century, and several

kingdoms took their place: the Bahmani and Vijaynagar kingdoms indeed became very powerful.



Gupta Empire Au dinar (7.62 g; 20 mm). c. 335-380 AD. Ashvamedha type. Obverse Sacrificial horse standing and facing left before pedestal with filleted yupa post, from which flutters a banner. "si" on footstool below.

Gupta Empire Au dinar (7.67 g; 18 mm). Chandragupta II 375-414 AD. Obverse: King riding horse facing right. Holds a bow above the horse's head and a whip by his side. Reverse: Goddess Lakshmi, nimbate, seated left on wicker stool, holding diadem and lotus. {4} Reverse: queen, not nimbate, standing left on lotus-form mat, holding chouri (fly whisk) and cloth, suchi (filleted spear) before her. Brahmi legend right: Asvamedhparakrama.. {3}

Gupta Empire Au dinar (7.67 g; 18 mm). Chandragupta II 375-414 AD. Obverse: King riding horse facing right. Holds a bow above the horse's head and a whip by his side. Reverse: Goddess Lakshmi, nimbate, seated left on wicker stool, holding diadem and lotus. {4}

Gupta Empire Au dinar (7.80 g) Chandragupta II 375-414 AD. Lion-slayer/retreating type. Obverse: King standing with head facing left and legs apart. Long sash to belt and holds arrow in left hand. Thrusts bow in right hand towards fleeing lion. Reverse: Goddess seated on lion walking right. She holds a lotus flower in raised left hand and a riband in her right. Sinhavikramah at right, tamgha above left. {5}

New crafts, trade routes and technologies were introduced by these invaders, as they were when the Mughals in turn conquered and largely united the country. The sultanates

were Islamic trading states, who brought their coinage and banking methods with them, but the indigenous states were less monetised.

But commerce did not disappear. Accounts — of loans, mortgages, contracts and interest rates applying — were still kept, though payment was often in kind. The largest lenders were monasteries and temples, which were lavishly maintained by 'perpetual endowments'. Coinage largely disappeared, but not the treasuries of gold and temple goods, which provided the backing for loans of animals, wheat, silk, butter and fruit. Nor were the terms generous. Brahmins commonly paid 2% per month, and Sudras 5% a month. Since sons and grandsons inherited debts, these were quite sufficient to ruin families and reduce land-owners to debt peonage. As in Europe and China, secular rulers needed few excuses to seize the treasuries when financing their incessant wars. {14}

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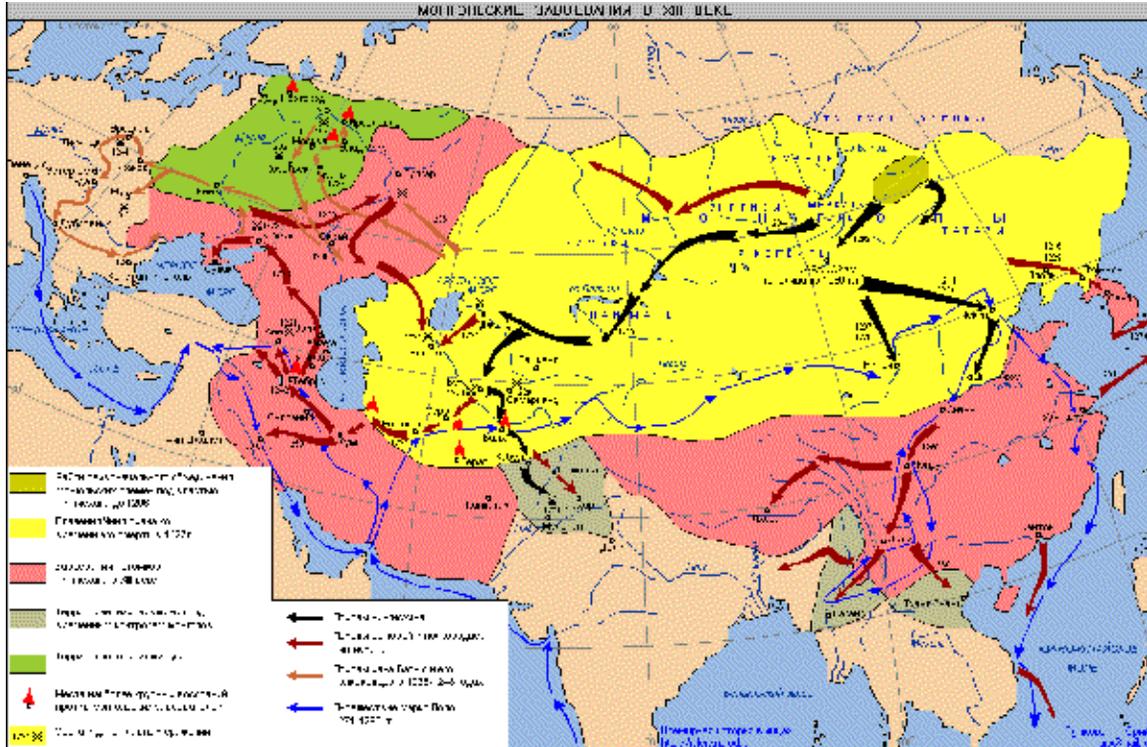
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15. Mongol Empire

Mongol Conquests



By raids, treaties, invasions and annihilation of resisting states, the Mongols created the largest land-based empire of all time. Once established, the Mongol Empire facilitated trade across Asia, and allowed Europeans contact with the more prosperous and materially advanced nation states of south and east Asia, but the initial consequences were horrific slaughter and the spread of bubonic plague. {1-4}

Genghis Khan first unified the Mongol and Turkic tribes, absorbed the Uighur Qocho kingdom, and then conquered the Qara Khitai and Khwarazmian dynasty. Cities were given an uncompromising ultimatum: submit or be destroyed. The only states to successfully resist Ghengis and his descendents were the Mamluks of Egypt, who defeated a young and inexperienced Mongol commander at Ain Jalut in 1260, and the kingdoms of Java and Japan. All otherwise were subdued, often with near-total loss of life: Bukhara (1220), Yinchuan of the Western Hsia (1227), (1258), Kiev (1237), Hungary (1241), Baghdad (1258),

Xiangyang (1270), Vijaya of Champa (1282) to mention only a few. The endurance and speed of Mongol cavalry, exhaustive military intelligence, tactical battlefield skills and the siege tactics they gradually acquired made the Mongol advance unstoppable, and much of Europe was saved only by the return of Mongol leaders for the kurultai on the death of Ögedei Khan in 1242. {1-4}

The Ilkhans (1255-1353)



Ilkhanid: Baydu (1295). Ar Dirhem. Minted Tabriz in AH 694 AH. Weight: 2.54 gm. Diameter: 22mm Album 2165, Diler BA-250.

Obverse: in Mongolian: Qaghanu / nereber / Baydu-in / deledkegölüg. (Of the Great Khan / in the name / of Baidu / caused to be struck).

Reverse: Kalima in ornate kufic Arabic within square: la illah illa / Allah Mohammad / rasul Allah. (There is no God but / Allah. Mohammad /is the messenger of God.) Zuriba Tebrez (Struck in Tabriz) in outside corners. { 9-12}

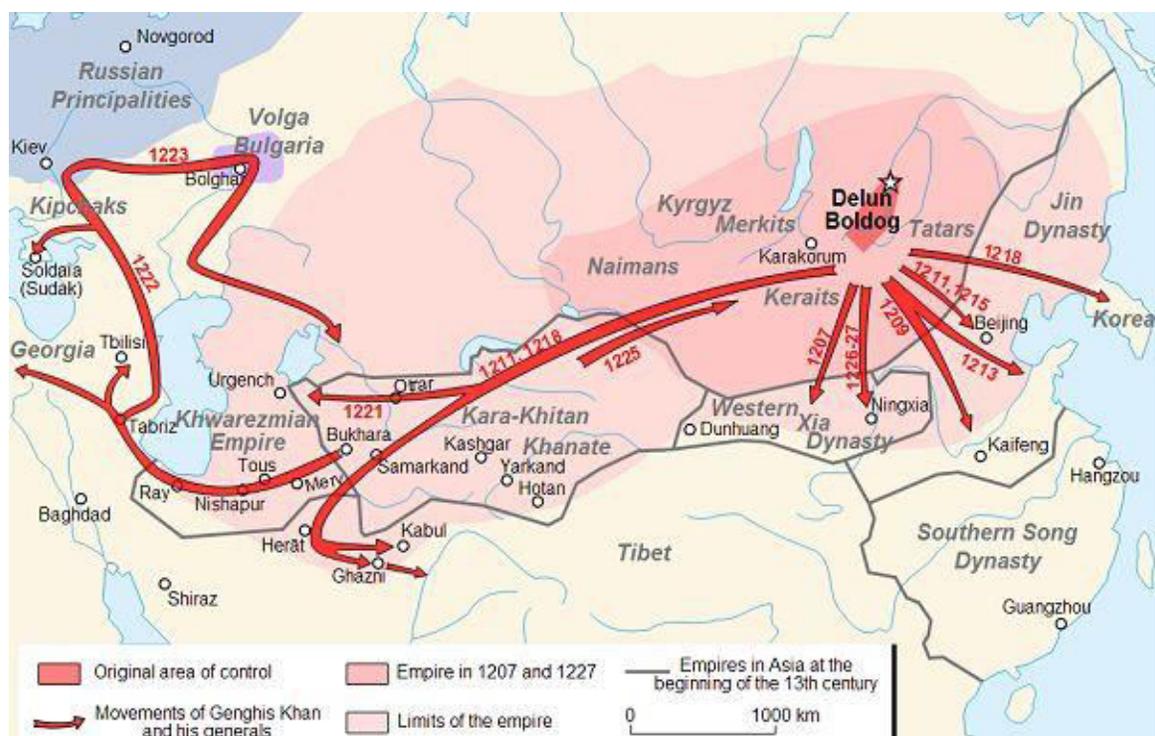
The Mongol Empire split into four khanates after its founder's death. The Ilkhanate centred on Persia but included present-day Iran, Iraq, Afghanistan, Turkmenistan, Armenia, Azerbaijan, Georgia, Turkey, and western Pakistan. The founder was Hülegü Khan, grandson of Genghis Khan, who conquered Baghdad and ended the Abbasid caliphate in 1258. The Mongol advance was checked by the Mamluks at Ain Jalut in 1260, however, and, after widespread devastation, the Mongols settled to rule their territories, eventually giving prosperity and a cultural renaissance to the

region. The Mongols were initially shamanists, then Buddhists and finally, under Ghazan, converted to Islam. Though the Mongols practised religious tolerance, Christian and Jewish subjects lost their equal status with Muslims, and again had to pay the poll tax. Buddhists were obliged to convert to Islam or face expulsion. Ghazan fought the Mamluks for Syria, and his brother Öljeitü conquered Gilan on the Caspian coast, where his magnificent tomb in Soltaniyeh remains the best known monument to Ilkhanid rule in Persia. Hostilities thereafter were minor, and efforts to find European allies in the war against the Mamluks came to nothing. The khanate disintegrated rapidly after Abu Sa'id's death in 1335, splitting into several rival successor states, most prominently the Jalayirids. The last of the Ilkhan pretenders was assassinated in 1353, and Timur later included the Jalayirids in his own empire. {5-8}

A unified Mongol Empire furthered trade and commerce across Asia, which was much helped by the Mongol dynasty established in China. Movements of people, commodities, and ideas across Asia benefited both countries, particularly in cartography and astronomy, medicine, agriculture, textiles, food, and printing. Crops were introduced from the Islamic world into China, and culinary influences went in both directions. Hülegü supported the Shi'ite savant Nasir-al-Din in the construction of an astronomical observatory at Mara'a, and surrounded himself with scholars from different religions and cultures. The massive palace complex at Takt-e Solayman built during the time of Abaqa was lavishly adorned, and the later Ilkhans combined Islamic and Mongol motifs on coins, inscriptions, building projects, letters, and orders. Ghazan Khan made important agricultural and fiscal reforms in the 1295-1304 period. Persian historians moved from writing in Arabic to writing in their native Persian. Independent of Europe, the rudiments of double-entry book-keeping were practised under the Ilkhanate, and this 'merdiban' was then adopted by the Ottoman Empire.

Finally, the Ilkhanate renewed the concept of a Persian state, which gave credibility to the Safavids and ultimately the modern country of Iran. {5-8}

Conquest of China



The Western Hsia and Jin dynasties fell comparatively quickly to the Mongols but Song China put up a protracted and ferocious resistance. Kublai was elected great khan in 1260 but first had to cope with disaffected relatives. The Chinese terrain was unsuitable to cavalry warfare; the cities were strongly fortified, and the Song had a large navy. But Mongol armies were converging on Hangzhou by 1275, and the city fell the following year. The boy emperor was sent to Kublai, who had him brought up as a priest. Canton held out for another year, and the last of the Song pretenders was drowned by his attendants in 1279. {13-14}

Yuan Dynasty of China (1279-1368)

The Yuan dynasty largely took over the Song administration, but the examination system was discontinued. Promotion was no longer by merit, and indeed the Chinese found themselves at the bottom of society, beneath foreigners, Mongol citizens and members of the khan's extended family. Kublai was an exceptional able, wise and benevolent

ruler, but later emperors were more puppets controlled by rival Mongol factions. Some were drunkards or worse, though the administration, often staffed with foreigners, generally held firm. Southern China was in the hands of warlords after 1350, however, and the last emperor (who issued an extensive coinage, perhaps to give confidence to the peasant classes) sunk into debauchery and Lamaist bigotry. Insurrections proliferated, coalesced around the son of a poor farm labourer, and marched on Peking. Toghhan Temur and his court fled to Mongolia in 1368, and the strongly sinicized, inward-looking Ming dynasty had begun. {15-19}

Chinese historians do not remember the Yuan dynasty with much affection, but Kublai and his grandson (Temur Oljeitu) were effective and conscientious rulers. Kublai introduced a postal service, extended the Grand Canal, fixed prices and made provision for the poor and for times of hardship. The merchant class prospered, the country was more open to foreign influences, and entertainment popular with the lower orders came into prominence with novels and plays. {15-19}



Emperor Cheng Zong (Temur Oljeitu) 1294-1307

Ae One cash. Obv: Da De tong bao Rev: plain

(Hartill 19.29)

Coinage was restricted, however, and Yuan China generally used paper denominations, even for small transactions. Detailed records exist, but many matters are still unresolved: the relationship between two types of paper money (Exchange Certificates and Original Treasure Certificates), for example, the real exchange rate between copper cash, silver ingots and paper money, and whether there was indeed a consistent money policy at all. Coins were issued

sporadically in small quantities, often in iron as well, and then withdrawn, with heavy penalties applying to anyone still hoarding cash of any sort. Sometimes the bans applied to gold and silver usage too, though these were generally short-lived. Certainly there were periods of rapid inflation, which added to the peasant's hardships and then social unrest, but the common explanation that notes were over-issued and not backed by silver and gold reserves may overlook other factors: possibly increasing social chaos, military funding and a loss of confidence in fair and efficient government. {20}



*Emperor Wu Zong (Khaishan) 1308-11
Fe One cash. Obverse: Ta Uen tung baw in
Mongolian (Da Yuan tong bao in Chinese).
Rev: plain
(Hartill 19.44 var.)*

Unlike the Ilkhans, who converted to Islam, the Yuan Mongols did not identify with native customs. Coins issued by the Mongols did employ Chinese on occasion, however, so that there exist coins wholly in the Mongolian Phags-pa script, coins wholly with Chinese legends, and coins with both scripts, all issued in a great variety of coin sizes and calligraphic styles. Most of the pieces are scarce or rare, and badly cast, which makes deductions about their use rather hazardous. Peng Xinwei suggests that few of them actually circulated as money while Yuan government was effective, i.e. in the north of China. Matters were more chaotic in the south, however, particularly in late Yuan times, and peasants may well have used copper cash, probably hoarded Tang and Song pieces, which also flooded out of the country to be widely used in Java and Japan. {20}



Emperor Shun (Toghon Temur) 1333-68

Ae 10 cash.

Obv: Zhi Zheng tong bao



Rev: Shi (for ten)

Hartill 1915 var.

Diameter 42 mm.

There are also Yuan gold coins, probably not intended to circulate, and silver, which perhaps did. Silver indeed formed the measure of value, just as copper cash had in Song and Tang times, and measures of weight before. Silver was given as the khan's annual gifts to the imperial clan and their guards. Silver was used to purchase horses, and coins were minted depicting a man on horseback, or an animal to represent the Chinese year. Silver was also cast into ingots of 12, 25 and 50 ounces weight. More particularly, silver was used as a store of value, and a backing for the extensive paper currency. {20}

The Mongols began issuing paper money before completing the conquest of China, perhaps as substitutes for the Jin paper currency, which had entirely collapsed. Under Kublai, three kinds of paper money were issued: 'Original Treasure Exchange Certificates', 'Original Treasure Certificates' and Silver Money'. Relations between the first two are not clear, though the redemption price in silver and gold was stipulated. The third appears never to have circulated, and was therefore a measure of value only. Treasure Certificates were issued in quite small denominations: from 5, 10, 20, 30,

50 100, 200, 500 cash to 1 (probably 1000 coins) and 2 strings of cash. Monetary reform came in 1276, when the Mongols finally took control of the rich and populous region south of the Yangtze: pre-existing paper money and cash coins were recalled and replaced by paper money printed from copper plates. In 1309, Silver Certificates were issued for 13 denominations (from 1/1000 to 2 ounces of silver), and the ban on the use of older cash coins relaxed. The Emperor Wuzong died two years later, however, and these Silver Certificates were discontinued by the new Renzong emperor. Gold and silver was brought back into favour, provided it was not circulated as money or exported beyond China's borders. Policies changed again — this is only the briefest summary of Peng Xinwei's detailed accounts — in 1350 when one string of 'Zhizheng Certificates' were equated with 1,000 copper cash, or two strings of 'Zhiyuan Certificates'. Whatever might be said of the effects, the Yuan government did not issue paper money ignorantly, but clearly experimented to find the optimal arrangements. Indeed there were many monetary studies of a theoretical and practical nature, some with histories of Chinese money use. {20}

At the other end of scale, remote areas used commodity money: cowries in Yunnan, and salt bricks in the Xikang-Tibet region. A string of eighty cowries was worth 0.12 ounces of silver, where eight ounces of silver were worth one ounce of gold. But as the government took twenty cowry strings to be worth 0.1 ounce of gold for taxation purposes, exploitation of the peasant class was evident even here. {20}

Paper currency was also tried in Ilkhan Persia, incidentally, in 1294, and these certificates also bore Chinese characters: an illustration of the open nature of Mongol rule across Asia. {20}

Yuan coinage is even more complicated, much more than it is possible to summarize here, and students will need to consult one of the many cash coin catalogues. {21}

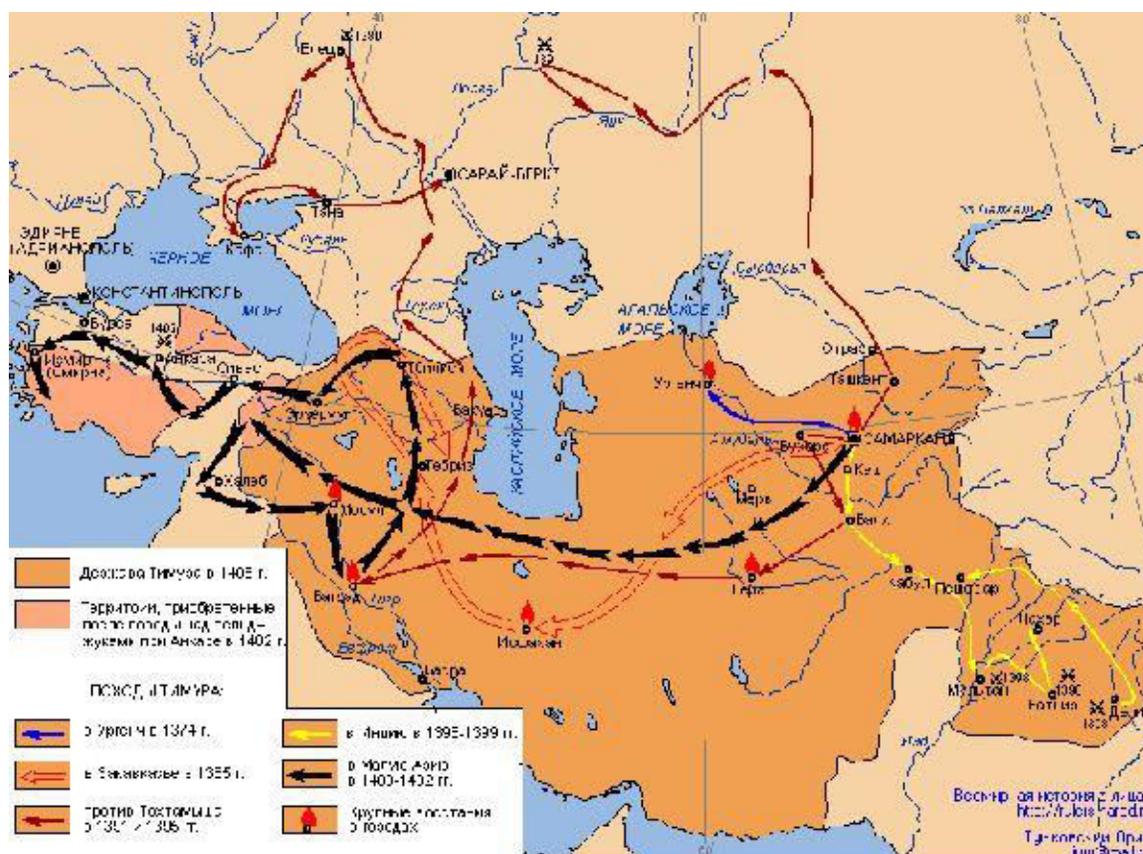
The Mongols initially issued paper money cautiously, mindful of Jin inflation (where, in 1234, reminiscent of Weimar hyperinflation seven centuries later, one hundred 'strings' of paper money were needed to buy one bowl of noodles). The first paper money was 100% backed by gold and silver reserves. Issues were gradually increased to meet the cost of war against the Song, but increased even further after victory, when copper coinage also was banned lest it prove more popular than paper money and cause paper money inflation. There were still wars to be fought overseas, however, and a black market operated for gold and silver, itself reducing the effective value of paper money. Expenditures were large. For the first seven weeks of 1287, for example, paper money to the tune of 500,000 ingots (25 million 'strings') was issued, i.e. ten times the annual issue of the tianboa era (Tang: 742-46 AD). Some 23 years into the Yuan dynasty, and paper issues were reaching 2 million silver ingots. The native Chinese found themselves hard pressed from both sides: from a depreciating currency and a several-fold rise in prices. As the dynasty continued to send its ships and armies abroad, there were rebellions in southwest China, which the government struggled to contain. Yet paper issues continued to increase, to the equivalent of 36 million ingots in 1310, for example. Later, in middle Yuan times, paper money was not only extensively counterfeited, but issued under private licence by individuals, who grew immensely wealthy but further undermined the system. Prices of food and drink in 1287 had risen several dozen times higher than those prevailing twenty years before. Salt, essential to an inland people, and from which the government drew much of its tax revenues, was 500 times higher in price than during Tang dynasty times. Adding to the chaos was a tendency to hoard money until paper money shortages reversed inflation, followed by a sudden divestment when it became apparent that the government would print even more: a flood of unwanted notes

immediately sent prices soaring. When famine struck north-west China in 1329, unscrupulous officials set their own redemption rates for 'Certificates'. {20}

And so it went on: as in the late Roman Empire, the army had to be paid. And Yuan China was always a military state, one imposed on the Chinese and to which they felt no loyalty. A Yunnan uprising in 1341 spread to over 300 locations. More 'Certificates' were issued. In 1348 Fang Guozhen rebelled in Taizhou, and in 1351 there were rebellions led by equally charismatic figures: Han Shantong, Lui Fatong and Xu Shouhui. The price of rice climbed still further, to 20 strings a picul, and a host of rebels appeared in the Yangtze and Huai regions. Huangzhou itself was attacked. The Yuan generals led their armies out, but these underpaid and demoralized soldiers deserted to the Red Turbans and other rebel groups. The country was then beyond governing, and the Mongol interlude was over. {20}

Conquest was in the Mongol blood, but the unremitting military expenditures led to hyperinflation, peasant uprisings and overthrow of the dynasty. As noted in the Wang Mang episode, an orderly currency denotes orderly government, and that need for order applies even today in western governments, obsessively so in post-industrial states. Unlike the Qing dynasty rulers, the Mongols did not identify with the ideals of a bureaucratic state, and this failure, which is reflected in their coinage, lost them effective government and then, in ninety years, the Mandate of Heaven. There are many ways of governing a country, each with their advantages and disadvantages, but all require confidence in their administrations and identity with their citizens' underlying beliefs.

Timur (1370-1405)



The Mongols were only one of the many steppe empires that have come and gone across the millennia. When well known to history it is generally because of attacks on neighbouring and literate states — by the Scythians, Huns, T'u-chuë, Uigur, Khitan, Mongolians, Timurids, Shaybanids, Golden Horde, Jagataites, Manchus — but some invaders also merged with conquered peoples to create important civilisations in their own right: the Seljuks, Sultans of Delhi, Mongolians and Manchus. {22}

Timur (known to us as Tamerlane) created the last great Asian empire. In 35 short years he conquered Persia, the territories of the Golden Horde, the Sultans of Delhi and the Ottomans, and was embarked on a conquest of Ming China when he died in 1405. Gradually reducing in size, Timur's empire was ruled by his successors, the Timurids: a dynasty of some intellectual and cultural brilliance, from which descended Babur, the founder of the Mughal Empire. Timur's passion was for architecture, but while he greatly embellished Samarkand, he also destroyed Khiva, Baghdad, Damascus, Delhi and host of other cities. {23-25}



Ar Tanka of Timur (771-807 AH / 1370-1405 AD

Obv: Sultan Mahmud Khan Amir Timur Gurkan Khalad Allah/ all around a circle, the word Hasbi Allah "God suffice me" in a circle. Timur cited as great Governor and Mahmud as overlord.)



Rev: Kalima in square Kufic pattern. (Album 2386 var)

The Timurids did not last long. The empire split into Transoxania and Persian sections in 1449, and decayed irretrievably into petty kingdoms during the 1451-69 reign of Abu Sa'id Mirzi. The reasons are obvious. Timur, and more particularly his successors, created a magnificent court that fostered Persian culture, but the empire was brutally conquered by the sword, had little coherence otherwise, and was largely administered by taxation. {23-25}

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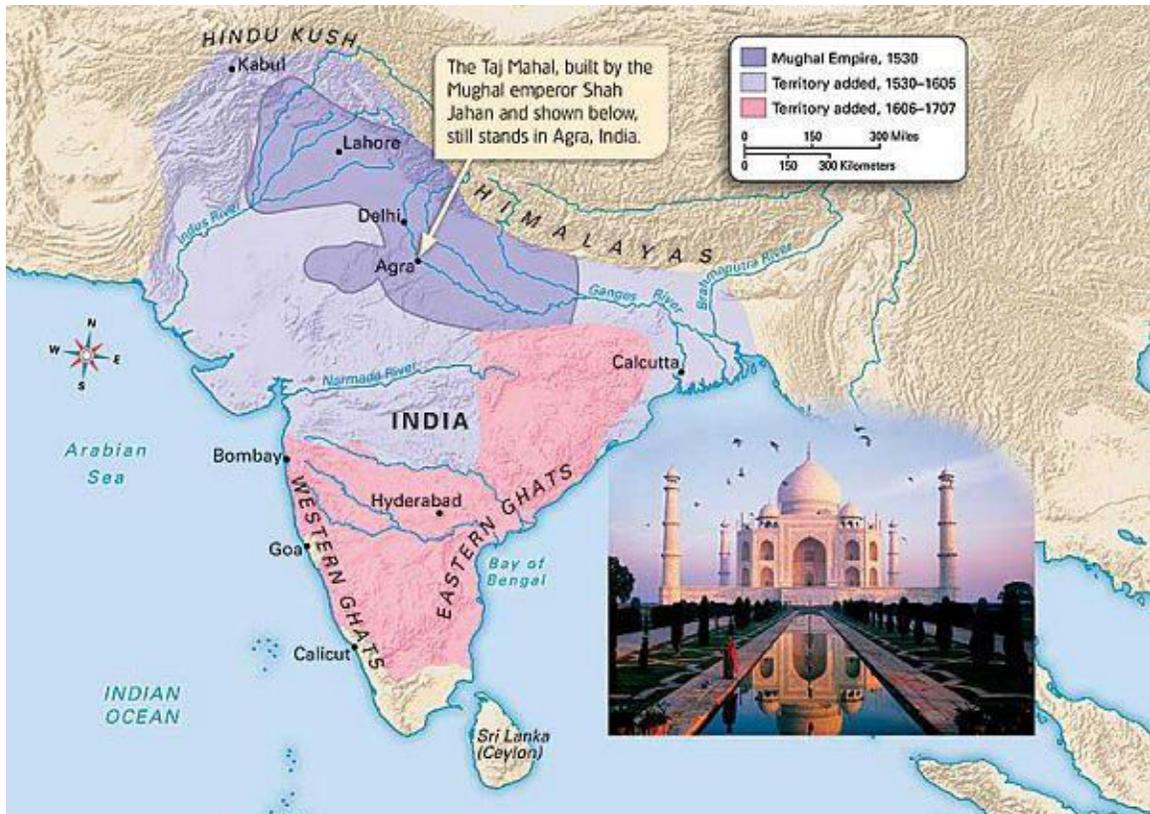
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16. Mughal India

Akbar Mohur: Alif Coinage



Babur 'the tiger', who descended from Timur on his father's side and Genghis Khan on his mother's, completed his long conquest of northern India in 1526, defeating the Delhi Sultan Ibrahim Shah Lodi at the battle of Panipat. His death four years later brought his much less competent son to power, and Humayan indeed lost the throne for 15 years to the Pashtun ruler Sher Shah Suri. A short year after regaining rule with Persian help, the luckless Humayan died from a fall down stairs, leaving a 13-year-old Mohammad Akbar as ruler of northern India.

Against the odds, the young man went on to defeat the Pashtuns, bring more Hindu regions under his control, and gradually gain ascendancy over the Rajput through diplomacy and marriage alliances. The emperor was illiterate, but nonetheless an enthusiastic patron of literature, poetry, architecture, science and painting. His religious tolerance, and habit of seeking wisdom from men of many

faiths and disciplines healed many of the dangerous divisions between Muslims and Hindus.



Akbar (1556-1605 AD), Gold Square Mohur, 10.81g. Urdu Zafar Qarin Mint, Alf (AH 1000), KM 112.4. Obverse: Kalima and invocations to the four caliphs in corners, i.e. lā illā Allah Mohammad rasūl Allah: bi-sudq Abī Bekr . bi-'adl 'Umat . bi-hayā 'Uthmān. bi-'ilm 'Alī



Reverse: khallad Allah te'ālā mulkahu / Mohammad Akbar alif badshah/ Jalā ed-dīn ghāzī / zarb Urdu Zafar Qarin (May Allah on high perpetuate his kingdom / Mohammed Akbar AH 1000 Emperor / Glory of the faith, warrior against the infidels / Struck at Urdu Zafar Qarin) {9-10}

His son, Jahangir, ruled in relative peace from 1605 to 1627, and was succeeded in turn by his son, Shah Jahan, who inherited a vast and prosperous empire. Yet prospects darkened just four years later when he lost his beloved wife, Mumtaz Mahal, and went into deep mourning for a year before commissioning the Taj Mahal in her memory. The throne was in turn seized by his third son, Aurangzeb, who executed his brothers and kept his father a close prisoner at Agra till the old emperor died in 1666.

The ruthless and authoritarian Aurangzeb brought Muslim rule to all but the southern tip of India, but his uncompromising brand of Islam lost Hindu support and initiated a three-year-long revolt by the Pashtun. With

Aurangzeb's death in 1707, the Mughal empire began slowly to disintegrate.

Peasant revolts and sectarian violence threatened the fabric of the state, and succeeding emperors fell under the influence of various nobles and warlords. As Mughal power waned, the British East India Company became more active, defeating the Nawab of Bengal and French interests at the Battle of Plassey and gradually assuming political control.

The later Mughal rulers held on to their throne and titles, but after the Indian Mutiny of 1857, the emperor Bahadur Shah Zafar was exiled to Burma, and the subcontinent came under direct British rule. {1-5}

Character of Akbar

More than any other ruler, Akbar (1542-1605) strengthened the empire by a combination of military assertion and political conciliation. {6-7} Afghanistan, Sindh, Bengal and further parts of India were brought into Mughal control, often with heavy bloodshed, but Akbar not only married princesses of conquered Hindu kings (which was traditional, and seen as a further humiliation) but elevated their fathers to court officials, giving them the same status as other Muslim relations. He did not require conversion to Islam, moreover and indeed abolished the poll tax on non-Muslims. In 1574, he centralised the tax system, separating tax collection from military services and instituting proper checks and balances. {6-7}

Akbar was an enthusiastic patron of the arts, and brought musicians, poets, artists, philosophers and engineers into his court. Under his eclectic tastes there developed the distinctive style of Mughal architecture, with its mixture of Islamic, Hindu and Persian elements. Coinage also became more distinctive: round or square coins with a firm but simplified calligraphy that is ornamented by dotted borders, floral motifs, quatrefoil and other devices. {6-7}

Akbar was made a shrewd judgement of character by dealing with the many officials, experts and religious leaders he needed to consult. Open discussion he welcomed, and that interest extended to religious affairs. In 1578 a mazhar or declaration granted Akbar the authority to legislate on religious matters, superseding the role of the mullahs. His goal was a multi-cultural and inter-religious state, but this 'decree of infallibility' was naturally resented by Muslims, and has been condemned ever since. Worse came in 1582, when he instituted a new cult, the 'divine faith' (Din-i-Ilahi), which incorporated elements from Islam, Hinduism, Zoroastrian around his own person as prophet or spiritual leader. {6-7}

Akbar died in 1605, from dysentery or poisoning. His successor, Jehangir, was favoured by the harem over Akbar's eldest son, and though he became somewhat addicted to women, opium and alcohol, proved a competent ruler, adding to his father's economic and cultural achievements and steering the empire through its numerous and sometimes murderous court intrigues. {8}

Names, Laqabs and Persian Couplets

Islamic coins make full use of their inscriptions, which carry echoes important to the community of the faithful. Individual Muslim names generally derive from one of three sources: from the names of the prophets and patriarchs mentioned in the Qur'an, from some relationship to God, e.g. Abdullah, the servant of God, or from the names of the Prophet himself, his family and companions. Additionally, each Muslim has a kunyat, which denotes a relationship: e.g. bin Ayyūb, son of Ayyub. Some rulers used a complex or 'artificial' kunyut: e.g. ābu-el muzaffar, father of the victorious one. Most rulers also delighted in laqabs: titles of honour, often of a religious nature. Thus the founder of the Ayyubid dynasty took the laqab salā ed-dīn, 'moral goodness of the faith', which the west corrupted into Saladin.

Persian was the literary language of the later Islamic courts, and the rulers of Iran, Afghanistan and India went further with their titlers and laqabs, placing scraps of Persian verse, or rhyming couplets, on their coins. {11} Thus, for example, appears *sikkah zad dar shehr Agra Khusrū gītiī panā / Shāh Nūr ed-dīn Jehāngīr ibn Akbar bādshāh* on a coin of Jehangir's — i.e. 'Money he struck in the city of Agra, did the Conqueror, the Refuge of the World, Shah, Light of the Faith, Jehangir, son of Akbar, Emperor'. {12-13}

The Millennium and Din-i-Llahi

Muslim rulers awaited the approaching millennium with mixed feelings. Perhaps the true faith would be tested by upheavals, or rejuvenated by another messenger or near-prophet. Akbar had more reason than most to feel optimistic: he ruled over an extended kingdom where his policies of religious toleration had brought widespread peace and prosperity. Always eclectic in his views, and open to new ideas, he had encouraged debates between the various religions in India, concluding after acrimonious exchanges that perhaps no one religion held all the answers. He was also drawn to the Nuqtawi philosophy, a Sufi sect that was monotheistic, spiritual and impatient with dogma, believing that human qualities could be transmitted across the generations, perhaps culminating in the birth of a unique person of Allah-like divinity. In 1578, Akbar proposed the Din-i-Llahi, or Religion of God, which as the ruler of a powerful empire made prosperous by his policies of toleration, he was supremely qualified to lead. The elements of the new religion were laudable enough. Din-i-Ilahi prohibited lust, sensuality, slander and pride. Piety, prudence, abstinence and kindness were promoted. The soul was encouraged to purify itself through a yearning for God. Celibacy was to be respected, moreover, and the slaughter of animals forbidden. No sacred scriptures or a priestly hierarchy were needed. But there was the strong suspicion that Akbar saw himself as the unique person,

which was wholly against the Muslim tradition of drawing truth from the careful study of Mohammad's teachings. Nor, of course, were the Hindus, Jainists, Jews or Christians any more welcoming to a religion based on the teachings of an obscure Sufi sect, one unsupported by established ritual or an officiating priesthood. {14-15}

Coinage was one way in which medieval rulers promoted their authority, and Akbar accordingly announced the new millennium by replacing the usual hegira date with the millennium of a thousand years, not shown as yak hazar but as alif (the first letter of the alphabet, i.e. the beginning). Moreover, as court accounts document, Akbar introduced the millennium in 990 hegira, ten years early, in line with Nuqtawi thinkers who saw the 10 year long astrological conjunction of Jupiter and Saturn as heralding a new age of 960 solar years. That, of course, would suppose Islam began in 612 CE and not with the flight to Medina, but Akbar was undeterred. Four years later, in 1582 CE, he introduced a new calendar, and renamed some of his mints as Urdu Zafar Qarin (camp associated with victory). However well intended — Akbar may have been experimenting with the pantheism of Ibn i Arabi, and attempting a social contract with his people based on the doctrine of absolute peace — these views were anathema to Moslem commentators, and though the empire remained at peace, the Religion of God won few adherents. {10, 14-15}

Nature of Religion

Before going further, we need to understand the intrinsic nature of religion. Western societies have largely separated church and state, allowing religious freedom, i.e. have consigned religion to matters of personal preference. Medieval states, east and west, were not so lackadaisical, however, and saw doctrine as critically important. Faith, doctrine and good works determined our fate in the world to come, and even men of outstanding liberal conscience

accepted the need to save souls from hell fires, by whatever means possible. If we truly believe in the afterworld — and millions still do, most certainly, even today in the 'sophisticated' west — how can we not prevent our fellow human beings from treading the wrong path to perdition? Do we not have an ethical responsibility to think deeply on such matters, and do the necessary?

Conversion is rarely effected by argument alone. God for adherents is an experienced reality, whether mediated by doctrine (Christianity and Islam) or more by prayer, ritual and practice (Greek, Roman and Hindu religions). Commitment to a religion involves the whole personality, of course, and change is not easily effected. Doctrinal differences are no doubt to be expected if we accept that God reveals himself through men of different cultural practices and intellectual casts of thought, and most adherents follow faithfully in the faith of their parents and community. Of those who change allegiance, not all undergo sudden conversion, many being persuaded by example and reflection. There comes a time when the 'truth becomes apparent', and the awakened believe they see realities that were previously hidden or existing merely as reports or faith. The recipients may be a consciousness of nothing, of an undifferentiated unity, or of an immediate and loving awareness of God. They may also be pantheistic: within and without seem as one; the world has a marvellous and extraordinary beauty; space and time are transcended. Though contradictory if put into words, common to all these is an experience of the world as alive and filled with joy and blessedness. {16-18, 23-35}

Religion is not therefore reducible to social function, though many seek faith because ultimately men are failures. Men do not deduce evil from standards, but as a violation of the taboos that make possible their cultural and social life. Religion becomes meaningful in acts: ritual, prayer, mystical encounters. In short, religion is the sacralization of identity. Whereas identity in animals is rank or territory, in humans it

is more often symbolic: in terms of class, sex, attitudes to money, beauty, equality. Sacralization is an emotionally welding of an identity which, sudden or not, consolidates and stabilizes that identity: certain patterns of symbolic systems acquire a taken-for-granted, eternal quality. {16-18, 23-35}

The Hindu and Moslem religions are different in many respects. Hindu deities are lovingly portrayed in Indian temples, but depictions of Allah or His Prophet do not appear in mosques, only the suras or texts from the Qur'an, often displayed in beautifully-tiled calligraphy. Both religions permeate everyday life, however, and Indian Muslims in particular would have drawn strength and consolation from inscriptions on coins they handled every day. But Akbar's titles on this coin — May Allah on high perpetuate his kingdom. Glory of the faith. Warrior against the infidels — would have been seriously compromised by the ominous 'alif' or new millennium. Where was this new millennium, and why India? The country was prosperous, but the Mughals were only one of many splendid Islamic states, and there was still a caliph in Egypt, albeit enjoying only a shadow of his former authority. Nor was it the role of Islamic rulers to interpret the Prophet's teachings, moreover: that prerogative belonged to the mullahs. Akbar's new religion was deeply perplexing to the Muslim community.

Language and Reality

Words in medieval societies had a pervading status and authority difficult for us to conceive in our age of cultural diversity. Words in religious texts were literally true, and indeed are still held so in orthodox Muslim societies and fundamentalist Christian sects today, open to interpretation but not denial. Moreover, just as money carries a shadowy claim on our social responsibilities, so did language in Mughal India. Indeed, not only in medieval times, but even today, language and its meanings, explicit or implied, has

become an important component of literary theory, highly technical but illuminating. {19}

Even what we understand as the meaning of a text, or the reality of its author, has a long and fascinating history. Plato, for example, preferred the new written procedures (castigating poets of the old oral tradition in *The Republic*) but also worried that the very process of writing and learning from texts imprisoned speculation in authoritative interpretations. Meditation was needed to bring the past into the presence, and this may also explain Plato's desire for eternal forms, things that were eternally true, beyond our shifting sense impressions and limited understanding. Classical rhetoricians developed mnemonic devices, but it was the north European scholastics who made memory a record of doings that could be examined under confession. In twelfth-thirteenth century Europe the validity of an oath (given word, symbolically the Word of God) is transferred to documents that have legal force. {20}

Speech and writing are essential to expression, but also frame the dialogue, stipulating what can be expressed, and in what way. Translation was not an issue in the classical world — the literate spoke several languages and could interpret (i.e. recast) from one to another — but the Christian Church became monolingual to incorporate Greek and Hebrew into the culture of late Antiquity. Later, for long centuries, the vernacular spoken by all classes in Europe was a romance language pronounced differently in different places: none of the pronunciations was close to classical Latin. It was never written down, and only in ninth century Germany was an attempt made to create a 'German grammar'. Charlemagne accepted a uniform pronunciation of official Latin, but this was incomprehensible to his subjects and was therefore abolished. Depositions were taken from the vernacular and written in Latin, and Latin creeds were rendered and remembered in the vernacular. Elio Anonio de Nebrija attempted in 1492 to create a Spanish that was not

spoken but served to record speech, his grammar and argument for a standardized Castellano being intended to curb the publication of literature inimical to the crown. {20}

Until comparatively recently — continue Illich and Sanders {20} — there was no self as such, but only an "I" that glowed into life as it recounted its adventures or told its autobiography. Chaucer claimed a fantastic memory to avoid the Church's injunction against invention, employing also a complex syntax so that listeners were compelled to imagine the page. The first novel to "make up facts" was Defoe's *Journal of the Plague Year*, which undercut the dependence on written testimony to which the work alluded. The work was fiction dressed up as fact, just as Huckleberry Finn asks the reader to believe in *The Adventures of Tom Sawyer* by an illiterate Tom. But his misspellings and incorrect expressions do all the same evoke the great openness and freedom of the meandering Mississippi River, which implies that we are imprisoned or conditioned by our own mannered language. Coming to modern times, we note that Orwell's newspeak served as a mechanical substitute for thought, and was therefore a parody of the "Basic English" promulgated in the thirties. And today, of course, we have the impersonal language of science and business.

To understand what the epigraphy {21} meant to the Mughal users of coinage means entering another mind-set. It is one that still largely prevails in Muslim countries, and such belief in the literal truth of the holy book is paralleled by devout communities in the USA today, and of course by Catholics, who will quote chapter and verse as authority for their judgements. Religion brings out fierce passions, and to shift discussion beyond the shouting matches that Akbar encountered when he had religious leaders debate their faiths, it may be helpful to look at the claims religion makes on us through the agnostic approach of depth psychology, i.e. on an emotionally neutral ground This approach sees the soul as: {22}

1. A perspective rather than a substance, a perspective mediating and reflecting on the events we are immersed in all the time.
2. A self-sustaining and imagining substrate to our lives.
3. Deepening events into experiences, making meaning possible, communicating with love and religious concern.
4. Deriving significance from its association with death and psychoses.
5. Including dream, image and fantasy in its operation, recognizing that all realities are primarily symbolic and metaphorical.

At this point I should apologize to the religious who will see depth psychology as a poor substitute for faith, {23-35} and to coin collectors who will be wondering where this digression is headed. I hope they will bear with me for another few paragraphs in this attempt to understand our religious makeup, and appreciate how concept and its representation play their part in Christian iconography and Muslim veneration for the Prophet's teachings.

Depth psychology is neither a religion, nor a humanism, but a non-agnostic psychology. In religion Gods are taken literally, and approached with ritual, prayer, sacrifice and worship. In humanism man is the measure of all things and Gods do not exist. In depth psychology the Gods are real but exist only as myths. The myths are potent, however. Recall that it was Mersenne (1588-1648) who led the campaign against paganism (as against demonism, astrology, alchemy, allegorical painting and poetry) which the Enlightenment continued in Christianity's monotheism of consciousness. Multiple personalities were seen as possession, nowadays schizophrenia. Equally suspect today is eloquence, especially words whose power over us cannot be curtailed by philosophy and semantics. Yet in many ways the individual, the person who acts rationally and individually, is himself a mythical creation. The

accompanying self-determination or free will, the central preoccupation of western theology, is likewise a product of the monotheist viewpoint. Though the later Greeks offered prayers to many gods (while imagining monotheistically the One), the moral codes of Judaism, Christianity and Islam are literalisations of the hero image, the ego, the subdivision into light and dark, producing a moralizing that infects psychology even now.

By denying the gods, depth psychology asserts, we commit many crimes. By thinking that we ourselves are gods we become prey to ideologies and commit atrocities in their name. We look to other people for our salvation, and are continually disappointed. Such psychology cannot be brought to rest in science or philosophy. It is satisfied only by its own movement of seeing through, during which that movement interiorizes, moving from data to personification, justifies itself, even hinting at a deeper hidden god, provides a narrative, told in metaphors, and uses ideas as eyes of the soul. That will seem obscure or fanciful to readers brought up on western rationalism, but our aim here to understand spiritual depths, and to appreciate the variety of religious beliefs.

From this perspective, literalism or monotheism of meaning is the greatest enemy today, and we should remember in thinking about money that definitions outside science, mathematics and logic are elusive things. Enigma provokes understanding. Myths make concrete particulars into universals. Vico remarked that metaphors 'give sense and passion to insensate things'. For those familiar with myths in the larger and better sense of the word, archetypes are semantically metaphors and have a double existence, being full of internal opposites, both unknowable and yet known through images, congenital but not inherited, both instinctive and spiritual, both purely formal structures and contents, and both psychic and extra-psychic. Many pages would be needed to explain these statements and the clinical case

studies they rest upon, but every statement concerning an archetype is to be taken metaphorically, prefixed with 'as if'. Most importantly, therefore, to answer the question we posed above, men cannot be converted to the 'true path' by force or bribery: conversion has to be genuine and whole-hearted, sincerely involving the whole of their personality and self knowledge.

Baffling as they may seem, we need to arm ourselves with these concepts when we return to numismatics and Akbar. Whatever their religious affiliations, Akbar's subjects lived in a quieter and more faith-saturated world than ours. There were no newspapers, political propaganda or marketing hype to distract their everyday thoughts. As in the Christian west, {36} all but the extremely learned believed in the literal truth of religious documents, also in the Evil One, prophecies and astrological predictions. And, as I have tried to suggest above, these are not childish superstitions, or matters of faith where rational concepts cannot apply, but part of our human make-up, still with us today, though expressed differently. Indeed there are many such notions surviving to the present. The scientific concept of force, i.e. action at a distance, derives from invisible astrological forces. {37} Mathematics, often regarded as the most abstract and certain of disciplines, may boil down to the innate dispositions of bodily functions, i.e. simply how we see and respond to things. {38} Even the fair, rational and self-righting mechanism of the market, the deity of the business press, is an act of faith: the concept is notoriously over-simple and mathematically flawed. {39}

But all serve their purposes in giving order, continuity and authority to the status quo, to a mainstream view of a needed social fabric. Kingship in all medieval societies came with powers and obligations. A key concept in Islam is the just ruler, {40} and Akbar went further than the expected balance of piety, justice and service to the community by remembering the beliefs of his Mongol forebears, who saw

themselves responsible to the peoples they had conquered.^{41} The coins therefore set imperishably in precious metal (base metal coins occur infrequently) just what Akbar's status was. By associating his name with titles of legitimacy, Akbar coins represent in miniature the larger world of court and governance. Indeed the two are intermingled, and while there are styles that characterise periods of coin issue, and plain practicalities that limit what coins can display, we see laid out before us in a calligraphic narrative the claims of the Mughal rulers projected into a millennium to come — one over-optimistic, of course, and heretical to the faithful, but nonetheless looking forward to an era of universal peace and justice.

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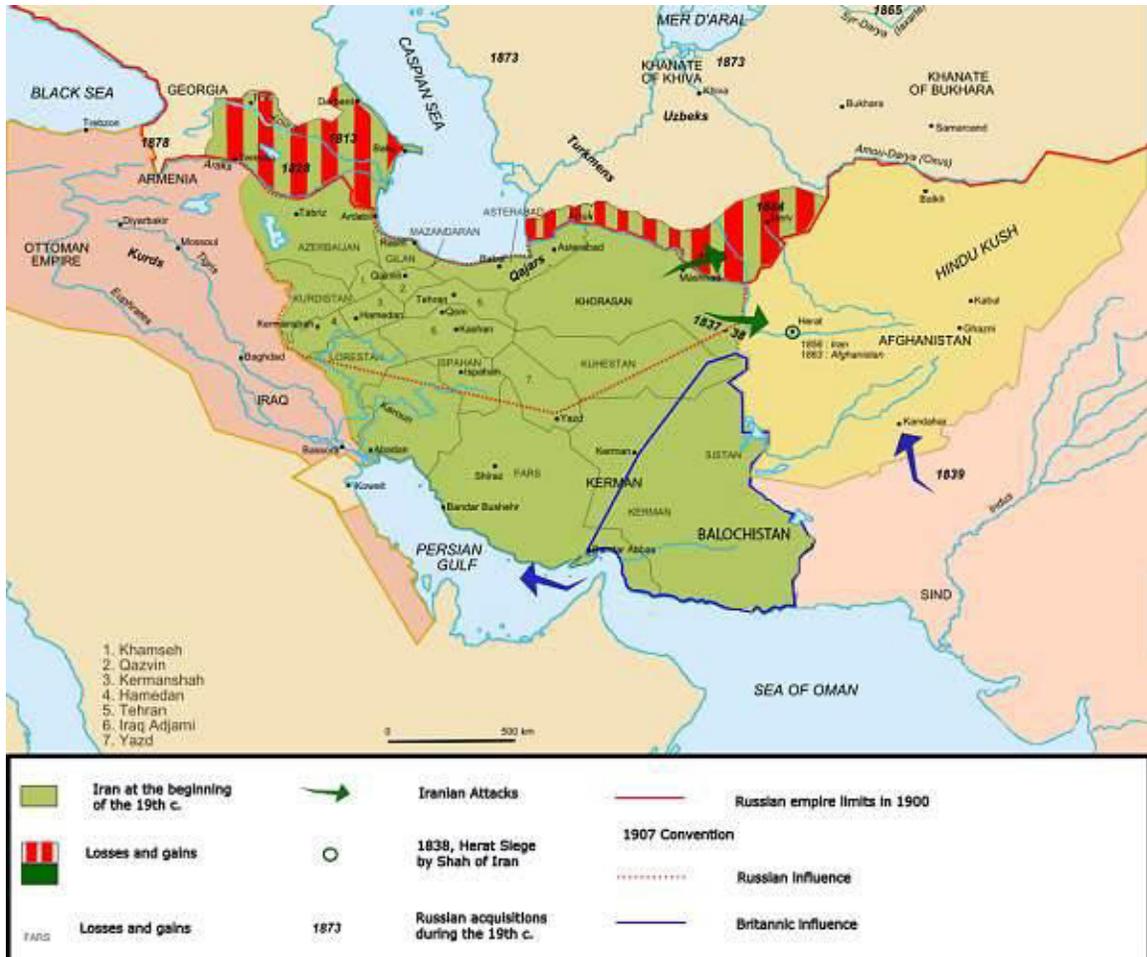
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17. Later Islamic Societies

The Qajars



The Qajar family took full control of Iran in 1794 when they eliminated all rivals, and reasserted Persian sovereignty over the former Iranian territories in Georgia and the Caucasus. In 1796 Agha Mohammad Khan was formally crowned as shah, and European powers began to see Iran as a strategic ally in the region — to undermine Ottoman power and tip the balance in the 'great game' of Russia and British rivalry in Asia. Britain and Iran came to blows in 1856, and Britain also established control of the Trucial States. {1-7}

In the Anglo-Russian Agreement of 1907, the two countries agreed to respect their respective spheres of influence, but the Qajars became economically indebted to Russia, and in 1901 also sold off — cheaply to a British engineer — a concession to prospect for oil in the country. {1-7} Western science, technology, and educational methods were

gradually introduced into Iran, and that influence also encouraged a movement for democracy and a constitutional monarchy. A constitution was reluctantly granted in 1906, following mass demonstrations, but the move upset conservative opinion in the country. Reza Shah Pahlavi overthrew the Qajars in 1921, establishing a more authoritarian government. The Majlis (consultative assembly) could not be overturned, but Reza Shah found ways to manipulate or discredit its leaders. {1-7}

For his pro-German sympathies in W.W.II, Reza Shah was replaced by the western powers by his son, Mohammad-Reza Shah, who was further supported in a CIA-organized coup in 1953 against the nationalist Prime Minister, Mohammad Mosaddegh. {5}

The Pahlavis fell to the Islamic Revolution in 1979, however, when the groundswell of anti-Western sentiment and desire for an Islamic government overcame British and American influences. {1-8}

Fath Ali Shah



Qajars: Fath 'Ali Shah, (1797-1834). Ar Quarter Riyal. Minted at Tabriz in 1225 AH. Weight: 2.55 gm. Obverse: Shah Qajar / Fath 'Ali / es-sult es-sult / an ibn n (Fath 'Ali Shah / the sult the sult / an son of n, i.e. Fath 'Ali Shah Qajar / Sultan and son of the Sultan)



*Reverse: Sultan / zarb Tebriz
1225 (Sultan / struck in Tabriz
1225 AH). {8- 13}*

Fath Ali Shah was governor of Fars when his uncle, the excessively cruel Agha Mohammad Khan, was assassinated in 1797. His reign saw a resurgence in Persian culture (and rigid court etiquette) and wars with Russia over Georgian territories. {12} The new shah tried to reassert Persian control over Georgia after General Pavel Tsitsianov attacked the city of Ganja, which sent thousands fleeing into Iran. Early successes were undone by superior Russian armaments, however, and appeals to Britain and France were unavailing. When Russia took Tabriz in 1813, Fath Ali Shah was obliged to sign the Treaty of Gulistan, which ceded Georgia, southern Dagestan and Azerbaijan to Russia. {14}

From 1805 to 1818, Iran also attempted to win back control of Herat in western Afghanistan, but was defeated by Afghan uprisings. In a second 1826-28 war with Russia, Iran again tried to recapture lost territories, but had to accept defeat in the 1828 Treaty of Turkmenchay and pay an indemnity. {15}

Matters went better on the home front. Fath Ali Shah maintained a splendid court and harem, fathering 57 sons and 46 daughters. He is instantly recognisable in many portraits by his waist-length black beard, but this virile and intelligent man apparently grew more avaricious and slothful with the passing years. Until the rule of Nasir-e-Din Shah (1848-96), that decadence continued with his successors, when Iran became increasingly involved in various reform

movements and power struggles between Britain and the regional powers. {1-7,}

Islamic Calligraphy

Because the religion distrusts figurative art, Islam lays great stress on the words of the Qur'an, and on writing generally. Calligraphy is a high art form, cultivated in books, carpets, architectural decoration, ceramics and coins. The last were redesigned in the great Ummayyad reform of 692 AD, when pictorial images were replaced by standard inscriptions — Qur'anic verses, written mint and date (and, from 754 AD, the caliph and local ruler's name and/or titles). Images do occasionally appear on medieval Islamic coins, but religious legends and titles have always played the greater role: the Qur'anic message was an iconic symbol of Islam and its empire. {16-21}

The Islamic scripts evolved into fascinating and beautiful forms. The simple kufic, angular and rigid, expanded its letter set from 17 to 29, added diacritical marks (indicating vowels: not generally shown on coins until modern times), and then branched out into elegant and even decorated varieties: floral, foliated, plaited or interlaced, bordered, and squared kufic. Coexisting with the angular kufic were cursive scripts, developing into the elegant naskh script, of which there were several variations, all in use today. Thuluth was a display script with long vertical lines with broad spacing. Riq'ah was a handwriting style derived from naskh and thuluth, first appearing in the 9th century. The Maghribi script developed in the 10th century and is still used in Spain and north Africa. Muhaqqaq was a majestic style often used in the Mamluk period. The Ta'liq and Nasta'liq scripts were cursive styles devised for Persian literary works. Diwani developed during the reign of the early Ottoman Turks. {16-21}

'The art of the coin in the Chinese and in the Islamic world focused on the beauty of the designed characters and a proportionate distribution of text on the available limited, mostly circular space. The roots of coin design in the Islamic world lay nevertheless in the Hellenistic tradition, whereas Chinese coinage drew on a different past.' Coinage calligraphy indeed vacillated between the styles of the chanceries, the art of Qur'anic calligraphy and the epigraphic inscriptions decorating monumental architecture. Uighur script — deriving from Aramaic-Syriac Script and Phagspa and used in the Yuan courts of Beijing in 1268-69 — appeared on Ilkhanid and Chaghatid coins. The Ta'liq and Nasta'liq on Safavid coins became especially refined, the inscription sometimes suggesting the rhythm of the pen's movement by modulated degrees of relief, {20} as is also the case here.

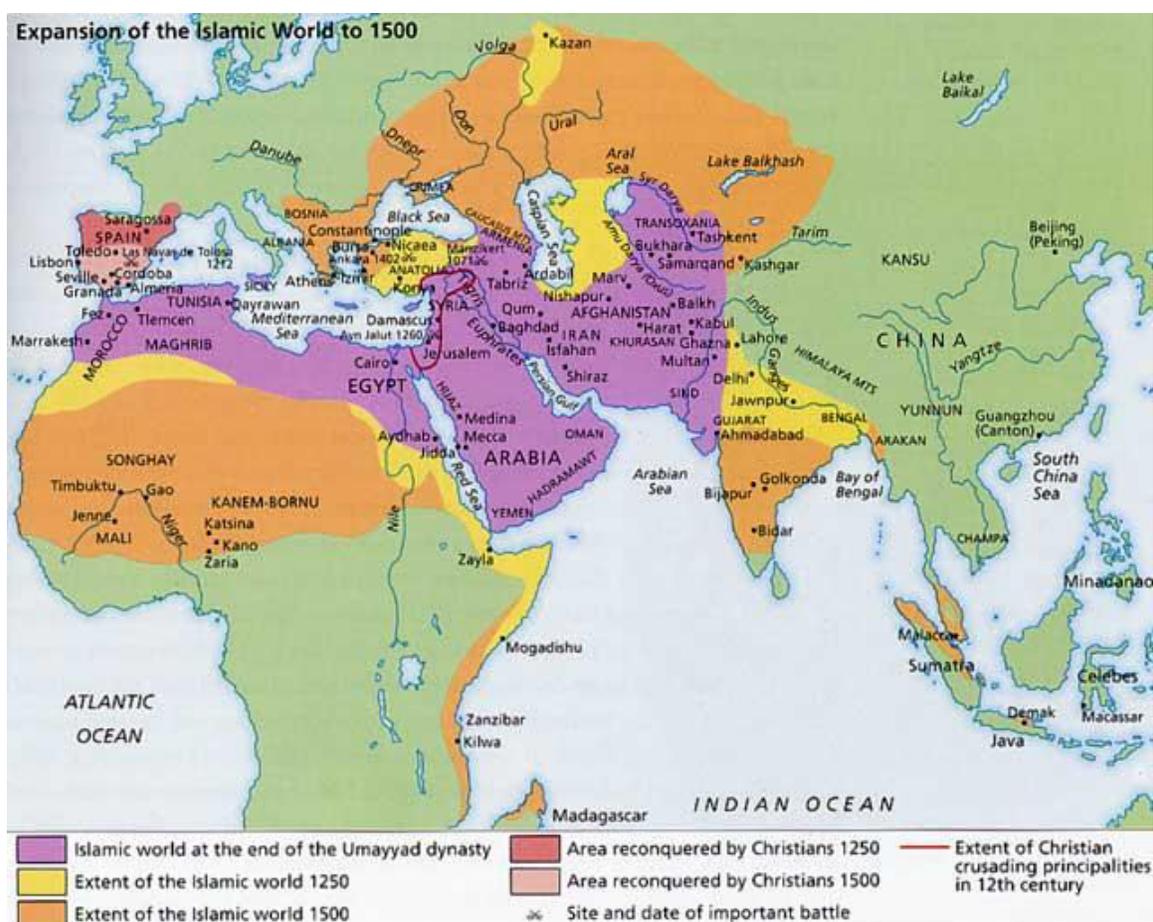
Very prominent is the decorative nature of the inscriptions in the coin above. On the obverse, the final 'n's have been dropped to the bottom line, and the pleasing pattern further ornamented with pellets. The legend on the reverse has been attenuated, and the characters elongated into a pattern that makes them almost abstract. The later Moghuls and the Durrani often displayed rhyming Persian couplets on their coins, {22} and poetry is not missing from the layout of this piece. 'Poetry, universal and indispensable in Persian life, together with philosophy, overt and implicit, nourish all cultural expressions. Analogies between Persian poetry and visual design are numerous: rhythm and rhyme, stress and resolution, surprise and fulfilment merely head a long list of characteristics that have their counterparts in each. . . That which to a hurried Western viewer may seem a surfeit of opulence is to the Persian, who values contemplation, an invitation to leisurely exploration, a promise of endless delights.' {23}

Islamic Response to the West

Muslim countries, once so prosperous, {24-25} have not fared well in recent centuries, and their adoption of western concepts has been slow and difficult, with many now accused of harbouring religious fundamentalism, or of even promoting terrorism. {26} How has this happened?

Differences

By failing to modernize and apply the scientific approach to large-scale production might be one answer. Neoliberalism goes further, and insists on the unrestricted flow of goods, ideas and money across national boundaries. Individuals can and must make rational and informed choices on their material well-being. Many countries in these regions are under repressive dictatorships, however, and education of their peoples often does not advance beyond memorizing the Qur'an. Commerce is hindered by unnecessary and complex bureaucracies, where haggling and bribery are part of a social fabric that reinforces the status quo. Women are kept out of the workplace, and unavailable for the factories that have transformed the economies of south-east Asia.



All this is true, but only partly an explanation. Market economics has its own problems, in theory and application, and it is clear that something more fundamental has created the antagonisms to western ideas. Islam does not despise wealth, and for many centuries the Islamic world was more prosperous and better governed than worn-torn Europe. {27}

Area	Population (million)	Revenue (tons of silver)	Revenue per Head (grams of silver)
Persia c. BC 350	17	697	41
Egypt c. BC 200	7	384	55
Rome c. 1 AD	50	825	17
Rome c. 150 AD	50	1050	21
Byzantium c. 850 AD	10	150	15
Abbasids c. 850 AD	26	1260	48
T'ang China c. 850 AD	50	2145	43
France 1221 AD	8.5	20.3	2.4
England 1203 AD	2.5	11.5	4.6

There are many issues, some arising from the nature of Islamic societies, some more related to their history, which has been no less troubled than those of the Christian west.

Loss of Power

The Ottoman, Safavid and Mughal empires were gradually infiltrated by western ideas as their rulers acceded to western attractions of power and wealth. English, French, German, Dutch and other adventurers sold manufactures

and armaments to the Ottomans, advising on modern approaches, as they did to the Safavids. Modernizations were made, often for good reason — better representation, education, health and industry — but also introduced too quickly, for the benefit of an increasingly secular elite, and too clearly in the interests of western powers and businesses. Monopolies given to western companies with valuable technical know-how naturally antagonized local opinion, making it more difficult to introduce universities, factories and parliaments in Qajar Iran, for example, which was nominally independent but became a pawn in power games of Britain, Russia and then America. {24}

Colonization

The west colonized the Muslim world by stages. First came trading posts along the Indian Ocean coast: unthreatening outposts operating under the license of the local ruler that made little impact on Muslim customs but provided welcome silver for local manufactures. The English, French and the Dutch each had their East India Companies, jockeying for position in Iran, India and south-east Asia, and not too scrupulous in their methods. Often, as in India, these trading posts expanded to small communities, supported by militia in their disputes between rival trading powers. In this way the Portuguese were gradually ousted by the Dutch, and these by the French and finally by the English. Though small, these foreign communities often meddled in local politics, backing one side against another, advising rulers, collecting tax revenues and supplying model armies to local sultans. Gradually their ways prevailed: they rarely interfered with life at the village level but advised rulers on overseas trade, diplomacy and western notions of industry. Their armies, composed of local levies, were often better trained, and administrations notably less corrupt. The East India Company finally took over most of India, which was annexed to the Crown after the 1857 Mutiny. Sons of rulers and

wealthy businessmen went to school in Europe, and gradually developed into a social elite that assumed government when Independence was granted. The elite lived a western style of life, and felt closer to world events than the Islamic societies that operated on town and village level. Oil wealth has accentuated these differences in the Middle East, and it is with these elites that foreign governments and companies prefer to do business, leaving the great mass of the population unrepresented. {28}

Western Meddling

Countries formerly part of the Ottoman and Mughal empires were carved up by the western powers in ways that more reflected European colonial ambitions than the wishes or histories of the peoples concerned. Democracies were not favoured because of their perceived threats to oil supplies. {29}

India was partitioned between a predominately Hindu India and a Muslim Pakistan, a rushed contrivance that caused much bloodshed, and economic problems for succeeding generations. Because Kashmir's ruler was Hindu, the province was awarded to India, though the population was essentially Muslim, another compromise that has claimed thousands of lives.

Independent Iran became a British fief when Riza Shah Pahlevi was forced to abdicate for German sympathies after WW II, and the USA reinstalled his son by a coup in 1953 to further their and British oil interests. His overthrow by Khomeini ushered in a theocratic Shi'ite state hostile to the west but open to Russian and more local influences.

The decaying Ottoman Empire was split into French and British protectorates in a highly artificial manner, which led to much ethnic and religious strife. {30} Egypt was invaded by the French and then by the English in the Napoleonic wars, became only semi-independent from the British under Mohammad Ali and his heirs, {31} but more so under the

charismatic Nasser in 1952. The west-leaning Mubarak government was overthrown by Arab Spring movements, but the corrupt and repressive army has again seized control. The Jewish return to ancestral homelands, accelerated after the holocaust, added a further component to the explosive mix. Expulsion of Palestinians after abortive wars waged by Arab neighbours added more fuel to the flames, {32-33} and Israel is now a US ally and dependency in an oil-rich region where major powers (US, Russia, Britain) have interests that operate through armaments supply and covert resistance groups. {34} Violent overthrow of Middle East governments by the western powers {35} has produced a predictable 'blowback' in Muslim extremism, which then, as a never-ending spiral, has served to justify increased spending by the military and intelligence services. {27,36} Parts of Syria and Iraq have now been overrun by ISIS, a shadowy but ruthless organization that grew out of Wahhabism, {37} the west's invasion of Iraq and support for an anti-Assad uprising. Notwithstanding its financial links with Saudi Arabia, Turkey and the Gulf States, some commentators see Al Qaeda and ISIS as expressly trained and supplied by America, NATO and Israel to destabilize the Muslim world. {38} Nothing is simple in this area of shifting interests and alliances. {35}

Even the symbiosis of Big Oil, Big Money and Government is not as it seems. Western concerns did not take out concessions to exploit Middle East oil, but to *postpone* development and protect the high-price oil monopolies elsewhere: in the USA (Standard Oil), Mexico (Mexican Eagle), in Sumatra (Royal Dutch), Baku (Nobel Brothers) and Burma (Burma Oil). Demands for self-rule broke out across the former Ottoman territories after W.W.I. and were suppressed by France and Britain working through local rulers maintained in power by western interests and governments. Oil companies got tacit and sometimes military support from their governments for several reasons. One

was the need to protect the oil supplies, particularly after W.W.II., when the Soviet Union threatened to support nationalist movements. Oil powered the British navy, and a cheap supply was also needed to maintain the high energy consumption of the American way of life. Oil indeed was an attractive alternative to coal — easier to transport and less subject to miners' strikes, some dangerously protracted (France 1895, Belgium 1902, Russia 1905, West Virginia 1919, Germany 1920, Britain 1926). France snuffed out nationalist movements in Syria. Britain put down uprisings in Iraq, Egypt and Palestine, and encouraged Jewish settlement in Palestine to offset Arab nationalism. Britain and the USA overthrew the Mossadegh presidency in Iran through a 1953 CIA coup. Until the 'war on terror' (i.e. western attacks on Afghanistan, Iraq, Libya, Syria and the Yemen) the Muslim world was ruled by repressive regimes whose lavish purchase of 'security' brought good profits to western armament manufacturers. The area was stable, but far from the ideals of a democratic or Islamic society. Naturally, given the high capital investment required, oil company interests involved the large banks: the Deutsche Bank in Berlin, Rothschild's in Paris, the Mellon family in Pittsburgh, and the Rockefellers with their oil production and refinery interests. Indeed oil inevitably supported the American dollar, because (excepting Persian oil that briefly used sterling) all importing countries had to pay for that oil in dollars. {29} Syria currently finds Turkey, Saudi Arabia and NATO fighting a proxy war against Russia, Iran and the Assad government. {30-31}

Afghanistan came several times (if briefly) under British attempts to protect India from Russian encroachment, and had its secular government overthrown by Islamic fundamentalists encouraged and partly funded by Americans in their constant opposition to Soviet power. The country suffered a Russian invasion, a protracted civil war, a US-led

overthrow of the Taliban, and a corrupt US-installed government whose authority barely extends beyond Kabul.

Muslim north Africa became French and Italian colonies, into which poured tens of thousands of European settlers, buying up much of the better land and imposing alien concepts of government. Independence has been marked by bitter sectarian wars and (in Libya) the overthrow of a populist government by US and European forces: the once richest country in Africa is now a failed state torn apart by civil war.

Saudi Arabia, a Wahhabi fundamentalist state, is supported by America in exchange for unrestricted access to its oil wealth. {32-33}

Muslim Response

The western press often stigmatises Muslim thought as rigid and doctrinaire, but Muslim societies in fact approach the world through some mixture of: {34}

1. Fundamentalism: a return to a pristine and often intolerant version of Islam. (Wahhabi Saudi Arabia and Shi'ite Iran).
2. Aligarh secular modernism: Islam is a moral code rather than a social blueprint for life: religion and politics are separate, as they are in the Christian west. (Turkey)
3. Islamic modernism: Islam is reinterpreted for the contemporary age, but remains the source of social and political authority. Sayyid Jamaluddin Afghan founded no party in his peripatetic life, nor left any authoritative and considered book, for example, but his charismatic personality inspired many Muslim revivals (including the Muslim Brotherhood) and reinvigorated the concept of 'jihad' or holy war for Muslims oppressed by western governments or their puppet states.

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18. Medieval Europe



Feudal Societies

Broadly speaking, feudal communities held land in exchange for service or labour. Lords (vassals) were given large areas of land (fiefs) in exchange for the sworn promise of military service to the king or overlord. Vassals in turn expected agricultural (and often military) services from the peasants living on manorial lands (demesnes) within the fiefs. Those peasants also had to pay tithes to the church (generally 10% of their produce), so that historians tend to recognize three estates operating in the manorial realm: the nobility, the clergy, and the peasantry. Feudalism is sometimes used as 'primitive' or pre-capitalist, and can presuppose similarities in societies that were radically different. {1} Thus feudalism proper is found in western Europe between the 9th and 15th centuries, but was reintroduced into central and eastern Europe as serfdom, there lasting to the middle of the 19th

century. In Russian the serfs were not emancipated until 1861. {2} Two distinct uses of feudalism have further emerged in recent times. The first, championed by the French Revolution and taken further by Marxist historians, refers to a social system in which peasant agriculture is the fundamental productive activity. Slavery is non-existent or marginal, but peasants are tied to the land. Overall power rests in a small military elite. The second has come to mean a system of reciprocal personal relations among members of the military elite, which leads ultimately to parliament and then western democracy. {3}

Feudal England

William the Conqueror imposed Norman institutions, including serfdom, on a Saxon system of open fields and well-established towns enjoying international trade. The economy and populations expanded over the following five centuries, especially in the 12th and 13th centuries with the growth of towns, mines, guilds, charter fairs and cathedrals. England was still a largely agricultural country, however, with the rights of major landowners and the duties of serfs enshrined in English law. Disputes were increasingly settled by the jury system, and Jewish financiers played a significant role in the growing economy, as did the new Cistercian and Augustinian religious orders that later promoted the wool trade. Mining increased, the silver boom of the 12th century helping to fuel a fast-expanding currency. Economic growth began to slow at the end of the 13th century, probably through over-population, land shortages and depleted soils. The Great Famine of 1315-17 stopped population growth altogether, and the Black Death of 1348 killed up to a half the population. But as labour became scarce and land plentiful the peasants could demand higher wages, for once enjoying a comfortable life that the authorities often resented. Prices fell, and shrinking profits led to the end of the old manor system and so the advent of the modern

farming system of cash rents for lands. The Peasants Revolt of 1381 further shook the old order, and limited the levels of royal taxation for a century afterwards. The cloth industry grew in the 15th century, and new class of international English merchants appeared, increasingly based in London and the south-west. In time these new trading systems brought about the end of international fairs and the rise of the chartered company. Metal metalworking and shipbuilding became important in Tudor times as the feudal order gave way to the early modern period of strong monarchies. {4}

Marxist Views

Whereas mainstream historians see a natural and increasingly beneficent progression from feudalism through monarchies to the rise of the merchant class, capitalism and parliamentary democracy, Marxists paint a much grimmer picture. Coinage certainly helped the peasantry to commute work on manorial estates to waged labour on which they paid taxes, but it also led to inequalities. The communal life was destroyed as enterprising peasants employed their increasingly poorer neighbours, and then enclosed common lands so necessary to survival in hard times. Deprived of their own plots and common lands, the poor became entirely wage-dependent, and were often driven into towns (where they were further exploited) or became vagabonds and beggars (when they were pressed into work by the poor laws). Single women were particularly badly used, obliged to take up low-paid silk spinning and/or prostitution. {6-8}

The 'price revolution' of 1470-1540, is also seen by orthodox economists as resulting from an increase in metal supplies for coinage, a higher velocity of money and improved credit facilities, perhaps aided by coin debasement {9} but those very changes disadvantaged the poor, and are regarded by Marxist economists as early examples of capitalist exploitation. Both views have substance. Money theory is impersonal and ignores the social context. The great mass

of peasants certainly did not welcome the price rises, the financial speculation and the land enclosures, but were forcibly prevented from organizing resistance. The 1525 German Peasants Rebellion was put down ferociously with a hundred thousand slain, {4 28} and even in prosperous Norfolk the 1549 Kett's Rebellion against enclosures cost 3,500 lives. {7}

Most people in feudal societies lived on the land in self-supporting farms and villages. They tended the fields, supplemented those crops by a herb and fruit orchard where possible, and kept chickens, pigs and the odd cow, plus an ox or horse for ploughing. Fortunes could be made in trade, war and the Church, but these were exceptions, and the successful generally came from landed forebears. Craftsmen — carpenters, thatchers, stone-masons, and more so common labourers — earned very modest wages, generally a few pence per day. Food was expensive and two thirds of those wages went in sustenance. Master craftsmen could earn considerably more, approaching the salaries of lawyers and doctors, but few managed to save the £2 needed to enter a guild. {4}

Feudal societies were closely-knit communities where everyone knew everyone else's business, and was indeed responsible for that business. People worked in the fields together, attended manorial courts together, and worshiped together. Every male villein between twelve and sixty in England was bound into a group called a tithing, which was sworn to uphold the law. All were responsible for the good conduct of others, and fined heavily for any misdemeanour. On discovering a crime, the person making the discovery was expected to raise the alarm, the 'hue and cry', collect tithing members into a 'posse comitatus' and hunt down the culprit. The chief tithing-man, the 'capital pledge' as he was called, would then deliver the offending party to the constable of the township. News of the wrong-doing would be reported at the next hundred court and disseminated

throughout the district, making it difficult for the culprit to flee justice. Escape to a new district was equally hazardous: people belonged to a certain place and new-comers were always suspect. Wrong-doers could enjoy sanctuary in a church for 30 days, and in theory then walk unmolested to a port for permanent exile from the country, but the promise was often broken, particularly if the offence was against persons of wealth or power. Honour, status and violence ran through the fabric of feudal England, and it was most unwise to insult or injure someone of higher status, or even his retainers. Offenders were tried before juries of their peers, but the verdict was often swayed by how the offender was regarded by those peers. It paid to be on good terms with everyone. {4}

There were few checks and balances in the system, which was therefore open to corruption at all levels. Torture could be used to extract confessions, and anyone found guilty of serious crimes had the opportunity of naming accomplices or other wrong-doers before execution, a concession happily abused in settling old scores. Anyone who evaded the judicial system was declared an outlaw, and could be killed on sight. Outlaws therefore tended to band together in large criminal gangs, which could act with impunity if, as often was the case, they were protected by persons of authority intent on stirring up trouble in rival territories. {4}

And so it went on, upwards from capital pledge, to steward of the lord or constable, to bailiff of the hundred, to sheriff and finally the chief law enforcement officer: everyone was responsible for upholding the law, and faced penalties for evading that duty. Whether villein, free man, merchant or lord, social mobility was very limited: people were born into a place and a station in life. Elaborate bylaws pertained to making of bread, wine and ale, and prices of foodstuffs tended to be stable. But exceptionally poor harvests could raise prices, and a glut lower them, especially in the years following the Black Death, when wide areas became

depopulated. Wages rose, but the price of food and other commodities fell. {4}

Lords were responsible to the king, and the king had his own pressing duties: to ensure that his writ went unhindered through the land, to defend his realms in the constant wars that were endemic in Europe, and ensure those armies were supplied with men and money. Few outside the merchant class or nobility had a disposable income. Innovation would threaten the divine order, and seditious views faced the wrath of Church and State. The clergy were judged in ecclesiastical courts and did not usually face execution. Secular offenders were judged at the appropriate level, usually manorial, and those found guilty were promptly fined or hung. Punishment acted as a deterrent, and there was no attempt at rehabilitation through imprisonment. {4}

The laws of England were a compendium of old Saxon laws constantly updated to make a 'common law' that applied to all. There were many courts, with different or overlapping jurisdictions, and it was to bring some sense to the system that Edward III introduced the office of the Justices of the Peace, individuals who became increasingly responsible for law and order as the feudal country gave way to a wage-earning and then mercantile society. {4}

Until 1344, when Edward III minted a gold florin, the only coinage was in silver: pennies, halfpennies and farthings. Unfortunately, the 1344 coin had a contained gold value in excess of its face value, and was illegally but largely melted down. More success greeted the 1351 gold noble, however, and gold was thereafter part of English currency till modern times. {4}

Feudalism Outside Europe

Approximations to European feudalism are sometimes ascribed to India, {10} Pakistan, {11} the Zhou {12} and Qing {13} dynasties of China and the Togugawa shogunate of Japan, {14} but there are major differences nonetheless.

Cnut Penny

The penny was the only coin issued in England for some 500 years, from the time of Offa to the gold coinage of Henry III. The term comes from *pennige*, and the denomination was modelled on the Carolingian coinage. Ruler (king, occasionally archbishop) appears on the obverse, and the mint and moneyer are given on the reverse. Anglo-Saxon England was a monetised society, and needed additionally large quantities to be struck for the Danegeld that forestalled Viking raids and invasion. Aethelred (978-1016), for example, paid 40 million pennies, and Cnut paid off his fleet on becoming King of England with a further 20 million pennies: 60 million in all — 2.8 m troy ounces or 750 tonnes of silver. {15-16} Earlier Anglo-Saxon issues had melted down Islamic coinage, but most of the new Cnut silver will have come from European sources like Rammelsberg. {17}

Cnut was only the younger son of Sweyn Forkbeard, King of Denmark, but by conquest and astute statesmanship managed to forge a North Sea Empire embracing England, Denmark, Norway and parts of Sweden. By England's wealth, and his control of Baltic and North Seas, Cnut became the most powerful man in Europe after the Holy Roman Emperor.

Cnut's father died shortly after invading England, and Cnut himself had to make protracted attempts to assume the throne: military incursions, understandings with nobles, and an agreement that left Edward on the Wessex throne. But when Edward died in November 1016, the whole country became Cnut's, a position the king astutely legitimised by marrying Aethelred's widow and paying off his fleet with a large tribute collected from the whole country. Cnut could legally claim Denmark when his elder brother died childless in 1018 or 1019, but several battles were needed to bring Norway into the fold, and parts of Sweden he claimed (and

issued coins for) may only represent overlordship, as was the case for Scotland, Poland and northern France.

England had been Christian for centuries, and the half-pagan Cnut also converted, giving lavishly to churches and going on a pilgrimage to Rome. Indeed Cnut was continually travelling, and often had to leave countries under the care of regents: leading nobles and members of his family, none of whom were wholly loyal or effective. Norway was already slipping from Cnut's grasp when he died in 1035, and the whole collapsed immediately afterwards. Harthacnut claimed Norway and England. As a compromise, Harold Harefoot, Cnut's son by an earlier marriage, ruled as regent until, at his death, the country reverted to Harthacnut. The latter was not popular with his English subjects, however, and on Harthacnut's death in 1040, the throne reverted to the Wessex line of rulers, a brief swansong before the Norman invasion. {18}

Anglo-Saxon Background

Angles, Saxons, Jutes and Frisians began to arrive in small parties after the Romans left England. Many had known England in their mercenary days, and climate warming both flooded their own settlements and made English agriculture more prosperous. From around 500, however, the invaders met increasing resistance from the Romano-British, in literature represented by the fabled King Alfred of Wessex, but in fact occupying the whole country. The situation was ever shifting and complex, but by 650 there were seven separate kingdoms, often at war with each other but otherwise stable, agrarian-based and trading with continental Europe and beyond. The western kingdoms converted to Christianity. {19-22}

From 793, the Vikings began raiding English shores, and in 865, for the first time, over-wintered on the Isle of Thanet. In time, half the country had to be ceded to the invaders, and

between Wessex and the kingdoms of the Danelaw existed an uneasy peace. Fresh Norse invasions began in the early tenth century, and threatened even the Viking kingdoms. Aethelstan checked a coalition of Irish, Norse, Scots and Northumbrians at Branenburg in 937, but Eric Bloodaxe was not driven from York until 954. Coming to the throne in 959, Eadgar spent the next 18 years trying to wield Wessex, Northumberland, Mercia and East Anglia into a coherent, fighting entity. During the reign of Aethelred (978-1016), however, the Viking attacks began again, particularly from Denmark, led by Swein Forkbeard. Resistance finally collapsed in 1013, Aethelred fled to France, and Swein was recognised as King of England. He died four months later, and his son Canute began his own struggles to regain the English throne. {19-26}

The Moneyer

The moneyer had become a skilled artisan by later medieval times, {27} but his standing in Anglo-Saxon England was more ambiguous and important. {28-32} Mints had to pay the crown for the privilege of minting, and made their profit by coining (seigniorage) that generally added a little copper to their silver — not normally more than 5% — which enabled silver supplies to go a little further, and produced a harder and more durable coin. Some moneyers clearly travelled from mint to mint, {36} but others were perhaps had more supervisory roles, with dies being cut only at the central mints. {37} In many cases, we simply don't know.



Anglo-Saxon, Canute, Silver Penny, Helmet type (1024-1030). Helmeted bust with sceptre left, linear circle around head, helmet intrudes, legend commences at top, +CNVT REX AI (Cnut King A(n)glorum: England) I(m)perator: Emperor) {30-35}



Reverse: short voided cross with pellet and annulet centre, pellet in annulet in each angle, all within linear circle, +ASGOD M-O EOFFR (Asgautr Moneyer York.) 18-19 mm: 0.95 g

(BMC type XIV, North 787, Hildebrand G, Seaby 1158)

{21, 30-35}

Moneyers were responsible for the striking of good-quality coins of a stipulated purity, of course, both of which were supervised carefully. Though savage penalties applied to surreptitious coining, and presumably to debasement too, the silver content of Anglo-Saxon pennies does vary, and more between mints than with time {38} — i.e. mints had their individual traditions, a surprising feature in a medieval society where everyone knew everyone else's business. Anglo-Saxon England was hierarchical and closely governed. {39} The king took advice as needed from the Witan, an aristocracy that functioned as a circle of elders. County affairs were settled at the Moot, a more democratic body which included members of the local aristocracy (sheriff, lords and bishops), but also four representatives from every village in the county. {40}

Conquest to Governance

As the Mongols found, countries may be conquered by the sword, but not properly governed by violence. On his first arrival in England with Sweyn Forkbeard, Cnut behaved as the typical Viking. He was amicably received by countries of the Danelaw, and indeed married into one of its powerful families (a marriage not recognised by the Church, however, which allowed the later marriage to Aethelred's widow). But he showed little mercy to the West Saxons, and mutilated captives when he had to flee the country in 1014. On his

return, even before becoming king of all England in 1016, Cnut had to demonstrate his credentials and appear worthy of his position, both to the Saxon aristocracy and the Church.{41}

From Tribal Chief to King of a Country

On the obverse of the silver penny, Cnut is titled King of England and Emperor. The I (imperator) is nothing unusual: Saxon kings often claimed that title. But now the Rex A had to be substantiated. Cnut was not king by virtue of being first among the Saxon aristocracy, but by conquest and by agreement among nobles dissatisfied with Aethelred's rule. Saxon kings reigned with the grace of God, moreover, supported by the Church while they governed appropriately and wisely, according to the laws of the country. Cnut upheld those laws, accepted advice from the Witan, converted to Christianity, and accorded due respect and funds to the Church. But these, and even his later marriage to Aethelred's widow, did not automatically make him English: he was always the outsider, one of the feared and despised Viking marauders.

Not in the coinage, but in the legal documents of the time, we see a shift in title, from Engla cyningc (king of the English) to ealles Englalandes cyningc (king of all England). {42} Cnut identified with the country as a whole. We are far from the concept of national sovereignty implicit in the Peace of Westphalia of 1648, but there appeared in Cnut's reign the dawn of another way of regarding sovereignty. Countries were still personal fiefdoms, or largely so, but kings were constrained by laws and traditions, and so answerable to their subjects under God. Cnut's empire disappeared at his death, of course, and Saxon rule was to be overthrown by the Normans a half century later, but Cnut's rule recognised and extended the concept of the just ruler. The concept was a familiar one to Islamic countries of the time, and had been shown so on their coinage for centuries, but Cnut identified

with Anglo-Saxon England in a way William the Conqueror did not. The Normans imposed their rule on England, remaining for generations an elite class that spoke French — much as the Mamluks and Sultans of Delhi stayed an elite military class governing a subject people — but in Cnut we see the beginning of government that represented the people, accepting the Witan and Moot, and so ruled through a country's customs and traditions, which were slowly codified into institutions of government.

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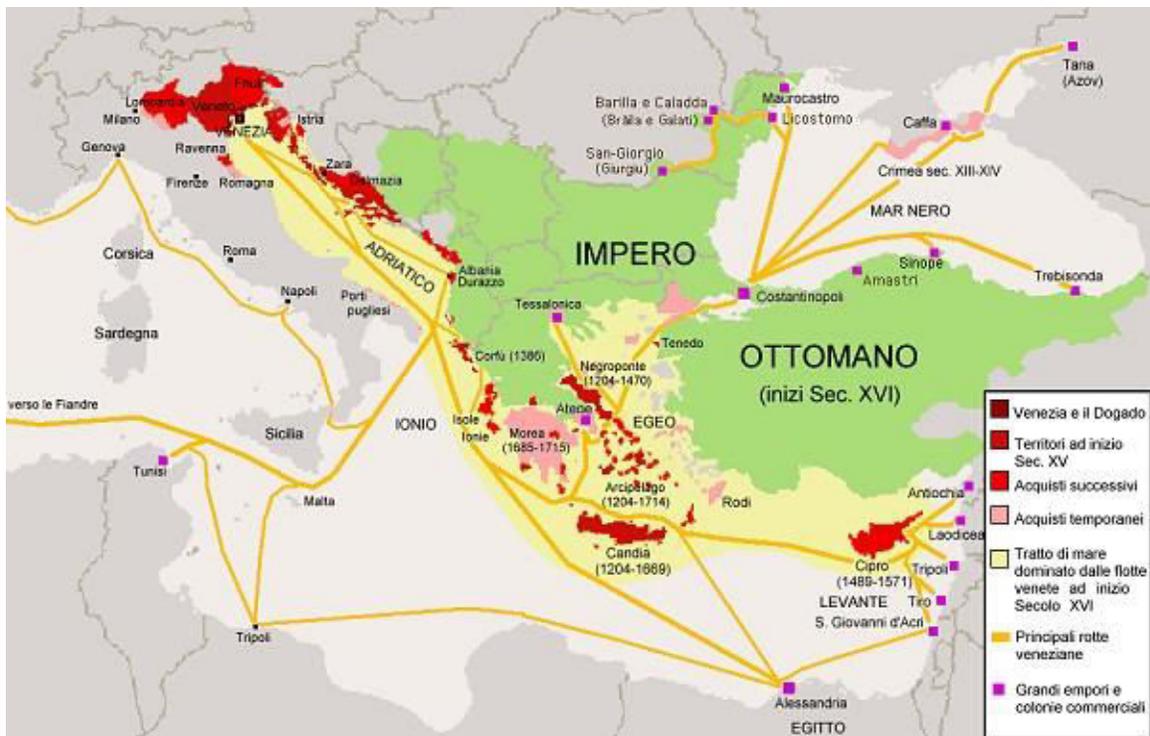
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19. Trading Empires: Venice



Trade made Venice a major maritime power throughout the Middle Ages and Renaissance, and an important centre of commerce, particularly for silk, grain, and spice and bullion. City defences were breached by the Visigoths and later the Huns under Attila, but the city gradually came under the protection of the eastern Roman empire, surviving even the Lombard attacks of 751. Though the Pope and his own son Charlemagne tried to bring Venice under Holy Roman Empire control, they were compelled to recognize Venice as Byzantine territory and grant the city trading rights along the Adriatic coast. From the 9th to 12th centuries, Venice grew to be an important trading centre whose power increased as that of Byzantium waned, particularly after the notorious fourth crusade in 1204, which Venice diverted into an attack and sack of the ancient capital. The old Byzantine territories of the eastern Mediterranean were partitioned between Venice and the Latin crusaders, the city traded with Christian and Muslim powers, and, after the fall of Byzantium in 1453, carved out an area of influence known as the Duchy of the Archipelago. {1-3}

Enrico Dandolo

Through the connections of the wealthy Dandolo family, Enrico was entrusted with important missions to Constantinople and also served as Venetian ambassador to the King of Sicily in 1174 and to Ferrara in 1191. Though blind and 84 at the time, Enrico was elected Doge of Venice in 1192, when he proved a most capable and energetic administrator. He negotiated treaties with Verona, Treviso, the Byzantine Empire, the Patriarch of Aquileia, the King of Armenia and the Holy Roman Emperor, Philip of Swabia. He led and won a war against the Pisans, and reorganized Venice's currency, issuing a new, large silver coin known as

the *grosso* or *matapan* that bore his own image.



His most notable achievement was diverting the Fourth Crusade, however, when, although well past the age of 90, he placed himself in the forefront of events, standing armed and armoured in the bow of

his galley, and encouraging the attackers as they made their landing at Constantinople. Venice benefited commercially from conquering her trade rival, but she also paved the way to Ottoman control of the eastern Mediterranean: a Pyrrhic victory in the longer term. {1-3}

Medieval Italy

Venice was indeed a world power by the late 13th century, dominating Mediterranean commerce with a commercial fleet of some 3,300 vessels. To trade must be added the conquests of prosperous Mediterranean islands — Crete in 1204, Corfu in 1383 and Cyprus in 1489. Merchant families vied with each other in building palaces along the canals, and became acknowledged patrons of the arts. Unusually for the times, Venice was a republic, though was also known for shrewd politics and sharp commercial practice. The Great

Council, comprising the leading nobility, appointed public officials and elected a Senate of 200 to 300 individuals. The chief executive was the Doge, an onerous position theoretically held for life, but often terminated at perceived failure. For efficient administration of the city, the Senate generally operated through the Council of Ten, and kept its political life away from military activities, which were often furthered by large mercenary armies. {1-3}

Venice was also the first state (in 1172) to issue government bonds, which originated in the 'prestiti', a tax raised on all its citizens in their struggle against the Byzantine Empire. The city was divided into six districts, the wealth of their citizens individually assessed, and the collected tax forwarded to the Grand Council, which immediately set about building a vast fleet. This first enterprise ended in failure: Venetian hostages in Constantinople were not rescued, no booty was won and in fact the fleet contracted plague instead. But this prestiti earned a 5% annual interest, making it more of a loan than a tax. A hundred years later, in 1262, the Venetian debt was formalised into a single fund, the Monte Vecchio, a fund that paid a 5% interest on the loan in two annual instalments. The Monte Vecchio was often employed in later centuries when Venice needed loans to fund her incessant wars with Genoa, Milan and Ferrara. Because these prestiti were traded, often at a steep discount reflecting the chances of Venice repaying its debt, the loans in fact approximated to bonds, the last such being issued just before Napoleon closed down the republic in 1797. {6}

Venice declined as successful economies based on long-distance commerce gave way to those based on land revenue and domestic consumption, a pattern embodied in the Atlantic powers (Holland, France and England). {7} Early growth owed much to a fortunate location, of course, plus entrepreneurial spirit, maritime skills, and advanced banking and commercial practices. Western Europe sought spices, silks, dyeing materials and cotton. The Levant sought

woollen cloths, slaves and precious metals. Supplying the two earned handsome profits for merchants: commonly 10-20%, even 40% on occasion, but security costs were also high. Venice built navies to ward off piracy and threats by other European nations, spending 45-50 tons/year of silver on such purposes in the 15th century, and perhaps 100 tons/year in the 17th century. To these costs had to be added large expenditures for war against the Ottomans and rival Europeans. Venice made its money through custom duties and taxes, the last gradually shifting from indirect to direct. Nonetheless, merchants were often compelled to loan to the public coffers, though the loans earned 5% p.a. Venice had sophisticated banking facilities, and offered bonds in the 16th and 17th centuries that earned 6-14% interest, and could be traded. There were also losses, however, with the debt sometimes consolidated in the Monte Vecchio, but the state was generally solvent. The annual investment in shipping reached impressive totals, perhaps 125 tons of silver for the Venice-Constantinople route at the end of the 16th century, 50 tons for the Aleppo run, and 25 tons each to the English and French routes. {6}

But as Venice was sidelined by the Atlantic routes, her own manufactures also came under pressure. English cloths undercut on prices, and more so during the Industrial Revolution, when Venetian wages slumped, indeed throughout Italy. Average wages in the 18th century were barely at subsistence level, and actually fell below subsistence in the following century, where Britain's were four times subsistence, and America five to six times subsistence. {6-7}

Precious metals were an important part of Venetian trade. The value of gold with respect to silver in China was around 1:7 in the 15th and 16th centuries, and in Europe around 1:11 — a differential offering handsome profits to anyone facilitating trade between the two: Venetians cargoes were indeed around 60% bullion by value in the 1490s. {9}

Italian banking followed self-interest, and some have drawn parallels between its oppressive practices and those of Wall Street today. By its market manipulations, Florentine bankers bankrupted Venetian bankers, and the economies of Europe and the Mediterranean along with them. Venice herself 'deliberately ensnared all the surrounding subject economies, including the German economy, for her own profit; she drew her living from them, preventing them from acting freely.' The Black Death and the Mongol armies reversed population increases, and to these the banking fraternity added their own ravages. The Bardi and Peruzzi (Florentine) banks applied such brutal conditions in their loans to Edward III of England that his 1345 default was inevitable, demonstrating the power of banks over small countries. Venice itself cooperated with the Mongol powers responsible for the slaughter of 5-10 million people in profiting from the slave trade, and this 'triumph of free trade' did much to make the fourteenth century in Europe so calamitous — poverty, unsanitary conditions, plague, civil wars — requiring strong government in England (Henry VII), France (Louis XIV) and Spain (Ferdinand and Isabel) to halt the process. {6}

History, the industry of its citizens and the geographical location conspired to make Venice the foremost trading nation of the Middle Ages. Business was always open to talent, and the Republic did not ossify into rigid inequalities that brought about the French revolution, or facilitated the industrialization of Britain. But Venetian power had been gradually declining for two hundred years when Napoleon overthrew the Republic in 1797, though music in particular still flourished and there were constant pageants and spectacles, as indeed there are today, in a Venice reinvented as a tourist destination that 12 million visit annually. But working conditions were harsh in Venice until the opening of the Suez Canal in 1869, when Venice became an embarkation point for rich Europeans and

Americans travelling east. Trade had by-passed the city, and her workshop products were not competitive against those of industrialized northern Europe. Many of the poor emigrated to America, or joined socialist movements that continued to threaten the post war consensus. {6-16}

South-east Asia Trading Empires

Several medieval trading empires grew up on the rich trade between China and India: Champa, Chola, Srivijaya, Sunda and Sailendras and Majapahit in particular. Chinese goods were generally shipped to Funan (on the Mekong delta) and then to Kra (now Thailand/Malaysia), ported across the isthmus, and then transhipped to India and beyond. Religious and cultural influences travelled in the opposite direction, creating Hindu and Buddhist kingdoms throughout the region, from Myanmar to Indonesia. {17} Coinage remained primitive, however, and little is known of commercial practices. {18}

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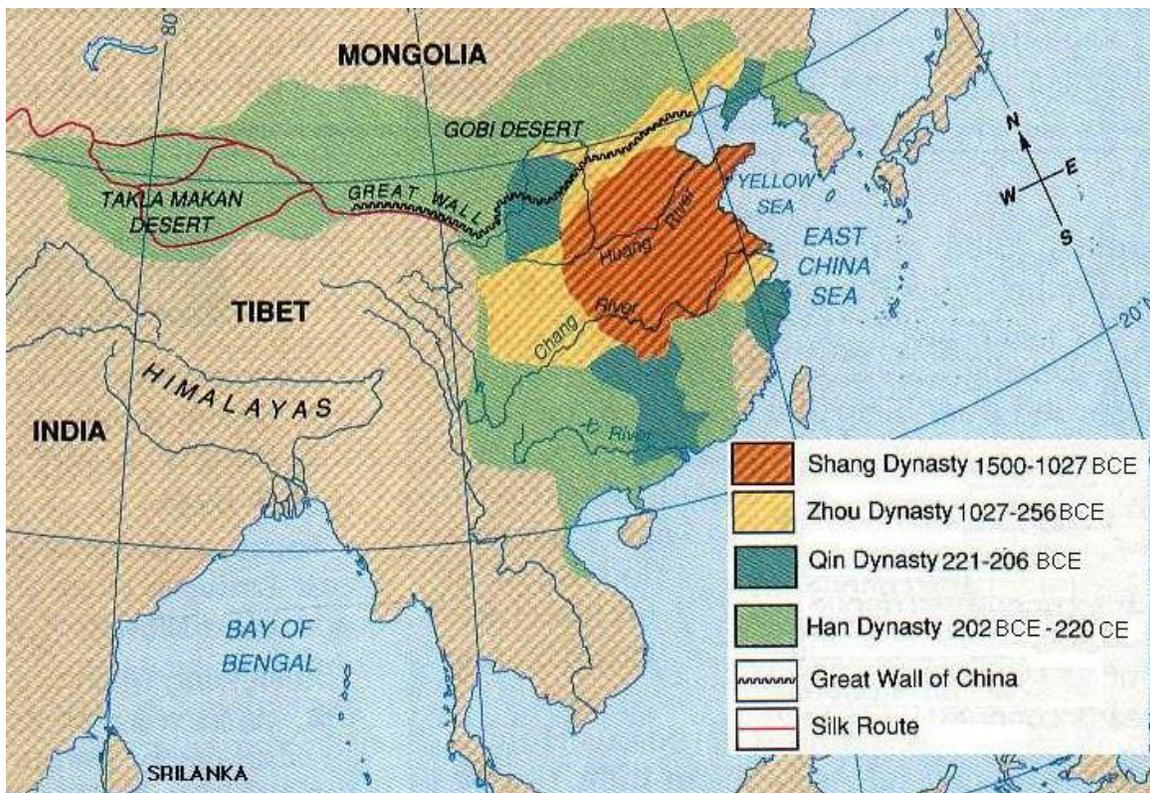
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20. Proto-Coinages



There is no sharp distinction between proto-coins and coins proper, but the latter are generally taken to have:

1. The mark of the issuing authority.
2. An intrinsic value bearing some relationship to the face or circulating value. The intrinsic value was generally less than the face value, but not so low as to make the piece into a token rather than a coin.
3. A denominational value that eliminates the need for weighing at every transaction.

Coinage proper was preceded by objects that resemble coins, and may indeed have served for debt and tax payments, or even trade, but about which we say little for certain. Proto-coins are known from China, India and Europe, and may date back to the second millennium BC, but are probably rather younger. Lumps, bars, rings, hooks, knives, axes and shovels are the common forms. 'Primitive' money was used in Africa and Oceania within living memory, but served ritual purposes, generally serving to tokenise and strengthen the social fabric, serving for blood money or bride

purchase rather than trade in local markets. The same purpose probably applies to proto-coinages, though there are few written records or even folk legends to guide us. Some pieces, like the punch-marked pieces of the Mauryan empire very probably were used in markets — they are standardized in weight, silver purity and symbols used — but anything less convenient for trade than the utensil coinage of China would be hard to imagine. The pieces are cumbersome, pointed and fragile. Some may be individual creations like the famous Shang and Zhou bronzes, but the 'Ming knives' are particularly common and found over a wide area. That the pieces were in some way cherished we must accept from their being found in hoards with round coins, but that inclusion may not amount to a measure or store of abstract value. Indeed, the copper axe found with the 5,000-year old body of a man discovered on the Austrian-Italian border in 1991 may have been a token of status or occupation — he was probably a metal worker — as it was too soft to have had any practical use.

Cowries were used extensively in early China, and in Africa until recently. By the 1920s, thousands of tons had been imported from the Maldives Islands, Oceania, and the shorelines of Africa, the Middle and Far East. Their value decreased with supply, so that the two cowries needed at the end of the 18th century to purchase a woman in central Africa had swelled to one thousand by 1860. {1}

Cappadocia around 2250-2150 BC employed silver ingots, state-authenticated in weight and purity, and these in time grew smaller, before dwindling into rods, spits and elongated nails. {13} Cattle and slaves were as status objects in the ancient world, however, and that standard gradually, around 1500 BC to 1000 BC in Mediterranean countries, gave way to a gold or gold-silver by weight. The earliest Greek coins were stored in temples, which served both as centres for business and religious ceremony. The silver pieces did circulate as coinage, but the gold tended to be kept in temple

treasuries. Silver was also used as a measure of value in Mesopotamia, but not circulated as coins. Otherwise, it was copper or bronze that generally served for proto-coinage, at least until iron could be smelted and worked, when iron objects also appear, as in Sparta. The glass and porcelain scarabs found in Egyptian tombs may also have served as coins, some archaeologists believe, but again this is only conjecture. Even Greek literature is silent on the introduction of coinage, though it was widely used in classical times. In short, we don't know, and it's entirely possible that coinage and proto-coinage arose at different times in different places to serve different but overlapping purposes. {2}

China

The traditional classification was knife, spade, cowry imitation, and early round coins, which were all assigned to the 1046-256 BC Zhou Dynasty, though the last phase is commonly called the Period of the Warring States. {3}



Much remains unclear about these proto-coinages. {4} Earlier writers put their use back in the early Zhou, but most authorities now believe a 6th or 7th century BC origin is more likely, though cowry shells could have been used

in the preceding Shang Dynasty. The bronze pieces employ an antique calligraphy, in forms long out of fashion by the time of casting, and the characters are sometimes difficult to read: indeed the inscriptions are generally held to be unreliable for identification purposes. A standard by weight (zhu) seems to apply, though the casting process creates individual variations. The official weight of a zhu was 0.65 grams, with 24 zhu to a liang of 15.6 grams. Spade pieces were denominated in multiples of 6 zhu with issues 72 zhu or

3 liang (36 grams), 48 zhu or 2 liang (24 grams), 24 zhu or 1 liang (12 grams) and 12 zhu or 1/2 liang (6 grams). Knife pieces were denominated in a system based on multiples of 10 zhu although the main denomination for thin knives was 30 zhu (about 15 grams). Early round coins seem to follow the knife money system based on multiples of 10 zhu, with most issued at 20 zhu (10 grams). Cowry imitation (including ant-nose coins) pieces do not seem to follow any weight standard, however (nor, of course, did the actual cowry shells, which were simply counted). Spades are often denominated in zhu or liang, but knife pieces are not. Proto-coinage and round coins 'circulated' contemporaneously, and proto-coinage was not abandoned until Han times. {5} The wide variety in spade and knife pieces reduces around the mid 4th century to minor variations of the thin 1/2 and 1 Jin flat foot spades, and 'Ming' knife forms. Round coins also appear, and both developments probably point to more extensive trade between the warring states. {4-6}

Ancient India: c. 600-470 BC

In what may be an independent development, unrelated to events in Lydia or China, the first Indian coins appear with the 6th century BC Mahajanapadas of the Indo-Gangetic plain: punch-marked pieces of irregular shape but constant weight. There were sixteen kingdoms and oligarchic republics, and some issues can be identified by their symbols. Saurashtra used a humped bull, Dakshin Panchala a Swastika, while others, like Magadha, used several symbols.



The 322-185 BC Mauryan Empire extended the issues. Each coin (karshapana) weighed 32 rattis and contained 50-54 grains of silver. Some 450 different punch-marks are known, the most

common being the sun and six-armed symbols, various geometrical patterns, circles, wheels, human figures, animals, bows and arrows, hills and trees etc. A few coins are inscribed with Brahmi legends in Prakrit. {7-9}

Iron Age Europe

A wide variety of objects found in archaeological sites — rings, miniature axes, bells, bars of metal — can be ascribed to Europe's proto-coinages, though the uses are unclear, as is much about a period for which there are few written records. Commonly the metal of these proto-coinages is bronze, which in the later Celtic issues was mixed with tin to give the low-value potin coinages. The Spartans used bundles of metal rods, and iron rings are also found in northern Europe. Julius Caesar noted the British Celts employed crude iron blades for currency, in conjunction with their precious metal coins. {1}

Proto-coinages are sometimes found in large numbers in burial sites, suggesting a religious significance, though it's possible the items were also used for day-to-day purchases.



In Celtic coins proper, gold issues are far more common than silver, probably because, though less available, the metal was more easily extracted. Some hundred odd metal mines are known from the period in England and France. {10}

Lydia

Coins proper appeared first in Lydia (southern Turkey), shortly followed by the neighbouring Ionia (south-west Turkey). The hoards uncovered beneath the temple of Artemis built around 600 BC at Ephesus suggest that true



coins date from around 640-630 BC (in Lydia, where examples show early stages of coin development whereas other areas do not).

The first coins were little more than lumps of the electrum obtained by panning the local rivers, but by mid 6th century BC, the Lydians had managed to separate the gold from silver, and Croesus issued a bi-metallic coinage. Thereafter, the practice of coinage spread — eastwards when Lydia was absorbed into the Persian Empire in 546 BC, and westwards to Ionia, the Aegean islands, mainland Greece, the Greek settlements (especially Sicily) and thence to Macedonia, Thrace and the Black Sea. Coins probably appear in Aegina around 595 BC, in Athens around 575 BC and in Corinth around 570 BC. Trade and taxes were the uses served. {1} Merchants were obliged to exchange their bullion for coins of equivalent face value, a fiduciary money whose value was set by fiat of the state. Generally the coins — small, very crudely made ovals of electrum — held less silver and gold at prevailing market values than the bullion for which they were exchanged, that difference going to the state, which grew very wealthy. Taxes had also to be paid in coinage, which was used to maintain the administration and the army — a sort of protection money racket that created a trading enclave beyond the reach of Persia, believes Graeber {12}. Countries were thereby shielded from big power exploitation, avoiding debt peonage and allowing independent yeomen to bring up sons to serve in the army, where they made better soldiers than conscripted men. Spheres of coinage use became self-contained, internally integrated economies of common purpose. {2, 11-12}

Early Rome: From State to Empire

Matters were more complex in Italy. Gold was readily available but the Roman state first used crude lumps bronze (*aes rude*), which were of various sizes and bore no

distinguishing mark. Later these became bars the length of a man's foot, the so-called asses: each weighed about a pound, and was marked off into 12 thumbs of inches. Weight became the important consideration, and the unit of value



became the pound of bronze, the as *libralis*, which could be fashioned in tools, weapons and utensils. Because weighing these lumps was inconvenient, the practice arose of standardising the weights and certifying them with some authoritative device, which was often images of animals. Such bronze coins

appear from 300 BC, and were joined by silver from 245 to 217 BC, the two metals being equally important. Silver predominated afterwards, and from the end of the Pyrrhic War took the form of the denarius, which was rated at 10 asses or 4 sestertii. In 217 BC the ass was reduced to a standard one ounce, and re-tariffed at 16 to the denarius, which itself remained the standard until the Roman Empire, when the denarius was debased and gave way to gold as the primary unit of measurement. {13}

Social Obligations

The one feature common to proto-coinages, and applying in some half-understood fashion to money ever since, is social obligation. Money not only records what work has been done by individuals towards the communal needs of the state, but what is due to persons and institutions in terms of the honour and respect applying to their social position. China only became widely monetised in the period of Warring States, for example, and even these coin issues were often extremely local and variable, many them probably made by merchants and money-lenders, neither of whom had much

social standing — i.e. the old order was being undermined. Cowries were the earlier currency, but were more used for gifts and adornment than payment for services, if such indeed existed. Chinese sources do not generally distinguish between wealth and value because these concepts did not possess the differences they now have for us. Conversely, though Chinese knife and spade coins were much sought after by surrounding tribal peoples, they were not used as money but as personal adornments by their chiefs, the foreign objects conveying status and honour. {14}

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21. Metal Mining and Sources

Earliest Mining



Mining and the extraction of metal for jewellery, weapons and household utensils started long before money plagued the thoughts of men. Gold mining goes back at least to the 5th millennium BC {1} and gold ornaments were being exchanged or traded throughout the Chalcolithic period (4th-3rd millennium BC) in Europe and Asia. {3} Silver was mined as early as 3000 BC in Anatolia, and probably not much later in several Mediterranean islands. {3} Copper production appears, probably independently, in many places: Turkey (7,000 BC), south Siberia (3,500 BC), Africa (3,000 BC), western China (2,700 BC), Europe (2,100 BC) {2-11} Copper was soon mixed with the much rarer tin (from Cornwall, Brittany, Turkey, Iberia, Malaysia, Yunnan or Afghanistan) to make the harder bronze needed for weapons and farming tools. {12-14} All this speaks of enterprising communities linked by well-travelled trade routes, and indeed the salvage from a 14th century BC vessel that sank at Uluburun off the southwest coast of Turkey included a wide variety of goods

from the eastern Mediterranean: 10 tons of copper ingots from Cyprus, 1 ton of tin ingots, heaps of blue-and-turquoise-coloured glass, great ebony logs, elephant tusks, pottery, cylinder seals, and gold scrap from Egyptian jewellery. {15}

While ore deposits are not absent from most countries, they are often small, scattered and soon exhausted. The most accessible were secondary deposits, gold placers in particular, which could be worked cheaply by hydraulicking and the metal concentrated by simple washing techniques. {16} Deposits that yielded millions of tons of contained metal, however, and went on year after year making their owner's fortune, belonged to a few rare types. Those unusual coincidences of geological settings are nowadays the object of sustained study and exploration programs too expensive for any but major mining companies to contemplate. Finds in the past were more by chance, and miners, skilled though they were, and by nature optimistic, rarely grasped the full dimensions of their finds. There were no drilling machines to sample the rock hundreds of metres ahead of present workings, nor the blasting and earth-moving equipment to excavate great open pits and benefit from computerized economies of scale. Miners and mine owners often lived from month to month. All phases were primitive: mining, smelting and refining. Where the ore was plentiful, as iron deposits generally are, the smelting technology could be difficult, but the techniques were sufficient mastered to usher in a widespread iron age in Africa, Asia and Europe. The Hittites were smelting iron by the second millennium BC {17} and the Chinese, who used iron occasionally for coinage, by the 5th century BC. {18} The Romans, who typically put matters on an industrial scale not seen again till our own 19th century, were achieving 1.5 kg of iron per head of population per annum from deposits scattered across the empire, but particularly from Spain and Noricum (Austria). {19}

The capital to develop large mines was not easily raised by small states, however, and the labour had usually to be

supplied by convicts and/or slaves captured in war or colonial expansion. When those sources dried up, as they did in the second half of the Roman empire, and Europe in the Middle Ages, freemen came to fill the gap, and those freemen in Europe organized themselves into stout communities that developed tunnelling and dewatering skills, in time forming guilds that took trade secrets with them when they moved to new mining areas. Nonetheless, most operations required hard manual labour. The unfortunates were commonly worked to death. Even the classical authors, inured far more than we are to the savageries of war and slavery, felt some pity for these subterranean wretches, and conditions in the mines of Peru and Mexico excited general horror. Millions of native people died of injury, disease and unremitting cruelty. {20}

As in Europe, it was not generally the mine owners who made fortunes, however, but the businesses supplying rations, textiles, tools and mercury (to extract the silver) — goods that were advanced against future gold and silver deliveries. Beyond those local merchants stretched a vast chain of businesses that linked mine to town to capital city to port and finally to Seville or Cadiz. {43}

Greece

The lead and silver veins at Laurion, some 50 km south-east of Athens, may have been worked from the 10th century BC, but it was a major find around 483 BC that allowed Athens to greatly expand her navy and defeat the Persians at Salamis in 480 BC, so laying the foundations for Athenian and Greek power in the region. The ore was galena (lead sulphide) containing some 30-300 ounces of silver to the ton. Over 2,000 shafts were sunk in these mines, which accessed small galleries, often no more than two feet across. The mine was owned by the state, which leased out production to private contractors paying a fixed sum plus a percentage on the production. The work was exceptionally hard, and slave

labour had to be employed throughout: an early 'capitalist' affair which needed luck and careful management to yield a profit. Though as many as 30,000 were employed in the height of mining in the 5th century, production gradually declined towards the end of century as the richer veins became exhausted and the area was sequestered under Spartan occupation, though they revived again under the Romans. Extraction was followed by manual sorting of the ore and then washing, tanks being constructed to collect rainwater for the purpose. {21-25} {39}

China

China needed large quantities of copper, lead and tin to manufacture her cash coins, which were cast in huge quantities. Up to 5 million strings per year were turned out by the Northern Song dynasty, where each string held a nominal 1000 coins. {26} Until the late seventeenth century AD, when Japanese supplies became important, the main sources were many small local mines. In early times the distant Urals may also have been a source: it is noticeable that the ages of the first bronzes cast by pre-Qin China become progressively younger eastwards. {27-31}

Rome

Rome mined metals throughout the empire but the large and rich sources were in Noricum (Austria), Dacia, Britain and the RioTinto area of Spain, (the last being geologically similar to the later Rammelsberg find noted below). All four produced appreciable gold, native in Dacia and Britain but associated with iron ore at Noricum and with base metals in Spain. The ore was dug out with iron and occasionally stone implements, and deeper mines ventilated with special ventilation shafts. Water wheels were used to crush ore and drain mines. Though somewhat crude, Roman metal working included smelting, melting, roasting, casting and cupellation. Most furnaces were heated by wood or charcoal, but coal

was used in Britain and the Rhineland from the 2nd century AD. {32-33}

Africa

Gold was mined in western Arabia and occasionally in east Africa from earliest times. {44} The shallow but enormous gold fields of Ghana, Niger and Mali became important later. {34-38}

Central Asia

The Islamic dynasties obtained their gold from the Urals-Altai area, Tibet and India, — supplemented by important supplies from Nubia, north Africa, south-east Asia and (most particularly) west Africa.

Rich silver lodes were mined in four phases in central Asia. {44}

Phases (AD)	Ilak-'Shâsh' (Karamazar Mts: Uzbekistan)	Mad'in Benghir (N.W. Afghanistan)	Pamir (Kugan-Tugaj: Tadjikstan)	Headwaters of Talas River (Khirghizia)	Total Silver Production (kg)
480-650	300	7,300	-	-	7,600
730-850	23,000	-	-	-	23,000
850-950	22,700	-	300	-	23,000
950-1140	-	-	7,500	60	7560

Europe

Coinage largely disappeared from Europe after the fall of the Roman Empire, though there were sporadic striking in

silver: diminutive sceats and then pennies, often modelled on Byzantine and Islamic issues. Then, in the late ninth century, came the find of Rammelsberg in the Hartz mountains of Germany, followed, in 1168, by the rich find of Freiberg. A silver fever spread across Europe in the late 12th and early 13th centuries, unearthing new deposits in the Black Forest, Bohemia, Hungary, the eastern Alps and at Iglesias in Sardinia. The Bohemian Kutná Hora discovery of 1298 generated enormous quantities of silver. Some 20 tonnes of silver were extracted every year from 1300 to 1340, generally by seasoned Saxon miners who brought with them their expertise, their customs and traditions of personal liberty. {39-41}

So arose the early 'capitalist' system. Merchants and merchant bankers supplied the capital and handled the marketing of products. The miners supplied labour, in enormous quantities sometimes: the Schwaz and Falkenstein mines of the Tyrol employed over 12,000 men in 1550, 500-600 alone for pumping out the water. That workforce was also dependent on others for their rations, another much-complained-about source of profit to merchants and mine owners. In time mining became less local, and increasingly Europe obtained its iron from Sweden and Russia, its copper from Norway and Sweden, its tin from Cornwall and Siam, its silver from Japan and America, and its gold from China and America. Behind all those sources, as important as the mines themselves, lay complex networks of merchants to supply goods, market products and provide the necessary finance. {43}

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22. Specie Flows



Islamic Silver

The large quantities of silver dirhems — some 228 million in all may have been imported — that still turn up in coin hoards throughout the Baltic area throw valuable light on east-west patterns of trade in the Viking period. There were three main trade routes. One was via such cities as Samarkand, Bukhara and al-Shash to Urgench to the east of the Caspian Sea. Here merchants from Khurasan and central Iran met the Vikings, Khazars and Rus merchants, enabling them to acquire slaves, furs, honey, leather, ivory, fish and other goods for silver and Islamic manufactures. Another trade route ran from Iraq, through Mesopotamia and Armenia to Darband and then through the northern Caucasus up to the Volga. A third route lay through the Byzantine Empire, and may well have supplied the Empire itself with silver for small transactions: the Byzantines themselves largely struck copper and gold denominations. The hoards with coins originating from the eastern part of the Abbasid Caliphate are 50-80% Samanid or 45-80% Abbasid. Hoards with coins originating from the western part are 40–

95% Abbasid. {1-2} A few coins from Muslim India also turn up as single finds, even as far away as England. {3}

The Islamic dynasties were not unaffected by their neighbours. The influx of New World silver into western Europe caused inflation in the Ottoman Empire, for example, {4} and the Safavid shahs were always trying to stem specie outflows, either by taxation or outright bans. {5}

The Silver Famine of 950-1125 AD

Silver mintages dwindled throughout the Islamic world as the central Asian (Talas) mines became exhausted and mining at Rammelsberg suffered dewatering problems and then a prolonged miner's strike. To meet the shortage, lead-tin-silver mines were reopened in England (Devon and Derbyshire), Spain, Italy and north Africa, but these were high-cost producers: their contribution was always marginal, insufficient to meet Asian and European needs, and usually sputtered out when the Rammelsberg operation intermittently came back to life. Some silver from the Talas mines enabled the Ghaznavid and Ghorid coinages to continue, but even the Kharakhanids of Transoxania, who directly controlled the mines, could strike dirhems only to 1075, and then at steadily decreasing fineness.

Silver coinages otherwise disappeared, their place being taken by gold for large transactions and billon, copper, brass, iron and even glass denominations for small. The great streams of Islamic coins that had flooded across Russia to serve as European coinage (as silver for reminting and by silver weight de facto coinage) gradually petered out. Quantities and silver content decreased, and in time dried up altogether, leaving small transactions to be made by barter and coin substitutes (which included cloth and clothing). The use of coin substitutes spread even to England, threatening its fiscal system. Throughout Europe and Asia the larger transactions had to be by gold, which became the single money base, and as supplies of this metal came under

pressure new sources had to be found in Spain and Italy and (latterly and most particularly) in sub-Saharan Africa. {6}

The areas surrounding the central Asian mines, which had grown prosperous under the mining boom, then faced uncertain times. Their rice, millet and wheat lands depended on complex irrigation schemes, but increasing taxation led to flight from the land, and irrigation schemes fell into disuse. The climate too became more arid, unsettling the nomadic peoples who increasingly turned to plunder, endangering or cutting vital trade routes. Samarkhand and Bukhara were surrounded by a rich complex of orchards and vineyards, and these too began to suffer, as did the local industries: textiles and the manufactures of weapons and metal implements. Some 100,000 starved to death in the great famine of Nishapur in 1011. {7}

Some Chinese gold entered central Asia to pay for local purchases, and this Chinese gold was supplied or supplemented by sources in Java, Sumatra, Borneo and the Malay peninsula. Some Chinese gold also found its way to India, though more Indian gold came from Tibet and Deccan sources. But if China paid for its luxury goods with gold, silver and copper cash, the country also balanced those trades with large textile and porcelain exports.

A metal shortage nonetheless affected China, and there had to be lead coinages in the States of Min, Southern Han and Ch'u. When these seemed impractical supplements to copper cash, the emperor T'ai Tsu (960-75) of the new Song Dynasty adopted the 'flying money' of the previous T'ang and 5 Dynasties and 10 Kingdoms periods, where deposit shops would store gold, silver and cash, and honour cheques drawn on those deposits.



*Southern Han Dynasty
(917-42) Emperor: Liu
Yen (917-942)Reign
title : Chein Heng
(917-942) Pb One
cash.*

Harthill 1570.

The government itself issued cheques in 1024 — i.e. bank notes — and though a small charge was levied, the notes were fully convertible.

By 1161, the Southern Song empire had 10 million notes in circulation, about twice the value of copper cash issues. Supplies were carefully controlled however, and the government never defaulted. Denominations were as low as 5 or 2 cash. Thus the silver famine, which caused such dislocations in Europe and the Islamic world, encouraged the expanding Chinese economies to free themselves from the deflationary constraints of a metal currency. {7}

Rammelsberg

Islamic silver supplies gradually dried up, but, happily for Europe, the late ninth century also saw the find of Rammelsberg in the Hartz mountains of Germany, and this enormous deposit of copper, lead and zinc yielded silver as an important by-product. Mining was rather primitive. The ore lay in steep-dipping layers of sandstone and slate, quite hard to work with picks, hammers and the usual practice of cracking the rock by fires, and subject always to flooding when the water table was generally within 30 m of the surface. The miners dug drainage tunnels, and lifted water in strings of leather buckets. Later they devised ingenious water extraction systems in which leather bags inflated with air were pulled through pipes made of hollowed tree trunks, but such improvements came slowly, indeed over centuries. Metal extraction was also rudimentary, being largely

cupellation, a method essentially unchanged from Roman days, which left up of 30% of metal behind in the slag. {2}

Freiberg

In 1168 came the rich find of Freiberg, which created a lawless 'silver rush' settlement, and the next twenty years saw thriving mining operations on the Silberberg, where the Markgraf Otto of Meissen was content to award concessions and tax the proceeds. Even at a mere 10% royalty, the Markgraf became 'Otto the Rich', and when the Bohemians raided his treasury in 1189 they found 30,000 marks of silver, even after years of spending money on city walls and monasteries. Otto's descendants indeed became the Dukes, Electors and Kings of Saxony, and in time allied themselves to most of the European monarchy. The silver fever spread across Europe in the late 12th and early 13th centuries, unearthing new deposits in the Black Forest, in Bohemia, Hungary, the eastern Alps and at Iglesias in Sardinia. The Bohemian Kutná Hora discovery of 1298 generated enormous quantities of silver. Some 20 tonnes of silver were extracted every year from 1300 to 1340, generally by seasoned Saxon miners who brought with them their expertise, their customs and traditions of personal liberty. From this period may date the folk stories of central European, with their dwarves toiling in mountain caves glittering with ores and precious stones. {2,9}

Demise of Feudalism

Given these fresh if somewhat precarious silver supplies, countries throughout Europe once again began striking their own coins, their efforts still at the mercy of changing conditions at individual mines, new finds and the drain of silver outwards for trade or warfare with the Muslim east. When serfs could pay their dues in rent or taxes rather than a share of their produce, money started to undo the feudal system. Count Henry the Liberal of Champagne began in the 1170s to cut forests for cash, to plant new ones, and to clear

scrub land for agriculture, charging rent in cash rather than payment in kind. He built mills, ovens, and wine-presses, again charging coined money for their use. Count Philip of Flanders drained swamp country, selling the peat for fuel and renting out the improved land for farming. Count Matthew of Boulogne founded new trading ports at Calais, Dunkirk, Damme, Nieuwpoort, and Gravelines as commercial investments. Individual peasants could also buy land, becoming by industry as rich as the lower classes of knights. Military campaigns were no longer restricted to feudal levees, moreover, but could employ mercenaries paid by taxation or from loans advanced against plunder and future profits. With taxes came the need for records, for an educated civil service to maintain them, and for an orderly administration of regions by cities like Paris, London, Venice, and Florence. Castles, cathedrals and palaces could now be built with the best that the newly-available money would buy, and embellished by local or imported craftsmen. Prosperity spread into the growing guilds, industries and middle classes, who sought luxury goods, often imported, but also developed a sound business sense in constructing canals, warehouses and comfortable town residences. Coinage expanded accordingly. English mints at London and Canterbury in the 1220 struck 15 tonnes of silver into 10 million silver pennies in a little over two years. English mints turned out an average of 4 million silver pennies a year in the 1220s, a figure rising to 10 million a year in the 1240s, 15 million in the 1250s, and 40 million a year in 1279-1281. The coins were struck of high-quality silver, moreover, and enjoyed a wide circulation in Europe as well. {2, 6, 12}

Silver Trade

Central European silver found its way over the Alps to Venice, where 'German silver' became the everyday currency. The Serene Republic built a trading centre, the Fondaco dei Tedeschi, to assist German activities, and charged them 2.5% duty on goods they traded. Central

European silver was also used to buy woollen cloth from England and the Low Countries, and great trading cities rose on land routes or along the Rhine and Danube. Luxury goods from the Mediterranean, the Byzantine Empire and Muslim countries more than counterbalanced this trade, however, and generally created a net outflow of silver through the Italian trading ports. Silver mines declined throughout central Europe in the middle of the 14th century, partly a result of labour shortages after the Black Death, but more the simple geological facts. Mines had reached the limits to which the shafts could be pumped dry with available technology. Similar problems afflicted the large copper mines of Rio Tinto in Spain, where silver was extracted as a by-product. With coins expected to contain their face value of silver, such dwindling silver supplies led to reduced coin mintages. Edward I of England had 100 tonnes of silver to work with when he issued new coins in 1278-80, but Henry IV in 1412-1414 was limited to two tonnes. Silver shortages had caused almost all mints of northwest Europe to close by 1450. The last money-changer at Dieppe went out of business in 1446. {2}

Gold Trade

Gold was still available, for commerce and display, but everyday transactions required silver, which had been drained off to buy that very gold from intermediaries of the Mali empire. Europe was often subject to events beyond its borders. The Mamluk Sultans of north Africa, for example, controlled commodities essential to a Europe that had few means of preserving food. In 1426 the new Sultan Barsbay of the Mamluks — whose kingdom oversaw the passage of spices from Jiddah, where oriental supplies were unloaded, to Cairo and so sale to the Venetians — made pepper a royal monopoly. Prices were increased in 1426, 1428 and 1430. The extra expenditures came at an unwelcome time for the Venetians who were fighting Milan for control of the northern plain, and indeed hampered their campaigns. By

the 1390s, there were silver shortages all over Europe. Output from the silver mines at Kutná Hora had declined after the 1370s, and closed down after Sigismund's raid in 1422. The only significant surviving sources were mines at Srebrenica in Bosnia and Novo Brdo in southern Serbia, and most of that production was shipped through the Venetian ports and fortresses that controlled the Dalmatian coast. As the Venetian trade with the east in the 1420s amounted to about 600,000 ducats a year, some 20 tonnes of silver a year may have drained out of Europe by this route. Some gold was mined in Europe certainly, from Rio Tinto and elsewhere, but Hungarian production fell markedly in the 1440s. {2}

Bullion Decline and Revival

But still there was enough gold for trade, at least at first. By 1423, the Venetians were taking in some 400,000 ducats a year paid by Florentine bankers, presumably in settlement of accounts by traders over a wide area of Europe, and over a million ducats from the burgeoning Duchy of Milan. But supplies were not uniform and eventually ran out. A French and a Florentine galley reaching Valencia in 1451 were unable to sell their goods because no ready money could be produced. The Turks overran the Serbian silver mines in 1455, and captured the last Bosnian mine in 1460. The final Venetian silver grosso was minted in 1462, and on 17th March 1464 Venice sent the city's cash for trade with Syria, leaving behind nothing but small and debased coins. Important banks failed, including the Strozzi bank of Florence, the second largest in the city, and entire regions in the Middle East sank into impoverishment and depopulation, exacerbated by centuries of neglect of agriculture and irrigation, military disasters, rapacious taxation, and misgovernment.

European deliverance came from two sources: improved mining techniques and New World bullion. The 1450s

improvements of Claus of Gotha solved flooding problems in the Saxony mines, and old mines were quickly re-opened across Europe. A new lead amalgamation process introduced in 1451 facilitated the separation of copper from silver, and mining was resumed at full strength at Kutná Hora, Freiberg, and Rammelsberg. New mines were opened, particularly those at Schneeberg in Saxony and at Schwatz in the Tirol. More important still was the Joachimsthal find in 1516, which was producing 3 million ounces of silver a year at its peak in the 1530s. The resulting coinage, the so-called Joachimsthaler, became the thaler denomination, and in time the dollar. {2}

Growth of Banking

The unequal trade with the Middle East also revived. Some 300,000 ducats' worth of silver per year was reaching these countries by 1496, and silver was again plentiful in Italy in 1471. The chief bullion exchange cities were now Milan for the Italian route, and Frankfurt for wool from Flanders and England. The financial world was re-established with better banking and credit procedures. Banks of sound reputation began to lend out 90% of the deposits, so increasing commissions and business opportunities. Silver was increasingly bought and sold as a commodity, and silver needed for coinage often bought with gold coins. With new copper supplies from mines in the Alps and Carpathians, the Venetians from 1473 minted a copper coinage: sound coins that were accepted because they contained their face value in metal. {2}

Old and New World Sources

Mining technology continued to improve. At Rammelsberg, the Saxon miners built a 2600 m long drainage adit which took 99 years to complete, constructed a dam, and pumped out mines with water wheels driven by sluice waters. Saxony miners were the acknowledged experts when Agricola wrote his treatise *De Re Metallica*, and they developed techniques

not improved on until modern times. Mine ventilation was instigated, fire-cracking of rocks greatly reduced, basket haulage replaced by sleds and wheelbarrows, and ore lifted by windlasses powered by hand and then horses. Advances in metal extraction allowed lower-grade ores to be worked. In time, however, though or because increasing bullion from the New World corrected the trade imbalance, working practices in the European mines sank back into their old ways. Miners were reduced to virtual slavery, and many mines were in fact worked by prisoner-of-war and convict labour. Indeed the whole balance of trade shifted when Muslim intermediaries were bypassed as Europe developed sea routes to the orient. The Portuguese, Dutch, and English exported bullion to Asia and brought back spices, tea, silks, and porcelain. Most of that bullion came not from Europe but mines in Peru and Mexico, its Spanish masters redistributing this wealth in ruinous European wars and lavish court spectacle rather than in sensible investment. {2, 6}

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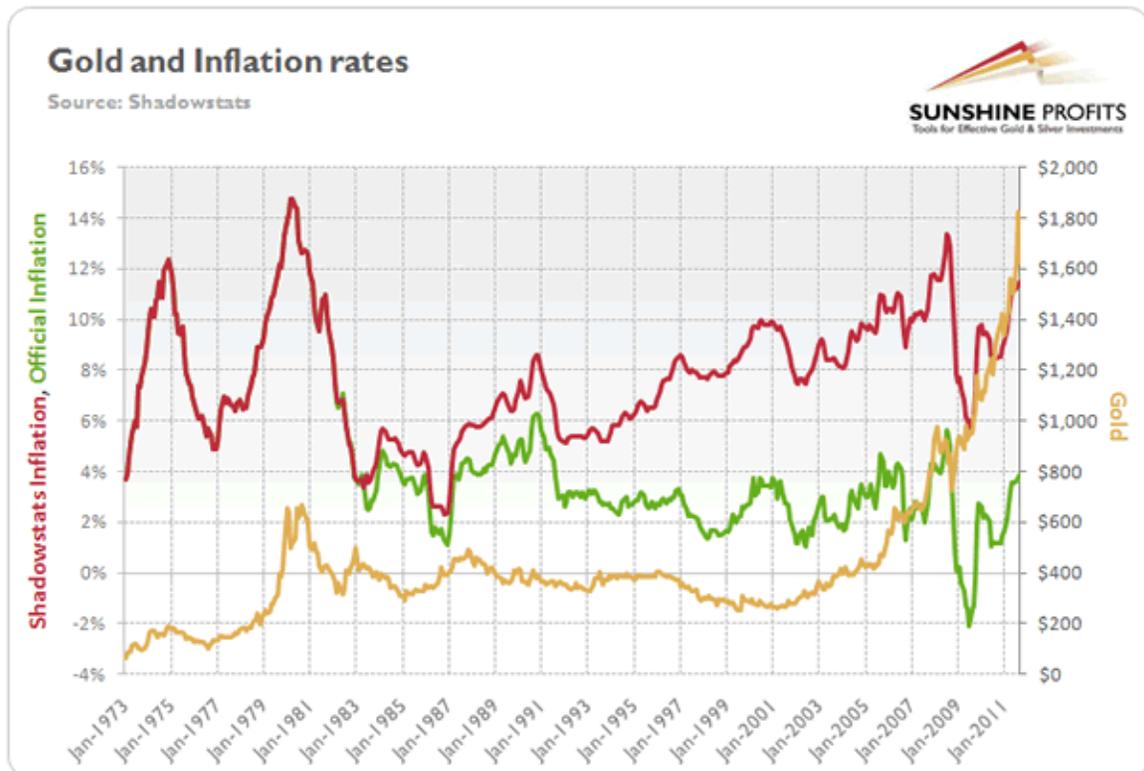
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22. Gold Versus Silver



Gold and silver have been used as money since earliest times, by reason of their beauty, rarity, resistance to corrosion and ease by which they could be cast as bars and ingots or worked into jewelry. Silver as a medium of exchange is mentioned in the Code of Hammurabi of 1870 BC, and gold circulated as tiny cubes in China as early as 1100 BC, but it was silver that served as the main medium of exchange through China's long history till recent times, and gold that generally served the primary role in Europe, with silver as a second in command or awkward lieutenant. {1-5}

Greece

The earliest western coins were in fact in electrum, which occurs naturally in Asia Minor, and these darics were no more than crude pellets stamped with the archer and bow to denote the authority of the issuer, the king of Persia. That ingenious race, the Greeks, soon took the notion further and turned out gold and silver coins that not only circulated at the face value of the bullion they contained, but were often objects of great artistic merit, indeed some of the most beautiful coins ever produced. Silver was the metal of choice

for circulating coins, gold being generally reserved for temple treasuries, to be called on in times of emergency, when troops had to be paid. Times of desperation might indeed require gold statues and ornaments in temples to be melted down. Nonetheless, to the silver coinage of Rhodes was added gold staters early in the fourth century, and the two metals remained in circulation until the death of Alexander in 323 BC, when the Macedonian Empire broke into Hellenic states each issuing their own series of coins. {1-5}

Rome

Gold was readily available to the Romans but the state first used crude lumps bronze (*aes rude*), which were of various sizes and bore no distinguishing mark. Later these became bars the length of a man's foot, the so-called asses: each weighed about a pound, and was marked off into 12 thumbs of inches. Weight was the important consideration, and the unit of value became the pound of bronze, the *as libralis*, which could be fashioned in tools, weapons and utensils. Because weighing these lumps was inconvenient, the practice arose of standardising the weights and certifying them with some authoritative device, which was often an impression of some animal.

Such bronze coins appear from 300 BC, and were joined by silver from 245 to 217 BC, the two metals being equally important. Silver predominated afterwards, and from the end of the Pyrrhic War took the form of the *denarius*, which was rated at 10 asses or 4 *sestertii*. In 217 BC the ass was reduced to a standard one ounce, and retariffed at 16 to the *denarius*, which itself remained the standard until the Roman Empire, when the *denarius* was debased and gave way to gold as the primary unit of measurement. Gold indeed had been used in Roman Republic days, and was occasionally required for taxation, but gold coinage first appeared under the financial strain of the Second Punic War (218-201 BC). Three denominations were issued, of one, two and three

scruples, but values were set at so high, (at 20 *sestertii* to the *scruple*), that the products were regarded as token coinage and soon discontinued.

Gold coins were again struck by generals in the late Republic, probably from loot, to pay their soldiers. Sulla created the *aureas* of 168 grains of gold, and later one of 140 grains. Pompey issued his own coins at that weight. Julius Caesar's mintings were at 126 grains. No conversion rate to the *denarius* was instituted, however, and the coins were probably bought and sold at market prices for gold. After Caesar's death, the Senate authorized moneyers to coin gold, but issues from Rome were overtaken by provincial issues by the triumvirs and their subordinates. {1-5}

As with anything else, Gresham's Law soon operated, and the lighter *aurei* displaced the heavier. Debts were preferentially repaid in lighter coins, and the heavier disappeared: the coins were hoarded or melted down to make more of the lighter variety. No doubt traders noted the differences and made their local adjustments, but we have no details. With Augustus comes a splendid coinage regularized into an *aureus* of 126 grains, a silver *denarius* rated at 12.5 to the *aureus*, and a brass and copper coinage that may have been traded as weight of contained metal though officially rated as follows: the *denarius* was worth 4 brass *sestertii*, 8 copper *dupondii* and 12 bronze *asses*.

All denominations suffered from inflation: the coins were lighter, debased and replaced by other denominations at rates favourable to government treasuries. As the copper coinage was more in the nature of tokens, and very well made tokens at that, there was little attempt to benefit from varying prices of their contained copper, tin or lead, at least to the third century AD, when silver-washed base metal coins — the *antonininus*, which had replaced the *denarius* at two *denarii* for one *antonininus* — were minted in enormous quantities but poor workmanship. Matters were very different

with precious metals, however. If gold was undervalued with respect to silver, the silver coins were preferentially hoarded or melted down to be sold for gold. If silver coins were undervalued, the gold coinages suffered the same fate. Inferior coins — excessively worn, clipped and/or debased — drove out the good, despite edicts against coin defacement and exportation.

The Roman Empire was largely self-sustaining, but coins did leave its confines to pay for eastern imports of silk, spices and luxury goods. Silver was the preferred medium of exchange in China, and Roman gold and silver coins circulated in India, both probably by value of contained metal than by any formal exchange rate. From Augustus to Nero, the denominations held firm, but the *aureus* was subsequently reduced in weight, and the *denarius* increasingly debased with lead. Even the reigns of Claudius and Nero saw much counterfeiting, and a wide circulation of privately-made tokens, often of lead. Diocletian revised the monetary system entirely, and Constantine the Great replaced the *aureus* with the *solidus*, a thinner coin containing 70 grains of gold. Thereafter, to the end of the western empire and through the Byzantine Empire, the *solidus* maintained its importance. It was unit with which all produce was valued, though most individuals probably never saw one. Bronze coins minted for everyday purposes grew more martial in appearance but smaller in size, eventually disappearing altogether in the west as the centralising empire shrank into self-contained feudal estates relying on tithes and barter.

England

Bar the gold penny of Henry III in 1257, unpopular and struck in small quantities, the medieval gold coinage of England begins with the florin of 1343. Unfortunately, these one, half and quarter florin issues were over-valued with respect to silver and so disappeared. A year later saw the

introduction of the noble, a handsome coin of 129 grains that proved acceptable, though it was debased by stages to 68% of its original value by 1460. Debasement was inevitable as both gold and silver coinages suffered from two problems. First was the varying exchange rates between the two metals that saw coins of one metal hoarded or melted down, despite savage penalties. Often the coins were spirited abroad if higher prices merited the risks involved. The second problem was the poor conditions of coins circulating, which commonly suffered abrasion, sweating, clipping, boring, scraping and counterfeiting. Indeed European medieval coinages generally saw three phases: commercial expansion, marked by increase in the money supply and rising prices. Then would come a period of steady production of precious metals, with a struggle between rival states for possession of these sources. Finally would develop a volatile period of shifting exchange rates between the metals, and so currency instability. {1-5}

Thereafter, from the discovery of New World bullion sources to the end of the seventeenth century, both gold and silver coins were minted, and both were legal tender in England. But Gresham's Law operated as noted, and the circulating coinage was not in good condition. Many pieces were simply silver-plated iron, brass and copper, and in fact valued at half their supposed silver content or face value. The recoinage of 1696-9 raised the gold-silver value ratio from 15 to 1 to 15.5, and even this small change brought many foreign coins into the country for reminting as English denominations. The silver coinage was melted down and/or exported. The previous bimetallism was effectively replaced by a gold standard, and continued so for the next hundred years until specie payments were suspended during the Napoleonic Wars. Sir Isaac Newton as Master of Mint had adjusted the value ratio to 15.21, but the imbalance continued. Crown pieces had almost disappeared by 1760, for example, though they had been minted from 1695 in

quantities to the value of 1.5 million sterling. Of half crowns, some 2.5 million pounds sterling's worth, only imperfect copies remained, and smaller denominations were practically worn flat.

Between 1793 and 1797, the sovereign was replaced by the guinea, but the bullion losses continued just the same. Banks, however, both the Bank of England and country banks serving local communities, issued banknotes, which were not legal tender but were redeemable for specie on demand. {1-5}

Indeed it was Charles II's default of 1672 and his son's Catholicism that led to the triumph of the credit system. The 'glorious revolution' of 1688 put a Dutch king on the English throne, and a Dutch monetary system into effect. With the establishment of the Bank of England, set up with £1.2 million by wealthy London merchants, the king needed no longer to petition Parliament for funds but could draw on the Bank for loans, paying the 8% interest charge through Parliament-regulated excise duties and taxation. The Bank also received a £4,000 annual management fee, and a royal charter allowing it to take deposits, issue bank notes and redeem bills of exchange. In this way a privately owned bank converted the sovereign's person debt to a public debt, and eventually, when the Bank was given the sole right to issue bank notes, into a national currency. Loans not paid off were transferred to a national debt, a safe mechanism while a strong and stable government paid interest on that debt. {1-5}

From 1797 to 1821, England was therefore on a de facto paper standard. Many factors contributed to this emergency device, but all revolved around the changing fortunes of war. A heavy demand was placed by the Government on the Bank of England for equipment and mercenary payments, which led to large bullion transfers abroad. Conversely, particularly during the early part of war, though France appeared to be winning, there was a drain of bullion back to

England after the disastrous French experiments with paper-based inflation. By 1797, the English coinage was truly in a bad way, and the Earl of Liverpool's recommendations were that gold, and only gold, should be the measure of property and instrument of commerce. Silver and copper coins should be struck, but not made legal tender above the nominal value of the largest gold denomination in circulation. The recommendations were adopted, and in 1820, after a paper money regime of a quarter century, England came back to a gold standard, one which it embraced for 93 years, until the 1914 outbreak of war. Specie payments in gold were maintained, coins were struck in gold and that metal flowed freely in and out of England as trade required. {1-5}

USA

Matters were hard fought in the nineteenth century in the USA between those favouring a gold standard and those who argued that both gold and silver had a role to play. Gold was supported by east coast bankers who wanted America to be fully integrated into the world economy, with the dollar in fixed relation to the English pound. Silver was advocated by hard-pressed farmers, steel companies, businessmen, and those who'd seen their debts increase as a result of deflationary gold standard policies. Silver was anyway needed for everyday transactions, was mined in many areas, and so could serve to expand the local economy. Nonetheless, the North had funded the Civil War by a \$150 million (later increased to \$450 million) issue of Greenbacks, and these were redeemed with gold under the Specie Resumption Act of 1875, which brought the economy back under international banking influence. The Sherman Silver Act was repealed, a run on the US Treasury's gold reserves was possibly engineered by J.P. Morgan and others, and in the contraction of bank credit following the financial panic of 1893, a severe economic depression arrived.

Some 15,000 businesses, 74 railroads and 600 local banks failed. Unemployment reached 14.5-25%, and the stock market crashed. However detrimental to the country at large, the events offered investment opportunities to banking, railroad and industrial interests, which saw considerable consolidation in the hands of ever more wealthy families. The pre-eminence of finance in America life was re-established with the Gold Standard Act of 1899. {6-7} As President F.D. Roosevelt remarked in 1933: 'The real truth of the matter is, as you and I know, that a financial element in the large centers has owned the Government ever since the days of Andrew Jackson.' {8}

The Gold Standard

The gold standard was the world's first attempt at a universal currency, establishing the city of London as a centre of financial services, a reputation it still enjoys today. The 1870-1914 period of the gold standard was a period of wealth and stability for members of the club, in which there were few examples of currency manipulation, inflation or balance of payment problems. {9, 11} Simple telephone calls enabled financial centres in Paris, New York and Buenos Aires to conduct business with a reasonable amount of confidence. Currency was underwritten by gold reserves, and any profligacy corrected by gold flows. Countries could not therefore run the large trading deficits of today. Several nations, including England and the Netherlands, had used a gold standard previously, but the club was joined by Germany and Japan in 1871, France and Spain in 1876, Argentina in 1881, Russia in 1893 and India in 1898 and the USA in 1900. {9}

The Bank of England gold reserves were never large. They were increased in the second half of the nineteenth century, but at no point between 1850 and 1890 exceeded 4% of the liabilities of Britain's domestic bank deposits {8} From the 1880s to 1914 the Bank of England's reserves fluctuated

between an average of some £20 million and £40 million — much smaller than those of the Bank of France (£120 million), the Imperial Bank of Russia (£100 million) and the Austrian Hungarian Bank (£50 million). Though Britain was the world's largest trading nation, and that trade was in sterling, such was the vitality of its industries and the faith in its institutions, that more was unnecessary, and would have been 'barren' — i.e. earned no interest. {9} Gold entering Britain was therefore not hoarded but put to good use, though business instabilities were intensified. {14-15}

In general, however, the gold standard never worked entirely as claimed, i.e. gold outflows led to deflation and then to trade recovery through lower-price exports. Convertibility was promised, but only part of the currency was in practice backed by gold {16} because severe deflation would create dangerous levels of unemployment and civil unrest.

In the Gold Exchange Standard, introduced in the 1920s, there were too many war debts to fully back the currency with gold, the various contrivances could not paper over the difficulties, and gold shortages created a blight on growth and prosperity through money shortages. {11} Gold in fact only nominally backed American currency. Currency was in the hands of the Federal Reserve System, created in 1913 to bail out defaulting banks. Most countries indeed came off the gold standard during W.W.I when they needed to print large amounts of money to support war efforts. The new gold standard agreed by participating countries at the Genoa Conference of 1922 was a nominal one, which simply accepted that foreign exchange balances would be treated as gold for reserve purposes. Gold was in fact valued at US\$20.67/ounce, but gold coins and bullion no longer circulated, and any exchange of gold for paper currency was in minimum quantities, typically 400 ounce bars, which largely restricted use to inter-bank dealings. International dealings became unstable under this 'gold exchange standard', as regulation was dependent on countries playing

by certain rules. Not all could afford to. The French franc crashed in 1923. Britain returned to the pre-war gold parity, a massively deflationary measure that created widespread business failures and added millions to the unemployed. In time, of course, accumulating trade surpluses by the more successful countries led to demands to 'see the money', i.e. hand over the gold.

Both America and Britain found their gold reserves being rapidly depleted, and it was to sever this difficult relationship that Roosevelt in 1933 took gold out of contention. Gold was forcibly purchased from US citizens at its existing price, and its ownership (beyond a few trifling exceptions) made illegal. Banks were temporarily closed and confidence restored by having their accounts audited. When the gold price was finally set at \$35/ounce, the dollar had been drastically devalued, and American exports made more competitive. Yet, for all so controversial a measure, the effect was short-lived, and US full unemployment had to wait to W.W.II. {17} The Bretton Woods accord of 1944-5 fixed exchange rates and achieved price stability for twenty years.

But then came the UK sterling crisis of 1967, when many factors (rising unemployment, balance of payment problems, French actions, currency adjustment to possibly join the EEC) caused the British Government to devalue the pound sterling from \$2.80 to \$2.40 to the dollar. Bretton Woods no longer seemed so secure, and there was a rush to buy gold, particularly from the London Gold Pool, which saw large outflows. By March 1968, sales of gold were running at thirty metric tons an hour, and the Pool shortly afterwards collapsed. A new international reserve asset was conjured up by the IMF a year later: special drawing rights (SDR: essentially a paper exercise that shared responsibilities among IMF members according to their assets) but the period to 1971 was one of great uncertainty. President Nixon's announcement on August 15, 1971 was part of a New Economic Policy of immediate wage and price controls,

a 10% surtax on imports and the closing of the gold window (the mechanism whereby the dollar was converted into gold by foreign central banks). {17}

It was none too soon. Trade deficit with Japan and Europe had reduced US gold reserves to 9,000 metric tons by 1971 (and those in the UK were only 609 metric tons). Nixon's intention was to make American exports more competitive by lowering the value of the dollar, and the surtax was to be removed once that had been achieved. The Japanese allowed the yen to float, when it rose 7% against the dollar. With the 10% surtax, the American dollar had been devalued by 17% against the yen, so helping to reverse the trade deficit. Canada and the European countries particularly disliked the surtax, however, which they saw as creating severe unemployment in their respective countries, and, after much haggling, the G10 meeting agreed a 9% devaluation of the dollar against gold, a revaluation of European currencies against the dollar of 3-8%, and a removal of the surtax if countries kept exchange rates within a 4.5% trading band. Again, though popular at the time, the Nixon plan did not bring lasting success. Other countries made their own adjustments and within two years the USA found itself mired in recession. {17}

Operation

By controlling the money supply, the gold standard aimed to give confidence and long-term stability. If technology increased a country's output, prices would have to fall because the money supply remained fixed. But with lower prices, exports to a second country would rise, and that second country's purchases would have to be settled in the gold. Gold would then flow back to the first country, increasing the money supply and so the price of goods. With reduced gold holdings, and so money supply, the second country's goods would fall in price, making them more competitive, until trade flows were in proper balance again.

Central banks were also expected to adjust the discount rate (rates at which the central banks lend to member banks), raising them to encourage gold inflows (i.e. provide a better return for deposits), and lowering them to facilitate gold outflows. {9}

Britain largely played 'by the rules' over the 1870-1914 period, but France and Belgium also manipulated gold flows by selling government securities, and/or resisted interest rates rises that would make domestic goods more expensive. {10} Countries also suspended convertibility during wartime emergencies: USA 1862-1879, and Britain 1797-1821 and 1914-1925. {9}

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24. Minting Techniques

Striking

From almost their first appearance, coins have called upon two technologies: one to produce blanks of defined size, composition and weight (planchets), and two to create moulds (dies) that would hold in negative form the required designs. Until late into the Middle Ages the procedure was the same: a planchet would be placed between the two dies, and struck with a heavy hammer, creating a positive image from the lower and the upper dies. The dies were commonly of bronze, and the dumpier planchets could be heated to soften the metal prior to striking the coin. {1-2}

The first coins came from Lydia, and were no more than irregularly shaped lumps of locally available electrum stamped with the issuing authority's guarantee of weight, purity, and value. Coinage spread rapidly, however, and by 500 BC most of the important Greek cities were turning out gold, silver and electrum denominations for treasuries, payment of mercenaries, tax and overseas trade. Bronze coins suitable as small change for everyday use came a little later. {1-2}



All steps were done by hand, and the Greeks took great pride in their workmanship. The metal was first refined to the right composition, re-melted and cast in moulds of the correct shape and weight for striking. Some moulds were for individual planchets. Others were branching strips of planchets broken apart after striking. Still others had bevelled or serrated edges. {1-2}

In the striking process, each planchet would be held in a pair of tongs, heated to just below its melting point, and placed

between two dies. The obverse die was fixed in an anvil, the reverse die was placed on top of the planchet, and the whole assembly firmly struck to stamp out the piece with a single blow. (Planchets in later coins, the thinner pieces of 'hammered coinage', were not necessarily heated, or created with a single blow.) Because each was produced individually, there were coin variations due to varying pressures of the strike, the temperature of the planchets, and die alignments, though hinged dies were later employed to keep the obverse and reverse dies in perfect alignment. Despite the rudimentary technological and the sheer labour involved, mints were able to turn out great volumes of good quality coins. The work was closely supervised, and miss-struck efforts returned to planchets for re-striking. {1-2}

The Greeks made their coins into small works of art, and employed talented individuals known as engravers to engrave intricate coin designs onto bronze dies. Some engravers travelled from city to city offering their services, and a celebrated few were allowed to add signatures to their handiwork. After engraving, the dies were hardened over intense fires, and were able to strike at least ten thousand coins without damage or significant wear. So continued these minting methods, practically unchanged from Greek and Roman times, through to 17th century Europe. {1-2}

Casting

The early Roman coinage — the aes rude — was not struck, however, but cast, as were some Celtic coins and perhaps a few Roman Britain issues. {3}

In contrast, the small denominations of east Asia (cash coins) were invariably cast, through two and a half millennia, until modern milling methods were introduced in the late nineteenth century.

The first moulds were individually carved into clay or soapstone, and the coins were therefore all a little different. Consistency had arrived by Han times, however, when a

bronze master coin was employed. Matters were further improved in the sixth century when mother coins (*mu qian*) were first engraved in soft materials like tin, and then used to make hollow impressions in fine, damp sand mixed with a little clay and sprinkled with charcoal or coal dust. Within rectangular trays the impressions were arranged in 'coin trees' — assemblies of moulds joined by interconnecting channels allowing the molten metal to run freely from impression to impression. An upper and lower tray were bound together in a stout frame, and up to fifteen frames would be assembled for the casting process. The resulting coins were snapped off the tree when cool, and any imperfections removed by stringing the coins on a long square rod and filing the edges smooth. A final polish was given the coins in tubs of fine sand or chaff. The metal was commonly bronze but copper, iron or lead were also used, or some mixture of them. {4-6}

Quality was further improved in the eighteenth century when 'ancestor coins' (*zu qian*) were used to ensure consistency of the mother coins. From an ancestor coin, which was carefully engraved, polished and guarded, several thousand mother coins were cast, each in turn serving to cast thousands of circulating cash. {4-6}

Chinese cash entered Japan through trade and circulated widely, supplemented by small quantities of domestically produced cash from the late seventh century. Not until the sixteenth century were Japanese coins produced in any quantity, however, and these, like the Chinese cash, were round with a square central hole, though accompanied by various types of standardized silver and gold bars to serve as precious metal currency. Such cash coins continued to be cast until the 1860s, when the Shogunate was abolished and Japan embarked on rapid modernisation. {7-9}

Coins in Vietnam and Korea also followed the Chinese cash model, and elements of this pattern appeared in the Hindu kingdoms of Indonesian archipelago. The baht silver coinage

of Siam was quite different, however, as was the rudimentary coinage of several trading empires of south-east Asia. {7-9}

The Screw Press

Around 1550, a new approach appeared in Europe. Roller mills turned out metal sheets or strips of the required thickness. Metal punches cut these into near-perfect blanks, and a screw-press imposed the required design. Until mechanised with water or steam power, the process was fairly laborious, however, and it was not until a century later that resistance from original coin makers was overcome and the practice became general. {10}

Mechanisation came in various ways. One process used dies with curved faces, either striking individual blanks (the rockerpress), or striking onto strips of metal passed between paired rollers each engraved with several dies (the rotary press). Small hand driven presses gradually gave way to falling hammer presses, and these to water-driven hammer works and spindle presses, the last punching coin blanks from rolled sheets of metal. {10}

The Coin Press

Industrialisation introduced many techniques, the most useful being the Uhlhorn coin press of 1830, in which a lever rather than a screw press exerted the necessary pressure. The Thonnelier press, similar but driven by steam and then electricity, became the basis of today's coin production techniques that allow hundreds of coins to be produced per minute, all to exacting standards of uniformity. {10-11}

Modern Design and Minting

Today's coins are manufactured under tight control and security at every stage of the process. Design originates in a pencil sketch, often supplemented with photographs and other suggestions regarding the pattern. Once approved, the pattern is transferred into a modelling wax mould up to five

times the size of the eventual coin. From this is made a plaster cast, and any last minute corrections or improvements added. From the plaster cast is made a rubber resin mould and then an epoxy resin mould. A reducing machine (pantograph) mechanically reduces the resin mould to a die of the correct natural coin size, and by repeated transference and reduction a steel master die is cut. From the master die several 'coining dies' will be produced. {11}

Mints today commonly buy in long strips of metal of the required composition, quality and thickness, which are then fed into a 'blanking press', which punches out round discs called blanks. The blanks are a little larger than the eventual coins because their rough edges have to be removed by further treatment, which includes inspection, acid treatment and annealing so that the blanks are both of the required hardness but will also take the die impressions properly. A collar prevents the metal from spreading, and also adds a legend or decoration to the coin's edge, deterring counterfeits. Rigorous quality checks are made at each stage of the process, and computers track the productivity of each press operator, any repairs needed, the quantities of coins struck per press, plus statistics on the installation, movement and destruction of the dies. Modern minting machines can produce 250 to 800 coins a minute. {10-11}

Bimetal Coins

Bimetal coins, common in antiquity, were generally ways of debasing the coinage. The Roman antonininus was a copper coin given a thin silver coating that soon wore off. The later silver coins of Henry VIII of England were struck from an alloy of one part silver and two parts copper: they had to be given a surface finish, either a silver coating or an acid treatment to remove the surface copper. Farthings of Charles I of England were struck from copper with a wedge of brass. Later British (1684-92) coinages struck halfpennies

and farthings in tin with a square plug of copper. Late in the eighteenth century, the U.S. Mint experimented with a bi-metallic cent to keep the size of the coin manageable and meet the requirements of the Coinage Act of April 2, 1792. Bimetal coins where a large core in one metal is surrounded by a ring in another metal feature in the Euro and other modern coinages. {10-11}

Great aesthetic intelligence goes into modern coin design, but critics and collectors have generally found something wanting in their perfect workmanship. The nickel alloys are too hard to take a moulded and deeply incised impression, and the mirror brilliance soon wears off into an unattractive glitter. {12}

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25. Early Banking



Banking has a long history, extending back to the agrarian empires of Mesopotamia. Commercial loans were made to merchants trading beyond the city state, and these attracted interest, probably compound interest for late settlements. The records of these loans, tablets sealed inside clay envelopes (*bullae*), could be sold to third parties. Unlike personal loans to farmers in difficulty, however, these commercially loans were not periodically annulled. Beyond these simple devices, however, there was no coinage as such, nor a need for one. Coins widely circulating would have weakened the bureaucracy by allowing private arrangements to evade or contest State control. {4} In general, lending seems to have been limited, at interest rates high by modern standards, and was only occasionally farmed out to powerful families. {1-5}

From 2000 to 209 BC at least, the temples and palaces in Babylonia were taking gold and silver deposits and issuing loans. Charges were high, up to one sixth of its value for gold deposited, and loans were typically for seed-grain, with

repayment from the harvest. Again these services seemed to have been occasionally farmed out to powerful families, noted more for entrepreneurship than banking. {1}

Gold was deposited for temple safekeeping as early as the 18th century BC in pharaonic Egypt, to which were added large stores of grain, in temples and regional granaries. Both could be loaned, and so acted as a primitive banking service. Under the Ptolemies, these scattered government granaries were transformed into a network of grain banks, centralised in Alexandria, where detailed accounts were kept. The system thus operated as a government bank, which recorded payments between accounts without physically transferring grain or gold. {1-5}

Loans were probably made from the Vedic period (1750 BC) in India, and bills of exchange (*adesha*) were in use during the Maurya dynasty (321-185 BC). Buddhist temples subsequently made much use of these instruments, and also offered loans. Merchants in large towns exchanged letters of credit. {6}

Greek Banking and Coinage

Coins may have originated in Lydia and Ionia, but it was the Greeks who conceptualised money as the measure of all things, something different in nature from what it might represent. Money in the ancient Middle East did not go so far in its purposes, and did not use coins, though ingots and sealed purses circulated. But the Greeks were searching for new forms of government to manage polis life, and coins made that administration simpler and more manageable than primitive money like spits and cauldrons. {7}

Richard Seaford links the beginning of coinage to Greek animal sacrifice, and thus to the sanctuary, whose security allowed precious metal holdings to be distributed as payments for services. Precious metal in communal sacrifices guaranteed the value of coins, which was gradually replaced by the mark of the issuing city state. That

mark signified an 'ideal substance which. . . belongs to a new kind of reality, concrete and visible (being metal) and yet (because distinct from the actual metal) abstract and invisible'. The mark was not originally a sign of quality, or quantity, but rather of redeemability: a socially or politically conferred value. The coin was accepted not merely for its intrinsic value but on trust. Money became the 'embodiment of the absolute abstract equivalence between commodities imposed by exchange' and therefore impersonal — unlimited in power, extent, and in the desire for it. Money united opposites, being both concrete and abstract: an idea that underwrites metaphysical principles of the Presocratics. {8}

In short, early Greek coinage had all the characteristics of money, namely:

1. The power to meet social obligations.
2. It was quantifiable,
3. It could provide a measure of value,
4. It was accepted, generally or for specific purposes
5. It depended for its value on public trust, and
6. Involved the state in its issue, control of quality, and enforcing of its acceptability.

In contrast to their eastern neighbours, the Greeks saw the role of the god as not to demand food for himself and his household, but to require a human feast, whose vital political importance was the symbolic expression of communality, participation, or *koinonia* {9} (a view that supports Michael Hudson's view of Neolithic societies).

Greek city states offered extensive banking facilities to supplement their coinage, but the business was dominated by Athens, Corinth and Delos, where the bankers were often 'metics' or foreigners. Money changers and lenders operated near the temples and public buildings, setting up their trapezium-shaped tables decorated with lines and squares to aid ready calculation. The wide range of coins, generally of good quality but different weights made money-changers

essential to trade. Deposits were also taken, no interest being paid on fixed deposits — coins, bullion and jewellery — because these did not enter into trade but were simply stored in a safe place, generally in the temple treasuries. Interest was paid on current accounts, however, as these formed the funds for the lending business. States did not generally regulate interest rates, but 10% p.a. was thought reasonable for general business, and 20-30% for riskier ventures like shipping.

The pre-eminence of Athens, and her rich Laurion mines, allowed her to set the Attic silver standard, where the coins and units of account were: {10}

8 copper chalkoi = 1 silver obol: 6 obols = 1 silver drachma:
2 drachmae = 1 silver stater.

Employed as units of account and weight only:

100 drachmae = 1 mina: 60 minae = 1 talent.

But each city state proudly struck its own coinage, and the eastern Greek standard was, for units of account and coins:

12 copper chalkoi = 1 silver obol: 6 obols = 1 silver drachma:
3 drachmae = 1 silver stater.

Employed as units of account and weight only:

60 staters = 1 mina: 60 minae = 1 talent.

Neither the mina nor talent ever appeared as coins but, like the pound sterling throughout the Middle Ages, served simply as a unit of account. The coins ranged from gold pieces, worth 24 or 25 drachmae, through silver to small copper coins to tiny bits of silver, but obols and drachmae were the practical denominations. Pay for a labourer working at the Erechtheum temple on the Acropolis was 2 obols/day, for example, with the architect earning a drachma/day, i.e. three times as much. Most cities, and particularly Athens, strove to maintain the quality and reputation of their coinages. At the height of her power in 486 BC, Athens indeed forced Aegina to take the Athenian owls as her

currency, and in 449 BC ordered that all foreign coins be handed in to the Athens mint for restriking. But as Athenian power declined, so other states began issuing their own coinage again. Mighty Athens was humbled further when Sparta cut her off from her Laurion silver supplies, and she had to melt down her statues on the Acropolis and mint 84,000 drachmae with the gold. Subsequently, when coin shortages worsened in 406-5 BC, Athens was forced to issue copper coins with a thin silver plating, a sorry situation that lasted till the reissue of proper silver drachmae in 393 BC. In 380 BC the Athenian citizens voted to create their golden Acropolis statues again, a task that took 50 years. {11}

Delos, a barren offshore island possessing only a magnificent harbour and famous temple of Apollo was the most serious challenge to Athenian banking. Detailed records of trade and banking stretch over 400 years, and show a shift from simple transactions in cash to credit receipts and payments being made into named accounts on receipt of written instructions. The larger deposits were kept in the temple of Apollo for safety, and sums could be impressive: e.g. 48,000 drachmae lay untouched for 20 years. Though they destroyed Carthage and Corinth for political reasons, the Romans preserved and supported Delos, in time using her operations as a model for their own banking system. {12}

Bullion gradually replaced grain as a medium of exchange in Greece and Asia Minor. Banking in Athens was on a cash basis, with gold treasuries in particular stored in temples, as throughout the archipelago. Athens imported her grain from outside, most notably from areas round the Black Sea, and prosecuted market manipulators. Long-term loans were needed for distant trading, and such loans could be traded as collateral. Indeed anything and everything could be pledged as collateral – slaves, mining rights, workshops and sometimes what had already been pledges. Athenian

business was complex, but citizens, who in their hundreds judged cases in actions for compensation and sharp-practice, had a legal knowledge and business acumen that would be exceptional in today's societies. The trapezium kept the records, but business depended on personal relations, trust and the law. Short-term loans were often needed to cover the unexpected, and for 'liturgies', those public displays of wealth that upheld social and political position. {13}

Roman World

The early aes was replaced by a silver and copper coinage as the Romans came more into contact with the Greek world and needed currency to pay mercenary troops. The silver coinage of the Republic was very conservative, however, and simply displayed the head of Roma etc., allusions to various gods and goddesses, and initials of the issuing moneyer or magistrate. Julius Caesar was the first to issue a coinage bearing his own portrait, and Augustus expanded the practice, striking a splendid series of denominations, which served until the denarius was replaced by the antonininus in the third century. The Augustan aureus was worth 25 denarii, 100 sesterterces, 200 dupondii and 400 asses. Diocletian reformed the heavily-debased coinage in 301-5. A gold solidus was now set at 10 argenteus, 40 nummus, 200 radiate coins, 500 laureate coins and 1000 denarius. In the late empire (337-476) the solidus was set at 12 miliarenses, 24 siliqua, 180 follis and 7200 nummus. {14}

As to be expected of that practical people, banking was further developed on Greek lines, but expanded to include many of the instruments of European banking, notably public debt, treasury bailouts and tax farming. Rome was an oligarchy, ruled by a small, self-perpetuating number of individuals defined by wealth and heredity. Wealth bought power, and was indeed made a pre-requisite. On pain of demotion, senators had to be worth 250,000 denarii, and

equestrians 100,000 denarii. The equestrians made their wealth in commerce, often spreading their risk by buying shares in a wide range of businesses (publicas) Senatorial wealth was expected to come from the farming of large estates, but in practice both classes indulged in commerce, lending money on an enormous scale, and promoting the ubiquitous trade necessary to the empire. Share ownership indeed allowed power struggles to be fought with financial rather than military instruments. {15}

Certainly there were periodic crises. The most serious came in the Second Punic War, where Rome's treasury came near to extinction. Rome borrowed heavily from Syracuse, and then defaulted. Rome had to beg loans from wealthy citizens in 210 BC, and sell off Campanian state property in 205 BC, but all was made good by Hannibal's defeat in 202 BC, when the rich Carthaginian gold and silver mines of Iberia fell into Roman hands, and imperial expansion could be funded again. A second crisis arose in 123 BC, when the tribune Gaius Gracchus shifted judicial oversight of governors from the Senate to the equestrian class, who were often shareholders (publicani) in every aspect of business life. Another came with the Senate requirement in 33 AD that loans be three-quarters secured by land in Italy. Loans dried up, and ruin to many followed. Tiberius on his death had to leave 2.7 billion sesterces to bail out the system. Trajan had also to instigate tax forgiveness in 101 AD to help the smaller, hard-pressed Italian farmer. But banking remained important and lucrative to the end, and here the wealthy classes had recourse to a chain of intermediaries, in which a vital link was the slave, whose liability (peculium) could not be transferred to the slave's owner. Slavery was endemic to Roman life, and many slaves were well educated, more than capable of managing complex businesses. By such intermediaries, even emperors could keep their hands clean of sordid matters like lending, and able to enrich themselves knowing that their investment was protected, with only an

individual slave's peculium being at risk. No doubt the slave managers received a share of the profits. {15}

Coinage is inconvenient for larger transactions, and much of Roman business employed virtual money – essential for the investment and long-distance trade that kept the empire together. Roman business was in fact extraordinarily sophisticated, being enabled and controlled by complex legislation. Business was generally conducted through partnerships (*societas*), which were of limited duration, and automatically dissolved on the death of partners. Tax collection, provisioning of troops and public works were conducted through societies (*publicas*), however, legal entities existing independently of the individuals involved. As with the peculium, liabilities were limited to the shares in the *publicas* owned by defaulting parties, and did not extend to the assets of *publicas* itself. {15}

Bankers are less conspicuous in the historical record of the later empire, and — if not simply driven underground — lending may have suffered from the 12% cap placed on interest in the third century. It was in this period (from 235 AD) that coinage also suffered its worst debasement, probably because Rome was cut off from its usual supplies of metal, by the Goths in northern Europe and the Berbers in Iberia. Mining activities are in fact documented by Greenland ice core records. Atmospheric lead contamination peaked around 143 BC and again in 36 AD. Isotope ratios show that 70% of the contamination came from the RioTinto mines of Iberia, with the Cartagena mines making a significant contribution later. Lead contamination levels fall to a low in 473 AD, and do not reach Roman levels again until 1200. {15}

Coins did not wholly disappear from western Europe after the fall of the Roman empire, however — England alone had large issues of small Anglo-Saxon *sceats*, and then more substantial pieces partly modelled on Islamic silver coins — and even in the 'Dark Ages', when coinage was not widely

used for trade, the denominations stayed alive as measures of value. Charlemagne (768-814) imposed a money of account based on the old Roman system of pounds (*libra*), shillings (*solidi*) and pence (*denarii*). {16}

Islamic World

Trade was essential to the Islamic world, which developed many of the services seen later in China and the west. Operating from the eighth century onwards, and independent of the state, were bills of exchange, partnership (*mufawada*), including limited partnerships, or *mudaraba*), cheques, promissory notes, trusts, transactional accounts, loans, ledgers and assignments. Business was conducted more through partnerships than loans, and usury was acceptable only in specific instances — on government loans, for example, or when based on paper or base metals rather than the ubiquitous gold *dinar*. {17}

Banks were commercial enterprises, but also strictly adhered to Islamic principles, generally risk-sharing more than risk-transferring that underlies western banking approaches. All had their names and legislation — *mudharabah* (profit sharing), *wadiah* (safekeeping), *musharakah* (joint venture), *murabahah* (cost plus), and *ijar* (leasing) — and these have been studied in recent years by countries wishing to avoid predatory western practices. {18}

Imperial China

Cowries were probably used as currency from earliest times and are found as grave goods in the pre-Bronze Age burials of central China. Cowries paid for salaries and the casting of bronze vessels in early Zhou times, and these cowries — whose importation from areas where they are plentiful was controlled or prohibited — were later replaced by bone and bronze imitations. The 'shell' pictogram is found in Chinese words for treasure, wealth, collateral, possession and the like. That bronze may be significant because Shang bronze vessels were used in ritual intermediations between the

natural and spirit worlds. China was monetised early in its history, and conflicts in the Period of the Warring States were generally for material gain. Commoners made their money in this difficult period by forging weapons and farming implements, by trading with barbarians, by selling slaves and foodstuffs, by robbing graves, by lending and by casting spade and knife coins. States also issued vouchers for salt and army provisions. Loans could be for small amounts over short periods but often attracted high rates of interest. {19}

Bar fractional reserve banking, consumer services and a national debt, Imperial China was offering all major banking services by the time of the Song Dynasty (960-1279) — including deposits, loans, currency exchange, long-distance remittances, and paper currency (Sichuan in 1024). Banking was primarily commercial in nature, however, authenticated by close family ties, and the working capital was based on short-term money transfer rather than long-term demand deposits. By Qing times the system had developed into two institutions, which largely cooperated with each other. The *piaohao*, or Shanxi banks, facilitated large cash transfers between branches, and operated as single proprietaries or partnerships, whose owners carried unlimited liability. The *qianzhuang* were a network of smaller banks that issued notes, and also offered local money exchange and various commercial services. Fractional reserve banking and consumer banking were introduced by western traders in the nineteenth century. {20}

The Knights Templar

Originally set up to fund Christian armies in the Holy Land, and to protect local pilgrims on their dangerous journeys, the Knights Templar became in the course of two centuries an international financial institution stretching from western Europe to the Crusader kingdoms in the eastern Mediterranean. The knights themselves took a vow of poverty, but the order nonetheless became so wealthy that

its assets were eventually seized by royal debtors and rival mendicant orders. {21}

The Templars offered a range of services unsupplied by others in feudal Europe. They provided secure depositories for royal treasuries and jewels, arranged loans to needy monarchs, and supplied merchants and pilgrims with letters of credit in countries where travel was hazardous. The Templars also acted as trusts, overseeing bequests, the fair settlement of estates and selling life of annuities. For these vital services in feudal Europe they were well rewarded in grants, properties and estates. Indeed the kings of Aragon promised them a fifth of the booty and property gained in their Moorish wars, plus bailiwicks, i.e. the right to collect dues and taxes on towns and royal estates. Such arrangements in effect monetised the feudal system. By providing immediate loans, which sovereigns needed for war, the Templars obtained cash flows for long years into the future. {21}

Honor de Bazacle

Some financial practices of the Middle Ages were more home-grown. Flourmills on the Garonne at Toulouse, for example, operated on capitalist principles from 1372, when twelve amalgamated into the *Honor de Bazacle*, a company lasting till nationalisation in 1946. Up to sixty mills had previously competed for prime locations, but *Honor de Bazacle* issued shares in a company protected by civil charter from interference by Church and State. Just as today, the shares (uchaux) were traded, at prices that reflected expected returns. {22}

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Resources

No one will sensibly make a coin collection today without first devising some plan that encompasses what's available and at what cost. Numismatic literature is essential here, and a few of the more general / useful books are:

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Dealers

There are hundreds, probably thousands of coin dealers, who will help you build your collection of choice. Most are reliable, or largely so, especially the major dealers and auction houses with long-standing reputations to protect. Only those in the trade really know the shifting strengths and weaknesses of rivals — and often who is buying what at auction for whom — but the usual advice is ask around, check prices against grades, and read the fine print. Very few dealers will not honour their returns policies.

A very brief listing of relevant material:

Recommended Dealers.

<http://tjbuggey.ancients.info/dealers.html>

CoinDealer Directory: Coin Talk.

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