# Sapiens: A Brief History of Humankind

Chapter 18: 10. The Scent of Money

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## 10

## The Scent of Money

IN 1519 HERNÁN CORTÉS AND HIS CONQUISTADORS invaded Mexico, hitherto an isolated human world. The Aztecs, as the people known to posterity, quickly noticed that the aliens showed an extraordinary interest in a certain yellow metal. In fact, the aliens seemed t stop talking about it. The natives were not unfamiliar with gold – it was pretty and easy to work, so they used it to make jewellery and stat they occasionally used gold dust as a medium of exchange. But when an Aztec wanted to buy something, he generally paid in cocoa be of cloth. The Spanish obsession with gold thus seemed inexplicable. What was so important about a metal that could not be eaten, drun and was too soft to use for tools or weapons? When the natives questioned Cortés as to why the Spaniards had such a passion for gold conquistador answered, 'Because I and my companions suffer from a disease of the heart which can be cured only with

In the Afro-Asian world from which the Spaniards came, the obsession for gold was indeed an epidemic. Even the bitterest of enemie after the same useless yellow metal. Three centuries before the conquest of Mexico, the ancestors of Cortés and his army waged a bloc religion against the Muslim kingdoms in Iberia and North Africa. The followers of Christ and the followers of Allah killed each other by the thousands, devastated elds and orchards, and turned prosperous cities into smouldering ruins – all for the greater glory of Christ or Allah

As the Christians gradually gained the upper hand, they marked their victories not only by destroying mosques and building churches issuing new gold and silver coins bearing the sign of the cross and thanking God for His help in combating the in dels. Yet alongside the currency, the victors minted another type of coin, called the millares, which carried a somewhat different message. These square coins r Christian conquerors were emblazoned with owing Arabic script that declared: 'There is no god except Allah, and Muhammad is Allah's Even the Catholic bishops of Melgueil and Agde issued these faithful copies of popular Muslim coins, and God-fearing Christians happily

Tolerance ourished on the other side of the hill too. Muslim merchants in North Africa conducted business using Christian coins such Florentine orin, the Venetian ducat and the Neapolitan gigliato. Even Muslim rulers who called for jihad against the in del Christians were receive taxes in coins that invoked Christ and His Virgin

#### How Much is It?

Hunter-gatherers had no money. Each band hunted, gathered and manufactured almost everything it required, from meat to medicine, fr sandals to sorcery. Different band members may have specialised in different tasks, but they shared their goods and services through a of favours and obligations. A piece of meat given for free would carry with it the assumption of reciprocity – say, free medical assistance. was economically independent; only a few rare items that could not be found locally – seashells, pigments, obsidian and the like – had to obtained from strangers. This could usually be done by simple barter: 'We'll give you pretty seashells, and you'll give us high-quality int.'

Little of this changed with the onset of the Agricultural Revolution. Most people continued to live in small, intimate communities. Much hunter-gatherer band, each village was a selesue conomic unit, maintained by mutual favours and obligations plus a little barter with outsiders. One villager may have been particularly adept at making shoes, another at dispensing medical care, so villagers knew where barefoot or sick. But villages were small and their economies limited, so there could be no full-time shoemakers and doctors.

The rise of cities and kingdoms and the improvement in transport infrastructure brought about new opportunities for specialisation. Depopulated cities provided full-time employment not just for professional shoemakers and doctors, but also for carpenters, priests, soldiers lawyers. Villages that gained a reputation for producing really good wine, olive oil or ceramics discovered that it was worth their while to nearly exclusively in that product and trade it with other settlements for all the other goods they needed. This made a lot of sense. Clima soils differ, so why drink mediocre wine from your backyard if you can buy a smoother variety from a place whose soil and climate is musuited to grape vines? If the clay in your backyard makes stronger and prettier pots, then you can make an exchange. Furthermore, full-specialist vintners and potters, not to mention doctors and lawyers, can hone their expertise to the bene t of all. But specialisation create problem – how do you manage the exchange of goods between the specialists?

An economy of favours and obligations doesn't work when large numbers of strangers try to cooperate. It's one thing to provide free a sister or a neighbour, a very different thing to take care of foreigners who might never reciprocate the favour. One can fall back on bart barter is effective only when exchanging a limited range of products. It cannot form the basis for a complex

In order to understand the limitations of barter, imagine that you own an apple orchard in the hill country that produces the crispest, so apples in the entire province. You work so hard in your orchard that your shoes wear out. So you harness up your donkey cart and head market town down by the river. Your neighbour told you that a shoemaker on the south end of the marketplace made him a really sturdy boots that's lasted him through ve seasons. You nd the shoemaker's shop and offer to barter some of your apples in exchange for the sh need.

The shoemaker hesitates. How many apples should he ask for in payment? Every day he encounters dozens of customers, a few of along sacks of apples, while others carry wheat, goats or cloth – all of varying quality. Still others offer their expertise in petitioning the ki backaches. The last time the shoemaker exchanged shoes for apples was three months ago, and back then he asked for three sacks of was it four? But come to think of it, those apples were sour valley apples, rather than prime hill apples. On the other hand, on that previo the apples were given in exchange for small women's shoes. This fellow is asking for man-size boots. Besides, in recent weeks a diseas decimated the ocks around town, and skins are becoming scarce. The tanners are starting to demand twice as many nished shoes in exfort the same quantity of leather. Shouldn't that be taken into consideration?

In a barter economy, every day the shoemaker and the apple grower will have to learn anew the relative prices of dozens of commod hundred different commodities are traded in the market, then buyers and sellers will have to know 4,950 different exchange rates. And if different commodities are traded, buyers and sellers must juggle 499,500 different exchange How do you gure it out?

It gets worse. Even if you manage to calculate how many apples equal one pair of shoes, barter is not always possible. After all, a tra that each side want what the other has to offer. What happens if the shoemaker doesn't like apples and, if at the moment in question, wh wants is a divorce? True, the farmer could look for a lawyer who likes apples and set up a three-way deal. But what if the lawyer is full up but really needs a haircut?

Some societies tried to solve the problem by establishing a central barter system that collected products from specialist growers and manufacturers and distributed them to those who needed them. The largest and most famous such experiment was conducted in the So and it failed miserably. 'Everyone would work according to their abilities, and receive according to their needs' turned out in practice into would work as little as they can get away with, and receive as much as they could grab'. More moderate and more successful experimer made on other occasions, for example in the Inca Empire. Yet most societies found a more easy way to connect large numbers of experimed eveloped money.

#### Shells and Cigarettes

Money was created many times in many places. Its development required no technological breakthroughs – it was a purely mental revolution involved the creation of a new inter-subjective reality that exists solely in people's shared imagination.

Money is not coins and banknotes. Money is anything that people are willing to use in order to represent systematically the value of or for the purpose of exchanging goods and services. Money enables people to compare quickly and easily the value of different commodit apples, shoes and divorces), to easily exchange one thing for another, and to store wealth conveniently. There have been many types or most familiar is the coin, which is a standardised piece of imprinted metal. Yet money existed long before the invention of coinage, and of have prospered using other things as currency, such as shells, cattle, skins, salt, grain, beads, cloth and promissory notes. Cowry shells money for about 4,000 years all over Africa, South Asia, East Asia and Oceania. Taxes could still be paid in cowry shells in British Ugan twentieth century.

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Illustratiobasedon:JoeCribb(ed.)Money: From Cowrie Shells to Credit(CandisorPublishefdortheTrusteesftheBritishMuseunby BritishMuseunPublication\$986)27.

In modern prisons and POW camps, cigarettes have often served as money. Even non-smoking prisoners have been willing to accept payment, and to calculate the value of all other goods and services in cigarettes. One Auschwitz survivor described the cigarette current the camp: 'We had our own currency, whose value no one questioned: the cigarette. The price of every article was stated in cigarettes . times, that is, when the candidates to the gas chambers were coming in at a regular pace, a loaf of bread cost twelve cigarettes; a 10-ou of margarine, thirty; a watch, eighty to 200; a 0.25-gallon bottle of alcohol, 400

In fact, even today coins and banknotes are a rare form of money. The sum total of money in the world is about \$60 trillion, yet the su coins and banknotes is less than \$6 More than 90 per cent of all money – more than \$50 trillion appearing in our accounts – exists only computer servers. Accordingly, most business transactions are executed by moving electronic data from one computer le to another, wit exchange of physical cash. Only a criminal buys a house, for example, by handing over a suitcase full of banknotes. As long as people a trade goods and services in exchange for electronic data, it's even better than shiny coins and crisp banknotes – lighter, less bulky, and keep track of.

For complex commercial systems to function, some kind of money is indispensable. A shoemaker in a money economy needs to kno prices charged for various kinds of shoes – there is no need to memorise the exchange rates between shoes and apples or goats. Mone apple experts from the need to search out apple-craving shoemakers, because everyone always wants money. This is perhaps its most Everyone always wants money because everyone else also always wants money, which means you can exchange money for whatever need. The shoemaker will always be happy to take your money, because no matter what he really wants – apples, goats or a divorce – h in exchange for money.

Money is thus a universal medium of exchange that enables people to convert almost everything into almost anything else. Brawn ge to brain when a discharged soldier nances his college tuition with his military bene ts. Land gets converted into loyalty when a baron sell to support his retainers. Health is converted to justice when a physician uses her fees to hire a lawyer – or bribe a judge. It is even possi sex into salvation, as fteenth-century prostitutes did when they slept with men for money, which they in turn used to buy indulgences from Catholic Church.

Ideal types of money enable people not merely to turn one thing into another, but to store wealth as well. Many valuables cannot be s as time or beauty. Some things can be stored only for a short time, such as strawberries. Other things are more durable, but take up a lo and require expensive facilities and care. Grain, for example, can be stored for years, but to do so you need to build huge storehouses a against rats, mould, water, re and thieves. Money, whether paper, computer bits or cowry shells, solves these problems. Cowry shells do unpalatable to rats, can survive res and are compact enough to be locked up in a safe.

In order to use wealth it is not enough just to store it. It often needs to be transported from place to place. Some forms of wealth, such estate, cannot be transported at all. Commodities such as wheat and rice can be transported tyn lynaigine if a wealthy farmer living in a moneyless land who emigrates to a distant province. His wealth consists mainly of his house and rice paddies. The farmer cannot take v house or the paddies. He might exchange them for tons of rice, but it would be very burdensome and expensive to transport all that rice. solves these problems. The farmer can sell his property in exchange for a sack of cowry shells, which he can easily carry wherever he g

Because money can convert, store and transport wealth easily and cheaply, it made a vital contribution to the appearance of complex networks and dynamic markets. Without money, commercial networks and markets would have been doomed to remain very limited in the complexity and dynamism.

# How Does Money Work?

Cowry shells and dollars have value only in our common imagination. Their worth is not inherent in the chemical structure of the shells a or their colour, or their shape. In other words, money isn't a material reality – it is a psychological construct. It works by converting matter But why does it succeed? Why should anyone be willing to exchange a fertile rice paddy for a handful of useless cowry shells? Why are ip hamburgers, sell health insurance or babysit three obnoxious brats when all you get for your exertions is a few pieces of coloured pa

People are willing to do such things when they trust the gments of their collective imagination. Trust is the raw material from which all money are minted. When a wealthy farmer sold his possessions for a sack of cowry shells and travelled with them to another province, he that upon reaching his destination other people would be willing to sell him rice, houses and elds in exchange for the shells. Money is ac system of mutual trust, and not just any system of mutual drugt sthemostuniversal ndmostef cientsystem of mutual trust ever devised.

What created this trust was a very complex and long-term network of political, social and economic relations. Why do I believe in the or gold coin or dollar bill? Because my neighbours believe in them. And my neighbours believe in them because I believe in them. And w in them because our king believes in them and demands them in taxes, and because our priest believes in them and demands them in taxes, and because our priest believes in them and demands them in taxes, and because our priest believes in them and demands them in taxes, and because our priest believes in them and demands them in the dollar bill and look at it carefully. You will see that it is simply a colourful piece of paper with the signature of the US secretary of the treas side, and the slogan 'In God We Trust' on the other. We accept the dollar in payment, because we trust in God and the US secretary of the crucial role of trust explains why our nancial systems are so tightly bound up with our political, social and ideological systems, why r crises are often triggered by political developments, and why the stock market can rise or fall depending on the way traders feel on a parmorning.

Initially, when the rst versions of money were created, people didn't have this sort of trust, so it was necessary to de ne as 'money' th had real intrinsic value. History's rst known money – Sumerian barley money – is a good example. It appeared in Sumer around 3000 at time and place, and under the same circumstances, in which writing appeared. Just as writing developed to answer the needs of intensif administrative activities, so barley money developed to answer the needs of intensifying economic activities.

Barley money was simply barley – xed amounts of barley grains used as a universal measure for evaluating and exchanging all other services. The most common measurement was the sila, equivalent to roughly 0.25 gallons. Standardised bowls, each capable of contair were mass-produced so that whenever people needed to buy or sell anything, it was easy to measure the necessary amounts of barley. too, were set and paid in silas of barley. A male labourer earned sixty silas a month, a female labourer thirty silas. A foreman could earn 1,200 and 5,000 silas. Not even the most ravenous foreman could eat 1,250 gallons of barley a month, but he could use the silas he did all sorts of other commodities – oil, goats, slaves, and something else to eat besides

Even though barley has intrinsic value, it was not easy to convince peopheotoeyatherats an as just another commodity. In order to understand why, just think what would happen if you took a sack full of barley to your local shopping centre, and tried to buy a shirt or a preventors would probably call security. Still, it was somewhat easier to build trust in barley as the rst type of money, because barley has a biological value. Humans can eat it. On the other hand, dult to stift and transport barley. The real breakthrough in monetary history occurred when people gained trust in money that lacked inherent value, but was easier to store and transport. Such money appeared in Mesopotamia in the middle of the third millennium This was the silver shekel.

The silver shekel was not a coin, but rather 0.3 ounces of silver. When Hammurabi's Code declared that a superior man who killed a must pay her owner twenty silver shekels, it meant that he had to pay 6 ounces of silver, not twenty coins. Most monetary terms in the C Testament are given in terms of silver rather than coins. Joseph's brothers sold him to the Ishmaelites for twenty silver shekels, or rather of silver (the same price as a slave woman – he was a youth, after all).

Unlike the barley sila, the silver shekel had no inherent value. You cannot eat, drink or clothe yourself in silver, and it's too soft for matter tools – ploughshares or swords of silver would crumple almost as fast as ones made out of aluminium foil. When they are used for anyth and gold are made into jewellery, crowns and other status symbols – luxury goods that members of a particular culture identify with high status. Their value is purely cultural.

Set weights of precious metals eventually gave birth to coins. The rst coins in history were struck around 640 BC by King Alyattes of Lyd western Anatolia. These coins had a standardised weight of gold or silver, and were imprinted two things. First, it indicated how much precious metal the coin contained. Second the indethibrity that issued the coin and that guaranteed its contents. Almost all coins in use today are descendants of the Lydian coins.

Coins had two important advantages over unmarked metal ingots. First, the latter had to be weighed for every transaction. Second, we ingot is not enough. How does the shoemaker know that the silver ingot I put down for my boots is really made of pure silver, and not of covered on the outside by a thin silver coating? Coins help solve these problems. The mark imprinted to the signature, so the shoemaker doesn't have to keep a scale on his cash register. More importantly, the mark on the coin is the signature of some political at guarantees the coin's value.

The shape and size of the mark varied tremendously throughout history, but the message was always the same: 'I, the Great King Sc give you my personal word that this metal disc contains exactly 0.2 ounces of gold. If anyone dares counterfeit this coin, it means he is fa my own signature, which would be a blot on my reputation. I will punish such a crime with the utmost severity.' That's why counterfeiting always been considered a much more serious crime than other acts of deception. Counterfeiting is not just cheating – it's a breach of so act of subversion against the power, privileges and person of the king. The legal term is lese-majesty (violating majesty), and was typica by torture and death. As long as people trusted the power and integrity of the king, they trusted his coins. Total strangers could easily ag worth of a Roman denarius coin, because they trusted the power and integrity of the Roman emperor, whose name and picture adorned

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In turn, the power of the emperor rested on the denarius. Just thinkliki wdifild have been to maintain the Roman Empire without coins – if the emperor had to raise taxes and pay salaries in barley and wheat. It would have been impossible to collect barley taxes in S transport the funds to the central treasury in Rome, and transport them again to Britain in order to pay the legions there. It would have been dif cult to maintain the empire if the inhabitants of the city of Rome believed in gold coins, but the subject populations rejected this belief their trust instead in cowry shells, ivory beads or rolls of cloth.

# The Gospel of Gold

The trust in Rome's coins was so strong that even outside the empire's borders, people were happy to receive payment in denarii. In the AD, Roman coins were an accepted medium of exchange in the markets of India, even though the closest Roman legion was thousands away. The Indians had such a strong con dence in the denarius and the image of the emperor that when local rulers struck coins of their closely imitated the denarius, down to the portrait of the Roman emperor! The name 'denarius' became a generic name for coins. Muslin Arabicised this name and issued 'dinars'. The dinar is **stall theme** of the currency in Jordan, Iraq, Serbia, Macedonia, Tunisia and several other countries.

As Lydian-style coinage was spreading from the Mediterranean to the Indian Ocean, China developed a slightly different monetary sy on bronze coins and unmarked silver and gold ingots. Yet the two monetary systems had enough in common (especially the reliance on silver) that close monetary and commercial relations were established between the Chinese zone and the Lydian zone. Muslim and Euro merchants and conquerors gradually spread the Lydian system and the gospel of gold to the far corners of the earth. By the late modern entire world was a single monetary zone, relying rst on gold and silver, and later on a few trusted currencies such as the British pound at American dollar.

The appearance of a single transnational and transcultural monetary zone laid the found **ation** for the orthogen the entire globe, into a single economic and political sphere. People continued to speak mutually incomprehensible languages, obey different workship distinct gods, but all believed in gold and silver and in gold and silver coins. Without this shared belief, global trading network have been virtually impossible. The gold and silver that sixteenth-century conquistadors found in America enabled European merchants porcelain and spices in East Asia, thereby moving the wheels of economic growth in both Europe and East Asia. Most of the gold and silver would have happened to the global economy if the Chinese hadn't suffered from the same 'disease of **ittedneant(distant)** his companions – and had refused to accept payment in gold and silver?

Yet why should Chinese, Indians, Muslims and Spaniards – who belonged to very different cultures that failed to agree about much o nevertheless share the belief in gold? Why didn't it happen that Spaniards believed in gold, while Muslims believed in barley, Indians in a and Chinese in rolls of silk? Economists have a ready answer. Once trade connects two areas, the forces of supply and demand tend to prices of transportable goods. In order to understand why, consider a hypothetical case. Assume that when regular trade opened betwee the Mediterranean, Indians were uninterested in gold, so it was almost worthless. But in the Mediterranean, gold was a coveted status si its value was high. What would happen next?

Merchants travelling between India and the Mediterranean would notice the difference in the value of gold. In order to make a pro t, the buy gold cheaply in India and sell it dearly in the Mediterranean. Consequently, the demand for gold in India would skyrocket, as would in the same time the Mediterranean would experience an in ux of gold, whose value would consequently drop. Within a short time the value India and the Mediterranean would be quite similar. The mere fact that Mediterranean people believed in gold would cause Indians to statin it as well. Even if Indians still had no real use for gold, the fact that Mediterranean people wanted it would be enough to make the Indians to statin it as well.

Similarly, the fact that another person believes in cowry shells, or dollars, or electronic data, is enough to strengthen our own belief in if that person is otherwise hated, despised or ridiculed by us. Christians and Muslims who could not agree on religious beliefs could never agree on a monetary belief, because whereas religion asks us to believe in something, money asksotts appetites the strengthen agree on a monetary belief, because whereas religion asks us to believe in something, money asksotts appetites the strengthen agree on a monetary belief.

For thousands of years, philosophers, thinkers and prophets have besmirched money and called it the root of all evil. Be that as it may also the apogee of human tolerance. Money is more open-minded than language, state laws, cultural codes, religious beliefs and social Money is the only trust system created by humans that can bridge almost any cultural gap, and that does not discriminate on the basis o gender, race, age or sexual orientation. Thanks to money, even people who don't know each other and don't trust each other can nevert cooperate effectively.

#### The Price of Money

Money is based on two universal principles:

a. Universal convertibility: with money as an alchemist, you can turn land into loyalty, justice into health, and violence into knowledge.

b. Universal trust: with money as a go-between, any two people can cooperate on any project.

These principles have enabled millions of strangers to cooperate effectively in trade and industry. But these seemingly benign princip dark side. When everything is convertible, and when trust depends on anonymous coins and cowry shells, it corrodes local traditions, int relations and human values, replacing them with the cold laws of supply and demand.

Human communities and families have always been based on belief in 'priceless' things, such as honour, loyalty, morality and love. T lie outside the domain of the market, and they shouldn't be bought or sold for money. Even if the market offers a good price, certain thing aren't done. Parents mustn't sell their children into slavery; a devout Christian must not commit a mortal sin; a loyal knight must never be lord; and ancestral tribal lands shall never be sold to foreigners.

Money has always tried to break through these barriers, like water seeping through cracks in a dam. Parents have been reduced to s of their children into slavery in order to buy food for the others. Devout Christians have murdered, stolen and cheated – and later used the buy forgiveness from the church. Ambitious knights auctioned their allegiance to the highest bidder, while securing the loyalty of their ow followers by cash payments. Tribal lands were sold to foreigners from the other side of the world in order to purchase an entry ticket into economy.

Money has an even darker side. For although money builds universal trust between strangers, this trust is invested not in humans, co or sacred values, but in money itself and in the impersonal systems that back it. We do not trust the stranger, or the next-door neighbour the coin they hold. If they run out of coins, we run out of trust. As money brings down the dams of community, religion and state, the wor danger of becoming one big and rather heartless marketplace.

Hence the economic history of humankind is a delicate dance. People rely on money to facilitate cooperation with strangers, but they will corrupt human values and intimate relations. With one hand people willingly destroy the communal dams that held at bay the movem money and commerce for so long. Yet with the other hand they build new dams to protect society, religion and the environment from ensite to market forces.

It is common nowadays to believe that the market always prevails, and that the dams erected by kings, priests and communities can back the tides of money. This is naïve. Brutal warriors, religious fanatics and concerned citizens have repeatedly managed to trounce ca merchants, and even to reshape the economy. It is therefore impossible to understation to the station are process. In order to understand how thousands of isolated cultures coalesced over time to form the global village of today, we must take into accorrole of gold and silver, but we cannot disregard the equally crucial role of steel.