

# MONEY BEFORE COINAGE HISTORY OF PRE-COLUMBIAN CURRENCY

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And so they were happy over the provisions of the good mountain,  
filled with sweet things, ...thick with pataxte and cacao...  
the rich foods filling up the citadel.  
POPOL VUH

## I INTRODUCTION

It's well known that Carl Menger, one the most remarkable contributors on economic theory, and father of the Austrian School of Economics, devoted a great part of his career to research money origins. According to his studies, money, just as language and economics came from a spontaneous order, otherwise known as a creation of human interaction, yet not of human design. This means that money didn't originate from a decree, neither was an invention of a king or governor, but it comes from the regular communication between individuals, to satisfy a need.

Needless to be said, the necessity of exchange has continuously been present on mankind; facilitating the satisfaction of the infinite human desires. Yet coinage was not present in humanity until the VI<sup>th</sup> century B.C. in Europe and XV<sup>th</sup> century A.C. in America<sup>1</sup> when Spaniards arrived. Then how could civilizations without a well-de-

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<sup>1</sup> Crabben (2011).

veloped coinage system progress? The purpose of this paper is to prove and show how the Mayan monetary system could work without a coinage system, and how efficient this civilization was solving problems commonly found in barter and commodity money, which were their leading means in commerce.

When the new world was discovered, and most parts of America were turned into European property, mostly possessed by Portugal and Spain, colonies were established all along the continent, meanwhile local cultures were enslaved, assassinated, or forced to change their manners in order to adapt to European tradition. As new customs arrived, many were surprisingly new to the locals such as the use of coins by newcomers. Europeans too, used commodities such as precious metals, as currency, however, this were provided, in most cases, by their governments.

This system was settled in Europe during the beginning of Middle Ages, and the most popular metals for coinage were bronze, silver, and gold which provided Europeans with a stable currency. This is mostly attributable to the few mining projects taking place in Europe, before the discovery and conquest of the new world giving the European economy a stable supply of the precious metals needed for the fabrication of the many currencies all around the old continent. However, as soon as the new world was discovered, mining turned into one of the main economic activities in America, strongly increasing the money supply over Europe. Yet, probably many locals did not understand at the time why precious metals could be so valuable to the newcomers as they had never established a coinage system, but rather dependent on barter and commodity money. It is presumed that at the arrival of Europeans, locals will exchange gold and silver over mirrors, giving more value to souvenirs the newcomers had brought that were common and cheap in Europe, yet new and exotic in America, to the precious metals, used by locals mainly for jewelry.

## II NATURAL MONEY AND ITS QUALITIES

Locals may have wondered why Europeans used materials such as gold and silver for coinage, and how these materials could be so efficient fulfilling the standards they had for money. Yet, if natives had counted with the technology necessary for the creation of a coinage system, they too would have realized these precious metals contain most of the requirements needed by money. Nowadays there are known qualities which natural<sup>2</sup>, or «good» money possess, being:

- a) Usable
- b) Recognizable
- c) Indivisible
- d) Uniform in quality
- f) Fungible
- g) Portable
- h) Durable

Characteristics, which precious metals have proven, through history, to possess, turning coins made from these materials, in one of the most used and efficient forms of money. Yet, precious metals are not the only form of natural money known to men. Cacao itself, used by Mayas as money, could have been just as effective. Filling most of the requirements of natural money, and showing little problems as currency, explains why it had such a success as the most frequented form of exchange, among the Maya civilization.

## III MAYAN TIME PERIODS

Commerce still had to occur in Pre-Columbian civilizations, regardless if they counted or not with a coinage system, so they

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<sup>2</sup> Menger (1981), p. 262.

turned to barter and commodity money as their main ways of exchange. For a deeper study of Pre-Columbian currency, it is necessary to divide the civilizations into time periods, beginning with Preclassic, divided into early, medium, and late Preclassic; Classic being divided into early and late Classic, and lastly Postclassic. It's also useful to divide the different empires and civilizations, along the different time periods, where the most influential and significant are Olmecs, Aztecs, Mayas, and Incas. Some of these have been an object of study more than others, as the Aztec, and Inca Empires, due to the size of the civilizations, and evidence of the interaction with newcomers. Yet, one of the most complex civilizations in commerce and exchange, as the Mayan empire used to be, needs to be studied thoroughly for a full comprehension of their systems, traditions, and manners.

### 1. Preclassic Period

The Preclassic period marked the beginning of a civilization, at the same time it's a moment of great advances in agriculture, due to new irrigation systems that would increase the harvest of food crops, necessary for the growth of this vast culture, which was only starting.

This period was marked by a vast exchange of goods among the starting cities, although limited, the commerce was frequent and necessary for the subsistence of each of the villages, towns, and cities. One of the most commeced goods was obsidian, obtained mainly from the city of Jilotepeque<sup>3</sup>, providing this commodity to growing cities such as Tikal, and El Ceibal. Some cities were characterized by their specialization in a certain good, which would later be traded to other cities, in exchange of other necessary goods. This period lasted, approximately, from 1800 B.C. to 250 A.C.

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<sup>3</sup> Jones (1993).

## 2. Classic Period

The classic period, otherwise known as the golden era of the Mayan civilization, was a time of prosperity to the culture in almost every aspect, from Astronomy to art, commerce, and architecture. Such a time of welfare, however, must have been supported by a strong currency that brought backup to their economy. With this growth, the need of an established currency that would be common to most of the inhabitants of the Mayan cities was vital to the empire.

Many goods, as obsidian, were not so valued anymore, as the Mayan civilization had expanded, their frontiers of commerce grew with them too, increasing the supply of many of these goods. Now, more than ever, the state-cities had contact with other Meso-american villages and towns<sup>4</sup>, that could provide them with a variety of goods, that else would not have been at their reach.

And so, cacao replaced obsidian as one of the most valued goods among the prehispanic civilization. Due to the stable supply and excessive demand, cacao was not as affected as other commodities with the increase in commerce. Despite the fact that cacao had such a strong demand as a commodity, it was not used as one until its lifespan was almost over, and instead was a form of currency most of its lifetime, this will be expanded afterwise. This period is known to have lasted from 250 to 900 A.C.

## 3. Postclassic Period

Lastly, the Mayan civilization history reduces itself to their last known period, the Postclassic period. This, contrary to common belief, ended several years before the coming of Spaniards, as by the time newcomers arrived most of the remaining locals were living in agricultural villages. During this period, hardly any cities saw growth, most suffered from a strong decline, which would eventually lead to the complete abandonment of most of them. This is attributed mainly to wars, between the K'iche's and

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<sup>4</sup> Jones (1993).

Kaqchikeles groups, whose political and economics differences, is believed, had them confront. Due to warfare, commerce was strongly reduced, most trading alliances were broken, and the need for a common currency gradually disappeared.

This may have forced the abandonment of the principal and most extensive cities, as they could no longer sustain themselves without the varied paths of commerce that provided the goods needed by the inhabitants of these towns. There are, however, other different theories that attribute several factors to the abandonment and decay of the civilization, such as strong and prolonged droughts, or the overuse of the natural resources surrounding the main cities.

#### IV COMMODITY MONEY AMONG THE MAYANS

It has been argued that the Mayan system of commerce could have been influenced by the Aztec kingdom, yet the conditions of the Mayan territories were quite different from the ones found in the northern empire. The Maya empire, like the ancient Sumerian empire, was composed of separated state-cities, making commerce substantial in the development of the civilization, at the same time it provided the cities with a variety of goods, mostly commodities.

It's also believed that the Mayas would tend to trade luxury goods obtained along their territories, with bigger civilizations, and empires, in order to obtain more substantial goods for themselves. Among these goods, some would tend to be more appreciated on certain cities by the governing elites, making them more accepted, and increasing their liquidity inside these towns. Most of these would be commodities, as cacao, feathers, shells, obsidian, and jade.

For the purpose of this paper it is crucial for the reader to have a full understanding of what a commodity is and to know about its role as money. A commodity, as stated by the economics dictionary provided by *The Economist*, is «a comparatively homogeneous product that can typically be bought in bulk. It usually refers to a raw

material —oil, cotton, cocoa, silver —but can also describe a manufactured product used to make other things.» According to this definition, many of the goods valued and used by the Mayan civilization could enter the category of commodity, most of them agricultural goods.

Commodity money on the other side, according to *The New Palgrave Dictionary of Economics* is a «medium of exchange that may be transformed into a commodity, useful in production or consumption, [also a] predominant medium of exchange for more than two millennia». Knowing the definition of a commodity, and understanding how it works as money, is now necessary to explain that, although cacao was the main form of commodity money, there were cities and towns, where other commodities acted as money, through the different periods of time. The acceptance of this goods and their use as money was strongly influenced by the local elite and their preference for one in particular. For example, during the Classic period, it may had happened that certain elite members felt identified by Quetzal feathers, this would have added value to the feathers of that certain bird, giving it more acceptability, making it possible to be traded, and used as currency. Yet this preference was still limited to goods that could have at least some the adequate properties of natural money.

It must be mentioned that commodity money was not only used during ancient times but was as well implemented by several countries during the course of time. From coins in the Roman empire to the American gold standard, all of them used different precious metals, mainly gold and silver, to be used as currency. However, most of the times a country, or kingdom starts using any type of commodities as money, it's usual that this system is followed by a treaty that depicts the value of each item used as a commodity.

This methodology tends to cause problems<sup>5</sup>, as some commodities are difficult to divide, as cattle, and having their prices specified by a government, would not necessarily, or immediately, increase their liquidity, forcing people to use it as currency. Also, when a commodity is used as money, people tend to use or sell their best goods, and the ones with less quality circulate as mon-

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<sup>5</sup> Newman and Doty (1976), pp.15-24.

ey. As well most of the products used as money, tend to expire, ending, not only their lifespan as a commodity but also their value as money.

## V

### CACAO AS COMMODITY MONEY

Yet Mayas still could use commodities, as their main exchange system, solving most of the problems before described. The problem of prices probably was not a major issue, as just some commodities were used as money, as cacao and jade, making unnecessary any type of decree that would specify the price of all the commodities to be used as money.

The problem with the liquidity of goods, which is directly derived from the acceptance of the currency, was solved, as the main commodities used as currency, generally had a backup on the local elites, due to their preference which generated an added value to the currency. Cacao did not had troubles being divided, as each seed represented a certain value, however, it may have been problematic on low-value trades, when a cacao pod, containers of cacao beans, were still not mature, forcing merchants to exchange the whole pod, instead of the seeds.

These pods would take up to 5 months to mature; probably reducing their value, as there was no way of knowing how many seeds it could contain before opening it. These could contain from 20 to 60, approximately, but the exact number would not be known until it was ready to be opened, making it a less liquid good. Another problem that was not a major issue to Mayans was how cacao is not a seasonal crop on most parts of Latin America, making the supply of the good, relatively stable, this also attributable to many natural factors that made the harvest of the plant stable

Cacao trees take about 5 years to reach maturity, have their production peak at 10 years, and continue to produce, in a more reduced way until it reaches 40. This production spans would severely control supply, as it would take years to have a stable production of cacao beans, not to mention that, according to World Cocoa Foundation, «about only 3 to 10 percent of the trees will ever

manage to mature into a fruitful seed pod», and each tree will give around only two pods in a year, a natural cause of why the supply would maintain itself unvaryingly through the Mayan history.

A major issue to the Mayans was the fact that there was counterfeited cacao constantly in circulation, usually empty cocoa beans. To simulate the so valued bean, the seed would be emptied and filled with mud to have them weight just as a normal cacao bean. However, as the bean was in fact broken, so it could be falsified, it was easy to identify when this happened and to differentiate from a new bean to a one that could have been filled with mud. Another problem that was present on most commodities traded as money, dealing with their lifespan and quality was solved in a very practical way by this ancient civilization. After they had found out the lifespan of the cacao seeds and learned how to identify when would these reach their end. They would be used as money along this time and when the grains were about to expire, these would be sold as a commodity, mainly to members of the elite, that would use them to prepare the bitter, chocolate like beverage utilized in rituals.

However, is also known, some elite members harvested cacao only for the beverage itself, but being so precious to the culture most beans were still consumed after its use as currency. These beverages were very popular among most powerful leaders all along of the Pre-Columbian Latin America, as described by one of the soldiers in Hernán Cortés travels, where he recalls that Montezuma had nothing but the bitter cacao beverage whenever he eats, this beverage, called *Xocolatl* by the Aztecs, was a potation of chocolate, flavored with vanilla and spices<sup>6</sup>. It also was used during ceremonies, or to commemorate special events, such as weddings. The beverage was not only an exquisite drink to Mayas and Aztecs, but was also believed to be related to the merchant god of the Mayan civilization, Ek Chuah otherwise known as the patron of cacao, to which they hold festivals and ceremonies to honor the deity.

Even during the conquest time, after most cities were abandoned and villages were the main forms of organization, the South

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<sup>6</sup> Rivero (1990), pp. 16-19.

Coast, in areas up to 600 meters of altitude, corn and cacao were the main crops, showing the importance of the crop, even after the conquest. Although it is true that it too was harvested to supply the growing demand of chocolate in Europe, Cacao continued to be used as money by the remaining indigenous population all the way through 17th century, before King Philip V, authorized the first currency house in Guatemala, even though the first house of Ironwork was already founded in 1543, which distributed imported metallic coins across the territory, from already established currency houses<sup>7</sup>. Commodity money remained strong during several decades after the conquest, as the breach between locals and Spaniards, would remain strong through the years. These differences made the Indigenous groups distrust the European system, deciding to rely on the known traditional commodities system.

## VI CACAO AS NATURAL MONEY

Getting back to the standards of natural money, it's important to analyze how many of them cacao could cover, to prove its effectivity as currency. This analysis would go through the characteristics before mentioned and evaluate them on the function of cacao.

- a) Usable: The size, the value, and acceptance it had in the civilization, made cacao a highly marketable good among the Maya people.
- b) Recognizable: Cacao was known to be a gift from the gods, being desired all along social classes, being highly recognizable.
- c) Indivisible: Cacao was only divisible when it is inside the pod, otherwise the size of the seed made it unnecessary to be divided.
- d) Uniform in quality: There were many variations of the beverage drunk by the Mayas, yet there were very few variations of the seed itself among the territories occupied by them, reducing the

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<sup>7</sup> «Museo Numismático De Guatemala.» Banco De Guatemala.

- variations of quality it may had. Yet, as an agricultural product, it may vary among years due to climatic reasons.
- e) Fungible: Being a commodity made Cacao fungible, meaning one seed could easily be replaced by another one, due to the homogeneity of the good. Yet this was limited to seeds harvested on the same year, and coming from the same region, as these were factors that could change the quality and size.
  - f) Portable: Due to the small size of each cacao bean, the portability would not be a complex matter, making them easy to carry and transport, even for the wealthiest merchants, which had to transport several amounts of the seed.
  - g) Durable: Although the beans, in fact, had relatively short time life (about one year), as soon as their lifespan was ending, they were turned into a highly demanded commodity ready to be consumed.

## VII CACAO AMONG OTHER COMMODITIES

Cacao may have been the main form of currency, back in the Mayan civilization, yet it was not the only one, it is important to understand why, cacao, and not another commodity, was the main currency. Although some forms of currency, as feathers and Jade, were also strong commodities among Maya people<sup>8</sup>, they received their acceptance from a certain elite. Cacao, however, was demanded and accepted by every member of the elite, and desired by every member of the culture. Its status as a seed provided by the gods, for the making of a sacred beverage, came up with a strong acceptability and demand, as a commodity, yet not as a currency.

However, from this status would eventually be derived the acceptability of the good as currency, and be proved it was the most marketable good, in this civilization. This would be the main factor when deciding a currency, even when jade or feathers may have more characteristics of natural money, as durability, or being indivisible in the case of jade, their marketability would not be enough

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<sup>8</sup> Jones (1993).

to make them the main currency of the civilization. Yet, their acceptance and preference by elites may give them the condition of money on certain cities, where they would be supported by this preference.

## VIII COMMODITIES AND THE FREE MARKET

Unlike fiat or forced money, natural money such as cacao, gives an opening to a more independent economy, just as silver and gold tend to do. Commodity money is chosen by the market when a commodity proves to have the qualities of natural money, and the necessary marketability to be considered currency<sup>9</sup>. Fiat money, on the other hand, or «money by decree» is set by the government<sup>10</sup>, with the main task of being a currency used to pay taxes, with a supply controlled by the government and its institutions. As a consequence, the use of a certain commodity as money would imply that it was the market that chooses this commodity to act as currency. This will also restrain government from printing, or creating new money for their own purposes. Making this assumption would tell us, the Maya civilization had a limited government, referring its monetary policies, as it was not on their hands to control the currency supply not either distribute the currency.

However, there were still different methods that could have been used by the Mayan government to increase control over the economy, typical examples are taxes. There is little information about the subject, but is known taxes were gathered by authorized collectors, other forms of tax paying include work, in which commoners would contribute to the construction of temples, palaces or causeways<sup>11</sup>, as a form of tribute to the elite or ruler, depending on the city or time. These taxes would maintain the sovereignty of the state over the economy, limiting free market and exercising control over the mentioned commodities. Nevertheless, the government

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<sup>9</sup> Menger (2009), pp. 23-28.

<sup>10</sup> Smith (2009).

<sup>11</sup> Flores (2014).

was not the only institution that would try to preserve influence over the economy, as members of the elite, not organized with the state, had control of most exotic goods, possibly including cacao.

## IX BARTER AMONG MAYANS

It is important to mention that commodity money was not the only medium of exchange used by the Pre-Columbian civilizations. Another, more basic way of trading was barter itself. Barter, as defined by The New Palgrave Dictionary of Economics, is «a simultaneous exchange of commodities, whether goods or labor services, with bargaining and without using money and which lacks an abstract measure of value in exchange or payment.»

However, barter may present more problems than commodity money, making an economy totally based on exchange difficult to be organized. Being a direct way of exchange, the individual which in theory desires to exchange some of the surplus he has on a basic good, for another one he needs or wants, must find another person willing to give up his property in order to receive that specific other good. This is known as a double coincidence of wants.

At the same time, it may be grueling to divide the goods in question and come to an agreement on a determined quantity, as not all goods are uniform in quality, size, neither easy to be divided.

This may have come as a tough task for merchants who had to arrange indirect exchanges, finding a medium of exchange to realize this task. The medium of exchange would be a good that would neither be used nor consumed by the merchant directly, but would be sought just for it to be traded again so it can be found the good the merchant needs. A classic example may have been how a Mayan merchant in need of maize, and in possession of beans, may exchange his surplus of beans for an amount of a more accepted good as obsidian stone, and then change the stone for the corn he needs. In this example, the medium of exchange is the obsidian, which would be sought due to its degree of marketability. According to Carl Menger, there will be a tendency to search goods that

have a higher degree of acceptability or that are universally, or at least locally, marketable as a medium of exchange<sup>12</sup>. «If we are going to inquire into the different degrees of saleableness in goods so as to show its bearing upon practical life, we can only do so by consulting the greater or less facility with which they may be disposed of at prices corresponding to the general economic situation.»<sup>13</sup>

Most of these goods tend to be turned into currency, as cacao beans; however, others may just stay as highly exchangeable goods, being this, the case of obsidian. As it was said before, Mayas obtained most of its obsidian from Jilotepeque, which provided it to bigger cities as Tikal and El Ceibal, during the Preclassic period, while these cities were still growing. This particular good had a high degree of marketability, yet there is no evidence of it as currency, probably to its low supply during the Preclassic period, where most of the obsidian as said before, came almost exclusively from the city of Jilotepeque. Yet, it can be said this particular good highly increased commerce among Mayan civilization, being one of the main goods traded, it would give the civilization a reason to contact other cultures, and eventually increase their commerce frontiers.

## X

### CACAO AS A SPONTANEOUS ORDER

As said before, Carl Menger investigations suggest that money was not an invention or decree, but an outcome of human interaction. A spontaneous order. It is necessary to define spontaneous order and understand how it has developed through history in the shape of language, money, and other forms. According to Barry Norman,<sup>14</sup> author of *The Tradition of Spontaneous Order*, «the simplest way of expressing the major thesis of the theory of spontaneous order is to say that it is concerned with those regularities in society, or orders of

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<sup>12</sup> Skousen (2014) pp. 409.

<sup>13</sup> Menger (1981) pp.26.

<sup>14</sup> Barry (1982).

events, which are neither the product of deliberate human contrivance nor akin to purely natural phenomena.» It was mentioned before, that commodity money, as cacao, tends to be chosen as a currency due to its high degree of marketability, making its use a form of spontaneous order. However, it is important to clarify that is not cacao itself which is being referred as a form of spontaneous order, but the use of it as a currency.

The way cacao was used as money fulfills both points in Norman's definition, is neither a product of deliberate human contrivance, as there are no proofs that a king or emperor decreed it as money, neither its use was isolated from human action, as it was a medium of exchange by the Maya people. However, if there were to be proofs of such a decree or law that stipulates, that cacao is the official currency, could its use still be classified as a spontaneous order? This hypothetical decree would probably be just an answer by the leaders of the Maya people, to the high marketability of the good. If such decrees happened they would still be subject of the marketability of the good and how accepted it was among the civilization.

## XI THE END OF MAYAN CURRENCY

As the centuries passed by, the demand of commodities tends to change. Cacao was not the exception, being essential in the fabrication of chocolate, very popular among the colonies, and Europe after the conquest; it started to be massively cultivated around XVII<sup>th</sup> century. The strong increase in the demand of cacao for its use as a commodity, made the use of it, as currency, an impossibility, marking the end of the commodity as medium of exchange on most of the territories, where it once used to be one of the main pillars to the economy of an entire civilization. Yet, cacao usage as currency had already seen a great decrease during the Postclassic period, where due to wars, and the abandonment of the main cities, trade was not as common and important as it used to be during previous periods, and the necessity of a common currency would be dismissed by the Maya people, that no longer lived in these cities during the period of war.

Afterwise, most of the natives moved to agricultural villages in order to survive, these would not only be a cause in the reduction of trade but would continue to reduce it for years to come, as communication between Mayas and other civilizations would be diminished after the arrival of the Europeans, making trade between these cultures and empires to gradually disappear. We can then deduct, that Mayan currency ended not because it was ineffective and needed to be replaced, but mostly because the currency was not as needed to have effective exchanges among inhabitants, yet it did not completely disappeared, neither this changes occurred immediately.

## XII CONCLUSIONS

As a conclusion, based on the data, facts, and investigation done on this paper it is possible to theorize that the Maya civilization, a culture that showed expertise in numerous areas, were not behind in commerce and economics. This can be assumed from their adoption of cacao as their medium of exchange, being cacao a form of commodity money. Although it did not contain every characteristic of natural money when it acted as currency, due to its high degree of marketability, it was indeed, the best alternative to precious metals. Although some of their metals were present on regions of the Mayan territories, they would not be used as currency, due to the lack of knowledge and resources to convert them into coins. And even lacking a coinage system, the civilization relied on an effective methodology so the good could be exploited, as a commodity and currency, effective enough to keep its usage prevailing among most natives even during colonial times.

Therefore, it is possible to hypothesize that although cacao, does not fit every characteristic of natural money, it was the preeminent option to be used by Mayans as currency, taking into account their knowledge and resources. Barter too, was essential in the development of the civilization, a method brimful of difficulties, and quite basic, yet effective enough to expand the frontiers of commerce of the civilization, bringing welfare to the empire. It is possible too, to

deduct this adoption and the use of cacao, is a form of spontaneous order that was developed by the high degree of marketability the good possessed, among Mayas. Assuming its use as a form of spontaneous order, gives cacao the credibility of being a currency that was chosen indirectly by individuals, and their actions, proving to be the best money available at the time.

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