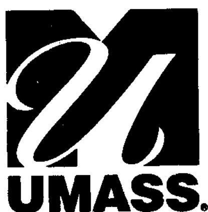
Aztec Money: An Inquiry into Substance, Sources and Heuristic Value

Item Type	article;article
Authors	Jacobson, Kenneth D
Download date	2025-03-16 07:25:19
Link to Item	https://hdl.handle.net/20.500.14394/2520

AZTEC MONEY: AN INQUIRY INTO SUBSTANCE, SOURCES AND HEURISTIC VALUE

Kenneth D. Jacobson

La prim.a predicacion del sancto Evang.o en Tlaxcala en medio de la plaça por los frayles de la orden del S. Fran.co y el modo de enseñar que tuvieron



Research Report Number 30
Department of Anthropology
University of Massachusetts
at Amherst
October 2001

AZTEC MONEY: AN INQUIRY INTO SUBSTANCE, SOURCES AND HEURISTIC VALUE

KENNETH D. JACOBSON

© Department of Anthropology
Machmer Hall
University of Massachusetts
Amherst, MA 01003-4805

TABLE OF CONTENTS

Acknowledgements........ ii

Introduction........ 1

1. "Primitive" Money........ 11

2. The Historical Data........ 15

3. Critique of the Historical Data........ 33

4. The Archaeological Record........ 49

5. Conclusions........ 69

Post Script........ 77

Notes........ 81

References Cited........ 87

Note on Cover Illustration

The cover illustration is taken from a colonial manuscript, Diego Muñoz Camargo's *Descriptión de la ciudad y provincia de Tlaxcala* (1585). It shows the first preaching of the Christian gospel in the market plaza of Ocotelolco, Tlaxcala. The manuscript – compiled some 60 years after the event – contains a mix of indigenous graphics and Spanish text. Although its purpose is that of recording missionary activity, vendors offer poultry, foodstuffs, collared slaves, pottery, firewood, and other goods. A ballcourt (seen from above) is in the background. To what degree is the economic activity influenced by assumptions of what contact period marketplaces were like? This small piece of archival data indicates some of the difficulties inherent in the interpretation of early colonial information -- especially when it describes events and circumstances a generation or more in the past.

ACKNOWLEDGEMENTS

I need to thank a number of people for their advice and counsel during the production of this paper. Bob Zeitlan originally inspired this project. Don Proulx read the manuscript and encouraged me to pursue its publication. Enoch Page *offered many valuable suggestions for its improvement*, as did Estellie Smith. I am especially grateful to Oriol Pi-Sunyer who went far beyond any reasonable expectations of his duty as editor. I am also very grateful to the Anthropology Department of the University of Massachusetts-Amhest for publishing this essay. However, responsibility for any problems that may remain rests solely with its author.

INTRODUCTION

A. Questions With Respect to Data

This essay aims to be a contribution to prehispanic Mesoamerican economics, specifically an inquiry on Aztec "money." It considers the role of commodities, money and markets.[1] Originally, this project was conceived to explore the possibility that the Aztec economy had a monetary component. Because researchers have distinguished between general purpose money, basically coinage and paper money, and special purpose money, objects one of whose uses may be to act in a "moneyish" manner (Neal 1976:3), my initial interest concerned both types of money. It soon became clear that there was no artifactual evidence for general purpose money having been utilized in the preconquest Aztec economy. However, the secondary literature does contain many references to limited purpose monies, usually cocoa beans and/or rolls of cotton cloth. As I examined the secondary literature further, I found that all authors relied upon a very small number of primary sources. Based on a hypothesis that many objects can act "moneyish," and accordingly that the Aztec economy might have had a number objects acting in that manner, I decided to check the primary sources[2] to see whether there were references to other "monies" besides cocoa beans and cotton cloth. (Interestingly, a null hypothesis would be that the Aztec economy operated without any monetary component.)

I soon realized that this task was going to be difficult: "From Central Mexico there is no manuscript of undisputed preconquest date. Codex Borbonicus and Tolnalamatl Aubin are two ritual-calendrical manuscripts that exhibit attributes of preconquest style and composition but their dating is either controversial or in doubt"

(Cline 1973:XIV:11). That is, all of the ethnohistorical data available today with respect to the Aztecs was written after the conquest. There was, however, a question with respect to documents which, while written after the conquest, claimed to report preconquest conditions. Accordingly, I began an examination of those sources.

This research has pointed to a number of questions, many of which have been raised by other researchers, with respect to the veracity/reliability of the ethnohistorical documents, especially as these relate to putative eyewitness accounts. Such matters fall into two general categories. First, many sources can be questioned for originality. In the sixteenth century, a period when the concept of intellectual property was in its infancy, it was perfectly acceptable to copy from, or continue the work of, another scholar (Borah 1984). Second, the accuracy of the material presented is problematic for several reasons. For instance, many of the documents were written years after the conquest. I will offer practical, analytical and neuroscientific arguments as to why such documents may not be accurate even if native informants were consulted. Additionally, I believe that the number of actual authors is very limited. I also feel that the motivation for writers to compose their documents with some impartiality can be questioned. It is reasonable to ask, for example, to what degree these texts were created not so much as "histories" (itself an emergent genre), but to serve the personal and/or political designs of a colonial elite. This is as reasonable a question to ask of religious chroniclers as it is of secular writers. Needless to say, being linked to a colonial establishment, does not disqualify one as an observer, but it is certainly ironic that a great many of the direct observations of Aztec society come to us through the writings Hernán Cortés, the conqueror.

Although this paper deals primarily with the question of money, other aspects of the received wisdom regarding the Aztec economy are also subject to re-examination, to the extent that they rely on the same primary documents I have investigated. Three such areas come to mind. First is the matter of long distance trade and the merchant class, the *Pochteca*, that is said to have been responsible for it. Second, the extent of tribute and the role it played in the Aztec political economy. Third, the degree to which the economy was redistributive, reciprocal or "market" should be revisited.

A fourth matter might also benefit from re-examination: the discussions and theories regarding Aztec human sacrifice and cannibalism. In the course of discussing various postconquest sources in Chapter 2, I will briefly take up this issue. It is worth noting at this juncture that reports of human sacrifice and cannibalism were used to justify the conquest. In colonial times, these discourses validated policies of social and cultural control, particularly in the area of indigenous religious belief and practice.

Unfortunately, a proper exploration of these four questions, would expand the essay well beyond its current scope, a project I am unable to undertake.[1] Each of these potential research areas would require not only a critical analysis of the ethnohistorical, governmental, and archaeological records I use in this study of money, but also a careful sifting through the primary data, a task for which I am not linguistically equipped. Nevertheless, there are plenty of tantalizing questions. For example, some sources report that the Pochteca operated in their traditional roles well into the colonial period, an assertion that may be verifiable from market and tax records. If these assertions are correct, then one would also like to know how this once-privileged merchant caste articulated with the colonial economic system.

In brief, what initially appears to be an extensive literature, turns out to be so only at the secondary level. With respect to primary data, we have a relatively limited corpus, much of it problematic for a variety of reasons. Thus, this project may also help in opening a window on purposefully created, potentially grossly inaccurate, representations of Native American peoples and societies. I am not suggesting an overt conspiracy, but rather that these sources inevitably reflect the cultural formation of a small group of men, the first Europeans to observe and experience the Aztec world.

There are a number of reasons why we may be witnessing rather similar perceptions, one being the limited number of observers and the fact they were all engaged in a collective task. Also, most of them came from much the same social and cultural backgrounds. Several authors seem to believe that there was something uniquely "Spanish" about the group of men who conquered and initially controlled sixteenth New Spain. These similarities might include, they suggest, common values, goals, and ways of perceiving the world (Liss 1975; Greenleaf 1961; Innes 1961). More recent discussion (Elliott 1989) stresses features shared by Renaissance gentry (and in our case, often would-be gentry): an emphasis on resourcefulness, a belief in both hierarchy and meritocracy, an elaboration of language and form, a search for renown, and a concern for royal and divine favor. In short, this was the mental world of sixteenth-century Europeans (not of all classes and genders, obviously), and in this universe the major line of demarcation was drawn between Christendom and paganism. This was not a social space lacking ambiguity and contradiction, as is quite evident from the memoir of Bernal Díaz, who wrote to "correct" the description of the conquest offered by Cortés and other leaders. I will return to some of these matters in my concluding chapter.

B. Historical Context of the Conquest

The Europeans who crossed the Atlantic (and later other oceans) in the late fifteenth century and during the course of the sixteenth century, tended to view themselves as culturally superior beings, providentially enjoying, and, where possible, diffusing, the blessings of Christianity and civility (Elliott 1991:1). Needless to say, they were motivated by a greed for gold, silver, spices, and later for land. We can add such intangibles as the search for adventure and social status.

It does not follow, however, that these individuals formed part of what we would now recognize as modern polities. Writing of the Iberia of this period, the Spanish historian Felipe Fernández-Armesto (2000:121) has coined the phrase "The Improbable Empire" to describe a monarchy composed of semi-autonomous kingdoms in Iberia – Castile, Aragon, Granada, Navarre – extensive territories in other parts of Europe, and a growing overseas empire. This produced a system of states "in unprecedented combination, but poorly articulated, with every kingdom, and some parts of every kingdom, distinguished by peculiarities of law and custom."

In these vast and intractable kingdoms -- a "dispersed monarchy" -- government by necessity was collaborative, mediated through networks of devolved authority. As for royal absolutism, monarchs were "absolute" only with respect to some laws, and royal authority is best understood not as an unhindered right to order and legislate, but the right and authority to dispense justice. It is worth noting that at virtually the same juncture as Hernán Cortés was laying siege to the Aztec capital of Tenochtitlán, his monarch, the newly arrived Charles I (later the Holy Roman Emperor Charles V), was putting down a major revolt in Castile. This

uprising was sparked by what was interpreted as an attack on the independence of the Castilian *Cortes*.

On January 6, 1492, Ferdinand and Isabella made their entry into the city of Granada, the last Moorish bastion in Spain. Three months later, agreement was reached on the terms for Christopher Columbus' projected voyage of exploration. The temporal and political links between the fall of Granada and Columbus' voyage could hardly be stronger. We need to add another event: shortly after the surrender of Granada, the Catholic kings signed edicts ordering the expulsion of all professed Jews from their kingdoms; pressure on Muslims would shortly follow.

We need to interpret these episodes with a certain caution. For example, during the first half of the sixteenth century many Hispano-Muslims in southern Spain, while nominally Christians, remained Muslim in culture and religion. Nevertheless, these policies and practices were attempts, however premature, to lay down the foundations for a unitary state, not only politically but also culturally and in terms of religion. There is also a close relationship between the end of the *reconquista* – the centuries-long series of wars between Muslims and Christians in Spain – and the New World expeditions, including the one led by Hernán Cortés. The *conquistadors* who took part in the Mexican campaign were the first generation to come of age after the reconquista, and even if many were not especially religious, they had grown up in a cultural environment that mingled religion, tales of chivalry, and a crusader ethos. Several other cultural features, a sense of order and legality and what we might term a proto-nationalism, can be identified in the conquistadors. Greenleaf (1961:33) argues that

> the conquistador...created, initially, a pseudo-Renaissance society in Mexico which was founded on an affected cult of gentlemanliness, an imitation of the Renaissance gentleman by the baser classes in breeding and intellect. The early soldier was usually a soldier-

> encomendero and had an aversion to manual labor...the exploitation of the Indian was the mudsill upon which he built his society.

While Greenleaf fails to recognize that *all* colonies have served as sites for upward mobility and exploitation, the observation on the imitation of gentlemanly manners is to the point. Harvey and Prem (1984:206) add that there was an "imperturbable determination" on the part of "the Spanish invaders to consider themselves noblemen, and hence to exploit the labor of the Indians." There can be no doubt that the clergy were concerned with baptizing as many Native Americans as they could. However, I do not believe that a clear distinction can be made between a secular political ruling class and the clergy:

> The notion of precise boundaries between sacred and profane belongs to another age. For practical purposes the Spanish clergy became an energetic arm of the state. Ferdinand requested and received a papal delegation of *patronato real*, which included rights of general patronage and ecclesiastical appointment, and to oversee tithes collected from royal subjects in Spain and the Indies (Liss 1975:14).

That is, the Crown received a share of the tithe collected from converted Indians by the clergy. Conversion, then, could be seen as another way of raising income for both the clergy and the Crown.

I think that this point is further strengthened when it is noted that both groups, conquistadors and clergy, were financially supported by the *encomienda*. This institution, perhaps based on Roman practice, but which first appeared in modern guise in Spain during the early years of the sixteenth century, had become the chief means of private Spanish control over Indian peoples on the West Indies (Liss 1975). The encomienda required the Native Americans to pay "tribute" and/or labor to grantees-*encomenderos* to whom they were delegated. There was "a legal distinction between encomienda and slavery" (Gibson 1964:58-59): it was a possession but not property, it could (usually) be neither inherited nor sold, and it

reverted to the crown, by whom it was granted (Gibson 1964:58-59). However, Cortés paid for a large part of his Mexican expedition by mortgaging his Cuban encomiendas; thus, they were obviously very valuable possessions (Innes 1969:47).

It is probably fair to characterize the formal duty of the Spanish New World settlers (including, to a certain extent, the clergy) as that of providing military service to the Crown at their own expense, for which their pay was the granting of an encomienda. In fact, Innes reports Cortés promised that all who went with him to Mexico "would receive a share of all gold and silver and other plunder, and also an encomienda of Indians once the country was pacified" (Innes 1969:48). It should also be noted that when, in 1523, Charles V directed Cortés to discontinue the encomienda, he refused (Gibson1964:59). Cerwin asserts, "most government officials were interested only in enriching themselves" (Cerwin 1963:9-10). However, the Crown was enriched not only by those encomiendas that had reverted, but also by the expropriation of their mineral wealth.

In conclusion, I have attempted to sketch out the social, cultural, and mental worlds of the conquistadors, individuals whose lives spanned a rich and varied period in Spanish history, a transition from the Middle Ages to early modern times. I have perhaps not stressed enough the element of *curiosity*: it was during the sixteenth century that sufficient new information became available to Europeans about distant and "exotic" parts of the world, material that in many cases entered general circulation through the still-new medium of the printing press. It is nevertheless somewhat anachronistic to consider the accounts of the Spanish chroniclers, vivid as they sometimes are, as somewhat on the order of early ethnographies. Much like later explorers and missionaries, these chroniclers often had an explicit social and religious agenda. Many accounts, I would argue, were designed to rationalize conquest or missionary work. We will revisit this question

when we discuss the credibility of chronicles portraying indigenous life produced by several of these clerics.

C. Trade in Prehistory

There appears to be a history of trade in Mesoamerica going back at least as far as 1500 B.C. Zeitlin, for example, in speaking of the Isthmus of Tehuantepec, cites archaeological data of regional similarity in ceramics and potential trade in obsidian from the period of 1500 B.C. through A.D. 300 (Zeitlin 1978:182-183). He adds:

> the precocious development of what was probably the major pre-classic settlement there might be traced, at least in part, to its inhabitants having availed themselves of opportunities for participation in an early interregional network through which goods and ideas moved in southern Mesoamerica (1978:183-184).

Flannery and Schoenwetter (1970:148) reach a similar conclusion with regards to the Early Formative (1200-900 B.C.) period in the Oaxaca Valley of Mexico:

> Villagers participated in substantial exchanges of trade goods with other regions
> of Mesoamerica. From the Pacific Coast, most likely the Tehuantepec region, they obtained pearl oyster, spondylus shell, marsh clams, estuary snails and a variety of sea shells, all of which were then converted into ornaments by Oaxacan craftsmen. The artisans at San José Mogote also worked black and white mica and ground small mirrors out of magnetite and ilmenite, two locally available iron ores. Some of these materials were presumably traded out of the Valley of Oaxaca into other regions of Mesoamerica.
>
> Among primitive agriculturists such trade is more than a luxury: it is often closely linked to the subsistence economy and thus indirectly related to

> the agricultural adaptation. Given the erratic rainfall of semi-arid regions like Oaxaca, unusually good years, and hence maize surpluses, are unpredictable. One way of "banking" unpredictable maize surpluses (as an alternative to storage) is to convert them into imperishable trade goods which can be used either (1) as "wealth" in times of shortage, or (2) as part of a ritual exchange system, used to establish reciprocal obligations between neighboring peoples.

I will argue in Chapter 1 that any time trade is triangular (that is, any time good A is exchanged for good B and good B is exchanged for good C) then good B is acting like money. Furthermore, if good C is not consumed, but traded for good D, then good C also is acting "moneyish". It is important, then, to establish that trade and marketplaces were a part of the Aztec economy (a continuation of Mesoamerican regional patterns) in order to show the possibility of a context in which triangular situations might be found. This essay will, therefore, analyze in some detail evidence concerning Aztec marketplaces and trade. Again, our goal will be to look for trading patterns from the perspective of trying to anticipate where triangularities might have been possible and accordingly which objects might have served as "money".

1. "PRIMITIVE" MONEY

Polanyi postulated three "forms of integration" for an economy: "reciprocity, redistribution and exchange". Reciprocity is, he says, "movements between points of symmetrical groupings," while exchanges are "vice-versa movements taking place between 'hands' under a market". Polanyi's third form of integration is redistribution, defined as "appropriational movements toward a center and out of it again" (Polanyi et al. 1957:250). We will discuss redistribution further below.

Sahlins suggests distinctions between three kinds of reciprocity: "generalized, balanced and negative" (Sahlins 1972:193-195). Sahlins' definition of "balanced reciprocity" however, sounds much like Polanyi's "market": "Much 'gift exchange', many 'payments', much that goes under the ethnographic head of 'trade' and plenty that is called 'buying and selling' and involves 'primitive money' belong in the genre of balanced reciprocity" (Sahlins 1972:195).

If, therefore, we were able to see the Aztec economy functioning in a similar fashion to Sahlins' balanced reciprocity, then I think it fair to characterize that economy as functioning in a "marketish" fashion. By that I mean, even though there may be reciprocity in some transactions, others involving the very same objects may very well involve triangularly as well as other market phenomena; for example, supply and demand, profit margin, competition among various sources of supply for certain traded goods and competition among alternative technologies. Accordingly, I would argue that Polanyi's three categories are not mutually exclusive. Just as generalized reciprocity and balanced reciprocity (essentially gift-giving and marketish conditions) can exist

simultaneously in a culture's economy, so redistribution may very well coexist with gift-giving and marketish conditions.

As indicated above, this essay will focus on the market (consumer goods) segment of the Aztec economy in its search for potential "monies." Moneyish objects may have entered into the redistributive segment only to the extent they were used to buy the goods required for tribute. This is not to deny the possibility that if goods were collected for tribute they might somehow have entered into the consumer economy; or that, once found in marketplaces, some of those objects might have acted moneyish. Even if different objects were used as money in each segment, I am assuming that the far greater use of "money" would be in the trade segment.

An interesting question, which I do not believe available data will allow us to answer, is: In Aztec marketplaces were goods traded freely? Or was there any control of value by the state? That is, if particular objects acted moneyish, how was their value relative to other objects established? Postconquest, we will see that the Spanish colonial administrators established a price list in relationship to cocoa beans acting as "money." Was this a Spanish invention? Or did Aztec authorities follow the same practices?

What should we specifically look for in the use of an object to be able to characterize it as "moneyish"? First, we must emphasize the use or purpose to which the object is put (Polanyi 1957:191) and the consequences of that use "within a particular system" (Neal 1976:1-3). In other words, we are dealing with special or *limited purpose* money.

To what purposes should we expect our primitive money be put? One key element is what I characterized above as triangular usage and Polanyi characterizes as a "sociological situation." Dalton characterizes the same situation slightly differently: "If

only one type of obligation is involved, its discharge ... may well be a non-monetary operation, as when an obligation is discharged in kind" (Dalton 1968:192).

Money buys objects and services. It acts as a medium of exchange. A question will be to determine if a transaction is made not, for example, by directly trading onions for tomatoes, but by trading onions for something else which is then (in whole or in part) traded for tomatoes. This is where triangularly becomes important: "Goods into money into goods" (Neal 1976:2). Our tomato seller may also use his objects in any of a number of obligations for which goods are not immediately received back. For example, if those objects pay rent or interest on a loan, if they can be gifted, if they can be loaned, or if, in the Aztec case, perhaps used to meet a tribute or tax obligation (all the records of such transactions being postconquest), then they are acting moneyish. We need to be at least one step removed from direct barter, so medium of exchange might be one use of a moneyish object. Several of the other uses (not necessarily restricted to a primitive money) might be:

(2) as a standard of value
(3) as a store of value
(4) as a standard of deferred payment (a way of expressing a debt to be paid in the future
(5) as a unit of account (Neal 1976:2)[3]

While some theorists have argued that only one of the above characteristics is sufficient for an object to be limited purpose money, I would argue our best candidates meet all five conditions. Codere argues, "Money is a symbol. It functions as a sign ... of both past and future exchangeable goods. The idea of goods being understood to include services..." (Codere 1968:559). That is, money and/or moneyish objects do not need to be "spent" right away: it/they can be saved (hoarded). People recognize its/their value and are willing to express obligations in terms of those units. However,

with regards to limited purpose money, unless the object is being used in a moneyish fashion, it reverts to being simply an object. The value in primitive money lies in its use; value is not intrinsic. The reverse is also true: something with intrinsic value, jewelry, gold, or in the Aztec case, feathers or decorated cloth, need not necessarily be utilized as money, notwithstanding its intrinsic value. One other characteristic of a moneyish object is important: "It has a range of frequency of usage depending upon its contexts" (Codere 1968:559). "Range" is a concept embedded in the very notion of special purpose: How limited is the use of a particular "quantifiable object"? I would argue that the more general its use -- that is, the more "sociological situations" into which an object can be put in a moneyish function and, accordingly, the broader its range -- the stronger our case is for calling that object moneyish. Finally, as Codere points out, taking the position that economies need not fit the Western model to have limited purpose monies avoids ethnocentrism (Codere 1968:558).

2. THE HISTORICAL DATA

A. The Consensus Model

As stated above, there is an extensive secondary literature with respect to the Aztecs. While that literature does raise issues regarding various sources, it nevertheless is reasonably consistent in the ways in which it represents Aztec society. That is, there seems to be considerable consensus with reference to the Aztecs, and of interest to the topic of this essay, with respect to the Aztec economy. Berdan has published extensively on the subject of Aztec trade and markets, and her work substantially agrees with a number of other essays I have consulted. Accordingly, I have chosen her as spokesperson for the consensus model. I have emphasized elements of this model which seem so similar to contemporary European societies, including Spain. The argument is not that parallelisms in economic and political organization are out of the question, but that they need to be demonstrated.

The Aztec empire was administered, Berdan argues, at the time of the "Spanish arrival" from Tenochtitlán, "an island city with a population estimated at between 150,000 and 200,000" (Berdan 1989:86). Aztec society is reported to have been highly socially stratified, comprised of basically *two classes, nobles and commoners*. Nobles owned land, wore special clothing and were involved in "affairs of state." Commoners'

> jobs *mainly involved agricultural work, fishing, trading or craft production. They also served as rank and file in the military....* In a vague area between nobles and commoners were the artisans of luxury wares *(tolteca)* and the professional merchants (*pochteca, or oztomeca*).... People in those professions frequently *became extremely* wealthy and at times *even felt the need to conceal their wealth from the traditional nobles* (Berdan 1989:86, emphasis added).

Berdan further argues that there were "large surpluses in food (particularly maize, beans, squash, and chile)," and that some agricultural products, for example, cotton, cocoa and maguey, came from "specific ecological zones" (Berdan 1989:86). Additionally,

> Many nonagricultural products were also found in restricted zones. Precious feathers, stones, and metals were all found in areas throughout the empire, but none of them in close proximity to the Aztec capital cities. Nonetheless, these precious products worked their way into the valley cities, *where they were formed into objects of high social and economic value by skilled specialized artisans.*
>
> *Artisans ... tended to cluster in their own districts (Calpulli)* of the city. They were ... grouped into *guild-like organizations ... handed down from parent to child.* There was an *internal system of quality control as well as social differentiation ... from apprentices to masters ...* a cohesiveness represented by their collective focus on a *Patron deity ...* [A number] of these artisans may have worked on a part-time basis ... most of their products undoubtedly were distributed through the extensive network of marketplaces.
>
> All individuals ... were subject to *tax or tribute obligations* imposed by the *state ...* commoners ... *would be taxed in the form of corvee labor ... and be required to provide daily provisions for the royal palaces. They might also be required to pay in goods such as maize or cloth. Artisans were taxed in kind.* In the provinces *tribute was a condition of conquest...* This tribute took the form of foodstuffs and cloth (some 280,000 pieces annually) and ... bowls, wooden beams, elaborate warrior costumes, shells, jade beads, gold disks, and bunches of valuable tropical feathers (Berdan 1989:86-89, emphasis added).

The consensus model also contains the following role for the Pochteca:

> Some foreign trade thus *carried* the *flag of state.* The merchants who conducted this long-distance foreign trade were organized into *guilds ... residing in separate city districts, controlling membership, providing training ... worshipping a patron diety,* and exhibiting a complete *system of ranking with the head merchants acting on behalf of the guild in accepting commissions from the ruler* (Berdan 1989:89, emphasis added).

Furthermore, Berdan (1989:90) argues, there was an extensive system of marketplaces. Some of the goods in distant marketplaces might be royal goods brought there by Pochteca.

> Marketplaces were found ... in towns and cities throughout the empire. These marketplaces varied considerably in terms of the frequency with which they met, the range of goods available, and the types of traders offering *their wares for sale.* Most markets were held on a five-day rotating schedule ... larger ones ... were also active daily. The grandest marketplace in the empire was at Tlatelolco (sister city of Tenochtitlán) and here could be found every product of the land ... other marketplaces ... were less well stocked...
>
> Market places, especially the larger ones, attracted a wide range of traders: long-distance professional merchants dealing in items of high value and low bulk, regional traders ... carrying goods of medium value but high bulk (such as cocoa and cotton), and local persons selling small lots of their own production, usually of relatively low value and high bulk (1989:91, emphasis added).

Berdan argues that:

> The process of marketplace exchange was facilitated by the diversity of traders ... and by the use of certain commodities as money forms. Lengths of cotton cloth seemed to have provided the most important measure of value, and cocoa beans, individually of very low value, may have been used as an acceptable way of evening out exchanges (perhaps as a widely accepted medium of exchange) (1989:91).

Thus, we have a picture of "an intricate web ... formed among tribute, trade, and markets" (1989:91). Berdan (1985:339-367) also asserts that salt was an important traded commodity.

With regards to postconquest Mexico, Berdan tells us, "indigenous populations declined sharply from disease and famine; new political structures and procedures were set in place; a new and persuasive religion was introduced" (1986:281). However, she also states, that "an omnipotent rule, a hierarchically arranged society, sumptuary rules, a fundamentally agrarian economy, specialized crafts, active commerce, and a militarily

oriented society... *Features were shared, at least in general outline, by Aztecs and Spaniards alike"* (1986:290, emphasis added).

B. The Eyewitness Documents

The reported similarities in the European and indigenous forms of polity and economy are striking, and one may reasonably ask to what extent this congruence reflects a Spanish need to "make sense" of New World complex societies. In this subsection I will discuss the original source materials from which the consensus model has been developed. There are only two documents purporting to be eyewitness accounts of the preconquest Aztec state: both were written by people associated with the Cortés expedition that visited and then captured the Aztec capital (1519-1521). Only one of those, Cortés' letters to the Emperor Charles V, was published contemporaneously with the events (1522-25). The second account was published many years later by Bernal Díaz, who was a member of Cortés' army. A third account of the same events was published long after their occurrence by Cortés' then-chaplain and secretary, Francisco de Gómara. Gómara, however, never went to Mexico. His account is in the form of a biography of Cortés, and was written with Cortés' letters in hand and in conversation with the subject of the biography. Notwithstanding Cline's argument that it is "a fine work of history," one might argue that its importance lies chiefly in what it tells us about how Cortés wished to be remembered shortly before his death in 1547. "The document was published in 1552, and almost immediately suppressed by order of the Crown... possibly because the Crown feared documentation of the claims of the Cortés family in Mexico" (Cline 1973:XIII:69-70).

A fourth account, that of the "Anonymous Conquistador," is also cited in the literature; however, its veracity has been questioned. Borah, for example, believes that

this account is "likely to be spurious" (1984:29). Accordingly, there are only two universally accepted accounts of events and institutions written by people who could have seen the occurrences about which they wrote. Included in those descriptions are the only two purported eyewitness accounts of the main marketplace (including its goods and administration) in the Aztec capital just prior to its capture by the Spanish. All the other historical accounts rely on informants' memories of events and institutions. The Cortés, Díaz and Gómara narratives are all similar in form and content. The Gómara account is the least detailed, the Díaz account is more detailed than Gómara's, and the Cortés account is the most detailed of the three.

According to both the Díaz and Cortés accounts, the Spanish visited a grand market once, accompanied by the Aztec ruler Moctezuma II and his entourage, while on their way to visit the great temple. Also accompanying the Spaniards was Cortés' "small page named Ortequilla" that we are told, "already understood something of the language" (Díaz 1956:215).

Gómara (1964:160) describes this marketplace as "wide and long and surrounded on all sides by an arcade." He reports that, "seventy thousand or even one hundred thousand people ... go about buying and selling" and that people come to it not just from the vicinity, even though "all the towns about the lake" have their own markets, most of which meet every five days.

In fact, "such a multitude of people and quantity of goods cannot be accommodated in the great square, the goods are spread over the nearest streets." Gómara paints a picture of a market with many, many exotic items, as well as all manner of practical items. "The most valuable goods are salt and cotton mantles. However, the most beautiful things ... are the gold and feather work." In fact, craftsmen engrossed with making a perfect animal or tree out of feathers are so absorbed "that they will [sometimes] not eat all day long". But the silversmiths have the "*highest rank*

and greatest skill." Gómara stresses their use of "precious stones"; he also says there are items of lead, bronze and tin. Also found, according to his chronicle, are "plenty of doctors and apothecaries". Additionally, there are "numberless" "kinds of food stuffs" including "pies and omelets made of the eggs of various kinds of birds ... and [a] quantity of baked bread ... and many kinds of wines." Besides those already mentioned, other artisans and merchants are "stove makers, barbers, cutlers." And we are told that *"the king was paid by all the vendors for the right to sell "* and that for *"protection against thieves ... men like policemen were always walking about the marketplace... In one house, where all might see them, were a dozen old men sitting as judges, hearing suits..."*

Finally, and most specifically relevant to this essay:

> Buying and selling consisted merely of exchanging one thing for another: this man offers a turkey for a sheaf of maize; that one mantles for salt or money (*rather, for cocoa beans, which circulate as money throughout the country*), and in this fashion their trading is done. They kept accounts *so many cocoa beans for a mantle or a turkey*, and they used a string for measuring things like maize and feathers; pots for other things, such as honey and wine. If anyone gave short weight, he was fined and his measures were broken (Gómara 1964:160-163, emphasis added).

There are some differences between the Díaz and Gómara accounts. First, according to Díaz, "there were other wares consisting of Indian slaves both men and women; and I say that they bring as many of them to that great market for sale as the Portuguese bring negroes from Guinea; and they brought them along tied to long poles, with collars round their necks so that they could not escape" (Díaz 1956:215-216).

Díaz also saw tobacco for sale; however, he only saw three magistrates. Where Gómara writes of cutlers, Díaz saw "those who make stone knives," a subtlety of which Gómara might not have been aware since he had never been in Mexico and seen the widespread use of obsidian. Díaz also reports copper, as well as brass and tin.

Interestingly, he tells us that the "marketplace with its surrounding arcades was so crowded with people, *that one would not have been able to see and inquire about it all in two days"* (1956:217, emphasis added).

As to the way in which these goods were paid for, Díaz informs us:

> there were many more merchants who, as *I was told,* brought gold for sale in grains, just as it is taken from the mines. The *gold is placed in thin quills of the geese of the country,* white quills, so that the gold can be seen through and according to the length and thickness of the quills they arrange their accounts with one another, how much so many mantles or so many gourds full of cocoa were worth or how many slaves or whatever other thing they were exchanging (1956:217, emphasis added).

Cortés' second letter recounts the same visit to "Mutezuma," of which the other two chroniclers speak. Cortés' account includes most of the same material but is more detailed: "They sell chick and fish pies...they sell hen and goose eggs...they sell tortillas made from eggs." Interestingly, he admits, "they sell everything else to be found in this land, but they are so many and so varied that because of their great number and because I cannot remember many of them, nor do I know what they are called, I shall not mention them" (Cortés 1986:103-105).

Cortés' account mentions "ten or twelve persons... sitting as judges." We are told that "sixty thousand come each day to buy and sell" (1986:103). Further, it should be noted that Cortés' description (the only account written and published when the material was fresh) makes no reference to either slaves or to a native "money." We can only speculate as to why his secretary's work contains a reference to cocoa beans as money. Since Díaz began writing his account in 1552, it is possible that Gómara had access to it; even more likely is the possibility that Gómara's account stimulated Díaz to write his own narrative. Another possibility would be that Cortés needed to embellish his earlier account in order to justify his actions and policies in the colony. For example,

there is evidence that in at least some postconquest markets Indians were forced to accept cacao beans as payment for their wares. If we consider Cline's argument that Gómara's relation was designed to bolster Cortés family claims in Mexico, then perhaps we are closer to understanding the variations in these texts.

C. Other Historical Documents

One other historical account of the marketplace in the Aztec capital is widely used by scholars. Bartolomé de las Casas authored what is known as *The Apologetic History* in the 1550s. In it is an account of the preconquest marketplace of Mexico City. Las Casas' account, written over thirty years after the events, has much the same form and substance as the Cortés, Díaz and de Gómara narratives. Frequently quoted by scholars is the following description:

> All these products are bought in exchange for others for the most part by a barter system, according to their valuation of the merchandise. Inequalities between goods exchanged are made up by money consisting of the beans ... called cocoa. It usually suffices to pay for less valuable goods with cocoa (Las Casas 1971:135).

Given the tendency of the authors of that time to borrow from each other, I think it is reasonable to speculate that Las Casas was repeating the Gómara account rather than citing corroborating sources. Should this be the case, it is not without irony, given that he is said to have been responsible for the "almost immediate suppression by order of the Crown" of Gómara's text (Cline 1973:XIII:70). Las Casas claimed that Gómara had fabricated many events in Cortes' favor which, in his opinion, were manifestly false.

Diego Durán's *The History of the Indies of New Spain* is another widely quoted document. It was finished in 1579. Durán is reported to have been fluent in Nahuatl

and his history is said to be based on postconquest native interpretations of preconquest native codices, none of which have survived (Durán 1964:xxxiv-xxv). More specific to our concerns, I find no references to marketplaces, trade and tribute in this material. Probably relying on a codex from the Oaxaca region, Durán does report trade in "gold, feathers, cocoa, finely worked gourds, clothing, cochineal [dye] and dyed thread made of rabbit hair" (1964:117).

In another account, Durán reports that King Montezuma ordered that tribute from Tepeaca be paid every eighty days, and that "a great market place be built ... so that all the merchants of the land may trade there on an appointed day. In this market there will be sold rich cloth, stones, jewels, feather work of different colors, cocoa, fine loin cloths and sandals" (1964:105). In a further section, Aztec merchant women sell fish and waterfowl at their "usual market places" (1964:73).

The final historical document that I have examined for this essay is the *Florentine Codex* produced by Bernardino de Sahagún. Sahagún arrived in Mexico in 1529, and he evidently became fluent in Nahuatl. Consequently, in 1557, he was ordered by Fray Francisco Toral, Franciscan Provincial of New Spain (Baird 1993:XIII:14), "to write in the Mexican language, what to me would seem useful for the culture, support, and teaching of Christianity among the natives of New Spain, and which would at the same time be of assistance to the workers and ministers of the Christian Faith" (Sahagún 1976:21).

Sahagún is considered by some scholars, perhaps especially Mexican anthropologists, to be the first Mesoamerican ethnographer, and his writings are among those most relied upon by the secondary literature. In 1558 or 1559, Sahagún went to the town of Tepepulco, sixty miles northeast of Tenochititlán, and in consultation with both native noblemen and the "lord of the village ... Don Diego de Mendoza," found ten or twelve native noblemen to answer questions. We are told that that his work with these informants lasted two years. Baird is of the opinion that he had pictures created

in the preconquest codex style that served to illustrate the answers to his questions (Baird 1993:14-15). It is in Sahagún's writings that we find the most detailed accounts of artisans and Pochteca. His accounts of "markets" do, however, sound rather like the other accounts we have discussed. For example, in the nineteenth chapter of his eighth book is "described the ordering of the market place, and [how] the ruler took great care of it" (Sahagún 1954:VIII:67).

The description that follows is uncannily like those of Gómara, Cortés and Díaz. Sahagún does offer even more detail than Cortés, but the ordering of things is similar: tobacco, for example, just proceeding "directors of the market" (1954:VIII:69). No slaves are mentioned here, nor is money, even though the word "sold" is used repeatedly. He does not tell us specifically where this market is to be found. The ninth book "telleth of the merchants and artisans" and contains an incredible amount of detail on Pochteca and artisans, including how the Pochteca spied for the state, and even fought for and captured territory not yet within the Aztec Empire (Sahagún 1959:IX:6). It also, in the tenth chapter, describes a slave market. Baird analyzed a number of Sahagún's codices from the same perspective one would analyze any art work. She is able to tell us how the drawings were made:

> The primarily preconquest style and subject matter ... their function and composition of scenes strongly suggests that they were copied from preconquest prototypes ... drawings that serve an informative function and were drawn before the text was written are most likely to have come from a native source. Conversely, the pictures that serve an illustrative function and were drawn after the text was written are least likely to have come from a native source ... the artists sat next to one another and worked in an assembly-line like manner, copying from the model in front of them. ... The artists remain anonymous, but their use of European style and form, incomplete sketches, mistakes and changes in drawings suggest that although they were competent as artists, they were formally untrained as artists copying unfamiliar material, and were probably Sahagún's former students ... who he describes as his scribes and assistants (Baird 1993:160-161).

As noted earlier, it seems well established that trade and marketplaces have a long pre-Aztec history in Mesoamerica; the historical documents discussed reflect this circumstance. It seems, then, reasonable to conclude that the Aztecs had long distance trade, markets and some objects that were being used as limited purpose money. Even when some of the criticisms of the historical documents discussed in the following subsection are taken into account, it is hard to believe that these documents would be inaccurate with regards to broad regional cultural and economic patterns. Our problem with the documents is the degree to which the detail provided by the authors is reliable. Trade and tribute on a grand scale is not in question.

D. Colonial Government Records

As noted, we have perhaps only two eyewitness accounts of the preconquest Aztec economy. Also, no preconquest Aztec codices appear to have survived. There are, of course, glyphs and inscriptions, but to my knowledge these are not sources of information on trade, markets or money. However, there is another source of documentary evidence available to us: postconquest Spanish records. Anderson, Berdan and Lockhart have done some excellent research in terms of locating and translating documents dealing with sixteenth-century Tlaxcala. Although the documents deal with a people that were both "neighbors and archrivals" of the Aztecs (Szewczyk 1976:137), they shared a great deal with them, including a common language and an interrelated history. Much of the information these documents offer is probably generalizable, especially as it relates to colonial regulations. In the following paragraphs, I discuss how much weight, relative to the preconquest Aztec economy, should be given to these documents.

One document equating the price of certain foods with cocoa beans (and with a small Spanish coin, the *tomín*) is particularly interesting. The List of Market Prices established by the Judge of Tlaxcala in 1545 proceeds as follows:

> I, Licentiante Gomez de Santillan, judge for his majesty ... have been informed ... that there was great disorder and high pricing in the things sold in the markets in this city and province, in order to provide for and remedy it, I ordered this price list made so that for the things contained in it prices higher than the following will not be paid or taken ... set forth in Indian language
>
> —one tomín is worth 200 full cocoa beans or 230 shrunken cocoa beans.
> —one turkey hen is worth 100 full cocoa beans, or 120 shrunken cocoa beans ...
> —one large tomato will be equivalent to a cocoa bean ...
> —a tamale is exchanged for a cocoa bean ...
>
> Everything written here is to be bought only in the market; if anyone sells things at home, everything [the offender] sells will be taken from him ... the third time he does it, he will receive 100 lashes in the market and be shorn and also lose his property for it... and he ordered that the said things be given at the said prices to Spaniards who should buy them ... and he ordered the said Spaniards not to take the said foods from them by force (Anderson et al. 1976:208-213).

However, that "rate" could vary:

> December 9, 1553:
>
> In accord with the viceroy's command, the Cabildo orders that dye dealers trading in cochineal are to adopt an exchange rate of 180 cocoa beans for one tomín, instead of the 80 they have been giving, or else pay in coin instead of using cocoa beans (Lockhart et al. 1986:53).

Lockhart and colleagues point out: "Of *quachtli* (lengths of cotton cloth), however, we hear nothing." The price list was also expanded:

> October 6, 1549:
>
> Corregidor Diego Ramírez supplements Santillan's marketplace tariff and ordinance by (1) setting prices for items not mentioned in the former list ... mats, firewood and torches; (2) decreeing, that cocoa sellers are to report sales to the deputies and adjust prices to their orders, the present exchange rate being 180 cocoa beans for one tomin, with offenders to be fined; (3) ordering confiscation of

machetes or daggers offered for sale, since they can be presumed to have been stolen, and forbidding buying anything from Spaniards' shepherds or servants for the same reason. Offenders are to be flogged (Lockhart et al. 1986:42).[4]

Further, the Spanish authorities controlled even commerce with traveling merchants: "The cabildo orders that loyal merchants report to the deputies all purchases made from traveling merchants who bring cocoa, indigenous clothing and other items; the crier will publicly announce the source and selling price of such goods." (Lockhart et al. 1986:30)

The Spanish controlled when the markets met: "Corregidor for his majesty here in the province of Tlaxcala" orders that the market which was being "held on Saturday each week" would now be held also on Monday and that "people come from everywhere around" (Anderson, et al. 1976:125). Likewise, a Spaniard was marketplace constable (Lockhart et al. 1986:28). In another example of Spanish control of the market, on January 30, 1548, it was ordered that the city stamp measures for grain and meat -- and charge for the service.

It is clear from the above that, following the conquest, there were native markets and that in some of these cocoa beans served as money. Lockhart, citing postconquest "mundane documents" found at the *Archivo General de la Nación* in Mexico City (Lockhart 1992:613), reports that lengths of cotton cloth (quachtli) also were used as money. In 1546, slaves could be bought for quachtli, and "in the earliest postconquest land sale in the Tlatelolco jurisdiction," quachtli were the means of payment (Lockhart 1992:177).

Lockhart argues that in these native markets Spanish coinage (*tomín* and *real*) replaced quachtli for larger transactions. He also suggests that cocoa beans might have been used as change for Spanish coins (1992:178). There may, therefore, be some validity to the assertions that cocoa beans and cotton cloth served as "money" in

the preconquest Aztec economy, since there seems to be no question that they served in this role following the conquest.

Another series of documents, "local market tax records, Coyoacán, mid-sixteenth century" (Anderson et at. 1976:138) are provided in total and in both Spanish and English. While it is not clear when, exactly, the documents were written, some at least seem to antedate 1571. What I find fascinating in these records is the number of different merchants being taxed (showing the kinds of merchandise sold); forty-four from one document; thirty-nine from another; forty from another.

If we assume some continuity between preconquest and early colonial and markets, then what items in addition to cocoa and/or cotton cloth might have been money? The documents give us any number of candidates, although it is difficult without specific ethnographic information to more than speculate which objects might have acted as money. Our choices from the longest list, include three items found (as will be seen below) in the archaeological record: salt, obsidian blades and spindle whorls, as well as medicine, garments, chilies, colors, clay vessels, brooms, stew pots, pine-torches, fish, tobacco, griddles (Gómara's stove?), tamales, smoking tubes, warping frames, baskets, mats, bark-clay, cane, candles, rabbit hair, clay dye, feathers, meat, tump-line and cigars (Anderson et al. 1976:138-149). Obsidian blade-makers are found, perhaps, because Indians were prohibited (or at least restricted) in the ownership of steel machetes or knives. It is notable that cocoa does not appear in the lists. Since, at least in the Tlaxcala market, merchandise was evidently priced in cocoa beans, this omission is perplexing. Is it possible that cocoa bean merchants in Coyoacán were not taxed? Gibson (1964) argues that by 1571 cocoa may have been in short supply.

It is reasonable to ask: How good is our analogy? How accurate is it to argue that documents reflecting marketplaces fifty years after the fall of the Aztec capital reflect preconquest conditions? Gibson, citing a number of early colonial documents,

feels there was little change after the conquest: "It was not the intention of Spaniards to interfere in the most prosaic aspects of native commodity production ... the exchange of simple materials in cheap markets ... were features of a native substratum beneath the notice of colonists" (Gibson 1964:335).

Given the work of Anderson, Berdan and Lockhart, one might want to rethink the absoluteness of this statement. However, which of the goods mentioned in the market document cited above, might also have been preconquest? Gibson shortens our list by noting that tallow candles were a "European introduction." Availability of lime, needed for tortillas, also seems to have increased, as it was more easily transported by horse and wagon. Types of clothing also changed, which does not preclude trade in clothing or cloth. Rabbit fur use was, Gibson argues, a preconquest phenomenon, and apparently was mostly decorative. All references for the balance of this section are Gibson's unless otherwise noted.

The dyes used in clothing manufacture may have changed; but the use of dyes was preconquest. Indigenous societies are reported to have well-developed fishing skills, so fish were in all likelihood traded in preconquest markets and, needless to say, Tenochtitlan-Tlatelolco was built on an island. Foods like "frogs, grubs, crustaceans, *mollusks, polliwogs, and crawfish*" were probably pre-colonial. Lake scum was dried and eaten as is mentioned in the Cortés group's accounts of the grand market place. Waterfowl were also eaten, as were deer, hares and rabbits; Aztecs and others had developed appropriate hunting techniques for the different kinds of game. While chickens were an Old World import, turkeys and dogs had been domesticated long before the conquest, and dogs in particular appear in very early iconography. It is certainly possible that chickens as a commodity were treated in much the same way as indigenous domesticates.

With respect to cacao beans, and their apparent absence in the native markets in the 1570s, Gibson mentions a decrease in importation, perhaps due to a breakdown in traditional long distance trading patterns, perhaps also linked to population declines in southern Mexico (the plague of 1545 for example). However, Gibson reports that indigenous communities did not lose their taste for chocolate. As for cocoa's use as preconquest money, he cites the same postconquest historical sources discussed above. Gibson suggests another factor that might help account for cocoa's postconquest decline as money: There was an increase in the popularity of its use as a beverage, which ultimately led to its entrance into the European market.

Certain products, for example silver and gold, were said to have been produced by specialists in particular barrios, as might have been pottery; there is strong archaeological evidence for such barrio specialization. Of interest is a Spanish ruling of 1551 that states which goods might be sold in Indian markets. These lists are abbreviated versions of the ones described above. The shorter list includes chili, tortillas, tamales, salt, native fruit, pottery, firewood, mats, torch pine, *atole*, lime for tortillas, rabbit fur textile and cotton. It seems reasonable to hypothesize that one or more of these "essential" items were also essential in the Aztec economy -- and might have served as money. Finally, Gibson relies on historical documents to affirm that "cocoa beans, maize and mantles (blankets)" were "common media of exchange" (1964: 335-367).

Hassig (1985) citing Spanish colonial documents shows that as early as 1524 Indian marketplaces in Mexico City were being regulated by colonial authorities (Hassig 1985:230). He also states (citing Gibson), that the Indian market judge in Mexico City was not replaced until after 1533. Granted this evidence of continuity, the regulation of marketplaces also led to changes:

> pre-Colombian trade was based on measure and count and on the vegesinal (base 20) system. The Spaniards not only introduced their own decimal (base 10) system and specific units of measure but added weight as a new category ... cocoa was ordered sold by weight rather than by count, but the pre-Columbian unit of 8000 beans, the *xiauipilli* was retained and adapted to a 24,000-bean load (1985: 230).

Although the discussion here centers on systems of counting and measurement, it would seem that the 24,000-bean load could also be linked to new forms of transportation, and perhaps different and more extensive markets. Hassig also cites Spanish colonial documents dated 1524, 1530, 1536, 1537 and 1538 found in the *Archivo Antiguo del Ayuntamiento, México* – the old municipal archives of Mexico City. All of these documents would appear to reinforce our eyewitness accounts respecting the existence of preconquest Aztec markets. For our purposes, it is not so much the regulation of these markets that is of interest, but the confirmation of the institution of marketplaces. The evidence strongly suggests that in the short period following the Spanish conquest, a hypothetical colonial institution – "native marketplaces" -- could not have been introduced and be operative in the space of a few years. One can argue, however, that the size, scope, regulation and mediums of exchange in colonial markets are more problematic. Furtheromore, there might have been a variety of reasons and circumstances for Cortés to exaggerate or distort the size and wealth of Aztec markets. I will discuss such matters in the next chapter.

3. CRITIQUE OF THE HISTORICAL DOCUMENTS

A. Eyewitness Accounts

In this chapter, I will discuss in more detail the issues that were raised with respect to the historical documents. Berdan recognizes some of the matters at stake:

> In their analysis of ancient economic systems, archaeologists and ethnohistorians have been faced with similar problems of analysis: The data are frequently fragmentary, contradictory and perplexing ... several "data problems" face the Mesoamerican ethnohistorian. First, the bulk of the data is postconquest in origin, and must be carefully sifted for Spanish influence. Second, the classic documentation stems from elite level sources, presenting an incomplete picture of Aztec culture and society. Increasingly, however, local level documentation is being found and used. Third, the documentation often consists of accounts of events or special circumstances: to what extent are these indeed unique events [and]... can they be expanded into general, repetitive patterns? Fourth, there is a frequent temptation to generalized cultural and social patterns from one Mesoamerican region to others ... yet, given the vast ethnic variety of Mesoamerica, it is still uncertain to what extent such generalizing is justified (Berdan1983:83-93).

Borah also has interesting insights:

> Anthropologists are becoming aware of what students of history have to learn at the start, namely, that forgery is prevalent in documents and that there are more subtle forms of influencing the case or text through special pleading and mindset (Borah 1984:29).

Borah, then, as was mentioned earlier, points out that "scholars in previous ages copied each other, very often artlessly and without attribution they sometimes indicated sources, but often they did not." For example, there is

> proof that Bernal Díaz del Castillo wrote his history with that of López de Gómara in hand to serve as the model for organizing his own reminiscences, and further demonstration that the various versions of

> Bernal Díaz, with their very great interval differences, are all true versions that he himself prepared in a long life of writing and revision (Borah 1984:29-30).

Since Díaz, with regards to Aztec money is our only source (of the three) who mentions quills filled with gold, perhaps we should discount that possibility. Also, I think we can probably say that Díaz is less then credible when he reports slaves for sale "as the Portuguese bring negroes".

This, I think, raises the question: Did the Cortés group really visit a great market in the Aztec capital? Since Díaz admits that the market was so big that two days would have been required to view it all, the answer may be: Perhaps, but probably not in great detail. But, let us remember that the Spaniards had important indigenous allies whose cities they must have visited. Also, these allies, and in particular the Tlaxcalans, provided the logistic muscle for the latter phases of the expedition. Unless we assume that the accounts are totally fabricated, what is described may be a composite of what the conquerors had seen in the course of their travels through Central Mexico, and of what they had been told. Did cocoa beans function in market place exchange? Cortés' account makes no mention of them. However, Gómara (whose account may be characterized as Cortés' revised history) does discuss them. We do see them used – and regulated --in colonial markets. We can only speculate as to whether Cortés' later account revises history to make it conform to colonial practice, or whether it fills in detail that, subsequent to his first writing, took on salience and, therefore, required mention. Even more problematic are the assertions as to the use of cotton cloth as "money" since none of the three accounts mentions its use.

Leonard, in his introduction to the Díaz account has some doubt about the accuracy of Díaz' narrative:

> Bernal Díaz' life is fused with the spectacular epic of the conquest of Mexico. Like the peripatetic hero of a historical novel, he is invariably present where the

> most dramatic events are happening, he is close in the counsels of the leaders, and he intimately shares their hardships and triumphs (Díaz 1956:xv).

Cline adds fuel to the fire:

> Between 1552 and 1557, Bernal Díaz began to write a narrative of the conquest of Mexico as he had experienced it...but he allowed the project to lapse. Probably in the mid-1560s he read Francisco López de Gómara's *Conquista de México* which glorified the role of Cortés in the conquest. Angered by this slighting of the common soldiers, Díaz took up his writing once again and completed the first draft of his *True History* in 1568 (Cline:1973:XIII:67).

Cerwin gives us a glimpse of Díaz as storyteller in his hometown, Santiago de los Caballeros de Guatemala, "one of the leading Spanish settlements in the New World":

> The townspeople of the Guatemala colony looked upon Bernal Díaz as a prominent man, who wrote letters to the king, occasionally acted as advisor to the governor, and over a bottle of Malaga liked to reminisce about the conquest and the part he had taken in it. That he boasted and at times took more credit than was necessary was considered the prerogative of an old soldier (Cerwin 1963:5).

Some of this is speculative, but no doubt Díaz did tell of the conquest. We can add that tales of adventure and daring repeated over and over sometimes take on their own reality, or at the very least, that their contradiction would seriously besmirch the reputation of the habitual teller. Consequently, the detail with which those tales were elaborated might have, of necessity, needed to be included in more formal written accounts. Quills filled with gold, for example, make a compelling and exotic symbol of Aztec wealth.

Liss argues that Cortés was also not above embellishment. For example, "Cortés claimed to have found in Mexico the sort of political entities" which would have been easily recognizable in sixteenth-century Europe:

> From his arrival...he commented in his dispatches to the crown on the well-ordered governments he was encountering ...Indian social and political organization facilitated his increasing the royal patrimony by gathering up the more settled *peoples* and *nations* in a pattern of seigniorial subjugation to the Spanish crown (Liss 1975:21).

So, perhaps, Díaz and Cortés actually observed cocoa beans used as money in the market of Tenochtitlán-Tlatelolco, and perhaps they did not. Accordingly, as far as Aztec money is concerned, I do not believe that these narratives are definitive, although they are suggestive. But there are also larger issues: Were there marketplaces? Were there moneyish objects? Here, I think, we are safer to conclude that there is some truth to the accounts.

B. Other Documents

Our second source of historical documents is the histories and relations compiled some years after the events by Spanish clergy relying on native informants. Of these sources, Borah is more positive. "Indians who knew preconquest patterns were available in large numbers to be consulted" (Borah 1984:28). Yet Borah does admit that by the 1550s we are discussing informants needing to be fifty or sixty years old. (And since some of the accounts were completed in the 1570s, if informants were consulted, they would need to be quite old.) Informants were necessary, Borah argues, because the "writers ... were too far removed from the time of the conquest to have had direct knowledge of preconquest conditions". In fact, none of these colonial writers were "in the field" until after the conquest. Thus, they had no firsthand knowledge of preconquest conditions or institutions; and, Borah adds (1984:34), some of their information in all likelihood came from the writing of others. Nor, we can add, were they

primarily motivated to compile ethnography, granted here that we are discussing a very different intellectual environment, and furthermore that much modern ethnography also reflects the social and political agendas of its writers.[6]

From my reading of the historical material, I would cite the accounts that Las Casas wrote in the 1550s as being candidates for documents written with the help of uncredited sources. His account of the great Aztec market, while highly detailed, reads rather like a paraphrase of our eyewitness accounts. As earlier noted, this material is cited by numerous scholars to confirm the fact that cocoa beans were used to balance trades in the marketplace. In light of the documents unearthed by Anderson, Berdan and Lockhart, and since Las Casas was writing after the information recorded in the 1545 "List of Market Prices," one may wonder if the description he gives was at all influenced by knowledge of postconquest marketplaces.

My impression from the secondary literature is that Sahagún's extensive texts are relied upon by scholars as the primary source of information on the Aztec economy. They seem to be especially utilized for data about the Pochteca and long distance trade, as well as for information on specialization within the economy. Sahagún's material is also used to confirm other accounts, including those of conquistadors.

How much weight should be given to Sahagún? A number of scholars have questioned aspects of his work. Nicholson, for example, points out that notwithstanding Sahagún's account of how he worked with informants in Tepepolco, this material was not central in the writing of his *Historia general de las cosas de la Nueva España.* This *General History...* is also known as the "Florentine Codex," after the city in which it is now housed. Again, according to Nicholson (1974:145-146), some of this material appears in Sahagún's *Primeros memoriales.* This, obviously, is a highly complex matter, and I mention it only because it touches on Sahagún's research methodology, on how

much the two accounts may vary, and on what inferences may be drawn from this body of work.

Putting ourselves into the informants' situation, though, the accuracy of their recollection might not even be the major problem; there is no avoiding the reality of a great differential in power and authority. As the Spanish colonial documents cited above show, the Indians were subject to cruel and arbitrary treatment by their colonial masters. They did not control their own marketplaces and/or the prices their goods fetched; and for any disregard of their master's directives they could be publicly flogged and fined. Native American tribute was the chief source of income for all the Spaniards and for their Crown. Greenleaf argues that with respect to the encomienda "abuses were rampart from the earliest days of the institution in the Indies". The Crown seemed aware of the situation but was unable to suppress or even substantially reform the practice. In 1545, Charles V revoked a law designed to suppress the practice because "the colony was on the verge of a rebellion." (And perhaps because he was still strapped for cash.) In fact, Greenleef states, "The Mexican clergy were nearly unanimous in agreeing that the encomienda had to be kept and even granted in perpetuity because the church had an economic stake in the controversy and depended upon the encomienda for its livelihood" (Greenleaf 1962,15:31).

Sahagún was not, I would argue, a benign figure to the Native Americans from whom he sought information about their preconquest society/culture. Greenleaf points out that Sahagún, a Franciscan, felt with the rest of his brethren that "the Indians possessed enough rationality to be converted but lacked the aptitudes necessary for ordination".

More valuable for our purposes (and more accessible to the non-specialist) than the type of textual analysis undertaken by Nicholson, is an effort to understand the religious and social context within which the investigations of Sahagún and his clerical

colleagues were conducted. For this we require some sense of the role and influence of the clergy in early colonial New Spain, a role which to the modern reader is bound to appear conflicted. The clergy – some of the most prominent at least – were in the forefront of what can legitimately be termed an early human rights movement. Las Casas was a leading public intellectual, with influence in court and the religious establishment, and one very much in the advocacy business. He wrote extensively, and of the writings published in his lifetime the piece that most inflamed the minds of European readers was his *Brevisima relación*... This treatise was published in 1552 and very soon translated into English (as well as into other languages) as *Tears of the Indians.* Interestingly, Las Casas' denunciation of Spanish cruelty and oppression was soon utilized by the adversaries of Spain (especially the English) for politico-religious purposes; perhaps this tendentious use of materials initiated the modern age of propaganda.

I mention Las Casas and like-minded clerics not only because they initiated a Latin American human rights tradition that flourishes to this day, but also because their insistence that the inhabitants of the New World should enjoy the "natural rights" common to all humanity has a bearing on our broader discussion since much of the argument was cultural in character. For example, they stressed the importance of complex social organizations such as kingdoms, cities, lineages and guilds, in indigenous societies.

Baird's[7] study of the *Florentine Codex* led her to believe that Sahagún's informants' memories were reconstructed and selective (Baird 1993:10). That would make sense even under Borah's scenario of fifty or sixty year old informants needing to remember, in detail, events and institutions at least thirty or forty years in the past. As I will argue below, under stress memory is severely confounded, and there is no doubt that the Indians under Spanish control were under a great deal of pressure. Disease

and famine were decimating the population; Spanish settlers felt entitled to land and privileges; and, critically important, religious beliefs and practices were under attack. Converting a whole population involved a process that melded an element of selection (some indigenous practices were redefined as "customs") and coercion. Basically, this was an undertaking that, it was hoped, would permit a subtle merging of indigenous symbolism with Catholic belief and practice.

In the Inquisitorial trial of Don Carlos of Texcoco in 1539 for being a "heretical dogmatizer" lies, I think, a much more fundamental grounding for Sahagún's "informants" potentially holding him in fear, if not terror. Note first that, upon conversion, natives were given Spanish names. Don Carlos was so titled because he was supposedly related to preconquest rulers of Texcoco , one of the three city states that made up the triple alliance know popularly as the Aztec empire. He was brought up in Cortés' household and educated in both Spanish and Latin, at which it is said he was quite fluent. That is, he was raised as a member of the colonial elite. In 1531, he is said to have "succeeded to the caciqueship of Texcoco." (Greenleaf 1961:68). It is interesting, I think, that the chief interpreter for Don Carlos' trial was none other than "Fray Bernardino de Sahagún" (Ibid..:72). Sahagún, according to Greenleaf, served in that role in a number of Inquisition trails of Native Americans. Don Carlos was eventually found guilty of "heretical dogmatizing against the faith and morals of the Indian population." He was executed. All of his property was confiscated (196172-74). Under those circumstances, it is not hard to imagine an informant being intimidated/ terrified by Sahagún. It should be noted that Don Carlos was an Indian noble just like the "informants" used for Sahagún's ethnographies.

Another line of inquiry concerns how Sahagún's questions were framed. Did he have access to Cortés' accounts, or Díaz's or Gómara's? If not, how did he know how to check his informant's accounts for "accuracy"? Were these informants paid? How

important was that pay to their survival? What would have happened to them if they did not take part in his questioning? Isaac is somewhat skeptical of Sahagún's accounts of the adventures of the Pochteca. He has problems with both the geographical references and the validity of the "history" recounted, although he does not discount Sahagún entirely (Isaac 1986:335,337).

Berdan comments on the similarities in a number of Aztec and European social institutions, a matter we have already touched on. To what degree might these parallels reflect the European imagination or, more positively, the stress placed on the "advanced" attributes of a settled native society (the case for common humanity would thus be reinforced)? How might such premises or perceptions influence the questions posed to native informants? Did Aztec traders really conceal wealth from the state? Were there really skilled artisans serving a wealthy noble elite? If so, what form did that wealth take? Were there trade guilds with quality control and patron deities, just like in Europe at that time? Were Pochteca ranked? Did they accept royal commissions?

With the Indian population rapidly declining in numbers, and with the potential informants for the mid-16th century chroniclers needing to be among the oldest males in that populations, were there really many men of that age alive? How many native males died in the wars of conquest? (And in Sahagún's case how many "nobles" were left?) We can, I think, reasonably ask, just how many healthy memories were available for our pioneer ethnographers to interview? Or as Berdan notes "there is no direct evidence indicating that important merchant guilds of the Aztec period survived the turmoil of conquest for even the briefest time" (Berdan 1986:292). Do we really know they existed at all? We have already noted the single source nature of our eyewitness accounts.

There are many questions that can be posed, some certainly more critical than others, and it is in no sense necessary to posit that these clerical chroniclers -- and

there were many of them in sixteenth-century New Spain – were engaged in acts of deceit. Again, to stress the obvious but necessary, these were *colonized* populations and suffered the same type of vicissitudes as other colonized societies have experienced. As such, informants were hardly autonomous beings, and even the most prominent among them must have felt it advisable to come up with acceptable answers. We get a sense of this disturbed world from the primary literature. The Mexican archaeologist Ignacio Bernal (1980:36, his translation) quotes Bishop Zumárraga's letter of 12 June 1531 to the Chapter of the Fraciscan Order:

> Know ye that we are much busied with great and constant labour to convert the infidel ... five hundred temples razed to the ground, and above twenty thousand idols of the devils they worshipped smashed and burned...

This certainly helps explain the dearth of Postclassic architecture in Central Mexico, but it also speaks to the religious zeal of the friars. The ethnohistorian León-Portilla (1963:63-64) quotes another early colonial document. In 1524, some Aztec sages were confronted by 12 Christian friars, who challenged the precepts of their religion. The Aztecs gave a guarded response to the new political and religious order:

> Perhaps we are to be taken to our ruin, to our destruction. But where are we to go now? We are ordinary people, we are subject to death and destruction, we are mortals; allow us then to die, let us perish now, since our gods are already dead ... You said that we know not the Lord of the Close Vicinity, to Whom the heavens and the earth belong. You said that our gods are not true gods. New words are these that you speak; because of them we are disturbed, because of them we are troubled.

C. The Colonial Records

With regards to our third source of documents, the Spanish colonial records, several questions can also be raised. One concern is the circumstance that only some of those cited were from the former Aztec capital. What were the cultural and social continuities over time and space? (We will see from the archaeological record that the answer seems to vary according to the class of artifact.) An even more fundamental question is: How much can we rely on analogy? For the colonial documents to have value, the customs and economies of the communities they record or portray must be similar to those of preconquest Aztec communities.

Focusing strictly on money, can we say with reasonable certainty that cocoa beans as "money" was not a Spanish invention? Were they really preconquest "money" which Spanish authorities used to make sure that their fellow Spaniards paid for (as opposed to taking) the Indian's food? (And perhaps also to make sure the Indians did not charge too much for that food.) Why were there no cocoa beans in the Conoacan market documents? Or how do we explain cocoa beans sold by weight but exchanged by the piece? A combination of two systems, perhaps?

With regards to cotton cloth as postconquest "money" in real estate transactions, Hicks is skeptical:

> It is not inconceivable that some house plots or a few square meters of cropland could have been exchanged by residents, with a few pieces of cloth thrown in to sweeten the offer or make up the difference in what would otherwise have been an unequal exchange. But I know of no unambiguous pre-Spanish examples...
>
> Occasionally... a Nahuatl passage may be loosely translated into a European language in a way that implies sale or purchase, or one may confuse the giving of gifts following a land transfer as if one were payment for the other (Hicks 1994:101,105).

To be fair, for both cacao beans and cloth, we do have information from the *Codex Mendoza* (1938), originally compiled in the 1540s for the first Spanish viceroy, Don Antonio de Mendoza, whose task it was to bring order and royal authority to a colony dominated by the conquistador-encomendero class. The codex is a hybrid document (indigenous script and a Spanish gloss) and clearly depicts the Aztec polity as a variant of what Wolf (1982) terms a tributary mode of production. It is chiefly through political and military power that goods are extracted from producers (often in the peripheries) and channeled to the ruling elite standing at the apex of the politico-economic system. A degree of standardization typically accompanies the tributary mode, as is clearly depicted in the codex which describes (and illustrates) standardized units or bundles. For example, Moctezuma received 820 *cargas* (loads) of cacao from sundry villages as part of the annual tribute.

D. Stress and Memory

The stress response in humans is popularly known as "fight or flight." Our response to stress is somewhat more complicated, and what follows is a simplified version of a very complex process about which there are still many outstanding questions. When a mammal experiences stress, a small organ in the lower part/base of the brain, the hypothalmus, releases a neuro-hormone, CRH, which travels to an organ attached to it, the pituitary gland. The pituitary in

turn may be stimulated to release a hormone, ACTH, which travels to the adrenal gland attached to the kidney where several hormones are released, most notably adrenalin and noradrenalin (Brown 1994). These hormones, among other functions, prepare the body for stress by shutting down various functions of the autonomic nervous system: blood vessels contract, the heart rate increases; the body sweats; blood sugar levels (for energy) increase (Kandel et. al.1995:599-600).

One of the more interesting aspects of this process is its regulation by a series of feedback loops. As we shall see below, the neural chemicals released by this process are toxic to the brain. Even important functions like immune responses to disease can shut down if the mammal continues to experience stress (Haas and Schauenstein 1997).

It is highly likely that there is a major relationship between stress and short-term memory. Liberzon et al. (1994) demonstrated a relationship between the hormonal products of the adrenal gland and the binding of a neuropeptide, oxytocin, in the hippocampus. The hippocampus is believed to play a major role in both short-term memory and the conversion of short-term to long-term memory. In a subsequent paper, Liberzon and Young (1997) showed a relationship between a higher level of the binding of oxytocin and decreased activity in the hippocampus. In a paper published simultaneously with the one just cited, the same laboratory suggests there may be a relationship with the memory loss associated with Post Traumatic Stress Disorder (PTSD) and the stress response. Using modern neuro-imaging techniques (Functional Magnetic Resonance Imaging), Bremmer and colleagues demonstrated that extreme stress like that experienced by people with (PTSD) will actually result in the shrinking of the hippocampus, probably because the stress response chemicals are toxic. That

shrinkage can be as much as eight percent to the right side of that organ. PTSD is especially prevalent in those who have experienced war. "Descriptions from all wars of this century document alterations in memory occurring in combat veterans during or after the stress of war" (Bremmer et al.1997:973). Yet, what is perceived as stressful is mediated not only by idiosyncratic psychology, but also by more general cultural values. Consequently, it may very well be that under conditions perceived as stressful hippocampal memory may not function well; poor functioning might result in a kind of amnesia, or it might result in a total failure to retain in memory events one has experienced.

While I am suggesting that much of what is reported with respect to both pre- and postconquest Aztec history needs to be problematized, one thing is clear: indigenous societies were under extreme stress for a considerable period of time. How many Native Americans suffered from PTSD? Clearly, we will never know, but I would argue that some did. I would also argue that an eight percent decrease in hippocampal size is not required for memory disruption.

We have noted that disease, starvation, and cultural dislocation were critical features of the early colonial period. For a high degree of stress to be present, one need not posit absolute power and control: the reach of the state – including the colonial state – in the sixteenth century was necessarily more limited. Still, there is no question respecting the authority of colonial officials, including the clergy, in indigenous life. These interlocutors had the power to elicit cooperation, and this power alone was bound to influence the responses. To what degree, and in what form, is less clear.

E. Conclusion

A great deal of scholarly effort has been put into locating, translating and checking the authenticity of historical documents. However, from the very narrow perspective of stating definitively which objects functioned as "money" in the Aztec economy, the record is, in my opinion, inconclusive. From a broader perspective, though, I think it more than reasonable to conclude from the documentary evidence that there were marketplaces throughout Mesoamerica, and that these marketplaces preceded the Spanish conquest. Further, based on the position outlined in Chapter 1, I believe it is also reasonable to conclude that some objects traded in those marketplaces did, indeed, function as "money."

However, because the documentary evidence is not conclusive as to which objects functioned as "money," we cannot, at this junction, speak with much certainty regarding the range and distribution of the use of these objects. Range (or consistency of object use) within the Aztec economy is further complicated because it is unclear whether marketplaces were uniform throughout the Aztec empire. In fact, regional variations might be anticipated. Accordingly, a question arises: Is there any evidence of region-wide use of any objects? It is in search of answers to these questions that we now turn to the archaeological record.

This matter is taken up in the next chapter, but on a final note we should recognize that the *absence* of specific economic information may also relate to cultural forms. We have to remember that Cortés (and others) were in the business of impression-management. For this purpose, economics – and, once more, we have to remember the period – is rather secondary. The letters and chronicles speak of a rich land with many people, but we certainly are not provided with much information on long distance trade. Given the times, these accounts would be unlikely to contain detailed

information on economic matters. While this may seem odd to us, neither of the societies, Aztec and Spanish, or Mesoamerican and European, were living in the age of statistics. Also trade, while clearly important, was not central to the ideology of the governing Europeans – whose worldviews were dominated by prestige and position. In short, we have to recognize that this was a very early European imperial expansion, one in which (at least initially) capitalist concerns were not uppermost.

4. THE ARCHAEOLOGICAL RECORD

A. Introduction

One wonders what secrets the Aztec codices held. Weaver reports that many writings may have been destroyed by the Aztecs themselves in an effort to rewrite their history (Weaver 1993:442). Others "must have been destroyed by climatic conditions of changing degrees of humidity and temperature, and we know that others were purposely burned by the Spanish in an effort to destroy all vestiges of the native religion" (1993:142). Postconquest documents, as we have seen, are, with regards to our limited question of potential Aztec moneyish objects, not definitive.

The archaeological record of Postclassic Aztec sites comes with its own unique set of issues. We will see that Aztec artifacts found in field studies are geneally non-organic. Accordingly, it will be difficult to document whether organic objects, especially cocoa beans, acted as money in the Aztec economy, although we will see that cocoa beans were cultivated much earlier than Aztec times. We will find a lot of evidence that three items, obsidian, pottery and salt were widely traded. We will also find spindle whorls very prevalent in the record. (Confirming cloth-making, if not necessarily cotton cloth being used as money.)

We will not, unfortunately, find much direct archaeological evidence of specific locations being used as marketplaces before the conquest. We will, though, see objects appearing in postconquest market documents which also are encountered in the archaeological record, and some of these objects, obsidian and salt, will not necessarily be indigenous to the regions where they are found (both pre- and postconquest). So there is evidence of trade and the use of some commodities. We can then conjecture

that, by the triangular hypothesis argued above, those objects, at some point in their trade cycle, may have served as money. Conclusions will, however, also be conjectural, which is why it is a pity that the preconquest written record is so limited and problematic.

The archaeological record is extensive. I have chosen several examples which, I believe, are representative. It is well beyond the scope of this essay to undertake an in-depth analysis of all the archaeological data from Aztec sites and related locations, as valuable as such a survey might be. To set the stage for the Aztec sites, I will briefly mention two remarkable finds from elsewhere in Mesoamerica. Since Mesoamerica is commonly viewed as a cultural area characterized by shared traditions and a high degree of interaction, I believe both finds are valid for helping establish the archaeological context.

Sheets (1994:30) explains how the eruption of a volcano between 585 and 600 A.D. buried a settlement in "the Zapotian Valley of central El Salvador under more than 15 feet of ash." This catastrophe, he continues, "has provided a rare opportunity to understand what peasant life was like ... even to the point of knowing the food the villagers ate, the polychrome pots they served it in, the crops they grew in their gardens, and the size and construction of their dwellings and civic buildings" (Sheets 1994:30).

From this site called Ceren, we learn that architecture "was quite sophisticated ... reinforced earthen walls, corner columns, lattice windows, sturdy roofs, lintels, cornices." Such construction made the buildings earthquake resistant, and contributed to their preservation, and that of the artifacts contained within them. "Each household built separate structures for kitchens, storehouses, and rooms for sleeping and family activities such as eating and making clothes, pottery, and chipped-stone tools ... [there was] protected space for ... manufacturing thread, and grinding maize" (1994:32).

More than "70 ceramic vessels" were recovered from one of the poorest households, items which were used for "cooking, storage of grains and ... sea shells, pigment and miniature *metates* (used for grinding pigment)." There were also "plain and painted gourds."

> They used obsidian knives and stored them in thatch roofs over doorways or porches. We found jade axes for woodworking, spindle whorls for making thread, grinding stones for corn processing.
>
> Ceren's residents ate deer and dog meat. Corn was the most abundant crop ... three varieties of beans as well as squash, chiles and cocoa ... also ... *maguey* (Agave), grown for its strong fibers which were processed and woven into two-ply twine and rope (Sheets 1994:32).

Further, basalt was used to make grinding stones for the processing of corn. In addition to obsidian knives, "obsidian cutting and scraping tools were also made" (Sheets: 32-33). Finally, the community evidenced a significant degree of urban planning, including a 60-foot square plaza. How analogous is Ceren to an Aztec settlement? Granted spatial and temporal differences (El Salvador represents the Mesoamerican periphery), I suspect that for agriculturists the analogy might be close, although the details would certainly vary. For example, as we shall see below, Aztec women appear to have spun both cotton and *maguey* fiber, and there is also evidence of salt being important in Aztec household economies.

As Parsons and his colleagues argue with regards to their Chalco-Xochimilco regional studies:

> Unless there is strong evidence to the contrary, we believe it valid to assume that in a preindustrial society where transportation costs are high people will reside near their source of livelihood ... and since the great majority of all people in preindustrial societies are food producers, in our survey area we should expect to find most people living near the land they cultivate. (Parsons et al. 1982:4)

My point is, if we assume that the household economies of Ceren and Aztec villages are even roughly analogous, then we can identify a number of objects which could have acted as money, some of which needed to be transported through trade networks to reach villagers. Also, we can reasonably ask, with what items were the imported goods purchased or traded?

It should be noted that Sheets makes no specific reference to craft specialization or division of labor. We have, potentially, a couple of conclusions: either specialization (even part-time) evolved later; or it was not an important rural phenomenon. Also, of course, this organizational practice may not be easily discernible in some archaeological contexts, or the author may find the evidence inadequate. In general, we can, however, ask which objects might be viewed favorably as potential monies: those which everyone grows or makes, or imported items and raw materials? In the Trobriands, with yams, banana-leaf bundles and *kula*, one can see both categories used (Jacobson, N.D.).

Another non-Aztec site that may cast some light on Aztec practice is Wild Cane Cay, in southern Belize, which was "occupied from A.D. 600 through the post-classic." Characterizing the site as a "major trading station," Jackson reports "enormous amounts of imported obsidian from Guatemala and Mexico." He also comments that "the striking postclassic mound area at Wild Cane Cay has an extensive plaza with entrances facing the open sea and coast ... adding support to our interpretation of it as a trade center." From a nearby site, Tiger Mound (named for the investigator's dog, Tiger, who "discovered" it) come some data perhaps relevant for the question of potential monies:

> Archaeologists have always surmised that obsidian is simply the most visible archaeologically durable trade item. Many perishables, such as fish, dried meat, root crops, maize, nut foods, and many luxury items, were undoubtedly part of Maya trade. Our recent work in nearby salt water lagoons has shown the existence of submerged salt-processing sites (Jackson 1994:61-62).

Jackson adds that salt was a trade item, and that canoes were used in this trade. Obviously, this Belizean site is also very distant from Central Mexico, so I am again relying on regional homogeneities.

B. Smith and Heath-Smith, Morelos State

Smith and Heath-Smith also investigated rural life. They gathered artifacts from two Postclassic sites, Copilco and Cuexcomate, in the central Mexican state of Morelos. The methodology employed was to clear selected house sites of all cover, "including large exterior areas, in order to address the issues of domestic conditions and activities" (Smith and Heath-Smith 1994:350-351). Some of their conclusions are:

> By far the most widespread and intensive craft activity was cotton spinning. Ceramic spindle whorls and spinning bowls were found in every excavated domestic context 1994:357).
>
> The major material for lithic tools was imported obsidian ... Basalt polished stones are rare but widely distributed artifacts ... recovered from 90 percent of the houses with large samples of excavated midden. We do not know what function they served, but these smoothed stones were probably a tool in some sort of craft activity (1994:358-359).
>
> The manufacture of paper from the bark of the amate tree is indicated by the presence of grooved, rectangular, basalt tools commonly known as "bark beaters" ... quite rare ... they do occur in 70 percent of the houses with large samples of excavated midden (1994:354).
>
> Copper and bronze artifacts ... are broadly distributed ... most of these artifacts are tools, such as needles, chisels and awls (1994:354).
>
> Ceramic vessels and obsidian tools are the most abundant artifacts at both sites, but we have no evidence that these goods were produced at either one (1994:355).

> Not only were imports abundant, they were also widely distributed. *Every excavated house had some Aztec (Basin of Mexico) ceramics, and all but one had obsidian* (1994:361, emphasis added).

Finally, Smith and Heath-Smith state that ceramics, obsidian and copper were the "three major imports" (1994:360). Several points can be made. First, I find the data indicating that many households produced paper very interesting. It at least raises the possibility of a flourishing craft associated with the making of screenfold books. That the Aztecs and other societies of Central Mexico had a literary tradition is not in question. As Clendinnen (1991:277) comments, it is one of "the many poignancies" of Central Mexican studies that in the area with the richest postconquest literature, so little survives in the form of precontact textual material. It is interesting to speculate how many of the inhabitants of preconquest Mesoamerica were literate. This is a matter that bears on colonial disputations on the nature and complexity of Mesoamerican societies. Second, the data seem to imply that all these rural households were involved in craft activities. Is it possible that craft specialization was not strictly an urban phenomenon? Certainly, the activities described seem rather similar to the craft workshops excavated in the Aztec-period town of Otumba, not far from Teotihuacán (Charlton et al. 1991). This, too, has a bearing on historical interpretation, and the consensus that it was in urban Aztec locations that European-style craft production flourished in the context of guild-like organizations. Third, I think we can conclude that the historically earlier regional trade was still present at the time of the Spanish invasion.

C. Brumfiel, Huexotla

Brumfiel undertook the Huexotla study in order to "evaluate the hypothesis that Mexican states arose and then expanded to facilitate specialization and market

exchange" (Brumfiel 1980:349). While this line of investigation is perhaps more interesting than our search for those mundane objects which might also have served as money, its solution is well outside the scope of this essay. Brumfiel's data, however, do help in this essay's inquiry. With the "political unification of Central Mexico during late Aztec times" came "an intensification of regional exchanges. Greater quantities of salt, spindle whorls, obsidian and probably cloth from local sources were procured by the inhabitants of Huexotla". Brumfiel contrasts Early Aztec with Late Aztec and concludes that the early system was "oriented toward distributing the products of local specialists to a regional population of consumers," while the Late Aztec trade was focused on "providing food for burgeoning urban populations ... of the regional capitals of Tenochtitlán and Texcoco" (1980:460). Brumfiel argues that "market exchange and tribute extraction were very closely linked during Late Aztec times."

> Much of the obsidian and cloth procured by Huexotla's inhabitants ... had probably been produced as items of tribute rather than as market commodities. Introduced into the market systems in the marketplaces of regional capitals, these goods encouraged specialization in the production of foodstuffs by the rural populace. Tribute extraction, rather than craft specialization, was the method used by the urban population of the Valley of Mexico to pay for the food it consumed (1980:460).

If Brumfiel's conclusions are correct, and I would only point out that the historical documents discussed earlier are basically her only source of information on tribute, then the question still remains: How did these goods enter the local household economy? That is, how did these imports find their way to local marketplaces? Could any of them have acted as money? It should be noted that Brumfiel cannot say for certain whether Huexolta "contained a marketplace" (1980:461). Brumfiel did, however, carry out a program of intensive, systematic, surface collection and the artifacts collected seem to

corroborate changes from Early Aztec to Late Aztec in the Huexolta economy, if not the absolute source of those changes:

> The materials collected from each unit included all fragments of decorated ceramic vessels, vessel rings, stone tools and chippage, spindle whorls, figurines, ceramic molds and shell...
>
> Most collection units can be regarded as representing either Early Aztec or Late Aztec occupation, depending upon the decorated ceramic materials that they contain ... a comparison of Early Aztec with Late Aztec collections makes it possible to detect temporal changes in Huexotla's economic structure (1980: 462).
>
> There are several indications of Huexotla's increasing participation in a regional exchange system ... fabric-marked shards, associated with the importation of salt from Valley of Mexico sources were much more abundant in Late Aztec collections. Imported spindle whorls came to predominate over locally produced ones ... while obsidian declined in relative abundance in Late Aztec collections, the absolute quantity of obsidian imported into the city-state increased.
>
> Heavy scrapers and thick-walled vessels, both related to the collection of maguey syrup were significantly more common in Late Aztec collections. Also more common were unifacially retouched blades, related to maize production ... [B]oth large and small spindle whorls were significantly less common in Late Aztec collections, indicating a decline in the local manufacture of Maguey fiber and cotton cloth ... it is possible that more cloth was entering the city-state through the regional exchange system (1980: 464-465).

From the Huexotla artifacts we see, again, a number of items that could have acted as money, but no direct evidence as to which objects were so used. We could also observe with respect to Brumfiel's conclusions with respect to tribute, that it was certainly convenient for the Spaniards, whose main source of income was native tribute, to find a similar institution in place.

D. Brumfiel, Xico

Following up on studies by Parsons and his colleagues in 1981, Brumfiel "investigated the lakebed occupation of Xico by means of intensive, systematic surface collection" (Brumfiel 1986:249). Xico was an island in the middle of Lake Chalco, one of the chain of lakes which also includes Lake Texcoco on which Tenochtitlán had been built. "Xico," in Brumfield's opinion, "was the largest and probably most important settlement in the southern Basin of Mexico" (1986:247). The Parsons group had found in their surface collections equal quantities of Early Aztec (1150-1350 A.D.) and Late Aztec (1350-1520) diagnostics, a distinction not necessarily pertinent to this research.[8] Artifacts recovered included "decorated and undecorated shards ... spindle whorls, figurines, net weights, blowgun projectiles, chipped stone tools, waste flakes and cores, *manos* and *metates* "(Brumfield 1986:250).

Brumfield discusses three kinds of stone tools: obsidian, basalt and chert. Of the obsidian, 53 percent of the sample consisted of prismatic blades and 29 percent was small flakes. Also found were the same kinds of tools recovered from Huexotla: heavy scrapers, heavy bifaces and projectile points. Obsidian was evidently a major import in Xico, as none of the obsidian was of local origin. Basalt, on the other hand, was probably procured locally. "The source or sources of chert used at Xico have not been identified" (Brumfield 1986:251-253). Pertinent to our discussion, Brumfiel concludes from the kinds of debris found and "the low frequency of large chunks of flakes of Pachuca obsidian" that there is "a good indication that the prismatic cores of this material were imported in an already prepared form" (Brumfield 1986:255). "On the other hand ... prismatic blades were sometimes imported as finished products from Michoacán and Puebla-Veracruz, bypassing Xico's local craftsmen." Brumfield adds, "about 10 percent of all the prismatic blades bore evidence of having new working

edges as a result of vertical percussion blows given to their proximal ends ... this procedure seems to reflect a moderate effort to extract extra value from each gram of imported raw material" (1986:257-258).

Further, Brumfield argues (1986:261-263) that if there was specialization in obsidian manufacture, it was no more than part-time. In fact, with regards to projectile points, the data "imply that point-makers were point-users" and that these users were part-time hunters. She also suggests that there is some evidence that "blades produced at Xico were exported to other sites."

Taking all this evidence into consideration, Brumfiel maintains that in Late Aztec times there occurred "a geographic expansion of the central Basin of Mexico exchange system." She believes that during this period more finished goods were imported and more agricultural goods exported; the case is especially strong with respect to the artifactual evidence of non-local products "such as Pachuca obsidian" and of salt. The evidence for salt is "the frequency of fabric-marked pottery, which was used in salt manufacture, and shippage" (1986:269).

Given the above, which is indicative of regional trade networks, we can once more pose a set of questions: Where did the exchanges take place? How were they made? In other words, were there actual marketplaces? And does the evidence reinforce a hypothesis of triangular transactions requiring "money"?

E. Archaeological Evidence for Salt Extraction

There is a substantial literature dealing with salt production and the Mexican and Aztec economies. I will cite only a couple of sources. Charlton, in one of the seminal essays on the subject, reasons that Texcoco fabric-marked pottery was used in preconquest salt manufacture. He further notes that the fabric-marked pottery was

found in great quantity on or near the old shoreline (Charlton 1969:73). Citing personal observations, he associates "aboriginal salt-making in the Valley of Mexico" with "yields of large amounts of washed earth," and backs this position with data from other researchers. Functionally, he suggests that the "roughened outer surface and fiber tempering" of the pottery would make it well "suited to conduct heat rapidly and thoroughly". He offers two possibilities for the prevalence of the fabric-marked pottery at the putative manufacturing sites: (1) the pottery was "deliberately made fragile to be broken easily to remove the salt"; (2) the salt was traded in the pot; but the pots just tended to break during manufacture (1969:75).

Parsons refers to "at least nine sites" in the Texcoco region where salt production was an important activity; he further notes (Parsons 1971:226) "the association of Texcoco fabric-marked pottery with salt manufacture around the shoreline of Lake Texcoco in Aztec time." As we saw above, such fabric-marked ware has been retrieved from a number of Aztec sites away from the lakeshore. Accordingly, if salt was manufactured and/or shipped in fabric-marked pottery, we have strong archaeological evidence of preconquest trade in salt. We do not have any definitive archeological evidence pointing to goods for which that salt might have been traded. In fact, I will argue below that the salt itself might have served as money in the Aztec economy.

F. Archaeological Evidence for Aztec Trade in Ceramics

Ceramics are an important part of the archaeological record, both because of their utility and fragility (they are used a lot and they break a lot). As we have seen, almost any traded object can act as "money." With ceramics, the issues on which we may want to focus in deciding whether they are good candidates to act moneyish are

range, fragility, and political conditions. Hodge and Minc used the "Valley of Mexico *Survey Ceramic Collections*" as a source of data on exchange patterns (Hodge and Minc 1990:419). The data to which they refer are those in the Parsons (1971) and Parsons et al. (1983) studies cited above, as well as several other studies in the same region (Hodge and Minc 1990:419). They point out that even though the data

> present clear problems for quantitative analysis, these data are currently, and are likely to remain, our best source of information for studies on a regional scale in the valley. This is due both to the survey's comprehensive, regional coverage and to the fact that it constitutes our sole source of information on many sites now lost to urban growth.
>
> The ceramics included in this study ... are well-known Aztec names and types, which have been identified and assigned chronological placement based on excavated and surface collections ... Aztec ceramic types with each ware have been distinguished on the basis of basic decorative tradition, including the presence and type of paint (Hodge and Minc 1990:419).

They also hold that "energy constraints on transport" made economic interaction a factor of distance (Hodge and Minc 1990:422).

Zeitlin (1991:376) takes issue with this reasoning and argues:

> Where a hinterland region can be drawn upon through tribute or taxation, an energy subsidy is available, often at little or no cost to the recipient. As long as hinterland producers have the surplus capacity to meet their own subsistence needs, provide the requisite commodities, and cover the caloric cost of transportation, there is no theoretical limit to the distance over which any goods, foodstuffs included, could be "profitably" imported by the consuming overlords

Likewise, given similar circumstances, there should be no limitation on the distance goods could "profitably" be exported. Accordingly, energy constraints should not be determinants of the range of Aztec ceramics. I would hold that either the fragility, or the lack of "market share" because of well-established local industries, would be more likely to inhibit use.

Another potential detriment to trade could be intraregional political hostilities or conflict between regions. Making these determinations would require accurate historical/political information. Given the problems with postconquest accounts, and the virtual absence of preconquest Aztec writings, that data would need to be archaeological, perhaps supported by ethnohistorical and archival sources. Accordingly, Hodge and Minc would actually seem to have a stronger case than they argue for the position that the presence or absence of identifiable ceramics is indicative of political boundaries during the period in question. For example,

> Based on the evidence for ceramic assemblage similarity... Chimalhuacan and Coatepec fell firmly within the economic sphere of the northern confederation. Iztapalapa and Tlamanalco ... appear to have maintained links to both the northern and southern confederations ... the composition of Iztapalapa's orange ware assemblage bears stronger affinities to the north, while its red ware assemblage conforms better with those of the southern polities. Tlamanalco's assemblage appears more truly transitional, with a nearly even division of northern and southern types (Hodge and Minc 1990:425).

Further, one type of assemblage, Late Aztec, Tenochtitlán black-on-orange, seems ubiquitous throughout the region. While red ware predominates in southern areas, Chalco-Cholula polychrome appears only in "the polity of Iztapalapa" (1990:431).

What does the above data suggest about the relationship of pottery and money in the Aztec economy? The ubiquity of the black-on-orange assemblages does indicate trade taking place, as this assemblage was manufactured in Tenochtitlán. Another possibility might be that because of Aztec political hegemony, Aztec-style ceramics gained regional acceptance. Particular styles might have been copied by local manufacturers. Thus the ubiquity of assemblages might not indicate ubiquity of source of manufacture; we may be looking at one way in which Aztec culture – in this case, ceramic styles -- dominated the region. On the other hand, existence of regional

assemblages would indicate some conservatism within regional cultures (the existence of subcultures within the Aztec culture). Unfortunately, we have no hard archaeological evidence as to what might have been exchanged for what, or where and how those putative exchanges took place. It is possible that at some point in the exchange process a triangularity occurred, and at that point, ceramics could have functioned as money.

However, because of the fragility of pottery and the ease with which some styles can be duplicated, ceramics do not appear to be a good choice for those functions of money which store wealth. It just does not make much sense to invest savings or effort in an easily broken product (lack of even relative durability). Also, since there is likely to be a political (and cultural) component to the range of pottery, its distribution as money might also be limited. (How would one know if one was "storing wealth" in an original Aztec ceramic or a local copy?)

G. Further Examples of Archaeological Evidence for Trade in Obsidian

Hirth (1984:299) raises an interesting question: "If the control of obsidian was a key factor in Teotihuacán's economy, shouldn't we find it playing a similar role in the Aztec economy at the time of conquest? One would suspect so, although the ethnohistoric sources largely ignore the role of obsidian production and exchange in the sixteenth century.

Actually, we have so far seen a number of references to obsidian in both the colonial documents and the archaeological record. In this subsection, I will cite several sources regarding how widespread obsidian trade was in preconquest Mesoamerica.

Where did obsidian come from? Obsidian, as previously noted, is a glass-like substance that results from volcanic action. Zeitlin and Heimbuch (1978:117) argue that

> recent archaeological applications of spectrochemical technology have added a new and productive dimension to studies of stone tools ... it has been found that artifacts of obsidian can be characterized in terms of their diagnostic trace element content and that, potentially, the parent geologic sources of these artifacts may be determined by a procedure of content comparison.

They cite nine Mexican sources for obsidian, many in the southern isthmus of Tehuantepec, Mexico. Four of these sources are designated as major, the closest being Orizaba, in Central Mexico and 385 km from the site where the artifacts were collected. It should be noted that the importance of sources vary over time with some going "abruptly and permanently into eclipse" and others rising to "primary supplier" status (Zeitlin and Heimbuch 1978:146-147).

Clark and colleagues identify five major and two minor sources of obsidian in late Postclassic Soconusco (on the Pacific coast at the Guatemalan border). One of these sources drops out in early colonial times. All the major Soconusco obsidian sources were in Guatemala until the Late Postclassic when 51.5 percent of obsidian artifacts are traced (using the spectrochemical methods described above) to Mexican sources. Some of this shift can be explained by a switch to a better grade of obsidian or by the substitution for ignimbrite, a "welded tuff ... not suitable for making some kinds of tools, such as fine pressure blades." Another reason for the supply change is probably the political/economic expansion of the Aztec empire (Clark et al. 1989:268-275).

It should be noted that Gasco argues that during the colonial period, and according to colonial documents, "the southeastern sector of the Province of Soconusco was one of the major cocoa-producing areas in Mesoamerica" (Gasco 1989:289). This might have also been the case in preconquest times. In the early postconquest period the cocoa was mostly for native consumption, but by "late in the sixteenth century there

was an even greater demand for cocoa on the world market as Europeans acquired a taste for chocolate" (Gasco 1989:290).

From this, we might reasonably conclude that if there was triangularity in Soconusco trade, that is, if obsidian was not always traded directly for cocoa beans, then either one or other of these commodities might have served as money. Granted that we are far from the Valley of Mexico, but at least at its source, the cocoa might have had "moneyish" functions.

Zeitlin and Heimbuch point out that in Mesoamerica obsidian was used not only for tools and weapons, but also for non-utilitarian objects: "ear spools, labrets, beads, pendants, bowls, mirrors, figurines" (Zeitlin and Heimbuch 1978:119). A good example of non-utilitarian use of obsidian can be found in a study conducted in 1987 by Brumfiel and colleagues. They undertook "an intensive systematic surface collection" at Xaltocan "a low island in an ancient lakebed in the northern Basin of Mexico" (approximately 25 km above Tenochtitlán on lake Xaltocan). Artifacts collected included

> large quantities of decorated and undecorated ceramics, stone tools and waste flakes, ceramic figurines and spindle whorls, fragments of daub and plaster, and a total of 51 narrow, ground obsidian, rod-shaped artifacts which we suggest were lip plugs symbolizing Xaltocan's ethnic identity (Brumfiel et al. 1994:114).

Brumfiel and colleagues cite five reasons why they believe that these objects were lip plugs with an ethnic role: (1) they "look like items of personal adornment;" (2) they are probably not markers of high status; (3) functionally they "conform ... to expectations of what ethnic markers should look like"; (4) "ethnohistorical documents ... suggest that ethnicity was an important principle of social organization in late prehispanic Mexico"; (5) "ethnohistoric evidence links obsidian lip plugs to a particular ethnic group, the Otomi" (Brumfiel et al. 1994:115-118). The authors further note that the lip plugs were scattered across Xaltocan, indicating ethnicity, as an expression of

the "ethnic origins of their ruler," not the regions from which people might have migrated (Brumfiel et al 1994:127). Also noted was the collection of "48 partially finished examples," that can be shown as having been manufactured from retouched blades (Brumfiel et al. 1994:114). This is a lot of hypothesis to rest on a relatively few artifacts. However, it is certainly true that attire and ornamentation often mark identity in contemporary Mesoamerican indigenous societies, although to what degree this phenomenon is a colonial product remains an open question.

Were these lip plugs manufactured by specialists? Were they traded? Could they have acted like "money"? Or are they simply further proof of the wide functional use to which obsidian was put? At this point, the record is unclear. Even if they only show another use for obsidian, the existence of these artifacts lends weight to the hypothesis that obsidian was a valuable commodity in the preconquest Aztec economy. Given that apparent importance, we might conclude, for example, that obsidian blades, or perhaps the cores from which they were struck (which there is evidence were traded) served as "money" at some point in the trade cycle). The point made about ethnicity is also interesting, as the ethnohistorical documents (and the consensus model) which I refer to in this essay tend to portray "Aztec" society as culturally very homogeneous. Yet, if there were significant regional differences in pottery style or personal adornment, then we might be looking at stylistically demarcated subcultures.

Spence, relying on "survey and surface collections" done in conjunction with the Teotihuacán mapping project directed by René Millon, helps solidify several conclusions tentatively drawn above. First, he suggests that obsidian tool manufacture in the Teotithuacán valley region under Aztec rule was carried out by part-time specialists who were also agriculturalists (Spence 1985:100). For example, "ten Aztec obsidian workshop sites have been identified in the San Mateo zone ... most of the sites are grouped in two clusters ... these sites may be viewed as principal workshops, the others

as their satellites" (Spence 1985:89). These workshops probably date from the Zocango phase (Aztec II, A.D. 1150-1350), although some of the ceramics found in conjunction with the obsidian artifacts date from the Chimpala phase (Aztec III, A.D. 1350-1519) (Spence 1985:91-92). I think it is reasonable to conclude that if there were specialists, then their products needed to be "sold" in some manner.

A second point made by Spence leads me to speculate that tool "sales" by the specialists were probably for some kind of "money." Spence argues that there were not a lot of workshops or craftsmen involved in obsidian manufacture. He cites various estimates that as few as 12 to 16 craftsmen working half-time could supply the obsidian tool needs of the whole population of the Teotihuacán Valley: 100,000-135,000 at the time of the conquest. Clearly, even if that estimate is greatly exaggerated (as the ubiquity of obsidian might imply), all the artisans' material needs would have been met many times over in a straight barter situation. In fact, we probably have no choice but to conclude that the obsidian manufacturers "sold" their products (perhaps at marketplaces) for some moneyish thing. Another possibility is that their obsidian stored wealth for them, and that they made exchanges as necessary. Triangularity would be established in this case only if the person with whom the obsidian was exchanged used it at some point to exchange for another good or service. This latter possibility is bolstered by Spence's (1985:89) observation that some of the compounds in which the manufacturing was done, and in which the workmen lived, were not elaborately built.

A question then arises: If the obsidian manufacturers generated "profit", what happened to it, or who "captured" it? Why did they live as they did? I would suggest the following hypothesis based on a third point made by the author (1985:90): "In all of the San Mateo workshops [except two] the principal objectives were the refinement and further distribution of core blanks and the concomitant production and distribution of blades." In other words, these craftsmen were "buying" obsidian into which some work

had already gone (in modern parlance, to which value had been added). That "work" probably raised the price to the craftsman, eating up some of his "margin of profit."

Why not pass the cost on to the consumer? Again we can only speculate. Perhaps prices to consumers were not very flexible because of cultural reasons. As Wilson (1951) points out with respect to many traditional African societies, tribal members who appear to have more disposable wealth that their peers may be regarded as witches. Also, village craftsmen tend to operate in a context in which potential customers are likely to be kinfolk. In any event, my assumption is that social pressures of one sort or another could have prevented "gouging." Second, if the ethnohistorical documents are correct, villagers were probably heavily taxed in the form of tribute payments demanded by several layers of hierarchy. Under those circumstances, people would not have had a great deal of surplus to "spend."

In some cases we can trace the obsidian found in the Teotihuacán Valley settlements to particular regional quarries from which "each craft unit apparently obtained its own raw materials" (Spence 1985:109). We still have to answer what they used for the "purchase" of these raw materials. Again, we see a need for "money" at several levels (supplier to craftsmen, craftsmen to customers), but we cannot tell what object or objects might have been used for "money."

H. Spindle Whorls

Parsons analyzed the distribution of spindle whorls found as part of the various Valley of Mexico surveys discussed above. Let us briefly look at that data. There are two different kinds of spindle whorls, large ones for spinning the "coarse fiber of the maguey plant" and smaller ones for spinning cotton. Cotton needed to be imported

since it could not be grown in the relatively cool altiplano (Parsons 1975:208). Parsons points out that slightly more than one-third of the spindle whorls recovered was of the smaller kind. He (Parsons 1975:208) concludes that the presence of the small whorls "suggests that the spinning of cotton was a tribute service of some importance performed by the Aztec population of the Teotihuacán Valley" (1975:208). Clearly, whatever its use, cotton was spun by women in preconquest times. The question, of course, remains, with what was the cotton "purchased"?

Parsons (1975:213) argues that there are three types of maguey whorl, which "can perhaps be seen in a larger sense as approximately delineating three spheres of economic-political influence, but that "cotton whorls do not show the same regional variation as the maguey whorls." Further, based on the areas in which the artifacts were found, there was probably "a specialization in spinning cotton on the lake shore plain. The Amecameca Valley, on the other hand, seems to have specialized in spinning maguey with very little spinning of cotton."

It may be that the smaller whorls served as a trade item, since we saw some evidence above that these whorls were manufactured in Tenochtitlán. In fact, given their apparently broad range, they may have served as moneyish objects.

5. CONCLUSIONS

A. MONEY IN THE AZTEC ECONOMY

The availability of a written historic record should make the work of the archaeological analyst easier. The written record should, at the very least, suggest to the archaeologist where to look and probably what to look for. Archaeology then helps confirm the accuracy of the historical record while at the same time adding detail to it. In the case of our analysis of "money" in the Aztec economy, the synergy between the historic and archaeological records was not apparent. We analyzed four distinct kinds of data: "eyewitness" documents; informant-based documents; colonial records; and archeological survey results. I do not think the results of that analysis were conclusive. The historical documentation I found the most useful were the colonial documents. Some of those documents were written less than a decade after the conquest of the Aztecs (and then the conquest of all of Mesoamerica) by the Spanish. In order for those documents to be relevant, we needed to assume that the culture we were able to glimpse through them is conservative, and accordingly, analogous to preconquest Aztec culture.

How reasonable is that assumption? Since the preconquest Aztec writings (codices) have been destroyed, we must look to the archaeological record to confirm the written record. Again, I believe the results of that analysis are inconclusive, although researchers are not precluded from further investigation. Many of my criticisms of Sahagun's project would be quickly quieted if, for example, an excavation in Tepepolco produced a complex of housing and storage facilities that could reasonable be interpreted to be of Pochetca origin. With regard to the two other kinds of historical

documents, I have argued that many of those documents are basically single sources. I have also argued, with respect to the early ethnographies, that there are potentially questions about the quality of the informant's information, given the stressful times both politically and economically in which the informants lived, as well as the limitations of human memory, so many years after the events took place.

So while our task was a narrow one, to try to delineate which objects found in circulation in the Aztec economy might act as money, we found ourselves unable to define with certainty that economy in any great detail. As indicated above, I do feel all the historical and archaeological sources together allow for broader conclusions: (1) that there was regional trade through marketplaces; (2) that there was at least some specialization in the manufacture of some goods; (3) that there was a need for those goods also to be traded in marketplaces; (4) that marketplace trade probably required moneyish objects.

When we turn to the archaeological record, we find good data showing that a number of goods were traded. We know the locations in which those objects have been found and the particular historical periods into which those objects were used. We do not find direct proof as to the circumstances under which those objects were traded. Given these uncertainties, what can be said about Aztec money? It might be useful to review the nature of "primitive money". In fact, that is our first point: We are dealing with objects which sometimes act "moneyish" because of the way in which they are used, and which sometimes are simply used for their utilitarian purposes. For example, yams in the Trobriand Islands are sometimes eaten and sometimes "spent" or saved as money. Second, we need to see a triangular situation: Neal's "goods into money into goods." If one object is traded for another object and both objects are then put to their respective uses (i.e., food is eaten), then neither object is money in those circumstances.

So one major job money does is to buy things and/or satisfy obligations. Money also is used to equate (or value) two objects in terms of a third item, the money. Money is something in which we save (hoard) for the proverbial rainy day, or as suggested by Flannery, the drought. Money then is something in terms of which a debt can be expressed: "I owe you 100 yams for babysitting last week."

"Back fence" trades can certainly be made in terms of objects, one of which ends up acting moneyish, that are not being consumed, but being re-traded. A more efficient way to make even demand economies work seems to be through marketplaces. This is why I am willing to reach the conclusion that most of the Aztec consumer economy operated through marketplaces. (Even though the archaeological record is unclear as to where these marketplaces might be found.) We have good proof of the institution of native marketplaces operating very shortly after the conquest. I am willing to conclude those marketplaces reflect well-established social institutions, which predated the conquest. I am also willing to conclude that some of the objects in each marketplace were of local manufacture, growth, capture or kill. We have good archaeological data that some of these goods were the work of specialists. In rural settings those specialists were probably part-time. Money was probably required to pay these specialists. However, some of the goods found for sale probably came from elsewhere. The people bringing those goods to market had probably invested some kind of money in order to procure those goods. They needed to be somehow paid for them. Even though they received other goods, they probably intended to trade those goods elsewhere: By our definition the goods they received were acting "moneyish."

We have seen several modifying conditions for moneyish objects. First, they are not necessarily universal: they have limited ranges in which they can and do act as money. Second, they are not only used to purchase things, but for delayed uses like the storage of wealth. As I have stated several times, any one of the objects we saw

traded in the postconquest market documents could have acted as money in Aztec marketplaces (assuming those goods appeared in Aztec marketplaces). But because of the need to also store wealth in the case of the Aztec economy, as opposed to the Trobriand economy, I think most of the moneyish objects were probably inorganic. Absent the special circumstances for replaceability we see in Trobriand's culture, it is difficult to store wealth in something that will eventually rot. In the Trobriand economy I have concluded that banana leaf bundles and yams are limited purpose monies with wide ranges. There are social mechanisms to replace, and basically keep the supply constant of both those objects. As part of the funerary rituals, women constantly make and refresh banana leaf bundles. Just about the time yam stores began to rot, they are replaced with new yams. So those two organic items can be money in the Trobriands because their supply is kept relatively constant through cultural mechanisms. We do not have evidence of that kind of a tradition in Aztec society.

For those reasons, and the reasons cited above, I am skeptical that cocoa beans were a primary "money" in the Aztec economy (although we know they acted like money by colonial fiat after the conquest, and to be fair prices are quoted in both whole and shrunken beans). We do not know of a cultural mechanism to replace cocoa beans when they are used up. Nor do we think of cocoa beans as being abundant (like yams and banana leaf bundles). Cocoa was imported to the Valley of Mexico over long distances, not locally grown. Consequently, I do not see cocoa beans as a reliable store of wealth. Eventually, they would rot, with no socially programmed replacement available.

Of the non-organic objects obsidian appears to have the largest range. While it was widely and creatively used, obsidian was light enough, durable enough and under enough demand that it easily could have been money. Basalt also seemed (from the archaeological record) to have a large range. It, too, is durable, a good medium in

which to store wealth. Salt also intrigues me. While there is some question about the form in which it was traded preconquest, I think the evidence fairly conclusive that it was manufactured. It has a strong demand value and would, therefore, store wealth well. Salt also appears to have had a wide range.

Cotton spindle whorls raise an interesting question: Is the historic record correct? Was cotton cloth a money? So far we have no definitive preconquest proof that cotton cloth was used as money. There was presumably a strong demand for it given the ubiquity of spindle whorls. However, it would not be the most practical object in which to store value (although somewhat more valuable than an organic product). Cotton cloth also seems quite bulky to serve as a usually traded "money." Perhaps it was used under limited circumstances to "sweeten a deal".

I am inclined to say the spindle whorls might have been moneyish objects: They even look like some of the earliest specie type monies. An interesting question is: Were there women's monies? We have seen that women did have a place in the postconquest marketplaces, and Duran, at least, places them there preconquest. Let's assume women did trade in marketplaces. It is conceivable, especially with regards to the food they prepared and the cloth they spun, that women frequently traded with other women. Might they have used spindle whorls, or obsidian lip plugs (or other obsidian jewelry) or shells or jewels as money? Which brings us back to our second modifying factor. The kinds of things in which people would be inclined to store value might reflect the gender, occupation, region and culture/sub-culture of those people. A third modifying factor then is the frequency of use of a particular thing as money. Land, for example, could be viewed as moneyish from the perspective of a store of value. In a non-Westernized economy, land can be "spent." Likewise, relating back to potential women's money: Wealth could be stored in jewelry, which is rarely spent.[9]

We have, after a lengthy analysis, unfortunately come to inconclusive results as to which object might have served as limited purpose money in the Aztec economy. However, I do think that our analysis is useful in the sense that we have shown the need for money in the Aztec economy. We have established a high probability that some objects traded in that economy had moneyish functions. We have, I think, established a high probability of triangularity in some Aztec trade situations.

B. "PRIMITIVE" MONEY AS HEURISTIC

It would be my hope that our conclusions above with respect to special purpose money and triangularity might have broader analytical significance. Just as Teotíhuacan is held to have risen to regional power based on its control of the regional obsidian trade, which I would argue was used at times as money (Blanton et al. 1953:134), so other regions and other peoples in prehistory may have been influenced by objects which served moneyish purposes. Triangularity in trade is not a phenomenon that is temporally limited. Archaeology, as we have seen in this essay, often tries to access prehistoric trading patterns. I am suggesting that all of those trades were probably not in kind. I am arguing that many of those trades took place in marketplaces. I am suggesting that marketplaces require some kind of "money" to operate at all efficiently: what if all the tomato sellers have plenty of onions?[10] I am suggesting that specialists are not always paid in kind. It might help our analysis of those kinds of transactions to ask what could have been used as money.

As I argued above, triangular situations, goods into money into goods, are not mutually exclusive from reciprocal and/or redistributive situations. In asking with Flannery, "How did ancient agriculturalists hedge against natural disasters?" we are

asking: What objects did they use for money? Adding the presumption that some objects acted moneyish in most prehistoric economies to our analytical tool kit might help in our analysis of both these economies and of the societies in which those economies were found.

For example, a concept of moneyish items might help explain one of prehistory's mysteries. Certain projectile point assemblages (Clovis especially comes to mind) are argued to have spread rapidly in the New World covering great distances over very short periods of time. What might have facilitated that spread? In some areas the stone to make those points was available; in others it was not. In any case, the points seem to have been a technological innovation. We might ask, was the ubiquity of the acceptance of those points partially because they not only had a utilitarian purpose, but also because they acted as "money"? Could those points have been "money" in intertribal trades? Could the availability of a tradable/wealth storable/easily portable item have facilitated the exchanges of information that are required for any idea to gain ubiquity? Would a few of those points in a person's possession have given them the "face" to approach other people, even far from home?

Weiner, in asking what served as money in Trobriand society, opened up a whole anthropology of the women's world. At the time of her research, specie money was available to the Trobrianders. Yet, cultural patterns were so strongly imprinted in that society that traditional things continued to be used. Where else might we find moneyish objects in use today? What other anthropologies await opening? Even in Westernized situations, investigating the use of things to store wealth may expose social/cultural value systems. Further, one-way to expose culture change might be to determine which items are still used in a moneyish fashion, and which have faded from use. Accordingly, looking at the use of moneyish items as part of an investigation of any social/cultural system probably does have a heuristic value.

POST SCRIPT

I have recently spent a considerable part of a school year observing a group of fifth graders in a New England school. Their social studies text was titled, *America and Its Neighbors*. It is a Holt, Rinehart, Winston publication, edited by J. Cangemi (1986), and first published in 1983. In a section of Chapter 2 ("*Searching for Riches*") devoted to Spain and the New World, Columbus is referred to as "the Great Explorer," while Cortés is introduced as part of a group of "Spanish soldiers and adventurers" (1986:42-45). What follows is a very simplified version of the consensus model. In fact, it is almost as if Cortés' *Dispatches* were the source of the comments, even though there is no reference made to such source material.[11] To my mind, this situation raises not only the obvious pedagogical issues, but ethical issues as well.[12]

Notwithstanding the findings of this essay, I believe that an ethical question is raised with respect to the failure of educators to question not only the "rights" presumed by the Spanish, but also the way in which they carried out their invasion and colonialization. Native Americans and others seem to be using Columbus and his day as a symbol for this issue. I think the issue goes well beyond Columbus. As I write this essay, tribunals sanctioned by the United Nations are holding trials in several places around the world for people charged with crimes against humanity and genocide. It seems to me that by today's standards, some of the Spanish practices rise to that level. Díaz'[13] Chapter XCIV of *The Discovery and Conquest of Mexico* is titled "Branding the Slaves":

> So Cortés decided, with the officials of the King, that all the slaves that had been taken should be branded so that his fifth might be set aside after the fifth had been take for His Majesty, and to this effect he had a proclamation made in the town and camp, that all the soldiers should bring

> to a house chosen for that purpose all the women whom we were sheltering, to be branded...
>
> We all came with all the Indian women and girls and boys whom we had captured, but the grown-up men we did not trouble about as they were difficult to watch and we had no need of their services, as we had our friends the Tlaxcalans...[T]he night before, after we had placed the women in that house ....they took away and hid the best looking Indian women, and there was not a good-looking one left, and when it came to dividing them, they allotted us the old and ugly women, and there was a great deal of grumbling about it against Cortés and those who ordered the good-looking women to be stolen and hidden.... and that now the poor soldier who had done all the hard work and was covered with wounds could not even have a good-looking Indian woman.... Moreover when the . proclamation had been issued... it was thought that each soldier would have his women retuned to him, and they would be appraised according to the value of each in pesos, and that when they had been valued a fifth would be paid to His Majesty and there would not be any fifth for Cortés...(Ross and Power 1978:445-446; Díaz del Castillo 1956:332-333).

Cortés, perhaps not mentioning the same incident, does acknowledge that at a place called Tesaico, where they found evidence that some Spaniards had been "sacrificed...tearing out their hearts before their idols" they had "capture many women and children who were declared slaves". If Díaz is to be believed, the men were killed and the women and children enslaved. While no explicit mention of sexual assumptions are found in Díaz's narrative, it would seem beyond credibility that Spanish soldiers were upset that the "good-looking" women were "stolen" simply because they wanted comely servants. In Bosnia, Serbs who killed men and raped their wives and daughters have been declared war criminals; the act of killing the men is called genocide. Similar charges have been brought with respect to the civil war in Rwanda. By today's standards, the Spanish committed the same crimes. These crimes are not hidden; they are easily found in the two documents on which all histories of the Aztecs rely. My point is: these issues should at least be raised when Spanish colonial practices are discussed.

Interestingly, beginning at least with the Nazis, war criminals have perfected the art of propaganda. Behaviors which might, by the standards of their day, be condemned are either repeatedly denied, or a spin is put upon them to somehow justify them. If we assume that Cortés knew that some in his society might morally condemn his behavior, then might it not be fair to call his account propaganda in its most ugly form? And cannot the same charge be made with respect to the other historical documents we have discussed? Both soldiers and clergy were actively involved in the exploitation of the Native American populations of the place the Spanish label "The New World." Given the proclivity of writers in that time to "borrow" from each other, it does not seem unreasonable to at least ask: Are these documents 500-year-old propaganda covering up as best they can actions which even then might have been considered morally repugnant? Only when the Native Americans were converted to Catholicism were they subject to the Inquisition. We are told many were converted. Did they really know what was going on? Did the Inquisition become an instrument for the intimidation of these native populations? Many of the Inquisitional charges brought against Indians include trying in some way to induce other Indians to revert to paganism, a contemporary justification for colonial practices.

As we have seen, even the Spanish clergy charged with converting the native population to Roman Catholicism were not willing to allow that those Indians were fully rational:

> While the rationality controversy was in progress...another famous Dominican, Francesco de Vitoria, a professor at the University of Salamanca, was attacking the problem of the Indians from a different point of view. He contended that not only Spain's Indian policy, but its fundamental right to dominion in the New World, were based upon untenable premises. Vitoria debunked the right of discovery (*res nullius*) as just a title because the Indians were already the lords of the New World when the Spaniard came. Similarly, the *mere clausum* theory instituted by the bull *Inter caetera* of [Pope] Alexander VI in 1493 was denied by Vitoria as a basis for Spanish rule because he contended that the pope had no

temporal power over Indians as non-Catholic. Consequently, the refusal of the Indians to accept papal domination could hardly be considered a basis for just war against them or the confiscation of their properties or goods.

Vitoria did concede, however, that the Spaniards had certain rights and responsibilities in America, and were they hindered in the exercise of either, they might wage a just war. In all there were there were six possible titles to Spanish dominion in the New World...the first title was derived the Spaniards right to travel and take up residence in America if he did not harm the Indian...Secondly, the Spaniard had the right to preach and declare the gospel in barbarian lands and if warfare was necessary to do this, it had to be moderate and directed toward the welfare rather than the destruction of the native.

The last four possible titles to dominium were of a nebulous character. They included the right to intervene and assume power *to prevent cannibalism or sacrifice,* to *deter Indian princes from forcing converted Indians to return to paganism*, to establish dominion when the native truly and voluntarily submitted, and, finally, to establish mandates in the natives' interest. (Greenleaf 1962:30-31, emphasis added)

My point is that the vast majority of the documents dealing with preconquest Aztec society were written by clergy deeply involved with the repression of the native populations. To the extent that these documents in some way justify genocidal and other immoral practices, textbook writers and other scholars involved with the Aztec project perhaps need to take care to expose, not inadvertently whitewash, these crimes.

NOTES

1. I am indebted to Marcel Mauss' seminal *The Gift*, especially his "Political and Economic Conclusions." In this section he discusses what Neel (1976) calls "moneyish" goods, that is, objects which "are at once wealth, tokens of wealth, means of exchange and payment, and things to be given away and destroyed" (Mauss 1954:71). Mauss was certainly not the first theorist to consider the nature of money. The theoretical discussion of money goes back at least to the latter part of the seventeenth century. Locke speaks of some of the purposes of money as well as noting the trait of money as "some lasting thing that men might keep without spoiling, and that by mutual consent men would take in exchange for the truly useful, but perishable supports of life" (Locke, 1967:318-319). By the mid-eighteenth century we find "primitive" money discussed by Turgot (Enzig,1949:330). That discussion continued into the nineteenth century. Enzig (1949:321-322) cites references to works by Menser in 1892 and Javons in 1875.

   In his essay Mauss notes that in contemporary capitalist societies economic factors remain intertwined with other relationships and structures. This is perhaps the critical point here. I am aware that the cultural component of what is taken to be "money" is not irrelevant, since it always reflects values and attitudes as "cultural" as any others. It is also to the point that the distinction often made between "monitized" and "non-monitized" economies tends to stress how economic systems *should* operate – not what actually happens. The Europe of the times can best be thought of as a semi-monitized economic environment, where "primitive activities" [barter, etc.] continued and blended into the others, in the regular meetings at town markets, or in the more concentrated atmosphere of trade fairs" (Braudel 1981:I:445). Mexican markets might not have looked *totally* strange to Spanish observers; and preconquest native institutions may have been assumed to fit European models, as, for example, in the accounts of the Cortés group into which I go in some detail below.

2 I read neither Spanish nor the indigenous Aztec language, Nahuatl. All of the ethnohistorical material discussed in this study was written in one or other of these languages. I am, therefore, dependent on translations of the pertinent material into English. If a document has not been translated, I must rely on those who can read it to convey its content and meaning. There are a number of potential sources, which have, apparently, not been translated into English (see Cline vols. XII-XIV [1972-75] and Gibson 1964). However as will be stressed below, few of those sources appear to be preconquest. Yet, it is possible that there are references to markets and/or money, which might lead to conclusions

different from those I draw. Any definitive conclusion with respect to the Aztecs and money, therefore, would require a search of these materials. There are also some documents for Native American societies with whom the Aztecs might have traded which may or may not be from the preconquest period. Yet, as Cline points out, there are problems of dating and provenience (Cline 1973:XIII:11-12). Furthermore, "the history of the 16 possibly preconquest manuscripts is poorly known" (1973:XIII:13). In an ideal world, I would have liked to check these documents thoroughly. Nevertheless, I have searched all of the translated sources to which I have found reference made in the English language sources. That such a robust literature has been based on such a relative paucity of original material raises pedagogical issues which I discuss in the body of this essay. My limitations are mitigated, I think, by two circumstances:
(1): Judging from the citations in a number of essays concerned with aspects of the Aztec economy, the sources available to me seem to be the ones that most analysts utilized. (2) As noted, most or all of the available documents were written in the aftermath of the conquest. I think that the information available to me is a fair representation of the literature, and accordingly, of what is known about the indigenous Mexican economy.

3 More broadly, it could be argued that much of the received wisdom respecting preconquest Aztec society calls for further scrutiny. This might require a shift from conquest-era texts and memoirs to the rich archival sources (in Mexico and Spain) and a greater stress on archaeology, perhaps on the model of the *Templo Mayor* excavations (Carrasco1999:1-14).

4 Neal makes a distinction between the functions of money and six "traits of money." That distinction is what differentiates limited purpose from general purpose money,

> (1) Money is quantifiable in a system of small gradations ... (2) money is also fungible. That is any one unit, or several units, of a money is substitutable for any other units of the same "value" or denomination in the monetary system. ... Other traits associated with money have been (3) durability, (4) portability, (5) divisibility, (6) reconcilability (Neal 1976:8, Numbering added)

For that reason Enzig argues there are

> conditions prevailing in primitive communities [which] do not necessarily call for such a degree of perfection of the monetary system as modern conditions do ... stability of value is the only quality which such a limited money must possess ... provided that by "value" we mean "purchasing power," not non-monetary intrinsic value (Enzig 1949:330—331).

I think Enzig's point is critical. We are dealing with objects, which by their nature can never be exactly alike; objects which may or may not be fungible, durable, divisible or universally recognizable. That is, limited purpose money cannot be expected by the nature of its thingness ("quantifiable objects") to have all the physical traits of modern coin or paper money. Notwithstanding, limited purpose money can play a critical role in a non-Western economy. In fact, I would argue some limited purpose monies are essential for most non-Westernized or semi-Westernized economies to function.

5. The above document is referenced as Museo National de Antropología, document C.A. 340 ff. 125-126.

6. For example we have seen Sahagún directed by his superior to provide information which would help in the conversion of the Indians to Christianity. While Sahagún is called the father of modern ethnography, he clearly was not trained as, or motivated to be, an impartial social scientist. (Assuming today's social scientists are so motivated.) I think the same comments are true with regard to the other mid-sixteenth century chroniclers. In a sense, all of the postconquest "ethnographers" were apologists for the imposition of the Spanish colonial regime on the native peoples of Mesoamerica, even if they disagreed with certain aspects of that regime. Las Casas, for example, was deeply opposed to the imposition of slavery upon the Indians. Their readership was primarily European. In most cases, their readers would never visit the "field." Further, their obvious Eurocentric perspective was either consciously devised to make the apology easier for Europeans to understand, or these "ethnographers" really did not understand the Indian's voice (Sahagún used, for example, three trilingual assistants at Tepepolco). Perhaps, given their religious beliefs, it was almost impossible for them to understand Indian beliefs. Van Zantwijk has an excellent discussion of this issue (Van Zantwijk 1985:125-131).

7. Baird's insight into the method by which the drawings for de Sahagún's Florentine Codex were produced seems at odds with conventional wisdom. Austin, for example, quotes Sahagún in a Spanish language source unavailable to me:

> All the things we discussed they gave to me by means of paintings for that was the writing they had used, the grammarians saying them in their language and writing the statement beneath the painting.
>
> Most of these books and writings were burned at the time of the destruction of the other idolatries, but many hidden ones which we have now seen did survive and are still kept, from which we have understood their antiquities (Austin 1974:116-117).

now seen did survive and are still kept, from which we have understood their antiquities (Austin 1974:116-117).

Austin also speculates on Sahagún's informants. For example, he argues that Sahagún's source for his material on the Pochtecas was "the Pochtecas themselves," the material having been collected at "Tlaltelolco, the merchant capital." I will only suggest the possibility that Austin is begging the question. We can reasonably ask: If there was not a merchant capital, then how do we know there was a merchant class? This is clearly a question on which the colonial market documents might cast some light.

8. Wobst makes several very insightful arguments with respect to the characterization of ceramics. His argument is that how an artifact is classified can vary not only with those markers arbitrarily assigned to separate one classificatory category from another, but also with the philosophical perspective that the analyst brings to the task (Wobst 1994). Thus, the classification of early/ late might be one with whose boundaries one might quibble. Conclusions with respect to changes in the Aztec economy to the extent they require precise definition of stylistic boundaries may, therefore, be speculative.

9 Weiner points out in great detail the ubiquity of and importance of "women's wealth," in the Trobriands Economy (Weiner 1988).

10. E. Smith has pointed out in conversation that an alternative to having moneyish objects in marketplace situations would be a culturally established system of "owing." That is, if I give a vendor too many tomatoes for his onions, then he owes me the next time. This kind of situation, Smith points out, would lead to buyer loyalty. I am sure that in some cases things work exactly as Smith suggests. In other situations, especially in dealing with either regional markets or with vendors with either seasonal products or products not requiring the vendor to attend a particular market on a regular basis (or dealing with an unknown vendor), some kind of medium of exchange would have been needed.

11. I found this lack of sourcing disturbing enough to bring it up in at least one class. Given the stress of state mandated standardized testing, there really was no place in the curriculum for my comments. Were they to have been emphasized, then the children would probably have been put in a position to answer test questions "incorrectly."

12. There are also several questions with respect to how contemporary Mexicans are affected by the ways in which Aztec history is currently represented. One

question would be the way in which the specific accusations of human sacrifice and of cannibalism have affected the self-images of present day Mexicans. One wonders if any (some, or all) segment(s) of Mexican society have been stigmatized by these representations. One wonders if the characterizations affect Native American/Mexican governmental relations? One wonders if Mexican Native Americans of non-Aztec heritage are affected (stigmatized) in the same way as those who may be of Aztec heritage. A second question might be asked in broader terms: What are the current views of Mexicans with respect to their Aztec past? Do these views vary across groups? Is there a segment of Mexican society which even today considers itself more Spanish as opposed to Native American? While this question may seem to subsume my first, I believe the first needs to be asked specifically. Included in the category "contemporary Mexicans" might be Mexican Americans. Another research question then, might be: How do schools with large Mexican American populations present the preconquest history of Mexico, and how does that presentation affect the self-images of those students and their families?

13. I have heard Richard Shweder speak several times on the issue of universal morality. While I initially found myself resisting his arguments, the further I thought on the issue, the more I came to agree with his analysis. Shweder characterizes his concept as "universalism without uniformity," (Shweder 1998). His argument is that there are any number of practices which are universally accepted in one culture that might be repugnant in another. If one accepts this argument, then it is difficult to find a way in which to privilege one moral position over another. In fact, if one attempts to do so, then charges of ethnocentrism may be justified. Questions of war crimes and genocide, which our Western cultures seem to be privileging with the highest moral positioning, become most troublesome if no morality can be considered universal. Applying today's standards to a culture to which they would be anathema would clearly be unfair. However, as we have seen, de Vitoria (and probably many others) raised the same kinds of issues when he spoke against privileging Spanish religious ideas over those of the "barbarians."

REFERENCES CITED

Austin, A. L.
1974 Research Methods of Sahagún *In* Sixteenth Century Mexico. Munro S. Edmonson, ed. Albuquerque: University of New Mexico Press.

Anderson, A., F. Berdan and J. Lockhart (eds.)
1976 Beyond the Codices. Berkeley: University of California Press.

Baird, E. T.
1993 Drawings of Sahagún's Primeros Memoriales. Norman, OK: University of Oklahoma Press.

Berdan, F. F.
1989 Trade and Marketing in Precapitalist States. *In* Economic Anthropology. Stewart Plattner, ed. Stanford: Stanford University Press.

1986 Enterprise and Empire in Aztec and Early Colonial Mexico. *In* Economic Aspects of Prehispanic Highland Mexico Research in Economic Anthropology. Barry Isaac, ed. Supplement 2. Greenwich: JAI Press, Inc. Pp. 281-302.

1985 Marketing in the Economy of Aztec Mexico" *In* Markets and Marketing. Stewart Plattner, ed. Lanham: University Press of America, Pp. 339-367.

1983 The Reconstruction of Ancient Economies: Perspectives from Archaeology and Ethnohistory. *In* Anthropology. Sutti Ortiz, ed. Lanham: University Press of America. Pp. 83-93.

Bernal, Ignacio
1980 A History of Mexican Archaeology. London and New York: Thames and Hudson.

Blacker, I. R.
1962 Conquest. New York: Gosset & Dunlap.

Blanton, R. E., S. A. Kowslewski, G. M. Feinman and L. M. Finstein
1993 Ancient Mesoamerica. New York: Cambridge University Press.

Borah, W.
1984 Some Problems of Sources. *In* Explorations in Ethnohistory. H. R. Harvey, and H. T. Prem, eds. Albuquerque: University of New Mexico Press. Pp. 23-39.

Braudel. F.
1981 [1979] Civilization and Capitalism, 15th-18th Century, 4 vols. Sian Reynolds, trans. New York: Harper and Row.

Bremner, J. D., P. Randall, E. Vermetten, L. Staib, R. A. Bronen, C. Mazure, S. Capelli G. McCarthy, R. B. Innis and D. L. Charney.
1997 Magnetic Resonance Imaging-Based Measurement of Hippocampal Volume in Posttraumatic Stress Disorder Related to Childhood Physical and Sexual Abuse--A Preliminary Report. Biological Psychiatry 41: 23-32.

Brown, R. E.
1994 Neuroendocrinology. New York: Cambridge University Press.

Brumfiel, E. M.,
1980 Specialization, Market Exchange and the Aztec State: A View from Huexotla. Current Anthropology 21: 459-478.

Cangemi, J.
1987 America and Its Neighbors. New York: Holt, Rinehart, Winston.

Carrasco, D.
1999 City of Sacrifice. Boston: Beacon Press.

Carrasco, P.
1983 Some Theoretical Considerations About the Role of the Market in Ancient Mexico. *In*. Economic Anthropology. Sutti Ortiz, ed. Lanham: University Press of America. Pp. 67-82.

Casas, Bartolomé de las
1971 A Selection of His Writings. New York: Alfred A. Knopf

Cerwin, H
1963 Bernal Díaz. Norman, OK: University of Oklahoma Press.

Charlton, T. H.
1969 Texcoco Fabric-Marked Pottery, Tlateles and Salt-Making. American Antiquity 34:73-76

Charlton, T. H., D. L. Nichols, and C. O. Charlton
1990 Aztec Craft production and Specialization: Archaeological Evidence from The Aztec City-State of Otumba, Mexico. World Archaeology 25:98-114.

Clark, J. E., T. A. Lee, Jr., and T. Sakedo
1989 The Distribution of Obsidian *In* Ancient Tribute. Barbara Voorhies, ed. Salt Lake City: University of Utah Press. Pp. 268-284.

Cline, H, F., Ed.
1973 Guide To Ethnohistorical Sources. *In* Handbook of Middle American Indians. Robert Wauchope, ed. Austin: University of Texas Press. Volumes 12,13,14,15.

Codere, H.
1988 Money-Exchange Systems and a Theory of Money. Man 3:557-577.

Codex Mendoza
1938 *Codex Mendoza*, James Cooper Clark, ed., 3 vols. London: Waterlow and Sons.

Cortés, H.
1986 Letters from Mexico. New Haven: Yale University Press.

Dalton, G., Ed.
1968 Primitive Archaic and Modern Economies. Essays of Karl Polanyi. Boston: Beacon Press.

Díaz del Castillo, Bernal
1956 The Discovery and Conquest of Mexico 1517-1521. Irving A. Leonard, ed. New York: H. Wolff.

Duran, Fr. Diego
1981 The History of the Indies of New Spain. New York: Orion Press.

Elliott, J. H.
1989 Spain and its World, 1500-1700. New Haven and London: Yale University Press.

1990 The World After Columbus. The New York Review, October 10; 10-14.

Enzig, P.
1949 Primitive Money. London: Eyre and Spottiswoode.

Fernández-Armesto, F.
1991 The Improbable Empire. *In* Spain: A History. Raymond Carr, ed. Oxford and New York: Oxford University Press.

Flannery, K. V., and J. Schoenwetter
1973 Climate and Man in Formative Oaxaca. Archaeology 23:144-152.

Gasco, J.
1989 The Colonial Economy in the Province of Soconusco". *In* Ancient Trade and Tribute. Barbara Voorhies, ed. Salt Lake City: University of Utah Press. Pp. 297—303.

Gibson, C.
1964 The Aztecs Under Spanish Rule. Palo Alto: Stanford University Press.

Gómara, Franciso López de
1964 Cortés. Berkeley: University of California Press

Greenleaf, R. E.
1961 Zumarraga and the Mexican Inquisition 1536-1543. Washington D.C.: Academy of American Franciscan History.

Harvey, H. R., and H. J. Prem
1984 Explorations in Ethnohistory. Albuquerque: University of New Mexico Press.

Haas,S.H., and K. Schauenstein
1997 Neuroimunomodulation Via Lymbic Structures-The Neuroanatomy of Psychimmunology. Progress in Neurobiology. 51:195-222.

Hassig, R.
1985 Trade: Tribute, and Transportation. Norman, OK: University of Oklahoma Press.

Hicks, F.
1994 Cloth in the Political Economy of the Aztec State. *In* Economics and Politics in the Aztec Realm. Mary G. Hodge and Michael E. Smith, eds. Austin: University of Texas Press.

Hodge, M. G., and L. D. Minc
1990 The Spatial Patterning of Aztec Ceramics: Implications for Prehispanic Exchange Systems in the Valley of Mexico. Journal of Field Archaeology 17:415-437.

Innes, H.
1969 The Conquistadors. New York: Alfred A. Knopf.

Isaac, B. L.
1986 Notes on Obsidian. I*n* Economic Aspects of Prehistoric Highland Mexico, Research in Economic Anthropology. B. L. Isaac, ed. Supplement. Greenwich: JAI Press, Inc. 2:319-343.

Jackson, L. J.
1994 Lucky Day at Tiger Mound. Archaeology 47:60-62.

Jacobson, K.
1996 Trobriand Exchanges and the Concept of Money. Paper presented at the Annual Meeting of the Northeastern Anthropological Association.

Kandel, E.R.
1994 Essentials of Neural Science and Behavior. Norwalk: Appleton & Lange.

León-Portilla, M.
1982 Aztec Thought and Culture. Norman: University of Oklahoma Press.

Liberzon,I., and E. A. Young
1997 Effects of Stress and Glucocorticoids on CNS Oxytocin Receptor Binding. Psychoneuroendocrinology. 22,6:411-422.

Liberzon, I., M.Krstov, and E.A.Young
1997 Stress-Related Effects on ACTH and Fast Feedback. Psychoneuroendocrinology. 22,6:443-453.

Liberzon,I., D. T. Charlmers, A. Mansour, J. F. López, S. Watson, and A. E. Young.
1994 Glucocorticoid Regulation of Hippocampal Oxytocin Receptor Binding. Brain Research 650:317-322.

Locke, John
1967 Two Treatises on Government. Cambridge: Cambridge University Press.

Lockhart, J., F. Burden and A. J. O. Anderson
1986 The Tlaxcolan Actas. Salt Lake City: University of Utah Press.

Liss, P.
1975 Mexico Under Spain 1521-1556. Chicago: University of Chicago Press.

Malinowski, B
1922 Argonauts of the Western Pacific. New York: Dutton.

Mauss, M.
1954 The Gift. Ian Cunnison, trans. Glencoe: The free Press.

Neal, W. C.
1976 Monies in Societies. San Francisco: Chandler & Sharpe Publishers, Inc.

Parson, J. R.,
1971 Prehistoric Settlement Patterns in the Texcoco Region, Mexico. Memoirs of the Museum of Anthropology, University of Michigan 3. Ann Arbor: University of Michigan Press.

Parsons, J. R., E. Brumfiel, N. Parsons and D. Wilson
1983 Prehistoric Settlement Patterns in the Southern Valley of Mexico: The Chalco Regions-Memoirs of the Museum of Anthropology. University of Michigan. 14. Ann Arbor: University of Michigan Press.

Parson, M. H.
1975 The Distribution of Late Postclassic Spindle Whorls in the Valley of Mexico. American Antiquity 40:207-215.

Polanyi, K .I., C. M. Arensberg, H. W. Pearson, Eds.
1957 Trade and Market in Early Empires. Chicago: Henry Reanery Company.

Ross, D. E., and E. Power.
1978 Bernal Díaz Del Castillo. New York: Harper & Brothers.

Sahagún, Fray Bernardindo de
1950 Florentine Codex: A History of the Things of New Spain. Santa Fe School of American Research and the University of Utah

1974 History of Ancient Mexico. Glorieta: The Rio Grande Press, Inc.

Sahlins, M.
1972 Stone Age Economics. New York: Aldine De Guunter.

Sheets, P. D.
1994 Tropical Time Capsule. Archaeology 47:30-33.

Shweder, R
1998 The Place of the Cultural Psychology: Is it possible to be a Developmentalist and a Cultural Pluralist at the Same Time? Seminar, Harvard University Graduate School Of Education, November 23, 1998.

Smith, M.
1994 Economics and Politics in Aztec Period Morelos. *In* Economics and Politics in the Aztec Realm. M. G. Hodge and MI E. Smith, eds. Austin: University of Texas Press. Pp. 313-348.

Smith M. E., and C. Heath-Smith
1994 Rural Economy in Late Post Classic Morelos. *In* Economies and Politics in the Aztec Realm. Mary G. Hodge and Michael E. Smith, eds. Austin: University of Texas Press. Pp. 349-376.

Spence, M. W.
1985 Specialized Production in Rural Aztec Society. *In* Contributions to the Archaeology and Ethnohistory of Greater Mesoamerica. William J. Folan, ed. Carbondale: Southern Illinois University Press.

Steck, B. S.
1951 Motolinia's History of the Indians of New Spain. Washington, D.C.: Academy of American Franciscan History.

Szewczyk, D. M.
1976 New Elements in the Society of Tlaxcala. 1519-1618. *In* Provinces of Early Mexico. Ida Altman and James Lockhard. eds. Los Angeles: UCLA Latin America Center Publications.

Van Zantwijk, R.
1985 The Aztec Arrangement. Norman, OK: University of Oklahoma.

Weaver, M. P.
1993 The Aztecs, Maya and their Predecessors. Boston: Academic Press.

Weiner, A. R.
1988 The Trobrianders of Papua New Guinea. Fort Worth: Harcourt Brace Jovanovich College Publishers.

Wilson, M.
1952 Good Company. Prospect Heights: Waveland Press.

Wobst, M.
1994 Typology-Or the Variation in Archaeology. Paper presented at the Society For American Anthropology, Disneyland, CA.

Wolf, E. R.
1983 Europe and the People Without History. Berkeley: University of California Press.

Zeitlin, R. N.
1978 Long-Distance Exchange and the Growth of a Regional Center: An Example From the Southern Isthmus of Tehuantepec, Mexico. *In* Prehistoric Coastal Adaptations. Barbara Stark and Barbara Voorhies, eds. New York: Academic Press. Pp. 183-210.

1991 The Energetics of Trade and Market in the Early Empires of Mesoamerica. *In* Research in Economic Anthropology 13. Barry Isaac, ed. Greenwich JAI Press. Pp. 373-386.

Zeitlin, R .N., and R. C. Heimbuch
1978 Trace Element Analysis and the Archaeological Study of Obsidian Procurement in Pre-Columbian Mesoamerica. *In.*Lithics and Subsystems: The Analysis of State Tool Use in Prehistoric Economics. Dave D. Davis, ed. Nashville: Vanderbilt University Publications in Anthropology 20:117-159.