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Distribution and Use of the Black-Boned and Black-Meated Chicken in Mexico and Guatemala ¹

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INTRODUCTION

The purposes of this study are to document the distribution of black-boned, black-meated chickens (BB-BMC) in Mexico, Guatemala, and Belize, to identify past and present uses of the chickens, and to illustrate possible linkages between pre-Colombian, Meso-American, and Oriental practices associated with the BB-BMC. The BB-BMC are currently found from northern Mexico southward into Central America, although the number of genetically pure, fully expressed melanotic chickens is small. The realization that the uses of the BB-BMC among the K'ekch'í Maya are similar to the uses of this same chicken by the ancient Chinese leads me to suggest the likelihood of early and significant contact between the Orient and the Middle American Mayan realm (Johannessen 1981, 427-434; Johannessen 1982, 73-89; Johannessen, Fogg, and Fogg 1985, 493-95). The medicinal treatments involving the BB-BMC in the Maya-dominated regions of Mexico and Guatemala are similar to the ancient belief systems found in old Chinese "medicinal" texts but differ considerably from the practices of other New World indigenous peoples (Johannessen 1981, 427-34).

The peoples of the Maya language groups apparently used in the past the BB-BMC in *brujería* or witchcraft, but those data are much more difficult to obtain than is information on curing the peoples' maladies. Belief in *brujería* was present, but I could not effectively gather data on it.

METHODOLOGY

The methods used were relatively simple and non-statistical. We conducted interviews in Spanish, although at times we used Spanish interpreters to communicate with the Indians in their native languages. We conducted "open-ended" interviews that caused the respondents to describe the use rather than to give "yes" or "no" answers to whether or how they use BB-BMC medicinally. We developed a set of pertinent questions to which we wanted answers, and information was recorded on plain notebook paper rather than on questionnaires. We continued to expand in this way the possibilities for responses and did not have a full "cookbook" of ideas until near the end of the trip.

I observed directly whether the local peoples had any black face-comb-legged chickens in their yards and stopped to talk with those who did. People in the "curing arts" were also frequently sought as informants. Herb sellers, *curanderos* or healers, medical doctors, priests, elderly people, and school teachers provided good information.

Nearly everyone we spoke with was sampled for knowledge of these beliefs and, in general, contacts were made easily. Folk medicine is frequently everyone's job in rural communities. We accepted information even if the respondents were not *curanderos*. The country folk seldom tried to mislead us. The same complex systems were described again and again with no leading questions from us that could have suggested an answer.

The Indian cultures sampled included the following: Tarahumar, Huastecan, Otomí, Tlascalan, Totonac, Zapotec, Mixé, Tehuan, Yucatec or May, Chol, K'ekch'aai, Ixil, Quiché, Tzutuhil, Chortí, and Cachiquel. Several of the non-Mayan groups did not use the BB-BMC medicinally, although some who did not use it had heard of its use at other times or places.

RESEARCH FINDINGS

Highly mixed and hybridized BB-BMC were found in Mexico from Matamoros southward along the Gulf of Mexico to Belize and through Central Mexico to the Pacific Coast of Guatemala at least as far as the Honduran region near Copán (Figure 1). I was also told of the existence of BB-BMC among the Indians in the Costa Rican tropical zone. Within these regions I found a few BB-BMC of relatively [end p. 43]

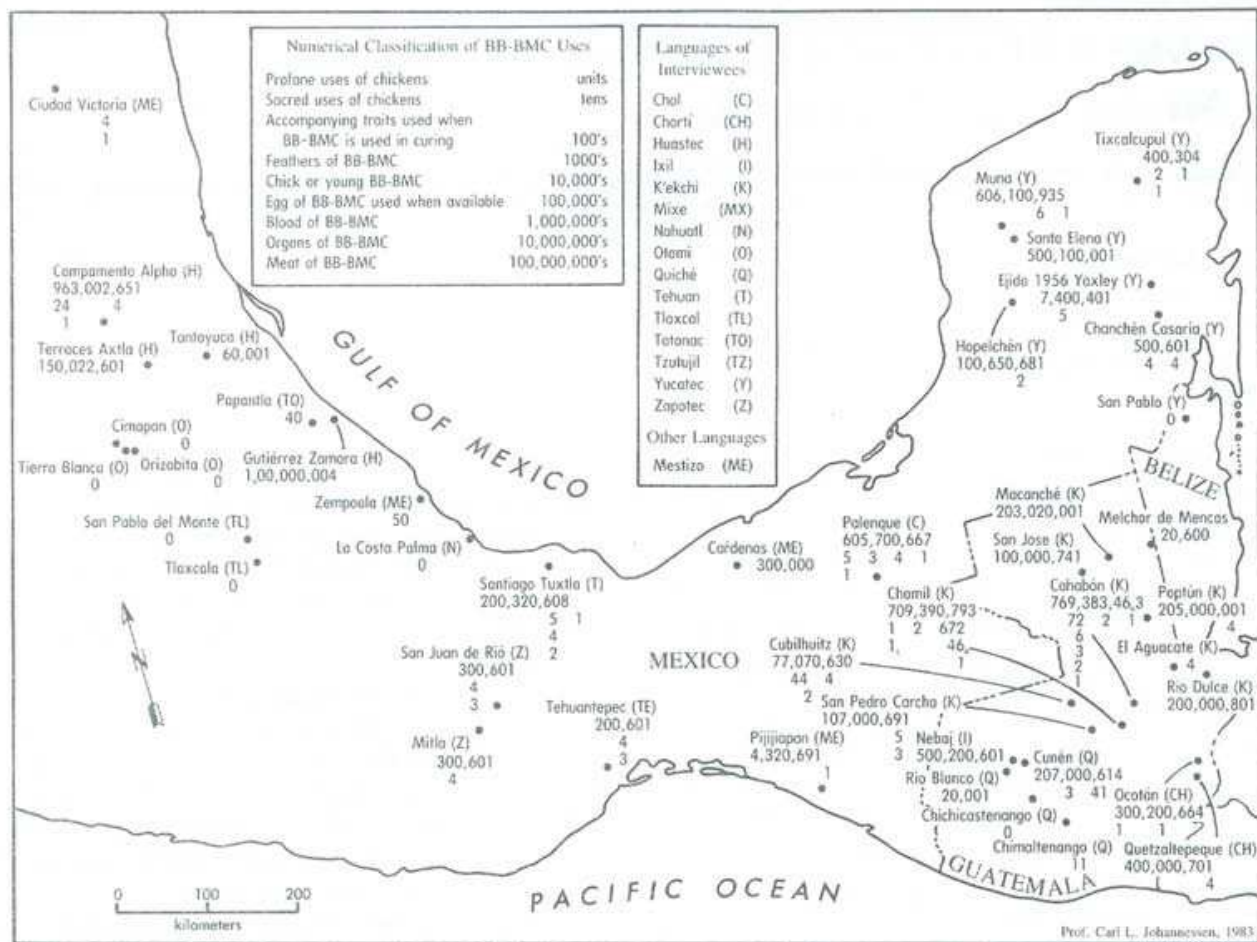


Fig. 1. Black-boned, black-meat chicken uses and field sites.

Table 1. Major categories of uses of BB-BMC meso-America.

Use	Positional Location of Numeral
Profane uses of chickens	Units
Sacred uses of chickens	tens
Accompanying traits used when BB-BMC is used in curing	100's
Feathers of BB-BMC	1,000's
Chick or young chicken use	10,000's
Egg of BB-BMC used when available	100,000's
Blood of BB-BMC	1,000,000's
Organs of BB-BMC	10,000,000's
Meat of BB-BMC	100,000,000's

Source: Author field data.

pure form; the rest are highly mixed --eighth, quarter, and half breeds predominated. I was told repeatedly that a generation ago melanotic chickens were much more common but, with a recent series of diseases that killed high percentages of barnyard chickens, the only chicks available for replacement have been of commercial breeds. Missionaries, commercial hatcheries, and agricultural extension agents have changed the percentages of the breeds now living. Despite this, some BB-BMC still exist.

Figure 1 portrays the distribution and uses of the BB-BMC among these Indian (and, in some cases, mestizo) groups in Mexico, Guatemala, and Belize. The meaning of the numbers presented in Figure 1 is given in Table 1 for each digit location and in Table 2 for subdivisions of each heading of Table 1 and Figure 1. These nine indices, plotted systematically, use up to nine subheadings under the positional location of numerals given in Table 1. Figure 1 has more than one digit in several of the positional locations for the numerals. That denotes the several uses when more than one use was recorded for a given category of use at a site.

I have endeavored to order the subheadings under each of these sites with the most arbitrary and complex traits receiving the highest numbers. Several of the profane uses of BB-BMC are ubiquitous. Meat and eggs of white-boned chicken (WBC) are eaten almost everywhere now, although the extent of the willingness of people with incipient kwashiorkor to sell chicken meat when they ought to be craving protein may indicate a deeper underlying feeling toward the use of the chicken as meat for themselves than we-or they-are willing to admit. **[end p. 44]**

Table 2. Classification of uses of chickens with special emphasis on BB-BMC.

Units - Profane uses of chickens

1. Feathers used in utilitarian activities.
2. Bone used in utilitarian activities.
3. Egg used as food.
4. Meat of any chicken used as food.
5. Maintain BB-BMC as an ornamental bird for home enjoyment.
6. Cook and eat BB-BMC (especially when it is old) as if it were WBC (white-boned chicken).
7. Head of chicken eaten indiscriminately by anyone in family.

10's - Sacred uses of chicken

1. Cock is considered to be God-given alarm mechanism; "cock never misses the hour in crowing in the morning."
2. Cooked chicken is offered to Saints at family altar:
 - a. eat meat subsequently.
 - b. throw meat away after it has been on the altar.
3. Sacrifice chicken (especially BB-BMC):
 - a. at agricultural plot; chicken is eaten for good fortune after being cooked in field.
 - b. same as in 3.a.; also use copalpom at a cross in center of field, utter incantations, use cacao as libation on field (especially near cross).
 - c. at the foot of the volador pole before Fliers Ceremony.
4. Sacrifice chicken (especially BB-BMC) by squeezing chickens to death in a new house; bury intestines in corner; place piece of foot of the chicken in corner with salt, then malaire does not affect the house.
5. Maintain a BB-BMC in household's yard to counteract brujeria.
6. Black magic is carried out with BB-BMC.
7. BB-BMC is never eaten out of respect for it.
8. Paint BB-BMC blood:
 - a. on inside of coffin in form of a cross.
 - b. on inside of coffin at special spots.
 - c. over entire inside of coffin.
 - d. on poles and beams of house to consecrate it.
 - e. on any tool or instrument to consecrate it.

100's - Accompanying traits used when BB-BMC is used in curing.

1. Curandero drinks beer or distilled ethyl alcohol while curing with BB-BMC.

2. Rosewater or some other similar decoction is rubbed on patient during treatment.
3. Tobacco, ethyl alcohol, ruda, albaca, or some other herb is masticated by curandero and blown on patient during treatment.
4. Special days of week are used for practicing curing acts (Viernes—Friday, or Martes y Viernes—Tuesday and Friday).
5. Incantations and prayers are used during treatment above (1, 2, 3).
 - a. in native language of curandero.
 - b. in language foreign to native language of curandero.
6. Child is wrapped in old, soiled clothes of person who caused the hex; it is used to counter the evil eye.
7. BB-BMC meat to be used as poultice is wrapped in old soiled clothing before its application for cures of spooks.
8. Prayers are offered to four bandos del viento (four corners) against evil winds while curing.

1000's - Feathers of BB-BMC

1. Wing feathers are used in divining with woven material.
2. Feathers are used in curing now because of lack of live birds in cases of "very strong need."
3. Feathers are stuck onto a cross in field.

10,000's - Chick or young chicken use.

1. BB-BMC is bathed; bath water is used to wash patient with fever or evil eye; if chicken dies, patient will get well.
2. BB-BMC chick is rubbed over patient; if chick dies patient will get well:
 - a. this cures evil eye (ojo).
 - b. then throw chick in river, where it is cool, to cure ojo.
 - c. then throw chick in woods, where it is cool, to cure ojo.
 - d. if patient (a child) has a double cowlick, rubbing it stops crying.
3. BB-BMC is boiled after rubbing it on patient:
 - a. patient eats the cooked chick to cure tuberculosis.
 - b. mother of children eats entire young chick to cure loss of more of her children, if some have died.
 - c. chick is cleaned and eaten by eldest child (bones and feathers are buried) to cure fratricide.
4. Throw chick over house nine times til dead; bake it in fire; feed it to child with double cowlick to cure child of "eating" (causing the death) of siblings.

[end p. 45]

100,000's - Eggs of BB-BMC used when available.

1. Feed eggs as food:
 - a. raw and warm from nest to patient to reduce heart attack.
 - b. to postpartum mother to give her strength.
 - c. mixed with herb and applied as poultice (cataplasma) in a cloth to cure fever and vomiting of ojo or any pain.
2. Whole egg rubbed on patient: a. throw egg into woods or river after rubbing to cure ojo.
 - b. egg is then cracked into glass of water and placed under sleeping patient to check for ojo, then thrown in the woods or river to cure ojo.
3. White of cracked egg: a. is rubbed over body of patient to cure evil eye. b. mixed with ruda and fed to child to cure ojo.

1,000,000's - Blood of BB-BMC

1. Drink blood:
 - a. raw to cure weakness.
 - b. raw to reduce fever.
 - c. cooked, remainder of chicken is buried to cure asthma.
2. Paint blood on poles and beams of newly constructed house or other building to protect it from evil spirits or spooks.
 - a. bury rest of chicken in center position in dirt of floor.
 - b. bury only the chicken head in center position in dirt of floor.
 - c. bury only chicken cleanings in center position in dirt of floor.
3. Pour blood around house in ring to give it power.
4. Bathe anything with blood as a means of consecrating it.

10,000,000's - Organs of BB-BMC

1. Place raw and warm organs on pressure points of patient to cure patient of:
 - a. fever; throw meat in mountain or monte or river.
 - b. fright or espanto, or susto; throw meat in monte or river.
 - c. ghost fright; throw meat in monte or river.
 - d. evil eye (fever and diarrhea); throw meat in monte or river.
2. Rub patient with raw, fresh liver to cure fever or chills; throw liver in woods afterwards.
3. Place heart in hole in center of dirt floor in house for consecrating a new house.

100,000,000's - Meat of BB-BMC

1. Cooked in form of soup:
 - a. given to mother for postpartum weakness.
 - b. consumed for pulmonary problems.
 - c. given to guests and workers at time of house or crop consecration.
 - d. given to guests at funerals, celebrations or festivals.
2. Meat of head and neck considered especially powerful when eaten.
3. Meat of feet considered especially powerful when eaten.
4. Raw, chopped meat applied as poultice to pressure points to cure:
 - a. fever.
 - b. fright, or espanto or susto or ghost fright.
5. Chicken cut in half lengthwise:
 - a. wrapped around leg to cure elephantiasis.
 - b. cleaned and applied while still quivering, to bottoms of feet.
 - c. not cleaned and applied while still quivering to side of head or elbows or on stomach to cure fever; bury meat subsequently.
 - d. not cleaned, applied to bottoms of feet, while still quivering, to cure pulmonary or asthma attack of patient.

Source: Author field data.

[end p. 46] Increasing complexity of the posted, numerical trait characteristics on Figure 1 implies greater presence and diversity of BB-BMC use. Other research indicates that these uses are frequently recorded in the literature on Chinese belief systems. Most significant, perhaps, is the finding that many of the most complex beliefs about the BB-BMC are found in the Huasteca of Mexico and are less well known in the Isthmus of Tehuantepec and southwestern Guatemala, then show up again across the base of the Yucatan peninsula from the Chol to the K'ekch'í in Alta Verapaz and spread to the Copán area of Honduras among the Chortí; that is, they are most pronounced in the Mayan dominated regions.

Beliefs that half a BB-BMC placed on the bottom of each foot, while the chicken is still quivering after being cut in half, will cure pulmonary attack or asthma would appear to be fairly arbitrary as is the belief that, if placed on the side of the head, the two halves of the BB-BMC will cure high fevers. The use of blood, meat, or eggs of BB-BMC on pressure points in highly ritualistic ways to counter the evil eye, evil winds, ghosts, fright, and ghost fright are improbable enough that it is likely that they were carefully taught; even the symptoms of the illnesses are the same when compared to the Chinese (Johannessen 1982, 79-83).

All these treatments normally are carried out with various incenses (especially *copal pom*), candles, and incantations by the Maya. I have little direct knowledge of Chinese techniques except that, as a general rule, the Chinese do use incense and candles. The use of ancillary traits of herbs, alcohol, or other decoctions to counter ghosts, fright, spooks in the house, or evil eye or evil winds is certainly widespread and is normally accompanied by incantation and prayers. These are habitually performed when treating with BB-BMC, although incantations and certain herbs alone may be utilized by those more acculturated folk who use no chicken sacrifice as a way of treating or curing.

The fact that these sacrificial practices deal so consistently with cures for the supernatural allows us to claim a high level of arbitrariness for them. This, in turn, makes independent inventions of the trait less likely when comparable traits are found elsewhere, for instance in East and Southeast Asia.

The above traits are relatively easily found in the Chinese literature. In addition to Johannessen's and Fogg's (1982, 73-89) reported translations from the Chinese, another translation of Chinese use of BB-BMC can be found in Groot (1901, 965-70).

An amplification of this diffusionary model is possible as a result of the finding of a Catholic priest in Santiago Tuxtla that BB-BMC are still sacrificed and buried in front of, or under the pole of, the *voladores* at the time of the Fliers Ceremony of Papantla, Veracruz.

John Barr Tompkins, formerly of the Bancroft Library, University of California, Berkeley, studied the *volador* ceremony and has permitted the use of his unpublished manuscript material stored at the University of Oregon library. Tompkins has found four additional citations of the sacrifice of chicken of some unknown type before or under the volador pole. He has, in addition, found many published references to the burial of BB-BMC in India, among [end p. 47] the Gond peoples, and in Southeast Asia, at the base of or under poles erected for communication with the heavens in ceremonial rites that are symbolically comparable to those of the *voladores* of Middle America.

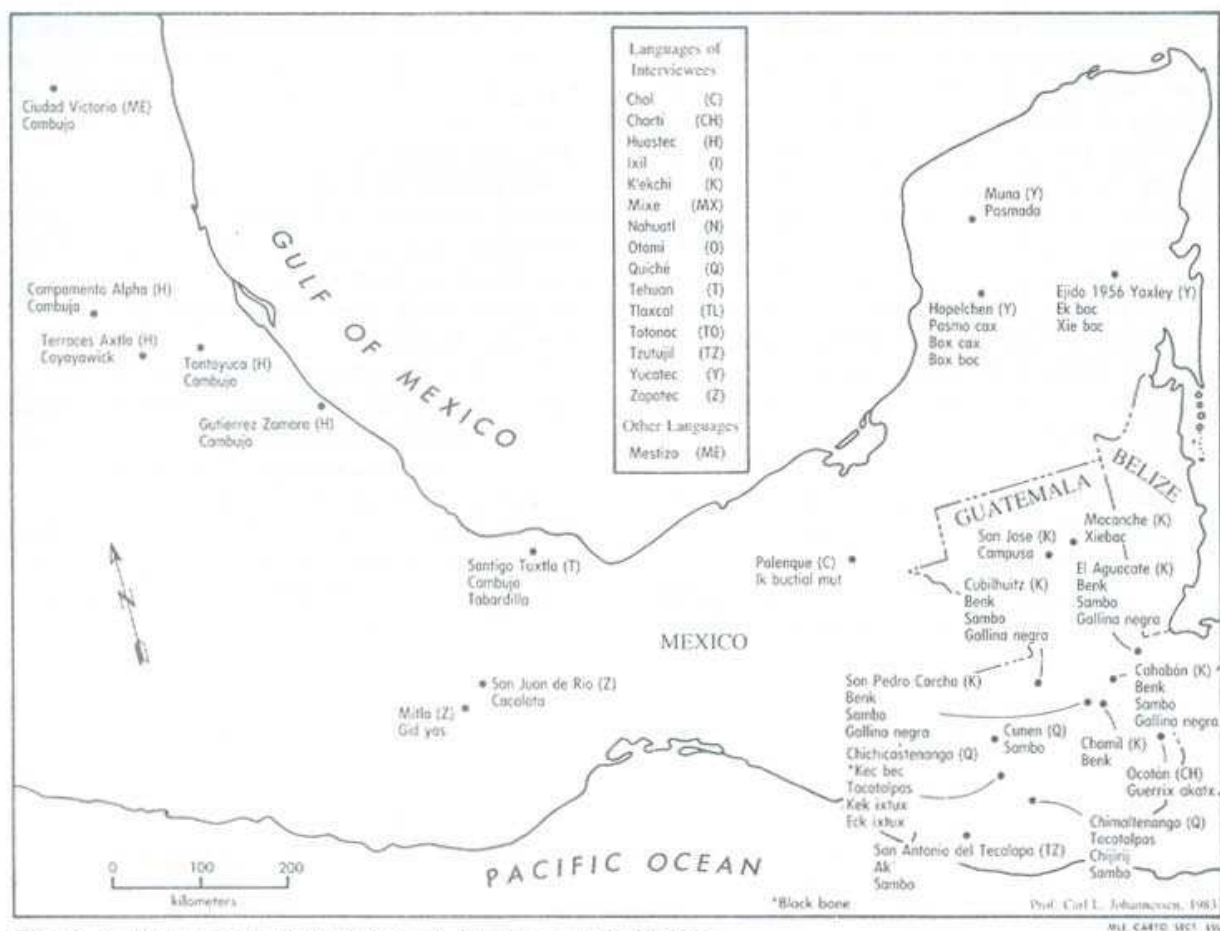


Fig. 2. Indian names of black-boned, black-meated chickens.

Among the Huastec, another Mayan language group, the use of the BB-BMC in curing is very similar to that of the K'ekchi and that of the Chinese. It is within the Huasteca region, additionally, that the main use of chicken feathers has been discovered. More field work is needed to fully investigate their practices.

The 800 km separation of the Huastecs of the eastern part of San Luis Potosí state, Mexico, from the remaining Mayan language groups centered in Guatemala took place approximately 2,500 years prior to the arrival of the Spaniards (Wolf 1959,38; Coe 1966, 32; Thompson 1966, 28). People in the intervening area have little knowledge of the sophisticated use of BB-BMC in curing, whereas the Huastecs and some other Mayan language groups know of and use BB-BMC with the same intricacy employed by the southern Chinese. By using this ancient, documented separation of one group from another, we have a probable measure of the minimum age of the presence of the chicken in the Americas.

Critics of my hypothesis of pre-Columbian presence of BB-BMC suggest that BB-BMC was introduced in the sixteenth century by the Spanish-Manila trade. I find it impossible that Spanish ship captains could have allowed Chinese curers with BB-BMC aboard their ships during the time of the Inquisition and in direct violation of the Crown's edicts that only Catholics in good standing could enter New Spain-and Spanish America. Even if the captain would have, his superstitious crews would not have sailed knowingly with BB-BMCs on board. It is also difficult to imagine that after Spanish colonization the proposed introduction of the BB-BMC would have taken place only among the Mayan language groups. It is logical, on the other hand, that if the early Mayans had it, and they separated into two groups, both groups would maintain the same curing ceremony.

A large number of distinct names for the melanotic type of chicken exist (Table 3, Figure 2). The common name in the Indian languages for chickens generally is unrelated to any European words and roots. The implication from this evidence is, there- [end p. 48] fore, that the chicken was present in the Americas long before the Spanish occupation.

In the past the findings relating to pre-Columbian New World chickens-WBC and BBC-by Castelló (1924,111-18) and Latham (1922,1-199) were denegated because the North American reesearchers, such as E. D. Merrill (1954, 164-384), thought they had destroyed the positions of Castello and Latham by showing that blue egg-laying chickens were found to

occur occasionally in the United States poultry industry. Apparently these critics neglected to read the original Spanish or to read the footnotes to Spanish documents that supply proof of the presence of chickens at the time of Spanish contact. Castelló (1924, 111-18) and Latham (1922, 1-199) both point out that when the Spaniards first contacted Indians in South America, the Indians frequently brought chickens as gifts.

In addition to discussing the Amazon, Paraná, and Andean river systems, the Castelló and Latham references show that Asiatic chickens were present on Easter Island at the first, second, and third known European contacts. Since chroniclers such as Bernal Díaz del Castillo (1966, vol. 1, 148, 150, 154, 159, 160-61, 164, 180, 181, 200) claimed that the Indians of New Spain also had chickens, I am led by this research to question the widely held view that the Spaniards were the first to introduce chickens into the New World.

Roys (1965, 25~26) noted that the Yucatecan Mayan word for asthma is *coc* and the asthma bird is *coco* or *coc*. He also translates the Mayan word *Kuk* as *quetzal* in incantations for curing "red ulcers" and, in addition, noted that *Kuk* may equal "shoot," "sprout," or "Quetzal," whereas *Kukulcan* equals *Cuculchan* and may be related to *coco-chan*, which is Trogon-serpent (Roys 1965, 136). The similarity of sound between *coc* (Mayan) and *Kuk* (Asian), both of which have a relation to the cure of asthma in these cultures, provides a lead that should be further investigated. Regarding the incantations for eruptions, fever, and seizures, Roys (1965, 36) translated the following from the Mayan:

"These are the birds, these are the birds of tidings (*mut*), of eruption." Interest centers on the word *mut*, which is a part of the name for the BB-BMC used in the Chol language areas. I feel that these later tenuous bits of information add to the earlier evidence that chickens were in the New World when Europeans arrived in 1492.

CONCLUSIONS

The Oriental BB-BMC is widespread in Mexico and Guatemala (and South America, also). It is utilized as the core totem in the treatment of diseases attributed to supernatural causes. These diseases have similar descriptions in both Chinese and Mayan cultures. Ancillary techniques or treatments accompanying the use of the BB-BMC curing of these same diseases are similar among traditional Maya and Oriental peoples.

Of the people speaking Mayan-derived languages who have the most intricate medicinal application of BB-BMC, the Huastecs are separated by 800 km from the contiguous Chol, K'ekchí, and Chortí. The intervening and adjacent Indian cultures between the Mayan-speaking Huastecs and the Chol and K'ekchí do not have nearly as complex beliefs in the utility of the BB-BMC. The separation of the Huastecs from the other Mayas took place approximately 3,000 years ago, and I postulate that they had the BB-BMC at that time.

Six basic Indian names and eleven variations on these are found in the region (Table 3). Several of the latter derive from some combination of the Mayan words for black, but the number of basic names unrelated to color and the complexity of the names are sufficiently high to suggest considerable antiquity for the black-boned, black-meated chickens of Mexico and Guatemala.

NOTE

1. As principal investigator, I received, with May Fogg and Wayne Fogg, a grant from the National Geographic Foundation for field investigation, during August and September, 1976, of the distribution and use of the BB-BMC in Mexico, Belize, and Guatemala. In the summer of 1977 National Geographic Foundation again funded my study and the Graduate School of the University of Oregon provided financial assistance which allowed me to continue this research in Hawaii, Samoa, Tahiti, Easter Island, Chile, Bolivia, Peru, and Ecuador.

ACKNOWLEDGMENTS

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