

## Illness and Healing among the Maya in the Colony according to "El Ritual de los Bacabes": Change and Continuity<sup>1</sup>

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**ABSTRACT** The ritual of the Bacabs is a collection of chants and medical prescriptions transcribed in Roman characters from a hieroglyphic manuscript written by the Yucatec-Mayas. The beautiful incantations written in a literary and cryptic style provide rich information for a better understanding of their ancient civilization. This contribution departs from the linguistic and semi-otic analyses of the literacy and esoteric texts and offers an insight into the practice of medicine. Etymologies allow us to understand their cosmogony better, and in particular, to capture in some manner their knowledge of everything regarding diseases and healing; etiology, the classification of pains and illness, its therapy, as well as its relation to social, supernatural and the physical environment in general.

### METHODOLOGICAL CONSIDERATIONS

A constant preoccupation of humanists and social scientists, particularly in recent times, has been to start from solid frames of reference that permit us to process data adequately, and to elaborate structured explanations in a coherent manner. A good part of this intellectual exercise entails a group of norms that regiment the phenomena under investigation, as well as a heuristic that in some cases is expressed only implicitly and in most appears peripheral or neglected.

Throughout this exposition I will try to surpass the epistemological analysis of the theme that we are concerned with, achieved in terms of its own language and as a reflection of the culture in which these phenomena are found to be immersed. In other words, remarks will be made that are necessary and appropriate to indicate the specificity of the phenomena under investigation and their intra-cultural interpretation, in contradistinction to those elements that surpass culturally specific barriers and that manifest themselves in a more encompassing analytic realm.

Notwithstanding the serious difficulties of conceptual nature inherent in studies of this nature, as will be noted in the ordering and describing of data, it is important to highlight two important advantages. On the one hand, at our disposal is an important linguistic corpus, processed electronically, which aids us enormously in: handling the lexicon, the syntactic structure of literary and codified language, and, to a lesser extent, the pragmatics or contextual relations, spatio-temporal as well as social. On the other hand treading into the realm of diachrony, we can more easily corroborate or refute whatever hypothesis, through the comparison of materials in the threshold toward either the pre-Hispanic era or the twentieth century. In "The Ritual of the Bacabs" it is explicitly mentioned and frequently reiterated that the texts correspond to transcriptions of hieroglyphic documents, which are constantly evoked calling them "glyphs of the skies," "glyphs of the clouds," and which are appealed to concede the significance of the symbols.

Without pretending to offer a comparative diachronic study, this work will point to significant changes to date. The approach that will be followed here will be one that departs from those basic concepts expressed lexically in the Maya cult of these healers. Etymologies allow us to understand their cosmogony better, and in particular, to capture in some manner their knowledge of everything regarding disease and healing: etiology, the classification of pains and illness, its therapy, as well as its relation to social, supernatural and, physical environment in general.

The results of observations based on empirical material and the efforts to describe those phenomena in question in their own terms are intended to contribute to a better explanation of the studied phenomena presented in a manner closer to its

immanent structure, to the extent to which our point of departure differs from already established models or cannons which bring with them the risk of ethnocentric focus, that is to say, foreign to the culture, which is the object of study.

### TOWARDS A MAYA NOSOLOGY

As a basic premise of our investigation we will establish that illness emerges from a rupture of a quasi-equilibrium maintained between man, his environment (as much social as natural) and the supernatural. An individual or a supernatural force can break the established order, be he a wizard or a deity, in the form of a bad wind. The re-establishment of order or the return to health can only be achieved through a *curandero* (healer) or medicine priest with eventual shamanic or psychiatric function.

The medicine priest has recourse to the use of medicinal plants, animal products or minerals for curing illness. In other cases, he has recourse to verbal rites. With the help of these he transports himself to the dwelling of supernatural beings who are the cause of the illness, in order to counteract their force or even annihilate them. Furthermore, this carries out a very important social function with respect to the medical patient which we will see more of below.

The wizard breaks the established order by sending aches, parasites or mental disorders to his own kind. It is appropriate to note that the generic term used for wizard is *ah pulyaah* which literally translates as "he who casts pains and disease" and the *Calepino de Motul* (*Motul dictionary*) offers us a long and significant list of specialists or professionals of this branch of knowledge:

- ah pulyaah...*  
*hechicero en general, que hace enfermar.*  
*[wizard in general].*
- ah pul abichkiik...*  
*hechicero que hace que uno orine sangre.*  
*[wizard who causes blood in the urine].*
- ah pul abichpuu ...*  
*hechicero que hace orinar materia. [wizard who causes pus in the urine].*
- ah pul auat, ah pul auatmo,....*  
*hechicero que hace dar gritos a los niños.*

- [wizard who causes children to scream].*
- ah pul cimil...*  
*hechicero que hace enfermar a otro. [wizard who causes sickness in others].*
- ah pul chubchii...*  
*hechicero que hace que no mamen los niños. [wizard who makes children refuse the breast].*
- ah pul holoktaa...*  
*hechicero que hace que uno se vaya de caminos sin sentir. [wizard who causes repeated involuntary stools].*
- ah pul kazab...*  
*hechicero que arroja estangurria. [wizard who causes strangury].*
- ah pul kantzac...*  
*hechicero que hace el hechizo llamado kantzac. [wizard who causes the spell called kantzac].*
- ah pul nachbac, ah pul nachbacmax,...*  
*hechicero que arroja h,ética. [wizard who causes consumption]. [Calepino de Motul: f. 026v].*
- ah pul nok tii yit uinic*  
*hechicero que arroja gusanos. [wizard who casts worms].*
- ah pul uenel...*  
*hechicero que hace adormecerse. [wizard who causes sleep].*
- ah pul xankiik...*  
*hechicero que echa flujo de sangre a las mujeres, ...[wizard who causes bloody flux in women]. [Calepino de Motul: f. 027r].*

The elements used to cure illness or to cause it are not necessarily different. It is appropriate to recall that the word *dzac* means medicine as well as poison, that is to say that the same medicine can be used to alleviate an illness as well as to cause it, depending solely on the dosage. This is similar to the use of the word "drug" currently. (Imagine nothing more than a mandate or official law that would hold us to a literal meaning of "SAY NO TO DRUGS"!).

Since we will not be carrying out a systematic comparative study of Maya and Western medicine, establishing relations of subordination or of supra ordination is not an issue. Neither to point out degrees of primitivism, modernity or

superiority. The relations between diverse types of illness, medicine, healing, as well as degrees of complexity and professionalization of those dedicated to this discipline of knowledge, will be analyzed with respect to their own *Weltanschauung*.

Thus we begin making a clear distinction between the pathological concept of DISEASE and that which is defined in cultural terms which we will denominate as ILLNESS. It is to this type of health disorder to which we will refer primordially. In this regard, we will follow Fabrega's definition:

An illness is defined as a certain type of behavioral disruption, which consists of symptoms of various types together with impairment in psychosocial functioning. Illness is set apart from non-illness on the basis of cultural conventions, both classes of phenomena (i.e., illness and non-illness) embracing deviant, undesirable and disvalued states of the individual." (Fabrega, 1978: 13).

It is appropriate to emphasize in this context that Western medicine has grown out of that which we could label a biomedical system of medicine. It is within the frame of biomedical theory of disease that one attributes a central importance to physiological, chemical and physical changes that take place in the corporeal system of the individual. These are the factors that are conducive of the characterization of the concept to disease. Given that an individual can lack the symptoms of a disease, our goal of analysis is to concentrate on the socio-cultural conditioning of illness of the Maya during the colonial period. More explicitly, our principal preoccupation is to achieve an adequate point of reference that takes into consideration elements more relevant to a partial theory of Maya medicine. All of this implies the development of a system situated in its socio-cultural environment and considered in a historical perspective.

We begin, therefore, by observing the basic terms used in this semantic field: the word for health is *toh olal* and according to the Calepino, is equivalent to "salud consuelo o consolación, paz y quietud del corazón" (health, consolation, peace and quiet in the heart). The morpheme *toh* "straight, even, right", modifies the substantive *olal* "spirit, soul, will, disposition", such that the

expression is used to describe someone who experiences a "estado de buen ánimo, de buen humor, de vigor, de estabilidad emocional" (state of good spirits, of good humor, of vigor, of emotional stability). In contrast, to define the opposite state, there are three distinct terms that we can call illness: *kohaaniil*, *kochil* and *tancazil*; to all these we have to add the generic term *kinamil* (*kinam* or *kinami*).

In all of these cases, the suffix *-il* (or its variant *-i*), functions as a "relator or nominalizer", while the morpheme *koh* means "mask", and the past participial suffix *-aan* refers to the diseased; in other words, the designata are "a aquel de semblante distinto, melancólico, de ánimo decaído" (to him with a distinct countenance, melancholic, of fallen spirits). With respect to the second term, the root indicates a reference to "culpa" (fault, culpability), since its basic meaning is "cargar o llevar a cuestras" (to carry or carry the burden). The Calepino clearly tells us that *koch* is a "enfermedad como efecto de la culpa" (illness as a result of guilt) (Motul, 249v).

The third concept of ILLNESS deserves special attention every time that it appears reiterated in the "Ritual of the Bacabs". The word *tancazil* emerges from the basic form *tamcazil*, whose morphological analysis leads us to *tam-ac-kazil* "deep, deep-seated, infernal + past participle + annoyance, affliction, malevolence, abnormality, evil". The gloss that it offered in the Calepino for this word is "locura rabiosa o frenesi" (rabid craziness or frenzy) and derives from:

*Tamacaz* ...envaramiento o pasmos de gota coral, epilepsia o enfermedad de frenesi que enmudece, entontece y ensordece al que la tiene. [spasm, epilepsy; or illness characterized by frenzied excitement during which the patient becomes mute, dumb and deaf.] [Calepino de Motul, 409v].

As we can see above, *tamacaz* is defined as spasm, epilepsy, or illness characterized by frenzied excitement during which the patient becomes mute, dumb and deaf.

The word *kochan* "enfermo" (ill) appears only once in the Ritual of the Bacabs, and with its corresponding plural form, there are a total of two occurrences. The word *koch* in the sense of "culpa o enfermedad por culpa" (illness as a result of guilt) does not appear at all, which makes us suspect a western origin. However, the lexical

item *tancaz* is found 123 times in the aforementioned work.

At this point it is appropriate to make a typology of the illnesses and consecutively one of the respective individuals in charge of curing them. In the first category we include the great majority of aches, pains and illnesses that appear in "The Ethno-Botany of the Maya" by Ralph L. Roys. It is a rich collection of medical prescriptions for curing diverse "(aches and pains, asthma, bites and stings of animals, bleeding, bowel complaints, burns, cupping, dislocations and complaints of the bones, ear complaints, eye complaints, diseases of the scalp, complaints of the head, inflammation, jaundice, complaints of the mouth and tongue, complaints of the nose, poisoning, skin diseases)", among others. The list is made up of texts extracted primarily from "Yerbas y hechicerías del Yucatán" and other works by Ricardo Ossado, alias "El Judío" ("The Jew"), as well as from the Chilames of Ixil, Nah and Sotuta. These diseases are characterized for being intimately related with diseases easily identifiable empirically and that correspond to the so-called "natural," "non-supernatural" or "empirical" (Cfr. Foster and Anderson, 1978: 54). The "pharmacopoeia" related to this type of therapy includes first of all "herbolaria" (herbs) in addition to animal and mineral substances. The tradition that extends to this date and is practiced by the so called "curanderos," "h-menes," (or xmenes, said in a pejorative manner), "yerbateros" (herbalists) and "kax-bac," among others. The writing of the texts on (healing) "curación" and "recetas médicas" (medical prescriptions) have a colloquial narrative character, with transparent denominations for designating the "enfermedades o dolencias" (illness, aches or pains), that is to say that they are named or described, without having to invoke proper names or esoteric terms.

The incantations and prescriptions (the curative "conjuros" entrancing texts) of "El Ritual de los Bacabs" belong to the other category. The type of "enfermedad" (illness) described therein, correspond to the *tancaz* that possesses the following distinctive features:

1. Frequent mention of "fiebre, delirio, alucinación, frenesí." (fever, delirium, hallucinations, frenzy). The "pharmacopoeia" makes con-

stant reference to anesthetics such as *tancazche* or *Zanthoxylum fagara* (L.) Sarg or to hallucinogens or, like are the *bacel ac* or *bacel ak* *Psychotria microdon*; the *xanab mucuy* or *Euphorbia hirta* and *telel ku, telez ku, sicli much* or *xlopo ic*, from the family of "solanáceas" (*solanum*). The secretions of the *puk, ppu, ix ppu* or *ix puu*, "puffer fish"<sup>2</sup>

2. A textual coherence that makes explicit mention of the name of the "enfermedad" (illness) its etiology and enunciation of the malignant deity or deities, causing evil; diagnostic, therapy or alternative therapies and a mention of the dues to be paid.

3. A ritual atmosphere expressed through a rich religious lexicon and a great creative capacity for using language with therapeutic ends, recurring in such a way to convince the patient about the strength of the medicine priest to fight against supernatural forces, as well as his ample medical, religious and literary knowledge.

4. A very able use of rhetoric, with a richness of rhetoric resources, among them refrain and the use of synonymic expressions to yield hypnotic effects on the patient (Cfr. Arzápalo, 1986).

5. A long philological tradition, buttressed on the testimonials expressed with certain frequency in the "El Ritual de los Bacabs", where we are told that *uoh ci bin u nuc than* "The glyphs will give us the answer" (VII.40.219); *uoh tii caan, uoh tii munyal* "Glyphs of the skies, glyphs of the clouds" (VII.42.287-288); *he bacin u uayasba* "These are their meanings ..." (VI.31.40-41).

6. The practice of a holistic medicine in which "herbolaria" (herbalism), hydrotherapy, religion, sociology and psychotherapy to give us as a result an integrated psychosomatic therapy.

The sketched outline for this type of medicine allows us to classify it as "professional medicine," to differentiate it from the other of greater accessibility, of a more domestic nature, simple in its linguistic expression, that is to say, lacking poetic resources; this "popular medicine", with oral tradition implications, is what will "set the stage" opening up a space for "folk medicine or "Maya medicine" of the twentieth century, sometimes disrespectfully called "peasant medicine," "Indian medicine," "yerbatero-medicine" or even

"primitive medicine". In losing some of its features from written tradition, this "professional medicine" from pre-Hispanic times fuses with "folk medicine," yielding to it some of its characteristics such as those of ritual, magical and psy-

chotherapeutic character, and the use of a cryptic lexicon.

Lets look closely at the sixth text of our ritual in question entitled "The Spell for Curing Erotic Seizure":

| Text VI                            | Folio No. 30                             |    |
|------------------------------------|------------------------------------------|----|
| U thanil nicte tancas <sup>3</sup> | The spell for curing erotic seizure      | 1  |
| Coconac u than uinic               | There is incoherent speech               | 2  |
| tu menel chacuile.                 | because of [high] fever                  | 3  |
| Tacitac yalcab uinic               | and an impulse to run,                   | 4  |
| tu men u coil xan.                 | surely caused by madness.                | 5  |
| Hunuc Can Ahau <sup>4</sup>        | Hunuc Can Ahau, "Unique<br>Four Ahau"    | 6  |
| kin lic u c abtabal                | is the day to destroy                    | 7  |
| hunac ah kinam.                    | this particular illness.                 | 8  |
| Can u hol                          | They began                               | 9  |
| u yax ulbal                        | to emerge gradually                      | 10 |
| uchcu sihil                        | until they were born;                    | 11 |
| u coolal <sup>5</sup>              | they were pulled out                     | 12 |
| u cool c ab.                       | they were created.                       | 13 |
| Can edzlic                         | They were firmly<br>established          | 14 |
| u chacal kabalil <sup>6</sup>      | the red substance                        | 15 |
| u sacal kabalil.                   | the white substance.                     | 16 |
| Uchci u sihil                      | The creation                             | 17 |
| ix on <sup>7</sup>                 | of the male member                       | 18 |
| ix nicte.                          | and of the female organ took place       | 19 |
| Uchci u sihil                      | This is how the creation                 | 20 |
| dzunun nicte. <sup>8</sup>         | of the soft part of the woman took place | 21 |
| Tii tu bacin                       | It is there that                         | 22 |
| tu chah.                           | he copulated.                            | 23 |
| U hol acan/                        | He began to breathe deeply               | 24 |

  

| Text VI                        | Folio No. 31                         |    |
|--------------------------------|--------------------------------------|----|
| pu dbal yokol.                 | and to slide his body on top of hers | 25 |
| Bax tun bacin                  | Is there                             | 26 |
| u uayasba                      | any symbol                           | 27 |
| tin chucci                     | that I have found                    | 28 |
| chacal patix uinic             | for the man's red piece of flesh?    | 29 |
| sacal patix uinic.             | for the man's white piece of flesh?  | 30 |
| Oxlahun <sup>9</sup>           | Thirteen times                       | 31 |
| sutlic u sut                   | the patient must turn,               | 32 |
| tan yol caan                   | gazing up at the sky.                | 33 |
| tilic u kamchictic             | On an empty stomach he is to receive | 34 |
| chac ix chichibe <sup>10</sup> | the red chichibe,                    | 35 |

|                                        |                                       |    |
|----------------------------------------|---------------------------------------|----|
| chacal kutz                            | the red tobacco,                      | 36 |
| sacal kutz.                            | the white tobacco.                    | 37 |
| Tan bacin                              | I have just now                       | 38 |
| tin chucci.                            | perceived them.                       | 39 |
| He bacin                               | These are                             | 40 |
| u uayasba                              | their meanings;                       | 41 |
| chacal bacalche <sup>11</sup>          | the red bacalche                      | 42 |
| sacal bacalche.                        | and the white bacalche.               | 43 |
| U uayasba                              | I have steeped                        | 44 |
| tin dzamah                             | the plants,                           | 45 |
| u ciinte.                              | so he will drink [the potion]         | 46 |
| Sac nictē <sup>12</sup>                | Let the sac nictē, "white plumeria"   | 47 |
| u tas u uay                            | lend us its essence;                  | 48 |
| sabac nictē <sup>13</sup>              | let the sabac nictē, "black plumeria" | 49 |
| u tas u uay                            | lend us its essence;                  | 50 |
| [xkan] <ix kan> mukayche <sup>14</sup> | let the yellow cochineal              | 51 |
| u tas u uay /                          | lend us its essence,                  | 52 |

|                           |                                                       |    |
|---------------------------|-------------------------------------------------------|----|
| Text VI                   | Folio No. 32                                          |    |
| u tial bacin              | so that [together]                                    | 53 |
| yetel u kab               | with the juice                                        | 54 |
| chichibe                  | of the chichibe                                       | 55 |
| yetel u kab               | and the juice                                         | 56 |
| sac nictē                 | of the sac nictē, "white plumeria"                    | 57 |
| tin amah yuke.            | I can steep them (for the patient) to drink           | 58 |
| Chee                      | Hey, take heed!                                       | 59 |
| Ten [c liba] <c lub a>chu | It is I who will undo thy spell                       | 60 |
| Yum Ac Uinic Ik           | Yum Ac Uinic Ik, "Pigmy Wind God"                     | 61 |
| yetel Nictē Tancas        | and Nictē Tancas, "Erotic Frenzy"                     | 62 |
| Pakte abin alabal         | Both must be named                                    | 63 |
| yokol uinic.              | to cure the patient.                                  | 64 |
| Hach co u than            | His speech is incoherent                              | 65 |
| alcab u [can] <caah>      | he feels the impulse to run,                          | 66 |
| hadzaan tu men ik.        | [meaning] tha he has been attacked by an<br>evil wind | 67 |
| Lay bin alabal yokol      | This must be said to cure him,                        | 68 |
| caaten bin alabal         | twice it must be said.                                | 69 |
| [ca] <caa> tu [hopoc]     | Then one begins                                       | 70 |
| <hoppoc>                  |                                                       |    |
| u tokol yak               | to bleed the tongue                                   | 71 |
| [ti] <tii> ye ci.         | with a henequen thorn.                                | 72 |
| Yetel chumuc u pach       | Water must also be                                    | 73 |
| caa tun c inhatabac       | splashed over his back,                               | 74 |
| tii cho haa.              | leaving it dripping.                                  | 75 |
| Amen. <sup>15</sup>       | Amen.                                                 | 76 |

The structure in this text of healing or incantation can be established therefore in the following way:

| Content                                               | Folio.line            |
|-------------------------------------------------------|-----------------------|
| 1. Title                                              | 30.01                 |
| 2. Diagnosis                                          | 30.02-05              |
| 3. Date of the cure                                   | 30.06-08              |
| 4. Genealogy of the sexual organs                     | 30.09-24, 31.25       |
| 5. Symbol of the sexual organ                         | 31.26-30              |
| 6. The corresponding prescriptions of other medicines | 31.31-37              |
| 7. Mention of other symbols                           | 31.38-43              |
| 8. The corresponding preparation of other medicines   | 31.44-52,<br>32.53-58 |
| 9. Exorcism of the evil winds                         | 32.59-67              |
| 10. Conclusion of the treatment                       | 32.68-75              |
| 11. Farewell                                          | 32.76                 |

Another type of spell that we consider interesting to offer at this point is that referring to the importance of man, with a strong psychotherapeutic content. For obvious time reasons, we will present only the English translation.

The text for a man's erection / Holy Jesus! and Mary! / What can be the meaning of the swollen belly? / Oh! / It must be the golden rattle / of Ix Hun Ahau "Goddess One Ahau" / What can be the symbol / of thy tail? / Oh! / It must be the golden spindle / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted into thy skin? / It must be the bright red mat / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted into thy vertebrae? / It must be the golden rosary / of Ix Hun Ahau, "Goddess One Ahau". / What can be the meaning / of thy ribs? / They are the golden comb / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted into thy intestines? / It must be the sacred / cotton tassels / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted into / the nerves / along the back? / It must be the cotton balls / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted / into thy neck? / It must be the trunk / of the golden tree / of Ix Hun Ahau "Goddess One Ahau". / What can be the meaning / of thy head? / It must be the golden gourd / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted into thy ears? / It must be the sacred earspools / of Ix Hun Ahau, "Goddess One

Ahau". / What can it be / that was inserted into thy eyeballs? / It must be the golden *sihom* beads / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted into thy nose? / It must be ... the golden female stench / of Ix Hun Ahau, "Goddess One Ahau". / What can it be / that was inserted into thy teeth? / It must be the sacred needles / of Ix Hun Ahau, "Goddess One Ahau" / What can be the meaning / of thy throat? / Ah!, it must be / the vagina / of Ix Hun Ahau, "Goddess One Ahau". / What can be / the symbol / of thy tongue? / It must be the sacred excrement / of Ix Hun Ahau, "Goddess One Ahau". / What can be the meaning / of thy breath? / Ah!, / it must be the anus of / the spirit of Ix Hun Ahau, "Goddess One Ahau". / Amen./

From the previous text, we can deduce that we are dealing, undoubtedly, with a magical spell for inducing the patient into realizing an inhibited sexual function, fettered by adverse and self-defeating thoughts, recover erection and restate confidence into the patient, something that he really needs.

Everything seems to indicate that the subject is lying down naked and that the medicine priest starts to touch him and massage him all over his body. At the same time the medicine priest slowly and with a persuasive and suggestive voice repeats his magical spell. As it can be observed, there is a systematic and monotonous recital which invokes Ix Hun Ahau, the "Goddess One Ahau", omnipotent major goddess, all

precious, which is why gold is alluded to; from the paraphernalia of the goddess, to her divine body, the medicine priest introduces her subtly and symbolically into the body of the patient, as his hands apply massages in the specific place on the patient's body.

The medicine priest has the supernatural power of uniting, distributing and measuring the forces of the microcosm represented in this spell as the divine power of Ix Hun Ahau. The forces arrive through his mediation to the microcosm-patient body to infuse in it the strength and security in order to transform the sexual inhibition in an optimal erection for satisfaction. This highlights the fact that this therapy makes the patient identify with the parts of the goddess, especially embodying in him through identification, forced by the medicine priest, the erotic parts that define the female: vagina, smell, excrement, and the sacred stench as well as the anus of the spirit of Ix Hun Ahau.

The medicine priest, through identification with the woman-omnipotent goddess, makes the patient tolerate her feminine parts and relate better with the woman to resolve conflicts with her sexuality. Language plays a central and decisive role in accomplishing this goal. The phrases and key terms used for therapy, are manifested through couplets and are enunciated with a splendid and effective rhythm. They constitute at a rhetorical level, the result of an extraordinary use of short vowels, long vowels, and of vowels followed by a glottalic closure with its magical effect of echo vowel. All of this with the end of producing in the patient an impacting and therapeutic effect.

The diverse sensory impressions are gradually evoked, by way of linguistic elements that cross the paths of polisemy and synonymy, until we arrive at metaphor and finally, as we have already noted, to synesthesia.

It is through this culturally conditioned poetry of great symbolic content, that the medicine priest brings us into the mythic world, with the help of his great poetic ability - deep religious as well as medical knowledge and, it is fit to stress, his dexterity in the use and manipulation of magic.

Among the therapeutic rituals of the colonial epoch, those of magical - verbal character such as the text for male impotence we just ana-

lyzed stand out. The rest are of magic - pharmacological character, exemplified through healing such as that of erotic trance. We also find in the last texts of healings in "The Ritual of the Bacabs", rituals of a more pharmacological nature (Cfr. Textos, LXI, LXII, LXIV, LXVI and LXVIII).

In addition to the innumerable quantity of medicinal plants utilized in therapeutic medicine, animals such as the puffer fish and the rattlesnake, the deities or bad winds play a central role. Frequently the illnesses are named after the deity or the bad wind and even the medicinal plant. It suffices to point out some of them: *Chacal Coc Che* Smilax mexicana, Griseb; Smilax spinosa, Miller; *Chacal Hun Pedz Kin* Tillandsia sp.(?); *Dzagal Bac* Ruellia inundata H.B et K.; *Hauay Che* Ageratum littorale, A. Gray; y la *Kan Chikin Che* Pricamnia antidesma, Swartz. We must remember that for genital infections, characterized by the reddening of the skin, an ingestion of corn meal "masa" with mushrooms (the beginning of antibiotics) as well as achiote "annatto" (Bixa orellana, L.). And for jaundice or *kan chikin*, the seeds of *tuch* Lagenaria siceraria, Standley, and *kan chikin che* Pricamnia antidesma, Swartz, for their yellow color, are used. In this way, the principle of Similia similibus curantur (likes are cured with likes) follows.

The lexeme *kin* "sun" appears 183 times in "The Ritual of the Bacabs" and the word *kinam* "fuerza, rig or, dolor, enfermedad" (strength, rigor, pain, illness) appears 85 times. Nevertheless, and strange, for a people with a great interest in astronomy, we do not find explicit mention of the stars, in relation to sickness, with the exception of "The Pleiades" that emerge in the third healing text where we are told that: "It is also said that it came from the constellation *tzab* "The Pleiades";...".

A little known aspect that deserves more attention is that of preventative medicine. We do not know, for example, if the Maya knew about and applied the use of contraceptives and elements or methods that cause sterility. In Elois Ann Berlin research about "Aspects of Fertility Regulation Among the Aguaruna Jivaro of Peru," we are informed about the use of *uhú-shnum* (Euphorbiaceae, Croton, sp) as a contraceptive and of *untukán* (Solanaceae, Solanum siparunoides) to cause sterility. (Cfr. Berlin, 1985: 132). It would be interesting to research not only if

plants stemming from the euphorbiaceae and solanum families used by the Maya have these properties and if so, the level of knowledge they had about them in this respect.

In treating any aspect related to the "The Ritual of the Bacabs" the great importance that this document has for the understanding of Maya writing must be underscored. We will only present an example of how the periphrastic

From the diverse contexts in which the term *akab* appears, we find the following glosses: "lust, impregnate (moisten, lubricate)" and "night". In folio No. 204 the metaphor "entrance of darkness" appears, equivalent to a maternal cloister or womb and immediately afterwards a cave is mentioned. It follows that *actun* means in Maya "cave, masonry house" and from there the link to the Nahuatl term *calli* and its corresponding

|                          |                                            |     |
|--------------------------|--------------------------------------------|-----|
| Text III                 | Folio No. 15                               |     |
| Can Ahau bin akab        | that Can Ahau, "Four Ahau" gave in to lust | 10  |
| ca sihi                  | when the essence                           | 11  |
| u yol chab               | of fornication                             | 12  |
| u yol akabe.             | the essence of lust appeared               | 13  |
| Text XXVI                | Folio No. 134                              |     |
| Max tah chabi            | Whom didst thou engender?                  | 13  |
| Max tah akabi.           | Whom didst thou impregnate?                | 14  |
| Text XXVI                | Folio No. 135                              |     |
| Yanac [xu] <xub> uilal   | This is the purpose of their cunt,         | 39  |
| yanac [xu] <xub> pak     | their cunt is for fornication              | 40  |
| u [col] <cool> chab      | for the lechery of fornication             | 41  |
| u [col] <cool> akab.     | in the lechery of darkness.                | 42  |
| Text XLIII               | Folio No. 204                              |     |
| [tux] <Tuux> hokech      | Where didst thou emerge from?              | 207 |
| Tu hol tan akab.         | From the entrance of darkness              | 208 |
| Actun kuchi auat         | Screams reached down to the cave           | 209 |
| [ti] <tii> metnale kuchi | screams reached down to the underworld;    | 210 |
| a uauat.                 | [they were] thy screams.                   | 211 |

phrases and the intra-linguistic translations help us in the understanding of the literate language used in writing and broadens our field of vision with respect to Meso-Americans.

The third day of the Maya calendar corresponds to *akbal* "night" and has as its counterpart in the Mexica (Aztec) calendar the glyph for *calli* "house". Said this way, the difficulty in establishing cognatic relationship emerges. Nevertheless, we observe the following expressions of "The Ritual of the Bacabs":

glyph on the calendar. It is only left to add that *ak* means "the vulva, vagina", as well as moist, fresh, tender.

## CONCLUSIONS

For a conclusion I will sketch the lines of investigation that I consider being the most relevant for the study of Maya medicine:

1. A semiotic study of the written and verbal signs in their socio-cultural context and with a

historical perspective, that is to say, that it go much further than linguistic analysis. This will allow us to situate terms such as hot/cold, "santiguar" (Cfr. Hanks, 1984), "ojo" (eye), etc. in their appropriate dimension.

2. The establishment of illness in the Maya context and its connection to disease as defined from a biomedical point of view.

3. Knowledge of cosmogony, studied through its cultural epistemology and symbolism inherent to the whole curative process that implies the whole chain of phenomena ranging from illness, to therapy or diverse therapies, to its final healing.

4. The constitution of the institutionalized medical system as a product of the society in which it is immersed: traditional or domestic system vs. the professional or literate system.

5. A pharmacological study of the plants mentioned for healing purposes.

6. The role played by the "curandero" or traditional doctor such as the medicine priest, through history.

## NOTES

- 1 I am grateful to David Tavarez, Miguel A. Salcedo and Cass C. Kostakos for their valuable comments on the English version of this paper.
- 2 An exhaustive pharmacological study of these substances is required.
- 3 The word *nícte* is polysemic, with meanings varying from flower, to eroticism, dishonesty and lasciviousness. Dishonest songs and love songs: *coco kay, nícte kay* (Vienna Dictionary, 35r; also see Calepino de Motul 238r).
- 4 It is fit to recall that the initial date of the Maya Era corresponds to *Can Ahau Uaxac Cumku* "4 Ahau 8 Cumku", indicating its character as a primogenial and sacred date. Today, the days for curing are Tuesday and Friday and the number of sessions chosen is preferably nine.
- 5 Homonymy provides two meanings for the word *cool*. On the one hand, it has the meaning of evil lechery, and on the other, the verbal root *cool* has the meaning of pulling or extracting: "*ah olach*: someone who touches himself in a filthy way; it is a dirty word and not fit to be uttered in the pulpit" (Calepino de Motul:10v).
- 6 The parallelism between the red and white substance indicates the relationship between male and female respectively.
- 7 Besides the word *ton* to denote the male sexual organ, *tzutzuy* "dove" and *on* "avocado" are also used. "Ah ton, uncastrated animal; *tzutzuy*, sexual organ of young boys" (Calepino de Motul:29v and 122 respectively).

- 8 This case of homonymy offers a clear example of repetitive punning. One meaning is that of the humming bird, "bird from whose feathers they make featherwork: *dzunun, dzac dzunun*" (Vienna Dictionary: 159r). However, the first morpheme *dzuu* means nucleus, heart. "The heart or softest part of the tree, *dzuu ol*; the softest part of tanned leather, *dzuu* (Vienna Dictionary: 28r).
- 9 In the Book of Chilam Balam of Nah (1989:47) where instructions are given for curing toothache and infected gums, it is specified that the affected area is to be burned and pricked with wooden splinters thirteen times if the patient is a man, and nine times if it is a woman.
- 10 *Malvastrum coromadelianum* (L.) Garcke. *Sida acuta* Burm. *Sida spinosa* L.
- 11 *Bourreria pulchra* Millsp.
- 12 *Plumeria alba* (L.)
- 13 *Plumeria rubra* (L.)
- 14 No plant is recorded under this name, although we find the term *mukuyche*, *Dalea nutans* (Cav.) Willd. In the Book of Chilam Balam of Nah (1981:41) it is written *mukay che* and is indicated for an illness called *onob can* (ringworm) and for fever associated with smallpox.
- 15 Despite the use of *amen* with its Spanish meaning, we see here an obvious relationship with the Maya meaning "spider/divination" and "-en", the first person singular, I". The discursive consequence of the analysis of *am as* "spider/divination" would be to interpret it as "I am the spider, the sorcery, the exorcism"

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