

A BIBLIOGRAPHY FOR YUCATAN MEDICINAL PLANT STUDIES BY WILLIAM E. GATES

Edited by

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During the latter years of the life of William E. Gates his interest turned from Maya language studies and collection of sources to medicinal plant studies. Much of his scholarly efforts from about 1930 to his death in 1940 was devoted to this field. His long experience in Mesoamerica, through knowledge of several of the "Mayance" languages (as he termed them) and genuine interest in things Mayan led to his acquiring perhaps the most complete knowledge of this subject among his contemporaries. Nevertheless, practically none of this unique knowledge was made available to others in published form.

Following Gates' death The Maya Society, which he had formed as a trust group to preserve his unique collection of sources, decided to dispose of the collection. The original manuscripts were scattered among the few interested institutional libraries (notably the Institute for Advanced Studies). In 1946 the remaining Maya materials, including practically all the photographic reproductions and typescripts of many of them which Gates had made, were purchased by Brigham Young University. (It is hoped that a checklist of at least the typescripts and original manuscripts may be published in the not distant future.) The process of cataloguing the by then disorganized materials revealed among Gates' typed manuscripts and correspondence the annotated bibliography which follows. It was probably written between 1936 and 1939.

Little change has been made in the paper as Gates left it. Where he had placed pencilled notes in the margins these have been incorporated in the text. Editing has been necessary to neutralize somewhat the acidity of Gates' pen, but the changes have not affected the technical content. In cases where the titles of Gates' list are considerably different from past listings, correlative references have been added from Tozzer, 1921, and Roys, 1931.

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"In dealing with the Yucatan Medicinal Plants and knowledge we have a very different set-up from what we had in Mexico. There our

knowledge goes back to what the Mexican native physicians told about the medicinal plants and their qualities and uses, to Sahagun, Hernandez, etc. In the case of Sahagun it was a part of the knowledge gathered by him of the Things of New Spain, he being neither physician nor botanist. In that of Hernandez we have a highly skilled physician fully versed in botanical medical lore from Greece and Rome down to his own time, and a competent and devoted explorer and collector of the plants themselves. He described only what he himself saw and identified and analyzed—with a very few cases on 'information stated.'

"In Yucatan we have no Botany, as such, until some 60 years ago, we have only an empirical knowledge of the plants, *Simples*: and this expressed in the shape of something like a thousand surviving medical recipes in the Maya language, written out by native *herbateros* who had learned to use our alphabet to write their own spoken language.

"All the basic material is thus purely native, and in Maya; and this holds until about 1750, when (as it appears) an Italian named Mayoli became famous in Valladolid for his knowledge of medical plants (of course derived from these native sources), and put this knowledge into writing, in Spanish, and following the order of the plants described, instead of the ailments being prescribed for. He acquired the pseudonym of Ricardo Ossado, *El Judío*. Although one ms. attributes the origin of the medical knowledge to a *Moro*, or Moorish physician, in the company of the *Cid Campeador*.

"This literature, being in Spanish, became very widespread; while the native Maya recipes remained in the keeping (usually closely guarded) of the *herbateros*, each having his own collection of the recipes. As a result there is much duplication of the recipes, in the various surviving mss., and many variations in order and fulness. In general they all followed a standard form: the remedy for (stated disease) is to get such and such plants, take certain parts (specified), prepare these by crushing, boiling, or otherwise, and then use as drink, plaster, etc., whereupon the trouble ceases. This order is sufficiently fixed and regular as to be a considerable aid at times in the translation, and also in the grammatical study of the texts.

"With the coming to Yucatan of our modern medical practice, and our technical botany (Linnaean at first only), some 60 years ago, all this old literature got professionally discredited, although with the constant admission that 'the *herbatero* can do things the *medico* cannot.'

"The last stage of the matter has been the incoming of taxonomic botany, based on specimens gathered by visiting botanists, with a very confusing array of synonyms and mis-heard Maya names. The results of this have been as might be expected, leaving many gaps, and also many positive errors to be corrected.

"Our task is therefore to start with the original ms. sources in the Maya languages. In this we have to note that native science was chiefly devoted (as in all the nations of antiquity) to astronomy, chronology, and medicine. These were restricted sciences, quite as 'esoteric' in their technique as are our astronomical and chemical formulae of today. They were the science of the 'wise men,' those who knew how to 'do things.' In Maya, these were called the *Ah-kin*, *Ah-miatz*, *Ah-men*, those who knew the ritual, the science, the 'doers.'

"This triple body of ancient science then got transcribed, no longer in hieroglyphs, but in the alphabetic writing of the words as spoken. Due to the fact that the prophets were known as the *Chilan Balam*, these writings became known as the Books of *Chilan Balam*. They frequently contained the surviving remnants of all three of the above branches of native knowledge, representing history, astronomy and divination, and the cure of disease.

"Quite a few mss. however, came to contain only the medical part, that being what lasted and continued in daily and imperative use. These sets of medical recipes are not thus strictly *Libros de Chilan Balam*, a term more properly reserved for the few surviving mss. that contain chronicles and astronomy or divination matter (with or without the medical).

"The following is therefore a list of the material, beginning with the original source material in Maya:

"1. *Chilan Balam de Kaua*." (Cf. Tozzer, 1921, *Kaua*.) "All three classes of text, and several hundred recipes. The original disappeared from the Cepeda Library in Merida somewhere about 1925, but we have a full set of original photographs by Maler, taken in 1887." (The story of this is related in Gates' terms in Gates, 1924, under "*Cronica de Nakuk Pech*.")

(The same source is in) "a well-written modern transcript occupying ff. 61-150 of the second of two volumes, purchased by Morley, according to him, from a servant of Figueroa (the administrator of Bishop Carrillo's estate). This was given to me by Morley in 1914,

on an exchange. The *Chilan Balam de Nah* ms. was probably copied in large part directly from this *Kaua*. Note that this transcript does not include the latter part of the original ms., for which we are now wholly dependent of Maler's photos."

(See also Berendt, 1868, listed in Tozzer, 1921, 218.)

"2. *Lunario Maya, Chilan Balam de Ixil*. Covers ff. 36-60 of the above volume, and is almost wholly medical. This text is not among the set of Maler photographs, and I imagine the original is lost. I had from Morley a list of the Carrillo-Figueroa mss. and this list was later checked for me in 1915 with no presence of the Ixil original.

"The first of the above volumes obtained by Morley contains the transcript of the *Chumayel*, the *Calqini*, and the *Libro de los Medicos Yerbateros de Yucatan*, or *Recetarios de los Indios*, in Spanish in order of plants.

The first 35 leaves of the above (second Morley) volume are taken up by a copy of the *Tizimin*, containing no medical matter."

(Gates adds, there is an *Ixil* transcript by Berendt in the Brinton collection." For this see Tozzer, 1921, 242.)

"3. *Chilan Balam de Nah*. Original ms. 4to, 64 pp. Between 100 and 200 recipes, largely following the series in the *Kaua*.

"4. *Chilan Balam de Tekax*. Original ms. 4to 36 pp. Considerable medical material.

"5. *Ritual of the Bacabs*. Original ms. 8vo 239 pp. Almost wholly incantations, but with a few recipes." (Gates, 1937, 20, notes of this, "43 Ritual incantations in archaic Maya; written by some Maya inheritor of the ancient ceremonies, at some time in the 18th century; not touched by any Spanish influence, and came direct from Maya hands. No like ms. is known to have 'come out' anywhere in America.")

"6. *Mena ms. of medical recipes*." (Elsewhere as *Mena*, *Libro grande de Medicina*. 4to, 176 pp. Copied for me from an original shown me in Ticul in 1917, by Pablo Mena, an Indian 'cacique.'") (Same as Tozzer, 1921, 278, Anon. 15.)

"7. '*Libro del Judío*' ms. 16mo, 156 pp. In Peabody Museum.

"8. *Cuaderno de Izamal ms.*" (No paging given.) "Containing 75 much condensed recipes, all in Maya, many containing three to a dozen separate paragraphs. I know of no other text or ms. corresponding to this; apparently written early in the 18th century.

"9. *Cuaderno de Teabo*." Copy by Berendt in the Berendt-Brinton collection. Medical texts on pp. 93-96.

"10. *Cuaderno de Sotuta*. Original ms. Only 54 (4to) leaves left, down to fol. 94." (Cf. Tozzer, 1921, 278, Anon. 16; Roys, 1931, 358, Sotuta; also idem, 356, *Medicina Maya* under Ossado, which is apparently identical to the listing on 358). "The best of all our source material, and the basic foundation of Roys' work."

(Gates, 1937, 20, lists *Sotuta-A*, *Sotuta-B*, and *Sotuta-C*. *Sotuta-A* is that listed just above, *Cuaderno de Sotuta*. "*Sotuta-B: Libro de Medicina*, 56 pp. fo." is omitted in the present Gates list, but is actually the same as Tozzer, 1921, 268, *Sotuta, Libro del Judio de*.) *Sotuta-C* is listed Gates, 1937, 20, as "folio," but without paging. Both C and B may be incomplete copies of the main Sotuta work.)

"11. *Manuscrito de Peto*. Ms. of 130 pp. All in Maya in the usual form." (Gates had written "Tekit" first, then crossed that out to write "Peto" in pencil in its place. This seems to be unmentioned elsewhere, even in Gates' listing. It may be connected with the writings from Peto referred to by Pío Pérez. See Tozzer, 1921, 191.)

"The foregoing 11 numbers constitute our base material. We next come to the literature of the second stage, in Spanish, arranged according to plants and their virtues."

"13. *Libro de los Medicos Yerbateros*. Ff. 72-117 in the first of the two Morley volumes of transcripts. The sub-title is *Recetario de los Indios*. This would seem to be the same as listed under Pío Pérez (next below) and extract and notes by Berendt. Or see next number." (Cf. Tozzer, 1921, 278, Anon. 14; Roys, 1931, under Ossado.)

"14. *Yerbas y Hechicerias de Yucatan*. Ms., 431 ff. Original at Tulane. Not very clearly described by Roys. May well be the text itself of Ricardo Ossado. It is somewhat fuller, but steadily corresponds with the text matter of the 1834 edition. Its value is unquestioned, although from reading Roys I imagine it adds not much actual data to what we have. It is a bit fuller in plant description. I also imagine that Roys (naturally) milked it quite thoroughly. (But how could there be 431 ff?) I am not at all sure that this *Yerbas y Hechicerias* may not be the same as a very thick ms. volume, also in Spanish, offered me in 1924 in Mexico City by Enrique Palacios, and which I declined, at the price. If not the same, this Palacios ms. is still extant, but it has never been otherwise heard of.

"15. *Noticias de Varias Plantas y sus Virtudes*. 29 pp., copied by Berendt." (Tozzer, 1921, 278, Anon. 19; Roys, 1931, 356; probably the same as Gates, 1937, #152.)

"16. *Medicamentos Simples*. Classified by their Natural Families. A very valuable ms. in Spanish, by a writer of whom I have no other trace, but a Yucatecan of about 35 or 40 years ago. It describes well both the plants and their qualities, and assigns them to their botanical families, either definitely, or as 'indicated by their qualities.' Deals with 123 plants, and about 15 ailments added at the end, with the treatment." (Not located elsewhere, unless, as may well be, this is the "Guzman" or "G-8" ms. Gates mentions in other lists. Cf. Gates, 1937, #143.)

"17. *The Ticul Ms., or Medicina Domestica*. Ms. in Spanish giving a long list of both plants and diseases, as paragraph heads, 205 paragraphs. Stated to be from a ms. of Ricardo Ossado, and in the hands of one Sra. Petrona Carrillo de Valladares, of Ticul. While in Merida in 1934 I was offered a typewritten copy of this, identical save for a great many mis-spelled Maya words. Then later, going through Martinez' *Plantas Medicinales* I found again the identical text printed at the end, as having been given him by Dr. Sabas Flores of Progreso." (Cf. Roys, 1931, Ossado, 1834.)

"18. *Yerbas Indigenas*. Ms. in Spanish listing 151 plants with their mediuses." (Not otherwise located, unless it may be "Guzman" or "G-8," see 16 above.)

"19. *Cuaderno de Yerbas*, de Ricardo el Judío. Ms. in Spanish listing some 150 ailments and their cures." (Roys, 1931, Ossado, 1834?)

"20. *Cuaderno de Enfermedades*, del Judío. Ms. in Spanish listing some 150 ailments and their cures. (Gates, 1937, #142?)

"21. *Manuscrito Franciscano*. Ms. with colored sketches of plants, the text giving their medical values. Is quite incomplete, but originally considerably over 100 pages. It was given to Dr. Berendt while in Veracruz in 1859; later it passed to the Phillips collection, at the auction of which I bought it. It is titled by Berendt as: *Apuntes sobre algunas plantas medicinales de Yucatan, escritos por un fraile Franciscano de Campeche*. As noted by him the writing is of about 1820." (Published as Maya Society Publication No. 10.)

"The foregoing (I think) completes our list of mss., 11 in Maya and 10 in Spanish. The 11 in Maya, and No. 20, all begin by stating the disease. The rest state the plant. No. 17 has been printed."

"Imprints"

"22. *Medicina Doméstica*. 88 pp. 16mo, Merida, 1834.

"23. *Libro del Judío*. 8vo., title and two prologue pp., and 15 pp. of text, describing the plants. Parts of the text correspond with No. 18, above. . . . It is doubtful if any more than this was ever printed. The title gives only: Merida. — Yucatan.

"24. *El Nuevo Judío: Apuntes que serviran para la formacion de 'La Flora Yucateca.'* 2a edicion corregida y aumentada. 8vo, pp. 160. Merida, 1890. This is by Emilio MacKinney. The first edition was published in 1889, and it is doubtful if a complete copy exists (I have heard of an incomplete one in Merida).

"Roys mixes matters in his bibliography, under Ossado. After giving various mss. as Ossado's, including the Peabody ms., the Pérez Recetario, the *Libro de Medicos* from the Morley volumes, and my Sotuta and Mena mss., he repeats the 1834 title three times, none *de visu*. Then he gives an 1890 Segunda Edicion of the 1834, by MacKinney, in 1890. Previously he lists this under the name Martin de Espinosa,

"The above is cleared up by one of the slips bound in my copy as above. There he (MacKinney) says the *Medicina Doméstica*, etc. is *en prensa*, and the work will be sold to buyers of the *Nuevo Judío* at 10 cts. la entrega. This is undoubtedly what Tulane has, and most likely all that was issued.

"25. *Ramillete de Flores de la Medicina: Obra escrita en 1785 por el Hermano Francisco Xavier Ramírez*. This is announced by MacKinney on one of the slip sheets, to be sold complete *a 4 reales*. On his last slip, dated May 1, 1890 he says of this: 'que se completa en cuatro entregas, a 25 centavos,' half price to subscribers to the *Nuevo Judío*, and gratis to any one who will pay for the whole in advance. What is, and where, this *Ramillete*?

"26. *Medicina Doméstica*. The 2a. edicion, by MacKinney, Merida, 1890, with probably only the first entrega issued, as above. Note that the original 1834 edition calls itself "Cuaderno 2o." Copy of the entrega at Tulane.

- "27. Corroy, Franco. *Ensayo sobre el bejuco-guaco en Tabasco*, año de 1832 y 1833. 12mo, 18 pp. Campeche, 1833.
- "28. Donde, Joaquin y Juan. *Apuntes sobre las Plantas de Yucatan*. 8vo., 134 pp. Merida, 1907. Describes the plants both botanically and medically.
- "29. Same. *Lecciones de Botanica*. 2d edition. 8vo, pp. 264. Merida, 1908. The Preface is signed by T. A. Barbachano, Jan. 25, 1876. The senior Donde died in Nov. 1875, as the 25th *pliego* of the first edition was going through the press. A most thorough and detailed treatise on Botany, with two indexes of the plants, common and Latin names; about 225 plants.
- "30. Donde, A. Aznar. *Pequeño Guia del Hortelano y Jardinero*, 8vo, 76pp. Merida, 1896. Many Maya plant names. Catalogue of seeds and plants for sale, at the end.
- "31. Cuevas, Benjamin. *Plantas Medicinales de Yucatan, y Guia Practica Domestica*. 8vo, m278 pp. Merida, 1913.
- "32. Same. *Ilustraciones de la Obra . . .* above. Large 8vo, colored plates of 111 plants.
- "33. Sarlat, Dr. Simon. *Reseña geográfica y estadística del Estado de Tabasco*. 8vo, p. 62. Mexico, 1890. Contains list of plants, with common and Latin names.
- "34. Becerra, Marcos E. *Nombres geográficos de Tabasco*. 8vo, pp. 105. Mexico, 1909. Many of the names are derived from plants, and here the author interprets these names, Aztec, Maya, Tzoque, etc. and with a number of botanical identifications.
- "35. *Album Carmelita*: 16 de Septiembre de 1910. 4to, illus., Carmen (Campeche), 1910. Lists of animals and plants, common and scientific names.
- "36. Selis Lope, Mario. *Secretos de la Raza*. 12mo, pp. 133. Coban, 1931. Legends, etc.; 36 pages of Medicina indigena, plants, etc.
- "37. Tobias Rosa, J. M. *Flora y Fauna Santabarbarensense*. Large 8vo, pp. 73. Tegucigalpa, 1918.
- "38. Mesa Caliz, Ulises. *Geografia de Honduras*. Large 8vo, pp. 182. Tegucigalpa, 1916. Many local lists of plants, etc.; medicinal, etc.

"39. Asturias, Francisco. *Enfermedades mas frecuentes en Guatemala, y su tratamiento; arreglado para uso de los finqueros*. 8vo, pp. 120 and index. 2a edicion, aumentada. Guatemala, English.

"40. Culpeper, Nicholas, M.D. *The Complete Herbal*. New edition; numerous colored plant illustrations. Portrait and 408 pp. 4to. London, 1835.

"41. Fiallos, Eusebio. *Apuntes a la Flora Hondureña*. 12mo. 174 pp. Tegucigalpa, 1919.

"42. Metzgen and Cain. *Handbook of British Honduras*. 8vo, pp. 461. London, 1925. A limited list of local plants.

"43. Gaumer, G. G. *Clasificacion terapéutica de los Productos de. The Izamal Chemical Co., Izamal, Yucatan*. (n.d.) Ten pages, 16mo, of plants (botanical names) classified according to their therapeutic effects; prepared to accompany their catalogue, and to aid in the better use of the products.

"44. Same. The above catalogue. 12mo, 48 pp. Izamal, 1908. Plants listed by their botanical names only, but with their qualities, dosage, etc.

"45. Sapper, Karl. *Alta Verapaz*. 8vo. pp. 147, and 5 maps. A little about plant products.

"46. Pector, Desire. *Les Richesses de Amerique Centrale*. 8vo, pp. 363. 12th ed. Paris, n.d. Productions vegetales, pp. 99-189; animals, 190-212.

"Working Material"

"1. George F. Gaumer, Ms. *Sinonimia científica y vulgar de las Plantas Yucatecas*. 54 typewritten pages, bound. Izamal. Gift from Gaumer to me in 1917.

"2. William E. Gates, Ms. *Maya Plant Names*, condensed from the original Gaumer List, Motul, Ossado, Donde, Cuevas, Album Carmelita, Roys. 87 typewritten pages, bound. August, 1933." (Extensive pen and pencil notes on most pp.)

REFERENCES

Gates, William E.

1924 *The William E. Gates Collection*. American Art Association, Inc., New York.

1937 *The Maya Society and Its Work*. (Maya Society Publication No. 19), Baltimore.

Roys, Ralph L.

1931 *The Ethno-Botany of the Maya*. (Tulane University, Middle American Research Series, Publication No. 2), New Orleans.

Tozzer, Alfred M.

1921 *A Maya grammar with bibliography and appraisal of the works noted*. (Papers of the Peabody Museum, Harvard University, Volume 9), Cambridge.