## ERNST FÖRSTEMANN

We, as American anthropologists, owe a great debt to Dr Ernst Förstemann, the foremost worker in the field of the hieroglyphic writing of Central America, and it is with very great regret that we learn of his death on November 4, 1906, in Charlottenburg, Germany.

Dr Förstemann was born in Danzig in 1822, and during the first half of his life he was engaged primarily in the study of philology, devoting himself especially to research on German place names. In 1865 he resigned the position of librarian in Wernigerode, Saxony, to accept that of head librarian of the Royal Public Library at Dresden. It is to the direct result of this change that we owe the great advance in the knowledge of the Central American hieroglyphic writing.

The Royal Library at Dresden had long contained a curious manuscript written on a long strip of fiber cloth, painted on both sides, and folded together like a screen. This had been brought back from Italy by a former librarian and was labeled, "An invaluable Mexican book with hieroglyphic figures." It had attracted some attention as a curiosity, but no advance was made in its interpretation. To Dr Förstemann is due the honor of having presented to the world for the first time an elucidation of this manuscript, the so-called *Dresden Codex*, the highest intellectual achievement connected with the pre-Columbian culture of the New World.

In 1880 Förstemann brought out a colored reproduction of the 74 pages of this Maya document. It is only from about this time, and owing mainly to the researches of Dr Förstemann, that the knowledge of the Central American hieroglyphic writing may be

<sup>&</sup>lt;sup>1</sup> The writer is indebted for the various facts in the life of Dr Förstemann to an appreciation by Dr Walter Lehmann, published in *Globus*, vol. xc, no. 22, December 13, 1906.

<sup>&</sup>lt;sup>2</sup> Humboldt recognized its importance, and the pages were reproduced in colors in vol. III of Kingsborough's *Mexican Antiquities*, London, 1831-1848.

said fairly to have begun. Before this, much was pure supposition, and many were the theories woven about the Maya inscriptions.<sup>1</sup> To the penetrating investigations of Dr Förstemann we are indebted for the major part of our most important points of departure in all studies of the hieroglyphic writing of Central America.

The publication of a faithful copy of the pages of Dresden Codex (1880,² 1892 b) was soon followed by exhaustive interpretations of the manuscript itself (1885, 1886, 1887, 1891, 1892, 1894, 1895, 1897, 1898, 1900). The value placed by American students on the latest and most complete study of the Codex (1901) is shown by an English translation, revised by the author, which has appeared within the last month as No. 2 of Volume IV of the Papers of the Peabody Museum (1906). Several of Dr Förstemann's briefer articles have also been translated into English, appearing in Bulletin 28 of the Bureau of American Ethnology (1904 c).

Dr Förstemann did not limit himself however to the study of the Dresden manuscript, but published commentaries on both the other Maya codices, the Tro-Cortesianus (1902, 1903 a) and the Peresianus (1903). The elucidation of these three manuscripts is the greatest single contribution to the study of Central American hieroglyphic writing.

A large number of his separate articles enter into a discussion of special features and phases of the codices, and the many series of numbers in the Dresden document often showing calculations extending into the millions and expressed by the system of bars and dots (1887, 1891, 1894, 1895, 1897, 1898, 1905 a, 1905 b, 1905 c, 1906 a). The mathematical mind of Dr Förstemann was especially fitted to work out the chronology of the ancient time counts (1891 a, 1892 a, 1893, 1894 a, 1894 b, 1897 c, 1902 c, 1904, 1905 a, 1905 d) and more especially the elaborate astronomical calculations which show what height of intellectual activity was attained by the Mayas (1894 c, 1901 a, 1901 b, 1904 d, 1906 b, and all the references under the long number counts). The sacred period of 260 days, expressed many times throughout the codices,

<sup>&</sup>lt;sup>1</sup>The Landa manuscript published by Brasseur de Bourbourg in 1864 is of course the very first starting point in the study of the glyphs.

<sup>&</sup>lt;sup>2</sup> The dates refer to specific articles in the bibliography at the end.

was carefully worked out by him (1895 b, 1901, 1902, 1904 a, 1906).

The study of the different gods represented in the codices, although not essentially his special line of investigation (compare 1897 a), was nevertheless represented in his writings (1898 b, 1901 c, and the commentaries 1901, 1902, 1903).

The carved inscriptions in stone which, together with the three codices, furnish the greater part of the material for a study of the glyphs, were also investigated by Dr Förstemann—the tablets at Palenque (1897 a, 1899, 1899 a, 1902 a, 1903 b), the inscriptions from the ruins on the Usumacinta river (1902 b, 1903 c), an inscription at Copan (1904 b), the only initial series which has been found up to the present time in northern Yucatan, that at Chichen Itza (1905), and the Leyden plate (1903 d).

With the possible exception of the question of the phoneticism of the Maya hieroglyphics, there is hardly a side of the Maya writing that is not touched upon by his investigations. As Dr Lehmann has truthfully said, "What Dr Förstemann had in mind in all these labors was the desire first of all to arouse interest, if possible to call forth a reply, in order to incite his fellow-laborers to more energetic coöperation." He was much encouraged during the last years of his life by the interest taken in the field of his researches, especially in America, and it is in part owing to this support, coöperation, and the recognition of the value of his work as shown by the translations of many of his articles into English that he was made to feel that he was no longer alone in his interest in the study of Central American hieroglyphic writing, that his long years of patient labor were bearing fruit.

The following is a fairly complete bibliography of Dr Förstemann on the hieroglyphic writing of Central America:

- 1880. Die Mayahandschrift der Königlichen öffentlichen Bibliothek zu Dresden. 4°, pp. xvII, 74 colored plates.
  - Second edition, 4°, pp. xIV, 74 colored plates, Dresden, 1892.
- 1885. Der Maya-Apparat in Dresden. (In Centralblatt für Bibliothekwesen, vol. 11, 181–192, Leipzig.)
- 1886. Erläuterung zur Mayahandschrift der Königlichen öffentlichen Bibliothek zu Dresden. 4°, pp. 80, Dresden.

- 1887. Zur Entzifferung der Mayahandschriften, I. Die in rote Kränze eingeschlossen Zahlen (Dresden Codex). Die grossen Zahlen (Dresden Codex). Die Kalenderdaten (Dresden Codex). 8°, pp. 14, Dresden. Also in Compte rendu, Congrès international des Américanistes. 7<sup>me</sup> Session, Berlin, 1890, pp. 739-753. English translation in Bureau of Ethnology Bulletin 28, pp. 397-407, Washington, 1904.
- 1891. Zur Entzifferung der Mayahandschriften, II, Blatt 61-64, Blatt 69-73, (Dresden Codex). pp. 19, Dresden.
  - English translation in Bureau of Ethnology Bulletin 28, pp. 409-422, Washington, 1904.
- 1891 a. Zur Maya-Chronologie. (In Zeitschrift für Ethnologie, vol. 23, pp. 142-155.)
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 475-489, Washington, 1904.
- 1892. Zur Entzifferung der Mayahandschriften, III, Schildkröte und Schnecke in der Mayaliteratur. 8°, pp. 8, Dresden.
  - English translation in Bureau of Ethnology Bulletin 28, pp. 423-430, Washington, 1904 b.
- 1892 a. Neuestes zur Kulturgeschichte (Maya-Chronologie betreffend). (In Dresdener Journal, 25 October, no. 249.)
- 1892 b. Second edition of 1880.
- 1893. Die Zeitperioden der Mayas. (In Globus, vol. LXIII, no, 2, pp. 30-32.) English translation in Bureau of Ethnology Bulletin 28, pp. 493-498, Washington, 1904.
- 1894. Zur Entzifferung der Mayahandschriften, IV, Blatt 24 der Dresdener Mayahandschrift. 8°, pp. 17. Dresden.
  - English translation in Bureau of Ethnology Bulletin 28, pp. 431-443, Washington, 1904.
- 1894 a. Zum mittelamerikanischen Kalender. (In Globus, vol. LXV, no. 1, p. 20.)
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 517-519, Washington, 1904.
- 1894 b. Die Mayahieroglyphen. (In *Globus*, vol. LXVI, no. 5, pp. 78-80.) Second article in vol. LXXI (1897), no. 5, pp. 78-81. (See 1897 c.) English translation of both articles in *Bureau of Ethnology Bulletin* 28, pp. 501-513, Washington, 1904.
- 1894 c. Die Plejaden bei den Mayas. (In Globus, vol. Lxv, no. 15, p. 246.) English translation in Bureau of Ethnology Bulletin 28, pp. 523-524, Washington, 1904.
- 1894d. Das Gefäss von Chamá. (In Verhandlungen der Berliner Anthropologischen Gesellschaft, pp. 573-576, in Zeitschrift für Ethnologie, vol. 26.)
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 647-650, Washington, 1904.

- 1895. Entzifferung der Mayahandschriften, V, Zu Dresd. 71-73 und 51-58. 8°, pp. 12, Dresden.
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 445-453, Washington, 1904. (Note also 1905 c.)
- 1895 a. Anzeige von Daniel G. Brinton a primer of Mayan hieroglyphics. (In Globus, vol. LXVII, p. 147.)
- 1895 b. Das mittelamerikanische Tonalamatl. (In Globus, vol. LXVII, no. 18.) English translation in Bureau of Ethnology Bulletin 28, pp. 527-533, Washington, 1904.
- 1896. Neue Mayaforschungen. (In Globus, vol. LXX, no. 3, pp. 37-39.) English translation in Bureau of Ethnology Bulletin 28, pp. 537-543, Washington, 1904.
- 1897. Zur Entzifferung der Mayahandschriften, VI, Dresd. 31a bis 32a. 8, pp. 9, Dresden.
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 455-461, Washington, 1904.
- 1897 a. Die Kreuzinschrift von Palenque. (In Globus, vol. LXXII, no. 3, pp. 45-49.)
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 547-555, Washington, 1904.
- 1897 b. Anzeige von Schellhas die Göttergestalten der Maya-Handschriften.
  (In Zeitschrift für Ethnologie, vol. 29, pp. 168-170.)
- 1897 c. Die Mayahieroglyphen. (In Globus, vol. LXXI, no. 5, pp. 78-81.)

  (An article (1894 b) with the same title appeared in Globus, vol. LXVI, no. 5, pp. 78-80.)
  - English translation of both articles in *Bureau of Ethnology Bulletin 28*, pp. 501-513, Washington, 1904.
- 1898. Zur Entzifferung der Mayahandschriften, VII, Die Reihe Dresd. 51 bis 58. 8°, pp. 12, Dresden.
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 463-473, Washington, 1904.
- 1898 a. Die Tagegötter der Mayas. (In Globus, vol. LXXIII, nos. 9 and 10.) English translation in Bureau of Ethnology Bulletin 28, pp. 559–572, Washington, 1904.
- 1899. Aus dem Inschriftentempel von Palenque. (In Globus, vol. LXXV, no. 5, pp. 77-80.)
  - English translation in Bureau of Ethnology Bulletin 28, pp. 575-580, Washington, 1904.
- 1899 a. Drei Inschriften aus Palenque. (In Globus, vol. LXXVI, no. 11, pp. 176–178.)
  - English translation in *Bureau of Ethnology Bulletin 28*, pp. 583-589, Washington, 1904.
- 1900. Drei Mayahieroglyphen. (In Zeitschrift für Ethnologie, vol. 32, pp. 215-221.)

- 1901. Commentar zur Mayahandschrift der Königlichen öffentlichen Bibliothek zu Dresden. 8°, pp. 176, Dresden.
  - English translation (revised by author) in *Papers of Peabody Museum*, vol. IV, no. 2, pp. 266, Cambridge, Oct. 1906, 8°.
- 1901 a. Der Nordpol bei Azteken und Maya's. (In Verhandlungen der Berliner Anthropologischen Gesellschaft, pp. 274-277, in Zeitschrift für Ethnologie, vol. 33.)
- 1901 b. Der Merkur bei den Mayas. (In Globus, vol. LXXIX, no. 19, pp. 298-299.)
- 1901 c. Der Mayagott des Jahresschlusses. (In Globus, vol. LXXX, no. 12, pp. 189-192.)
- 1902. Commentar zur Madrider Handschrift (Codex Tro-Cortesianus). 8°, pp. 160, Danzig.
- 1902 a. Die Kreuzinschrift von Palenque. (In Verhandlungen der Berliner Anthropologischen Gesellschaft, pp. 105-121, in Zeitschrift für Ethnologie, vol. 34.) Note previous article, 1897 a.
- 1902 b. Eine historische Maya-Inschrift. (In Globus, vol. LXXXI, no. 10, pp. 150-153.) (Piedras Negras.)
- 1902 c. Der zehnte Cyklus bei den Mayas. (In Globus, vol. LXXXII, no. 9, pp. 140-143.)
- 1903. Commentar zur Pariser Mayahandschrift (Codex Peresianus). 8°, pp. 32, Danzig.
- 1903 a. Zur Madrider Mayahandschrift. (In Verhandlungen der Berliner Anthropologischen Gesellschaft, pp. 771-790, in Zeitschrift für Ethnologie, vol. 35.)
- 1903 b. Zusammenhang zweier Inschriften von Palenque. (In Globus, vol. LXXXIII, no. 18, pp. 281-284.)
- 1903 c. Inschriften von Yaxchilan. (In Globus, vol. LXXXIV, no. 5, pp. 81-84.)
- 1903 d. Die Nephritplatte zu Leiden. (In Verhandlungen der Berliner Anthropologischen Gesellschaft, pp. 553-557, in Zeitschrift für Ethnologie, vol. 35.)
- 1904. Die Lage der Ahaus bei den Mayas. (In Zeitschrift für Ethnologie, vol. 36, pp. 138-141.)
- 1904 a. Liegen die Tonalamatl der Mayahandschriften in bestimmten Jahre.

  (In Verhandlungen der Berliner Anthropologischen Gesellschaft, pp. 659-667, in Zeitschrift für Ethnologie, vol. 36.)
- 1904 b. Die Stela J. Copan. (In Globus, vol. LXXXV, no. 23.)
- 1904 c. Bulletin 28 of the Bureau of American Ethnology, 8°, Washington. Contains English translations of several articles by Dr Förstemann, pp. 393-589, 647-650.
- 1904 d. Die Astronomie der Mayas. (In Das Weltall, vol. IV, p. 353-361, 380-385.)
- 1904 e. Vergleichnung der Dresdener Mayahandschrift mit der Madrider. (In Globus, vol. LXXXVI, no. 23, pp. 369-371.)

- 1905. Die spätesten Inschriften der Mayas. (In Globus, vol. LXXXVII, pp. 272-273.) (Saccana and Chichen Itza.)
- 1905 a. Mayahieroglyphen als Bezeichnung für Zeiträume. (In Das Weltall, vol. IV, part 2, 15 October, p. 13-23.)
- 1905 b. Die Schlangenzahlen der Dresdener Mayahandschrift. (In Das Weltall, vol. v, part 11, pp. 199-203.)
- 1905 c. Zwei Hieroglyphenreihen in der Dresdener Mayahandschrift. (In Zeitschrift für Ethnologie, vol. 37, pp. 265-274.) (Treats of pp. 51-58, 71-73, of the Codex. 1895 is an earlier study of the same pages.)
- 1905 d. Mayahieroglyphen als Bezeichnung für Zeiträume. (In Das Weltall, vol. VI, part 2, 15 October 19, pp. 13-23.)
- 1906. Commentary on the Maya manuscript in the Royal Public Library of Dresden. (In *Papers of the Peabody Museum*, Cambridge, vol. IV, no. 2, pp. 266, 8°.) An English translation of 1901 revised by the author.
- 1906 a. Die Millionenzahlen im Dresdensis. (In Globus, vol. LXXXVIII, no. 8, pp. 126-128.)
- 1906 b. Den Kampf der Gestirne (?). (In Das Weltall, vol. vi, pp. 251-257.)

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