

The earliest record of *Filaria loa*.¹⁾

By

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Various authors have chronicled the existence of a drawing representing the extraction of *Filaria loa* in the sixteenth century, and have generally regarded it as the earliest evidence of the occurrence of this parasite thus far noted. So far as I have been able to find, the first reference to this illustration occurs in Guyon (64:747) who refers to it as found in a book printed in Frankfort in 1598; he says it is a plate intercalated in a description of the Guinea Worm (*Dracunculus medinensis*) and one of the scenes on it portrays the extraction of a *Filaria* from the eye. This species is not named in the text; by virtue of its location, however, it should be regarded as the form now called *Filaria loa*, rather than as the Guinea worm. The original publication is said to be one translated from Italian into Latin by C. Reinus under the title, „Vera descriptio regni africana, quod tam ab incolis quam Lusitanis Congus appellatur“.

This record has been cited by many later authors, among others notably by Manson, Moniez (96), and Blanchard (86), but the most recent discussion of it is found in Blanchard (99), who prints a copy of the ancient plate and says (p. 527):

„Le plus ancien document que nous possédons relativement au Loa est une curieuse gravure publiée par Pigafetta, en 1598 (fig. 12). On y voit un personnage qui est en train de s'extirper une Filare de Médine; un autre Ver, déjà en partie enroulé sur un bâton, sort de sa jambe droite. Un autre personnage subit

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une opération qui consiste évidemment à exstirper la Filaire sous-conjonctivale. Cette gravure peu connue a été reproduite par Jean-Hugues de Linscot, dans le récit de son voyage aux Indes, et interprétée par lui comme représentant la manière dont, à Ormuz, on a coutume de crever les yeux aux parents du roi. Mais cette interprétation fantaisiste ne saurait nous arrêter, puisque nous savons que la gravure en question a été publiée pour la première fois dans une description du Congo: elle ne peut s'appliquer à autre chose qu'au Loa, bien que le texte soit muet à cet égard, et cette opinion est précisément corroborée par ce fait, que l'un des individus représentés est atteint de dracontiasse.

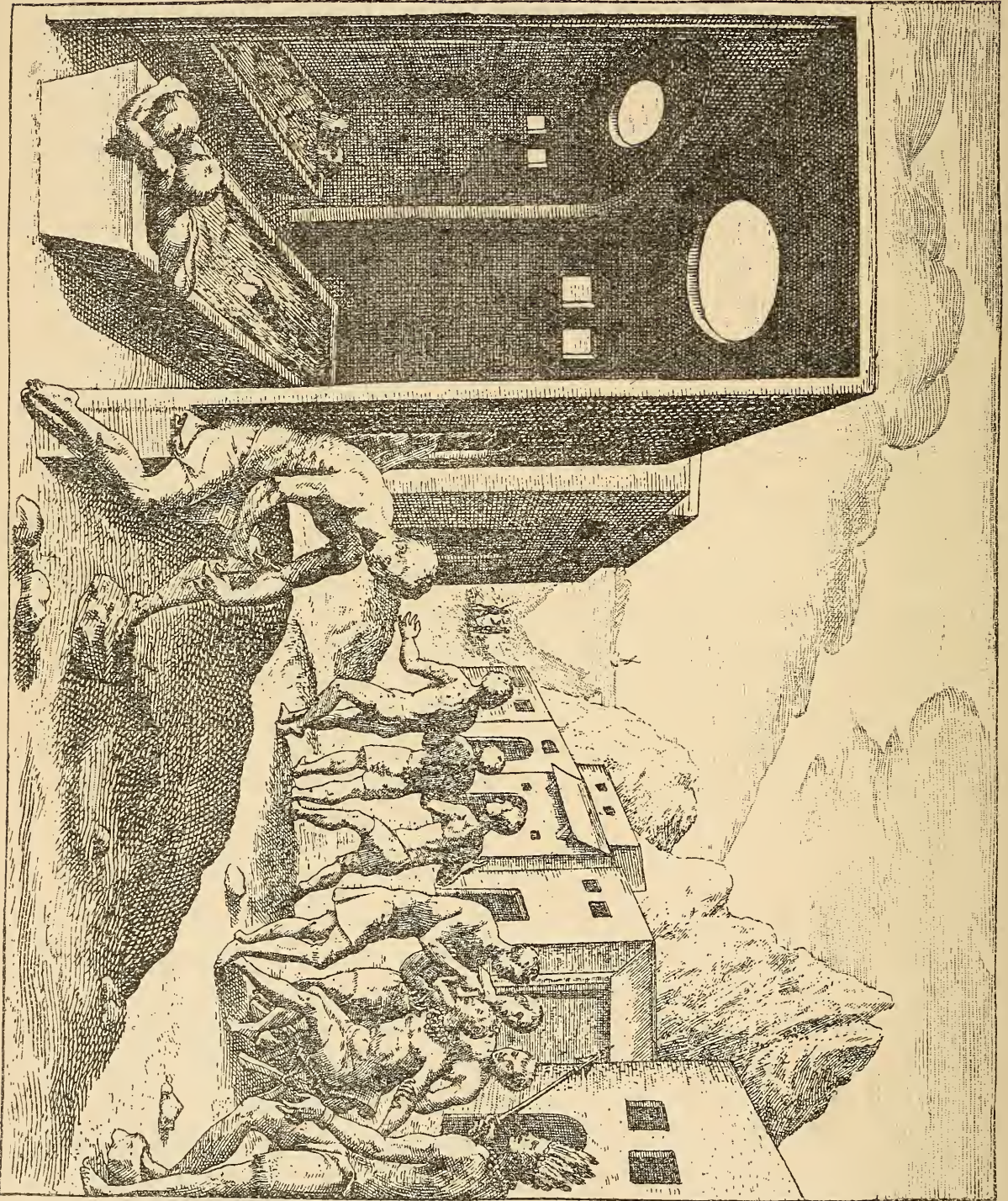
„Ainsi se trouve établie d'une façon indiscutable l'existence du Loa sur la côte occidentale d'Afrique à la fin du XVI^e siècle, exactement un siècle après la découverte de l'Amérique, à une époque où la traite des noirs n'avait pas encore commencé. Cette constatation est importante, puisqu'elle vient confirmer la démonstration que nous avons donnée autrefois de l'origine africaine de tous les cas de Loa observés en Amérique.“

This shrewd analysis and appropriate explanation of the scene met my own full approval and in a recent paper I cited it as an established fact. During the past summer the occasion of a visit to Europe enabled me to undertake the completion of a long unfinished bibliography on *Filaria loa* which was intended to accompany the record of an American case of this parasite. As this demanded a personal examination of every article in which *Filaria loa* was noted, it was natural that the oldest record should also come under scrutiny and to my great astonishment the plate was not present in the first copy of the work examined. After much labor an examination was made of every copy of this publication in the library of the British Museum, London, as well as in the Bibliothèque Nationale, Paris, and the results of this study are given in the following paragraphs.

Francesco Antonio Pigafetta, an Italian explorer and historian, accompanied Magellan on his circumnavigation of the world in 1519—23, and is the principal authority on this voyage. He died, however, about 1534, and among his works I fail to find any which corresponds to that in question. The real author was a Dutch doctor known as J. H. van Lindschoten, or Jean Linscot, as the name is variously written.

The editions of this work are exceedingly numerous and

disclose so many changes that it is difficult to secure any clear idea of their number and relation to each other. The learned



Holland bibliographer, P. A. Thiele, librarian of the University of Leyden, published in 1867 an extended list of them with others

under the title: *Mémoire bibliographique sur les journaux des navigateurs Néerlandais*.

On page 3 he lists De Bry's „*Petits Voyages en Orient 1598—1628*“ as follows:

- I. Description du pays de Congo par Ed. Lopez.
Voyages aux côtes de l'Afrique par Sam. Braun.
- II. Voyage en Orient de Jan Huygen van Linschoten. I^e partie.
- III. Même voyage, 2^e partie.
Premier voyage des Hollandais en Orient, sous C. Houtman.
Description de trois voyages au Nord, par Ger. de Veer.
- IV. Voyages en Orient de Linschoten, 3^e partie, etc.

On page 83 he adds a detailed description under „B. Collection des Petits Voyages de de Bry. 1. Voyages en Orient de Jan Huygen van Linschoten.“ The plates are listed under letters a, b, c, d, etc., and the bibliographer notes especially that they lack numerals. The plate under consideration is not listed among those found in this work; it should be noted, moreover, that it bears a number (6) and has no evidence of a letter anywhere on its surface.

The edition of the De Brys work, bound under the title „*India orientalis*“ which I first secured in London, bore the following title page:

Pigafetta, Philippum. Regnum / Congo / hoc est. Vera descri/ptio regni afri/cani, quod tam ab in/colis quam lusitanis / Congus appellatur. / Per / Philippum Pigafettam, / olim ex Edoardi Lopez acroamatis / lingua Italica excerpta; nunc Latio / sermone donata ab / Avgvst. Cassiod. Reinio. / Iconibus et imaginibus rerum memorabilium quasi / viuis, opera et industria Ioan. Theodor. et Ioan. / Israelis de Bry fratrum, etc. exornata. / Francofvrti / Excudebat Volffgangus Richter, impen/sis Io. Theo. & Io. Israel. de Bry, frat. / M. D. XCVIII.

This work I examined in detail and with great care; there is in the text no mention whatever of worms and no plate such as has been cited and copied. The work has an appendix with the following title:

„Icones quibus ad maiorem lectoris recreationem primus Lusitanorum cum rege congressus, incolarum arma et instrumenta bellica, vestes tam foemineæ quam viriles, & aliorum animalium formæ, quasi ad vivum proponuntur.

In æs incisæ per Johannem Theodorum et Johannem Israelem

de Bry, fratres et cives Francofortenses. Francoforti [as on title page to date incl.].“

This contains 14 plates and the explanation of each; but no one of them bears the least resemblance to that under consideration.

The second part of this volume, which in the copy noted is bound in the same cover but appears distinctly as an independent work, has its individual title page which reads as follows:

II. Pars / Indiae orientalis, / in qua / Iohan. Hvgonis Lint-
scotani / Navigatio in Orientem, item regna, littora, portus, flumi-
/ na, apparentiae, habitus moresque, Indonum & Lusitano- / rum
pariter in Oriente degentium; præterea merces, mo- / netae, men-
surae / & pondera, quae quibus in locis, quove / compendio pro-
stent, accurate proponuntur. Ea Lint- / scotus ipse spectator atq;
autor primum vernaculi sibi / idiomate Belgice in publicum dedit:
Deinde superioribus / Germanis Germanice, & nunc Latinis item
auribus / Latine utcumq; reddita enunciauit / Tevcrides Annævs
Lonicervs pri / uatus, Civis Francfordiensis. / Opus et nauigantibus
et mercatoribus Historiarumque / studiosis apprime vtile. / Addita
sunt passim D. Paludani Annotationes; item icones, artificio / se
in arte facta per Ioh. Theodorum, et Ioh. Israelem de Bry, / fratres,
quorum sumptibus opus ipsum recens / iterum foras datum. /
Francofordii, / Ex officina Wolffgangi Richteri. / M. D. XCIX.

On page 26 of this work one may read „Caput VIII. Ar-
musium, quod Insula est et Ciuitatis nomen, hoc capite describi-
tur“. Thereupon follows an account of the native custom on the
accession of a new king of putting out the eyes of all male rela-
tives, and later on in the chapter a description of the worms which
infest the inhabitants and are thought to come through drinking
water. This second part has also an appendix which is entitled:

„Icones vivae, verae et genuinae nationum, gentiumque om-
nium, quotquot accolunt ad oram maritimam, quae a gadibus
usque in Indiam orientalem & inde ad Chinarum usque regnum
continue ductu pertingit, additis eorundem ceremoniis moribusq;
ita expressis, ut coram spectari credas. Expressi sunt et habitus
moresq, quibus tum ipsi Lusitani, tum uxores et mancipia eorum
hodie in India utuntur. Omnia elaboratissime scitissimeque in ære
repræsentata, opera studiorum que Io. Theodori et Io. Israelis
de Bry fratrum.“ [The bottom lines are as before.]

The plates given include many which are merely reprinted
from the Icones of the first part, but a number of new illustra-

tions have also been added. Here one finds for the first time the plate under discussion. Plate VI. „Quo modo incolae Armusij noctu in lintribus dormiant et de propinquis regum excaecandis.“

Some interesting facts appear from a study of the earliest edition which is written in Dutch and has 1596 as the date of publication. In „Dat 6. Capittel. Van't Eylandt ende Stadt van Ormus,“ the text includes the same statements regarding blinding the eyes of the king's relation and later on concerning the plague of worms: but there is no plate corresponding to Pl. VI of the edition of 1599 and no illustration at all including any of the data of this chapter numbered sixth in this the original edition and eight in the edition of 1599.

The corresponding edition in French is dated 1610 in the copy examined; in this in due order is „Ch. VI. Description de l'Isle et Cité d'Ormuz“ which is apparently an identical translation of the text of the Latin edition and noticeably shorter than the verbose form of the English edition. It has at page 18 an account of the custom of putting out the eyes of the king's male relatives. At the bottom of page 21 is described the „Maladie de vers ordinaire à Ormuz“ and the top half of page 22 contains the plate reproduced by Blanchard. It is not numbered but bears a title „Portrait de la manière de crever les yeux aux parents du Roy en l'Isle d'Ormuz, et d'autres choses remarques en ce Chapitre“. The plate bears in its lower left hand corner the arabic numeral „6“, which shows it to be probably the same plate as that used in the earlier Latin edition with which it also agrees in other details. This numeral is lacking from Blanchard's copy so the latter may have been reproduced from another edition, but the two are identical otherwise and Blanchard quotes in his text the title as given above, while he also cites this edition without further comment in the bibliographic index of his paper.

I saw also in Paris a reasonably identical German edition of 1598 which has this same chapter and plate. The latter bears the title „Wie die Inwohner in Ormus schlafen, und der König seinē Verwandten des Gesichts beraube“. The description of the terrible worms resembles closely the text of earlier editions, but adds just before the plate „Seind aber zweiffels ohn ein sonderbare Straff Gottes“. The identical plate is used also in another paper in the same volume: „Anhangs der Beschreibung des Königreichs Congo, Inhaltend Fünff Schiffarten Samuel Brauns. Ge-

druckt zu Franckfurt am Mayn bey Caspar Röteln. M. D. C. XXV.“ This repetition demonstrates its attractive and useful character.

In addition to these editions it is necessary to mention only the well known English reprint under the date of 1885 in the series of Hakluyt Voyages. This reprint is much more accessible than the original of which it is a faithful copy with most valuable annotations. From this I may cite verbatim the text pertaining to the matters under discussion (p. 46):

„Ch. VI. Of the Island and Towne of Ormus.“ „And there they have a common custome, that he which is King doth presently cause al his brethren and his kinsmen of the Male kinde to have their eyes put forth²⁾ which done they are all richly maintained during their lives for that there is a law in Ormus, that no blinde man may bee their king over them.“

Later in the same chapter one finds (p. 52), „There is in Ormus a sicknesse or common Plague of Wormes⁶⁾, which growe in their legges, it is thought that they proceede of the water that they drink.“ There is no mention whatever of such worms occurring in the eyes.

From the preceeding it appears clear that the plate in question is taken not from the account of Pigafetta's voyage to the Congo region as Blanchard believed, but first occurs in van Linschoten's voyage to the East Indies. Even here it is not found in the original edition but is added to the later reprints only. The critics already cited incline to regard it purely as a product of the fertile imagination of the De Brys in spite of the vigorous statements of these brothers on the title pages of the „Icones“ regarding the accuracy of their representations. My own study of the plate seemed to yield internal evidence of some more extended knowledge on the part of the artist while at the same time it gave further proof of the impossibility of interpreting the plate as suggesting an eye worm. This accords fully with the results

(Footnote)²⁾ „Teixera (1610) says it is a practice # # # Barbosa mentions this # # # about 1516: # # # The De Bry edition of Linschoten has an imaginary plate, VI, which includes this.“

(Footnote)⁶⁾ „I. e. the so-called Guinea worms common in the tropics. The De Brys give a very imaginary plate to explain this and other matters related of Ormuz, viz., the troughs of water in which people were obliged to sleep on account of the heat, and the blinding of the King's relatives. This plate is not in the original Dutch edition of 1596,“ etc.

of the study of the text which contains no hint of worms in the eye, but *per contra* confines them to the legs, while it explains minutely the custom of putting out the sight of the king's relatives. In these particulars all editions agree fully.

The artist must have relied upon some description, written or verbal, much more extensive than the very general account of the worms given in the text, for he portrays with some accuracy the gradual rolling of the Guinea Worm on a split stick, indicating not only the active process but the custom reported by later authors of pausing occasionally during the extraction of the parasite and permitting the worm to relax before proceeding further. Thus while he winds at one specimen, another worm half extracted hangs from the other leg.

This representation of dracontiasis is urged by Blanchard in support of his views regarding the other figures in the plate; but it seems rather to militate against the explanation he gives since the best authorities contend that the Guinea Worm and *Filaria loa* do not both occur in the same territory. Now the island of Ormus lies at the entrance to the Persian Gulf, within the limits ordinarily accorded to *Dracunculus medinensis* but far removed from the home of *Filaria loa*. Furthermore the person whose eyes are being treated is under evident restraint and manifests too great resistance and pain for one undergoing a simple operation for the removal of *Filaria loa* which is also described by later authors as but little painful. In the plate just behind this group one sees a figure as of a blind man led away by two attendants, a further detail in accord with the text and the original inscription of the plate. The room at the left of the plate represents the supposed method of sleeping in tubs of water during hot weather. The figure at the extreme right has too much the appearance of a North American Indian to belong properly in such a plate.

In view of this discussion it may fairly be maintained that the internal evidence also is irreconcilable with the theory of Guyon, Manson and Blanchard. Neither the account of this voyage nor the questionable plate can stand as a record of *Filaria loa*, but only for *Dracunculus medinensis*. The earliest record of *F. loa* becomes then that of Mongin (1770) nearly two centuries later.

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