

Article of Interest

The Tobacco Beetle in Egyptian Mummies by Dominique Görlitz. *Migration & Diffusion*, 2011. 11 pp. <http://www.migration-diffusion.info/article.php?year=2011&id=239>

Dominique Görlitz is a German experimental archaeologist specializing in ancient watercraft trials. He here reviews the evidence concerning the presence of tobacco leaves, residues of nicotine and cocaine, and tobacco beetles in the tombs/mummies of the ancient Egyptian Pharaohs Ramses II and Tutankhamen. In this article, he contributes valuable information and observations additional to what is covered in this writer's earlier works (see Jett 2002, 2003–2004, of which Görlitz appears to be unaware).

While a French team was restoring Ramses's mummy during the 1970s, it discovered shredded *Nicotiana* sp. leaves in the lowest parts of the abdominal cavity. The tobacco was part of a homogeneous mixture of finely chopped plants of various kinds, surrounded by the resins of embalmment. There was nicotine in the wrappings as well—on which also appeared an imago of a tobacco beetle, *Lasioderma serricorne*. Like domesticated tobacco, this beetle is believed to be of New World origin. The tobacco-fragment samples were obtained with long biopsy tweezers from inaccessible sites through previously made artificial openings, seemingly obviating the possibility of contamination or of nineteenth-century insertion. The relevant material cannot at present be carbon dated, because the sample in Paris has disappeared.

Later, a team led by the Munich forensic pathologist Svetlana Balabanova detected residues of nicotine in other ancient and medieval Egyptian mummies, finding greater concentrations of the alkaloid and/or its metabolites in artificially mummified cadavers than in naturally desiccated ones. This suggests deliberate use of *Nicotiana* as an antiputrefactant in the mummification process, in addition to ingestion. Certain other Old World plants—including solanaceous species, sour cherry, common polypody, and stonecrop—carry nicotine, but in concentrations too slight to account for the mummies' concentrations.

The fairly recently discovered wild tobacco of Namibia belongs to the Australo-Pacific "subgenus *Sauveolentes* which contains almost no nicotine" (p. 9) and so is not a contender as the source for Egypt.

The tobacco beetle was also found in food jars in the tomb of King Tut,

whose inner chambers were sealed until 1922. Like Ramses's *Nicotiana*, Tut's beetles cannot be directly dated, because they are no longer extant.

Entomologists assume the species to have originated in the Americas, where it would have evolved its unique tolerance for nicotine, a toxin characteristic of the beetle's preferred food. It is unable to fly far, certainly not across oceans. It is spread mainly by carriage with its host, dry tobacco; consequently, it is unlikely to have spread to the Old World *without* its host. Görlitz suggests, therefore, that *Lasioderma* is an archaeozoan (pre-Columbian-introduced) rather than a neozoan (post-1492-introduced) species, carried across the Atlantic in Pharaonic times or earlier.

Regarding coca, only the American species of the genus *Erythroxylum* carry cocaine (although some Old World species do contain other alkaloids, including the cocaine relative tropane), and only the two South American domesticated species have this alkaloid in sufficient concentration to account for the residues in the mummies. Seemingly, the presence of cocaine evolved following the continental-drift separation of the Old World and New World populations of *Erythroxylum*.

The author concludes,

it must be accepted that these species were introduced from there [the New World] into the Old World cultures. We do not have strong indications today about who and which society realized these cultural interactions. It seems likely that people from young [Upper] Paleolithic cultures in Spain or their descendants—the Basques—were responsible for this pre-Columbian network trade. (p. 9)

Görlitz does not consider the possibility of *transpacific* carriage.

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Note: This review will also appear in *Pre-Columbiana: A Journal of Long-Distance Contacts*, 5(2–4), 6(1).

References

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