

Comments on the Ethics of Purchasing Burmese Amber¹

Larry B. Smith²

Regarding the amber miners in Myanmar (Burma) who sell Burmese amber (Burmite) as their livelihood, and the ethics of purchasing amber from them, I am quite aware of the decade's long situation (news sources and personal communications) with those in Myanmar and what is succinctly stated in the Human Rights Council paper,

The Tatmadaw has fought civil wars inside Myanmar over the span of seventy years. Decades of military rule have empowered it to act with total impunity. Regrettably, the fledgling democratic transition since 2010 has failed to reverse these deeply entrenched patterns. (Human Rights Council 2019).

My concerns when procuring fossils in Burmese amber include the following: that the miners are safeguarded in their activities, hence, I have intentionally omitted their names from the personal communications; miners are properly compensated; and that amber is collected and sold in a legal manner. As a private collector of Burmese amber, I have retailers who interact with Burmese amber miners as well as other retailers. They keep me well-informed on current political conditions in Myanmar and have provided me with Burmese amber specimens and photographs of the various types of and conditions at these amber mines.

Conversing with Myanmar amber source retailers, who attend the monthly amber markets in Myitkyina (Kachin Amber Market) and Tengchong, Yunnan, and the Burmese dealers along the Thailand border (personal communication 2017), it was mentioned that many attending the amber markets for scientific research specimens are Chinese and Burmese at Tengchong (personal communication 2017, 2024). Burmese miners flock to these markets selling amber for carving, jewelry, and as inclusions (Figures 1-3) for research

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² Pennsylvania Department of Environmental Protection, Harrisburg, Pennsylvania, USA. Email: sputnik1957@embarqmail.com. The opinions expressed in this paper are those of the author and not of his employer, the Pennsylvania Department of Environmental Protection.

(personal communication 2021), where they do well financially with amber sales based on market demands.



Figure 1. *Sphecomyrma* sp. ant (Hymenoptera: Formicidae) in Burmite. Scale bar represents 1 mm.



Figure 2. Wood gnat (Anisopodidae: Subfamily Mycetobiinae), possibly a member of the genus *Mesochria* in Burmite. Scale bar represents 1 mm.

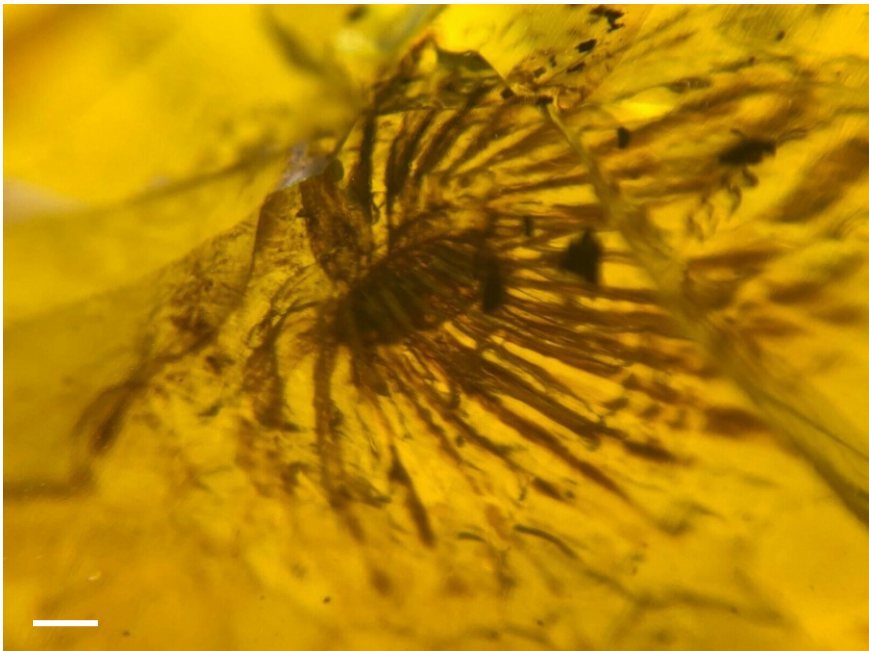


Figure 3. Scale insect (Hemiptera: Coccoidea) in Burmite. Scale bar represents 1 mm.

The miners normally polish their amber (window) to determine what they possess, then they or the middle market retailer cut and polish select specimens for further evaluation (personal communication 2024). Monetarily, both parties are content with these transactions. I am unconvinced that the miners are incapable of knowing what they are selling and are therefore unjustly paid. If that were the case, amber items in the main markets would be lower priced. The miners certainly interact regarding pricing and are aware of what retailers are reselling their amber at. Of course, there are improperly identified fossils by the miner and retailer (e.g., a dinosaur vs. a bird feather), but misidentifications occur in many other avenues of trade. To assess the difficulty in acquiring an inexpensive Burmese amber specimen, I requested a small amber specimen within the rock matrix, which was readily provided. Therefore, I am reasonably certain that the situation at the mines (e.g., non-conflict areas) is not as negative as some have indicated since the supposed risks of extracting amber would outweigh the low monetary value for a transaction of that sort. Also, of note is that one can drive about the Kachin State and the Hukawng amber mines without safety concerns (personal communication 2024).

In summary, based on firsthand accounts from dealers in Myanmar, I do not believe that procuring amber specimens is unethical or detrimental to the miners; however, in conflict areas (Tatmadaw and Kachin Independence Army conflict) monitoring the humanitarian aspects is advocated. Collecting and researching these unique mid-Cretaceous Period amber specimens (Figures 1-3, tentatively identified specimens), not only for continued scientific discoveries, but for the benefit of the amber miners, seems like the best avenue. I agree with the following statements.

To ask for a moratorium retrospectively will greatly affect all of these interests. This approach would not only be detrimental for many scientific projects and researchers, but presumably legally challengeable and possibly untenable (Haug, et al. 2020).

and,

In the long run, these responsible practices can generate important collections in scientific institutions, representing this rich fossil region, and creating a remarkable resource to educate local communities and foreign tourists. The proposed bans and moratoria can only lead to further exploitation of these limited resources and miner communities (Peretti, 2021).

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