

POE'S *GOLD BUG* FROM THE STANDPOINT OF
AN ENTOMOLOGIST

Probably no entomologist has ever given a serious thought to the possibility of the actual existence of such an insect as Poe's "gold bug." It is generally believed that the beetle, like the story, must have been merely a creation of the writer's fertile imagination; for nothing that answers to it is catalogued in the whole eleven thousand and odd beetles known in America north of Mexico, nor have the tropics as yet produced its fellow. And yet, Poe was not ignorant of nature: on the contrary he was more than ordinarily alive to it; for it is known that he was a conchologist and that he wrote the text for an illustrated work on that subject. Indeed, in the *Gold Bug* he refers to Legrand's taste for conchology and speaks of his collecting shells and insects and of his delight at finding "an unknown bivalve" as well as the "Scarabæus," as he calls the "gold bug." Moreover, in his descriptions of that insect, Poe shows himself to some extent conversant with insect anatomy.

It will be pertinent to examine some other points in which imagination plays with the actual to suit the plot of the narrative. Though some freedom with facts must be allowed the writer of a purely imaginary tale, even if it have historical foundation, yet, where a plot is laid in a well-known locality, considerable accuracy in local coloring and setting would seem proper, if not imperative. In the *Gold Bug*, Poe has met fully this requirement, and has given vivid and accurate pictures of Sullivan's Island, the scene of the tale. Here he could draw on his own experience, for during his enlistment in the army from 1827 to 1829, he was stationed for about a year on this island in Charleston harbor. But as the real interest in the story lies in the ingenious reasoning relative to the cryptogram, he makes everything subservient to the development of this particular feature. Thus he does not hesitate to introduce "Bishop's Castle," though he was doubtless well aware that no rocks of that sort or of any other description were indigenous to the low and alluvial region of the South Carolina coast. He must also have known

that there was no mainland to the east of Sullivan's Island, but only the low, palmetto and live-oak covered island, formerly known as Long Island, and now as the Isle of Palms; that the mainland, from the eastern end of Sullivan's Island was many miles to the north, beyond a wilderness of salt marsh and mud flats, and traversed by winding and difficult creeks; and that certainly no pirate would have ventured so far inland, when the Isle of Palms, or rather Long Island, offered at that time all the safety needed for the burial of treasure. Poe may not have known, what now seems true, that Kidd never was on the Carolina coast, but that his treasure, if buried anywhere, was hidden along the shores of Long Island near New York. Or perhaps the identity of name for the two islands may have suggested a whimsical connection to Poe, and the necessity for the pun on Kidd may have prevented his choosing a Thatch, Moody, Worley, or Bonnett, all freebooters who did often visit the Carolina shores. No further analysis need be made of the tale to show the odd mixture of accuracy and pure invention in his dealing with a locality familiar to him.

And so too, fact and fancy were, I believe, responsible for the creation of the "gold bug" itself, and not fancy in the sense of the fictitious, but in the blending of the characters of several beetles into the one composite insect deemed necessary for the purposes of the tale. My object is to show that Poe was really a keen observer of the actual, and that in the locality of Sullivan's Island there are four beetles with which he could have been and doubtless was familiar, each of which might have lent something to the new creation. Three of these beetles certainly inhabit the Isle of Palms, two are unmistakably blended by him and described plainly enough for identification, and one was evidently the main groundwork. In fact, following out my own observations and insect-collecting experiences in this very locality, which was my home as a youth, I believe it highly probable that the capture by Poe of a specimen of one of these very beetles, and his admiration of its great beauty, must have been the first steps in the evolution of the story. The insect, though really not uncommon, readily escapes observation on account of its wariness, the almost inaccessible

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character of its habitat, and the consequent difficulty of its capture.

It will be well to determine now from internal evidence the entomological characteristics presented by the insect of the story and judge as to what extent they can be identified in the three or four beetles referred to.

First, as to shape, Legrand speaks of the insect as "about the size of a hickory-nut," a variable quantity, and later says "the shape of the whole is oval." As to color, he says it is of "a brilliant gold color," and declares "you never saw a more brilliant metallic lustre than the scales emit." To this the narrator, when shown the beetle, adds, "the scales were exceedingly hard and glossy, with all the appearance of burnished gold." And the negro, Jupiter, tells us, "De bug am a goole bug, solid goole ebery bit of him, *inside* and all, *sep him wing*" (italics mine).

The only special markings referred to are "two jet-black spots near one extremity of the back and another, somewhat longer, at the other," and this statement is repeated later in the tale where the two spots are spoken of as round. One special feature of the description is that the antennæ, or "feelers" as they are often popularly called, are remarkable for their development, and this point is twice emphatically referred to by Legrand. The beetle must also have had noticeable and powerful jaws. To these Jup refers in his description of the insect, "He kick en he bite eberyting," and adds, "I didn't like de look of de bug mouff." Moreover, Legrand says, "It gave me a sharp bite which caused me to let it drop." As it drops from the hand of Legrand, the beetle takes wing and flies to Jup, whence develops the incident of finding the parchment.

Now to collect these points more definitely. The beetle is oval, as big as a hickory nut, of a brilliant metallic gold lustre, all except its wings, presumably its elytra, or fore-wings; when its wings are expanded, the abdomen also shows a golden color, and the legs too are yellow, for Jup says, "Solid goole, ebery bit of him, *inside* and all, *sep him wing*." It has two round black spots at one end, let us suppose the prothorax, which is

very prominent in beetles, and a long spot at the other end. The antennæ are a most notable feature; the jaws are strong and able to inflict a bite disconcerting if not painful; the legs are prominent and capable of considerable "kicking," and lastly, it takes flight readily.

Some years ago I had crossed from Sullivan's Island over to Long Island to collect insects. While I was forcing my way through a dense thicket, a large beetle lit on the end of the dagger leaf of a bristling Spanish Bayonet, or Yucca. The insect was new to me then, and was most beautiful: I had thought that nothing like it could be found out of the tropics. It gleamed with shining fiery gold, soft satiny green, and dull old gold, and such antennæ! Nearly three inches long they extended in front as the insect stood "at attention." In my excitement I missed it with my net, nor could I again locate it. Several years later, when visiting the same locality, I saw another. Since then I have taken the beetle on several of the Carolina coast islands, though I have never seen it inland. Entomologists know it as *Callichroma splendidum*, belonging to the *Cerambycidae*. I found them attracted by the bloom of the Carolina olive, but more freely by wounds in live-oak trunks, whence sap exuded. But they are very wild and take flight at the least movement, and the thick jungle forbids active pursuit. Their fondness for sap suggested sugaring for them as moth collectors do, and so with a mixture of stale beer, rum, and brown sugar, I annointed tree trunks in the day time and thus caught a number. The beetle must be closely examined for its beauty to be fully appreciated. Large specimens are an inch and a half long by about one half inch wide, with black antennæ, which sometimes measure two and a quarter inches in length. The head and prominent prothorax are glittering, fiery gold, often shot with green; the fore-wings, or elytra, are satiny green, and when open, disclose a dull-gold abdomen, thus agreeing with old Jup's description, "Solid goole inside and all, sep him wing." The legs, as in all of this genus, are excessively long, and the femora, or thighs, are dull gold or orange. The jaws are prominent and powerful and can inflict a noticeable pinch. This answers fairly well to

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Legrand's beetle, all but the black spots and the shape. Of these spots there is no sign whatever. On this same sugaring trip, however, I had a revelation which suggested to me vividly the idea that the "gold bug" was a composite creature. Every one knows our common large "Click Beetle," or "Jumping Jack," which the bug men call *Alaus oculatus*; it is about the size of *Callichroma* but more oval and flatter; its antennæ are not especially noticeable, nor has it prominent jaws; the ground color is black, thickly spotted with white, and on its very large and prominent prothorax are two large, rounded, black, eye-like spots edged with white, giving a decided death's-head appearance; though there is no sign of the long black mark at the rear end, mentioned by Legrand. On one of the trees I had sugared I took one of these Eyed Elaters side by side with *Callichroma*, and the idea at once flashed upon me, that here were two beetles, found in the very locality of the *Gold Bug*, which, if blended together, gave the insect in question, all except the rear black mark, which Poe doubtless invented to complete the death's-head so necessary to the tale; and differing otherwise only in shape and weight. The weight is evidently also a necessity to the tale, as the "gold bug" of the story is used as a plummet to fix the spot under the death's-head tree.

There is also a common dung beetle, known as *Phanæus carnifex*, found in abundance on the adjacent mainland, though I have never seen it on the coastal islands. This beetle is the size and general shape of a small hickory nut; the male has a bronze, triangular shield on its thorax, edged with golden green, a black retrorse horn on its head, and its elytra are green, but its legs are only of medium length and its antennæ and mandibles are small and not noticeable to the average observer, nor is its abdomen golden. A smaller oval beetle of a green color, slightly golden in very fine specimens, is found on this island and elsewhere throughout the Eastern States. It somewhat resembles the common green "June-bug," or "Fig Eater," but is more brilliant in color. It is known as *Euphoria fulgida*. Poe might well have been familiar with either of these two latter insects; he certainly must have been familiar with

the common-eyed Elater, and a chance specimen of the apparently rare and exquisitely beautiful *Callichroma* doubtless first stirred his imagination. His use of the old name "Scarabæus" does not necessarily mean anything; in fact both *Phanæus* and *Euphoria* belong to the group *Scarabæidæ*.

And now just a word by way of summary and conclusion. *Callichroma splendidum* gives the fiery color, also the legs powerful to kick and the jaws ready to bite; and especially the remarkable antennæ; *Alaus oculatus* gives the death's-head eyespots: either *Phanæus* or *Euphoria*, each more or less auriferous, gives the shape, and Poe's imagination and the necessities of the tale give the missing rear black mark and the excessive weight. That the whole bug is a pure figment of the imagination is rendered unlikely when we consider Poe's accurate knowledge of nature, his keen observation, and his year's sojourn in the very spot where the beetles here described are found.

ELLISON A. SMYTH, JR.

Virginia Polytechnic Institute.