Maria Sibylla Merian, *Butterflies, Beetles, and Other Insects* (18th Century)

Abstract

The *Leningrad Book of Notes and Studies* [*Leningrader Studienbuch*], published under the German title *Butterflies, Beetles, and Other Insects* [*Schmetterlinge, Käfer und andere Insekten*] is the transliterated facsimile edition of Maria Sibylla Merian's (1647–1717) daily journal. In it, the artist and naturalist documented her day-to-day work with insects, mostly caterpillars, butterflies, and beetles. Among other observations, the entries describe Merian's experiments with caterpillars' food and their metamorphosis into butterflies. Merian had her own garden, where she searched for flowers and insects. In her journal entries, she also referred to some of her earlier published illustrations of insects (see, for instance, plates 8, 21, and 34 in volume 2 of her book *The Caterpillar, Marvelous Transformation and Strange Floral Food* [1683]).

Source

[…]

109 The crawling caterpillar illustrated on the third parchment page has a peculiar shape. I have collected many such caterpillars—partly in May and partly in June—all of which fed on blueberries. If the berries were not available, they ate sloe leaves. They underwent two transformations. The first stage shown is an open cocoon, light yellow in color, with an ash-grey chrysalis inside that is somewhat sulfur-yellowish underneath. They lie inside for four weeks, and then emerge as ugly, grey little animals that resemble worms more than tiny butterflies. Here is one sitting up on top, together with its cocoon. As soon as they crawl out, they lay masses of snow-white eggs, and there is such a quantity of these that I once counted as many as 150. The other change was that they attached themselves underneath one end of a box lid (as if firmly glued on), as can be seen above—the caterpillar pictured on the side. Within 4 weeks, similarly ugly animals emerged with wings clearly visible toward the front and on the sides. These had a very bad smell. Thus, my expectations that this strange caterpillar would turn into something marvelous were disappointed. In section II of R[aupen] [Caterpillars], no. 34.

These green caterpillars appear in June. They feed on the leaves of the blue elderberry tree and make a cocoon, within which the chrysalis (illustrated here with its skin cast off) is very lively. The little hatchling emerged in October.

110 Some caterpillars in the *second* group from the first hatching on June 16 have attached themselves to a box lid and covered themselves as if with cotton. On July 1, small worms crawled out of the caterpillars and then became so many small black flies. The weather was very rainy, however, and I do not believe that they survived. On July 19, one became a delicate chrysalis that looked as if it were adorned with gold. It emerged on August 7 as a beautiful butterfly, like the one illustrated here.

This transformation is in my third book, no. 15.

In the year 1680, I was in Nuremberg at the court of the noble and virtuous maiden Clara Regina. It was my habit to take walks in her grandfather's, Mr. Friederich Volkamer's, magnificent garden, which runs along the city walls. There, I found a few quick-moving caterpillars on a deadnettle, which they savored from April into May. They

were black in color and beautifully decorated with many yellow and white spots. In early May, they had shed their casings and within 4 hours each had gradually transformed into an immobile chrysalis. On June 10, such a beautiful moth emerged (that flies mostly at night instead of during the day).

I have illustrated its metamorphosis in my second section on caterpillars, no. 8.

[...]

119 In 1677, I found a large number of these large golden-yellow and black caterpillars (which, when small, appear like the smaller of the two illustrated here) in the town moat at Altorff (where the University of Nuremberg is located). Found in the grass, they feed daily from August into September wherever they can find clover and sorrel. Afterwards, they build a tiny shelter out of excretions and green leaves and crawl inside. However, nothing came of my efforts; in fact, it was all for nothing. Even though the very next year I went often and diligently waited for them—and was very inventive in trying to help them through their metamorphosis—they lingered only half alive through the winter. In the end, they died or turned to slime.

Once in early July, when I went to my garden (next to the Castle Church and Imperial Castle Chapel in Nuremberg) to see the flowers and look for caterpillars, I found a lot of green scum on the green leaves of the golden-yellow lilies. I thought I would try to find out where it came from. I touched the scum with a stick, thinking that the leaves might be rotting. There in the muck were many round little red animals, similar to small beetles, huddled with their heads together and completely motionless, even when I touched them firmly. I then took some of them home, together with their leaves, to see what might develop. They remained in the dirty scum for several days, and when I observed them again after a few days, I found that they had transformed in a manner similar to that which I later observed in my garden. Now, there was a dull red chrysalis on the green leaf (instead of a little beetle larvae). At the end of July, little beetles crawled out, like the one shown above, and once more laid their red eggs on the lily leaves as if setting up a game of nine pins. These became little animals like the earlier ones that were covered with scum. I illustrated this transformation in my second section on caterpillars, no. 21.

[...]

Source: Maria Sibylla Merian, *Leningrader Studienbuch*, vol. 2, *Schmetterlinge, Käfer und andere Insekten*. Leipzig: Reich, 1976, pp. 219(40)–221(41), 227(44).

Translation: Bill C. Ray

Recommended Citation: Maria Sibylla Merian, Butterflies, Beetles, and Other Insects (18th Century), published in: German History Intersections, <https://germanhistory-intersections.org/en/knowledge-and-education/ghis:document-168> [October 12, 2024].