

Fireflies and Animals Associated with the Aquatic Environment Illustrated on a Sewerage Manhole Cover in the Urban Area of Amagasaki City, Hyôgo Prefecture, Japan

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Abstract This is a short report on insects from the aspect of cultural entomology. Fireflies and animals associated with the aquatic environment were illustrated on a sewerage manhole cover in the urban area of Amagasaki City, Hyôgo Prefecture, Japan. To understand the meaning of such an illustration, Internet research and an interview to Amagasaki City Office were conducted and it was confirmed that such representations seem to be the consequence of people desiring a clean aquatic environment to conserve nature and human life.

Key words: Cultural entomology, firefly, sewerage manhole cover, Amagasaki City

The Japanese have a special appreciation of insects such as fireflies, rhinoceros beetles, dragonflies and singing insects with unique aesthetic values, which seems to originate from the awe-inspired deification of nature in ancient Japan. As a result, some insects are represented on cultural objects or media which is proximity to the general public in urban areas (e.g. KONISHI, 2007; TAKADA, 2010; 2013). In some cases, such representations of insects seem to be the consequence of people in urban areas desiring a clean natural environment, although the natural environment lost as a result of the development of human habitation can not easily be restored. A good example of the representation of insects was found that seemed to express such emotions in urban area. Fireflies, dragonflies and some fish (loach and Japanese killifish) have been used in the design of a sewerage manhole cover on a road in Amagasaki City, Hyôgo Prefecture (Figs. 1–3). Interestingly, all of these insects and animals are associated with the aquatic environment. In particular, fireflies, especially Genji-fireflies (*Luciola*



Fig. 1. Street where sewerage manhole cover was found in Amagasaki City, Hyôgo Prefecture, Japan.



Fig. 2. Sewerage manhole cover in Amagasaki City, Hyôgo Prefecture.



Fig. 3. Firefly represented on a sewerage manhole cover in Amagasaki City.

cruciata MOTSCHULSKY, 1854) and Heike-fireflies (*Luciola lateralis* MOTSCHULSKY, 1860) which are perceived as representative lampyrid species by general public and traditionally have great cultural significance in Japan (KAJITA & AOYAMA, 2010; TAKADA, 2011), are thought to be strongly linked with fine aquatic environments, because they reproduce such aquatic environments as river, creek, channel and/or paddy fields in Japanese traditional rural landscapes called Satoyama and their larvae glow in the water of the aquatic environments (KAJITA & AOYAMA, 2010). Such insects and fish have been adopted for the design of a manhole cover associated with dirty water which should be purified. Indeed, Amagasaki City is an industrial and core city, which is a class of Japanese city where the population is over 300,000, and thus sewerage purification is one of the most important infrastructures to improve the living environment for the general public and to prevention water pollution in Amagasaki City. Amagasaki City Office mentioned that they designed this manhole cover to express of “city of water, Amagasaki” with themes such as “City familiar with water”, “Nature and water”, and

“Dreams and profitability for the general public” (http://www.city.amagasaki.hyogo.jp/jo_gesui/yakuwari/084_mametisiki.html: Accessed on 12th February 2013). These findings were also confirmed by a telephone interview with Amagasaki City Office on 12 February 2013. This suggests that the design of the manhole cover expresses the attitude to deal with the sewerage purification with consideration for a clean aquatic environment to conserve nature and human life.

From both naturalist and humanist views, many insects, including beetles, can be found in culture and it can be studied which, how and why insects are represented in our society to understand the current attitudes of the general public towards insects and nature in general, and thus we should intensively investigate “insects adopted for cultural objects or media” from the aspects of cultural entomology and study of street observations.

Finally, I would like to thank Mr. Kohei MATSUMORI (Pipeline Construction and Maintenance, Sewerage Department, City Development and Planning Bureau, Amagasaki City) for the interview on sewerage manhole cover. I also thank anonymous peer reviewers for their valuable comments.

要 約

高田兼太：兵庫県尼崎市の下水道マンホールに表象するホタルと水生生物。—— 筆者は、兵庫県尼崎市の都市部の路上において、市が管理する下水道のマンホール上にホタルをはじめとする水生生物が表象しているのを目撃した。尼崎市下水道のマンホール上にホタルやその他水生生物が表象している理由について調べるために、インターネットによる調査と電話回線を通じての尼崎市役所への聞き取り調査を実施したところ、尼崎の下水道のマンホールは「水に親しむまち」「自然と水」「夢とうるおい」をテーマとして「水のまち尼崎」をデザイン化したものであり、これらのデザインは好適な自然環境と人々の生活を保全するための良質な水環境を望む思いが表象した結果であることがうかがえた。

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