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Ladybug-shaped Chocolate on a Mousse Cake Bought at a Bakery in Amagasaki City, Japan

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Abstract As a case of the use of coleopteran insects in dietary culture, ladybug-shaped chocolate was found on a mousse cake sold by a bakery, "Shotani, Mukono-sou Branch" in Amagasaki City, Japan. This representation of a ladybug on confectionery might not be rare but is a curious example that has been scarcely reported from the aspect of cultural entomology and ethnoentomology, because it involves the use of insects to nourish the mind and soul in dietary culture despite the marked bias against eating insect in Western and westernized countries, although numerous works on insect use associated with dietary culture illustrate entomophagy for human survival in traditional societies. Considering the representation of ladybugs on confectionery, it is suggested that ladybugs have high aesthetic value as a cute design, as utilitarian value is unrelated to its direct utilization as food, they have a less negativistic value because of their unthreatening traits and calm behavior and there is a traditional belief that ladybugs are connected with luck, associated with their biological attributes and related values mentioned above, although ladybugs themselves have less utilitarian value as food, in contrast to edible insects such as locusts. This finding also explains why ladybugs are quite popular and have been used on the various goods as a visual design.
Key words: Cultural entomology, ladybug, confectionery, visual design, dietary culture

Insects are ubiquitous in the various environments on Earth, and thus people have many opportunities to see them. As a result, insects influence the general public, and are represented in various cultural phenomena and used for nourishment of the mind and soul in human societies (e.g. Berenbaum, 1995; Konishi, 2007; Meyer-Rochow *et al.*, 2008; Klein, 2012; Takada, 2010 a; 2013). In particular, ladybugs (Coccinellidae) are quite popular, are one of the most well-known insects in both Europe (Adams, 1992) and Japan (Sakuratani & Shiyake, 2009; Takada, 2010 b), and have been used on various goods as a visual design, especially European countries. In fact, Sakuratani & Shiyake (2009) found about 160 items of ladybug goods, such as clothes, dishes, accessories, convenience goods, stationery and toys. In addition, ladybugs have even been used as a visual design for foods which are fundamental components of human life, such as cookies and chocolates (Sakuratani & Shiyake, 2009) despite the marked bias against eating insects in Western and westernized countries (DeFoliart, 1999). A ladybug-shaped chocolate was found on the citron mousse cake bought from a popular bakery "Shotani, Mukono-sou Branch" on 17th Februrary 2013 in Amagasaki City, Hyôgo Prefecture, Japan (Fig. 1). This chocolate has the typical characteristics of ladybug goods, red with black spots, like *Coccinella septempunctata* Linnaeus, 1758 and *Adalia bipunctata* (Linnaeus, 1758) (Fig. 2). This representation of a ladybug on confectionery might not be rare but is a curious example that has been scarcely reported from the aspect of cultural entomology and ethnoentomology, because it suggests the use of insects to nourish the mind and soul in dietary culture, despite the marked bias against eating insects in Western and westernized countries, although numerous works on insect use associated with dietary culture illustrate entomophagy for human survival in traditional societies (e.g. DeFoliart, 1999; Nonaka, 2005). Obviously, this representation of ladybugs is not derived from the

Fig. 1. Citron mousse cake sold by a popular bakery in Amagasaki City, Hyôgo Prefecture.

Fig. 2. Ladybug-shaped chocolate on a mousse cake.

utilitarian value of ladybugs as food, because ladybugs themselves which have warning coloration and defend with chemicals from the predation of animals such as birds (MORTON JONES, 1932; WICKLER, 1968; HOLLOWAY *et al.*, 1991), are too bitter to eat (UCHIYAMA, 2008) but are associated with utilitarian values such as being a natural enemy of agricultural pests and therefore having a positive image (ADAMS, 1992), although ladybugs include herbivorous species of agricultural pests, such as some epilachnine species. In addition, the semi-spherical body, simple coloration, unthreatening traits and calm behavior of ladybugs are thought to present a cute image to the general public (SAKURATANI & SHIYAKE, 2009), indicating that they have high aesthetic and less negativistic values. Moreover, the dedication of ladybugs to the Virgin Mary and the traditional belief that ladybugs are connected with luck, associated with their biological attributes and related values mentioned above, in Western countries (ADAMS, 1992; SAKURATANI & SHIYAKE, 2009) also give a positive image and thus facilitate the representation of ladybugs on confectionery. In fact, the TV program "Discovery of the World's

Mysteries (*Sekai Fushigi Hakken* in Japanese)" (broadcast at 21 : 00 on 9th March 2013) introduced the representation of ladybugs on chocolate in connection with the arrival of spring and luck in Switzerland (http://www.tbs.co.jp/f-hakken/bknm/20130309/p_3.html [Accessed on 11 March 2013]). In short, ladybugs are represented on food in connection with their aesthetic value as a design with a cute image, their utilitarian value unrelated with their direct utilization as food, less negativistic value because of their unthreatening traits and calm behavior, and the traditional beliefs that they are connected with luck, associated with their biological attributes and related values mentioned above, although ladybugs themselves have less utilitarian value as food, in contrast to edible insects such as locusts. This finding also explains why ladybugs are quite popular and have been used on various goods as a visual design. Nevertheless, it seems somewhat marvelous that ladybugs are accepted as a visual design on food in spite of their low utilitarian value as food due to their bad taste and their warning coloration, while the general public tends to be prejudiced against eating edible insects in spite of their high utilitarian value as food due to their good taste and nutrition in Western and westernized countries (DeFoliart, 1999). A similar example to the use to nourish the mind in food culture has been reported by Miyanoshita (2008), who found that chocolate shaped as the larva of rhinoceros beetles as a design image both cute and disgusting at the same time (such an image is called "*Kimo-Kawaii*" as a compound word of *Kimoi* (disgusting) and *Kawaii* (cute) and this word is used by younger people in Japanese), although the larva of rhinoceros beetles themselves are also not edible due to their very bad taste and flavor of humus (Uchiyama, 2008).

From both naturalist and humanist views, it is possible to find other curious example of the use of insects to nourish the mind in dietary culture. We should accumulate such examples to understand why some insects are used on food as a visual design, although the general public is biased against eating insects despite their high utilitarian value as food due to their good taste and nutrition in Western and westernized countries.

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要　　約

高田兼太：ケーキの上にのっていたテントウムシ型チョコレート．—— 筆者は，兵庫県尼崎市のあるベーカリーショップ「ケーキハウスショウタニ　武庫之荘店」において購入したケーキ上に，赤い上翅に黒い斑点のあるナナホシテントウに似たテントウムシ型のチョコレートが飾られているのを目撃した．これは，食文化における昆虫の利用に関する多くの研究例では伝統的な社会における生活手段にかかわる昆虫食について言及しているのに対して，お菓子のデザインとして表象するテントウムシは，昆虫食に対する偏見が広く持たれている西洋や西洋化した社会中において食文化における精神面のみにかかわる昆虫の利用であり，あまりめずらしい事例ではないと思われるが，文化昆虫学や民族昆虫学の分野の観点からほとんど報告されてこなかった面白い事例であると考えられた．そこで，テントウムシが食品のデザインにまで採用されている理由について若干の考察を試みたところ，テントウムシ自体は苦みが強すぎて食料として不向きであり，イナゴのように食用昆虫としての直接的な実利的価値はないが，かわいらしさを表現するデザインとしての審美的価値や生物農薬等としての実利的価値などといった肯定的価値が高いこと，しぐさが穏やかで危険な生物ではないために否定的価値が低いこと，ならびにテントウムシの生物学的特性とそこから派生する価値に

関連した幸運を呼ぶという伝統的な信仰が関係していることが示唆された．この見解は，何故テントウムシの人気が高く，様々なジャンルのグッズのデザインに適用されているのかもまた説明しているだろう．

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