

Insect Biodiversity in Meiji and Art Nouveau Design

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Diverse insects, from butterflies to cicadas, have remained a consistent presence in the art of East Asia for millennia (Berenbaum 1995). In Europe, this has not always been the case — insects made occasional appearances in medieval manuscripts, usually as marginalia (Neri 2011, Nazari 2014); later, the Age of Exploration and the Linnaean era increased the prevalence of insects in scientific illustration, but insects actually became *less* popular in European fine arts from the seventeenth through the nineteenth centuries (Dicke 2000, Floyd 2009, Neri 2011).

This trend in European art was quickly reversed before the turn of the twentieth century, when Japanese appreciation of insects reached Europe. In 1853, Japanese ports opened to the west; in 1868, the Japanese shogunate ended, and the new Meiji government came into power (Buruma 2004). The Meiji Restoration turned Japan, which had been a highly insular culture, to the West (Buruma 2004). The Meiji government established a European-style educational system with a particular emphasis on science and technology (Nakayama 1989). “Driven largely by the desire to avoid the colonization by Western nations witnessed in other parts of East Asia, a full-scale campaign on national self-definition and modernization, which in many ways looked like Westernization, was underway in Japan” (Saunders 2010). As Japan imported European ideas, Japanese art was exported to eager audiences in Europe (Weisberg 1975). The Japanese canon, comprised of works by masters such as Katsushika Hokusai, exerted a tremendous influence

on European artists such as Édouard Manet, James Whistler, and Claude Monet (Weisberg 1975, Watanabe 1984, Inaga 2003, Ono 2003). Simultaneously, Western entomologists collected insects in Japan, and Linnaean taxonomy sent shock waves through the Japanese scientific establishment (Rosenstone 1988, Walker 2005).

The cultural exchange between Europe and Japan created a web of influence that is often impossible to disentangle (Miki 1964, Weisberg 1975, Saunders 2010).

However, it can be said with certainty that during the years just before and after the turn of the twentieth century, the long-standing Japanese appreciation of insects intersected with the new European passion for naming all living things. These unique events facilitated a golden age of insects portrayed in both Japanese and French art.

Insects in Edo *Ukiyo-e*

In Europe, insects have negative cultural connotations rooted in the Bible (Kritsky 1997, Impelluso 2004). But in East Asia, nature is a key component of spiritual practices, and people have traditionally viewed insects in a more positive light (Berenbaum 1995, Farris 2009). Japanese culture has been shaped by long periods of Chinese conquest (Yoshikawa 1976), and one of the many shared aspects of Japanese and Chinese art is the prevalence of diverse insects. An early example of the insect art of China dates to the thirteenth century BCE; striking in its simplicity and subtly adorned, the likeness of this cicada is endearing and unmistakable (Fig. 1).

Japanese artists were keenly aware of their rich history of insects in art: “Kano Kagenobu, in the early nineteenth century, prepared a hand scroll of sketches in the styles of Japanese and Chinese artists spanning almost a thousand years; this scroll, *Wakan Hissha Churui*, or *Insects by Japanese and Chinese Artists*, is probably the most complete single compilation of Eastern insect art through the ages” (Berenbaum 1995 pg. 324). During the



Fig. 1. Tongue amulet in the form of a cicada (*hanchan*), ca. 1300-1200 BCE. From open.asia.si.edu.



Fig. 2. “Mole Cricket (*Kera*); Earwig (*Hasami-mushi*),” 1788, Kitagawa Utamaro. From www.metmuseum.org.

Edo period, which spanned the late eighteenth through mid-nineteenth centuries and saw the publication of *Wakan Hissha Churui*, insect diversity remained a notable component of Japanese art. *Ukiyo-e*, or woodblock prints, became popular, and many of these feature insects.

Kitagawa Utamaro produced some of the most notable Edo *ukiyo-e*. His fifteen illustrations that accompanied the poems of *Ehon mushi erami* (*Picture Book of Crawling Creatures*) contain many insects: dragonflies, grasshoppers, katydids, various crickets, an earwig, a mantis, cicadas, a paper wasp, beetles, a horsefly, caterpillars, and a butterfly. “Mole Cricket (*Kera*); Earwig (*Hasami-mushi*)” contains two insects that Western audiences may not expect to see in the decorative arts (Fig. 2). A mole cricket lies parallel to the viewer on a blank foreground. An earwig stands on a log, striking a rather interesting pose with its rear end facing the viewer and its cerci curled up toward the sky. Utamaro rendered the insects in shades of light and dark brown, respectively. Behind the log, a rose bush prettifies the scene by adding a few splashes of color. This print is typical of the *Picture Book of Crawling Creatures*: it contains various insects in their pleasing garden habitats.

Katsushika Hokusai is perhaps the most famous *ukiyo-e* artist of the Edo period — to this day, “The Great Wave” is a cultural icon. One of Hokusai’s insect prints, “Grasshopper and Iris” (Fig. 3), is typical of Edo *ukiyo-e*. The background,

though hardly detailed, is brightly pigmented and evocative. A single drab insect blends into the many leaves and flowers of its relatively colorful plant host, which dominates the composition. This style had an international reach: Utamaro and Hokusai were two of the first Japanese artists whose work took Europe by storm (Fahr-Becker 2002).

Japonisme Sweeps Europe

Increasingly throughout the nineteenth century, Western Europe fell under the spell of the “Orientalist” movement: an obsession with the wider, non-European world, from Ottoman harems to East Indian snake charmers and beyond. World’s Fairs in Paris and London put exotic cultures on view in European capitals, and foreign peoples became a popular artistic subject (Celik and Kinney 1990). To be sure, information

about these cultures was filtered through an imperialist lens (Said 1979), and Orientalism continues to challenge contemporary scholars (Nochlin 1983).

European audiences learned about the cultures of West and South Asia, along with Africa and Oceania, by viewing art produced by their fellow Europeans (Nochlin 1983); in contrast, Japanese prints were sold directly to the Western market post-1853 (Weisberg 1975). “Japanese art, particularly Japanese prints, became widely available in the West and Japanese art became extremely fashionable...Indeed, the cult of Japanese art is a distinct characteristic of the 1870s and 80s in the West, particularly in France and England” (Watanabe 1984). Perhaps because the art of Japan passed through fewer filters, it was able to influence France more thoroughly and directly. For this reason, the European fashion for all things Japanese (called “*Japonisme*”) stands out among the many manifestations of Orientalism. Japanese artistic conventions had a profound impact on European artistic practice (Weisberg 1975); when the Japanese painter Kamisaka Sekka came across Art Nouveau in Europe in 1901, he insisted that the style was not new, but rather typically Japanese (Saunders 2010).

Art Nouveau Inspiration in Europe

At the height of Japanese influence on Europe, the graphic arts featured a wider range of natural subjects than ever before.



Fig. 3. “Grasshopper and Iris,” late 1820s, Katsushika Hokusai. From www.metmuseum.org.



Fig. 4. "Tineida," *Kunstformen der Natur*, 1899-1904, by Ernst Haeckel.

This development occurred, in part, thanks to technological innovations such as the powerful microscopes that allowed Ernst Haeckel to see the minute anatomical features of single-celled marine organisms (Fahr-Becker 2007). A key figure in the history of ecology and evolution, Haeckel also created decorative scientific illustration. His first such collection was published in 1862, and he completed his masterpiece, *Kunstformen der Natur* (*Art Forms in Nature*, 1899-1904), at the peak of the Art Nouveau movement. "Haeckel was primarily concerned with amorphous, plant-like animals — jellyfish, cnidarians, seaweed, radiolarians, algae, corals, and protozoa — whose structures were almost devoid of solid, straight lines and featured heavily in the ornamentation of Art Nouveau" (Fahr-Becker 2007). In addition to his famous marine invertebrates, Haeckel illustrated arthropods such as trilobites, sea scorpions, arachnids, copepods, and basal moths (Fig. 4). Haeckel's reverence for all living creatures developed in parallel with his Monist philosophy. Monism has far more in common with East Asian than with European religious traditions in that it "recognizes one sole substance in the universe, which is at once God and Nature" (Haeckel and McCabe 1900, cited in Dayrat 2003).

The plates of *Art Forms in Nature* formed a portfolio of designs that influenced a number of artists and craftsmen, most notably the architect René Binet, who was heavily inspired by marine life, and preferred longhorn beetles to



Fig. 5. "Études d'insectes (seize motifs)," *Fantaisies décoratives*, 1886-7 Jules-Auguste Habert Dys.

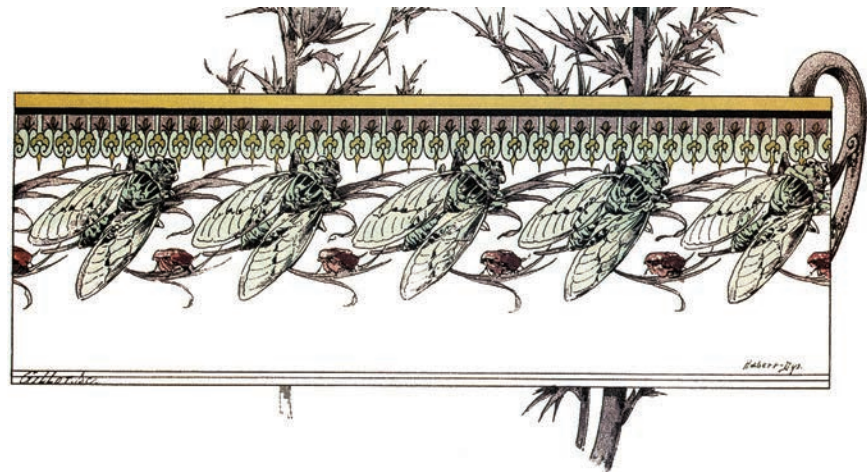


Fig. 6. "Trois motifs pour service à thé (développement)" (detail), *Fantaisies décoratives*, 1886-7 Jules-Auguste Habert Dys.

butterflies (Binet et al. 2007). In fact, many graphic artists of the Art Nouveau era produced design portfolios with motifs to inspire artists working in a variety of media. These portfolios, stunning in their own right, bridge the gap between two- and three-dimensional design, and offer a glimpse into the inner workings of the Art Nouveau movement.

Jules-Auguste Habert Dys was a very early exponent of the Art Nouveau style whose portfolio *Fantaisies décoratives* (*Decorative Fantasies*, 1886-7) featured a number of insects. Like many Japanese artists, Habert Dys designed insects that interacted with their environment. In one plate from *Fantaisies décoratives*, a dense, diverse group of beetles crawls across the leaves of a single plant (Fig. 5). The emphasis on plant-insect interactions, the neutral background color, and the flattened perspective recall the woodblock prints of Habert Dys' Meiji contemporaries. However, the prevalence of dorsal poses and the great diversity of insects crammed into a single composition are far more reminiscent of Haeckel's scientific illustration. Elsewhere in *Fantaisies décoratives*, Habert Dys demonstrates Japanese influence with a design based on cicadas (Fig. 6); whereas beetles have a long history in Western art and continued to appear in European graphic art throughout the nineteenth century (Neri 2011, Schachat 2014), cicadas are hallmarks of exotic, Eastern design. Habert Dys' contemporaries praised his "mixture of Japanese elegance of line and thoroughly sincere reproduction of European flower and animal life" (Child 1884).

Insects in Meiji *Ukiyo-e*

Through most of the Edo period, Western art trickled slowly into Japan (Miki 1964, Sullivan 1989, Fahr-Becker 2002). But soon before the Meiji reformation, the trickle turned into a flood (Sullivan 1989). During the Meiji period, various artists allowed insects more assertive roles in *ukiyo-e*. Watanabe Seitei's "Catalpa and Wasp" (Fig. 7) includes aspects of Edo, Meiji, and European stylistic conventions. A small insect interacts with a large plant in front of a subtly colored background, as was the often case during the Edo era. But instead of placing the wasp in the middle of the host plant, Seitei brings the insect to the foreground. Situated between the plant and the surface of



Fig. 7. "Catalpa and Wasp," Seitei's *Flowers and Birds*, 1916 Watanabe Seitei. From open.asia.si.edu.



Fig. 8. "Gourds on a vine with a mantis," ca. 1868-1891, Shibata Zeshin. From open.asia.si.edu.

the print, the wasp appears ready to turn around and fly toward the viewer at any moment. The portrayal of a plant-insect interaction continues the Edo tradition of attention to ecology, but Seitei's choice to situate the insect at the outside of the catalpa pod draws attention to the wasp while reducing the sense of natural harmony. Seitei used shading to create the illusion of three-dimensionality, a traditional technique used by European artists (Harris 2010).

Shibata Zeshin's "Gourds on a vine with a mantis" (Fig. 8) goes much further. Its blank background, reminiscent of Utamaro, brings the subject matter to the fore; rather than capturing the mood of a

scene, this print focuses on the shape of the mantis and the gourds. The reduced color palette brings the outline of the insect and plant into focus, leading to a loss of detail but a heightened sense of rhythm. Lastly, the close-up perspective draws attention to the insect at the cost of the vine, which has been cropped far more severely than the Edo host plants rendered by Utamaro and Hokusai.

In Kawabata Gyokusho's "Cicada and leaves" (Fig. 9), the host plant is rendered in two flat shades of green while the cicada appears in orange, green, and black, with elaborate wings; the traditional hierarchy of color and detail has been reversed by the disproportionate amount



Fig. 9. "Cicada and leaves," ca. 1868-1912, Kawabata Gyokusho. From open.asia.si.edu.

of attention paid to a small insect. Many examples of Meiji *ukiyo-e* relegate botanical elements, which had dominated and grounded Edo graphic art, to a subordinate role as flat, decorative scenery for insects. Gyokusho and especially Zeshin eschewed the shading and dimensionality of Seitei and the Europeans, continuing the centuries-long Japanese tradition of flat planes of color (Saunders 2010). This elegant, graceful two-dimensionality strongly influenced European designers in the Art Nouveau movement around the turn of the century.

Insects at the Height of Art Nouveau

In 1897, the French designer Maurice Pillard Verneuil released *L'animal dans la décoration* (*The Animal in Decoration*). This portfolio features plenty of traditional decorative flora and fauna, such as water lilies and peacocks. But the designs also include a range of invertebrates: sea anemones, jellyfish, starfish, scallops, nautilus, shrimp, various snails, and a diversity of insects. Dragonflies and damselflies predominate among the insects, followed (unsurprisingly) by butterflies and moths. Cicadas appear

in five of the sixty plates. Verneuil also included three families of beetles in his designs, as well as flies, stinkbugs, and a grasshopper. One particularly striking plate features sphingid moths more prominently than birds (Fig. 10).



Fig. 10. "Papillons et pavots, veilleuse émaux translucides. Paons, vase émaux cloisonnés. Oiseaux tenture. Capricornes, jeu de fond. Sauterelles, bordure," *L'animal dans la décoration*, 1897 Maurice Pillard Verneuil.

The moths' green and blue wings flutter among pink flowers, against a rich orange background; the only other design in the foreground features pale yellow peacocks, which command very little attention beside the moths. The background designs include grasshoppers, ornate birds, and longhorn beetles with spiraling legs and antennae. "The Art Nouveau style is characterized by organic designs based overwhelmingly on plants and flowers, which are patternized often through the flattening of forms into color planes defined by the use of strong outline, and its hallmark 'whiplash' curved lines" (Saunders 2010), and Verneuil's work expands the essence of Art Nouveau from flora to entomofauna.

Verneuil's next design portfolio, *Combinaisons ornementales* (*Ornamental Combinations*, ca. 1901), was a collaboration with Georges Auriol and the famed poster designer Alphonse Mucha. The book includes a wide variety of motifs such as arabesque swirls, flower garlands, and peacock feathers. As usual, butterflies dominate an entire plate. But elsewhere, large sphingid moths encircle small, monochromatic butterflies (Fig. 11). And, as in *L'animal dans la décoration*, a true bug

makes an appearance (Fig. 12). Both of Verneuil's portfolios are comprised of stylized, streamlined designs in a highly simplified color palette. Habert Dys' earlier insect designs included many colors and a relatively high degree of detail (Figs. 5, 6), much like Edo *ukiyo-e* (Figs. 2, 3); the designs of Verneuil and his contemporaries, which eschewed detail and reduced insects to their essence, reflect the trends of *ukiyo-e* from the Meiji period (Figs. 7-9). Verneuil replaced Habert Dys' "thoroughly sincere reproduction of European flower and animal life" with unyielding "Japanese elegance of line" (Child 1884). In turn, Verneuil's plant and animal portfolios were incorporated into a new Japanese design curriculum in 1902 (Saunders 2010).



Fig. 11. Untitled (detail), *Combinaisons ornementales*, ca. 1901 Maurice Pillard Verneuil, Georges Auriol, and Alphonse Mucha.



Fig. 12. Untitled (detail), *Combinaisons ornementales*, ca. 1901 Maurice Pillard Verneuil, Georges Auriol, and Alphonse Mucha.

Three-Dimensional Insect Art

Insects were featured in a variety of Meiji art forms in addition to *ukiyo-e*. Mantises and other insects had often appeared in three-dimensional decorative arts during the Edo period; during the Meiji restoration, these forms became less robust and ornate, and more streamlined (Fig. 13). As was the case with *ukiyo-e*, art objects eschewed gratuitous detail with the aim of capturing the insect's essence through the sparing use of elegant lines. Because many sculptural items lack a backdrop and are often monochromatic by default, three-dimensional art brings the Meiji/Art Nouveau aesthetic into especially striking relief.

Emile Gallé was a preeminent Art Nouveau craftsman in France, famous for his glass vases (Garner 1979). He had an educational background in botany; his frequent use of insects demonstrates Japanese influence (Silverman 1992). "Japanese art was the most significant single stylistic influence on Gallé's mature



Fig. 13. "Articulated Praying Mantis," ca. 1868-1900. From art.thewalters.org.

work...Certain vases bear the inscription '*alla japonica*' beside Gallé's own signature" (Garner 1979). One early Gallé vase features bees rendered in the Edo style (Fig. 14). The vase's decoration is infused with rhythm, from the flowers' stylized lines and dots, to the segments of the bees' bodies and the veins of their wings, to the nearly abstracted honeycomb pattern that fills in the negative space. The honey-colored glass is punctuated by darker colors, particularly in the flowers and their stalks; a few cells of the honeycomb are also darkened, indicating activity in the hive.

Another Gallé vase revisits the same theme but mainly shows Meiji, not Edo, influence (Fig. 15). Once again, bees visit flowers against a backdrop of honeycomb patterning. The close-up perspective, reminiscent of Zeshin and Seitei (Figs. 8, 9), draws more attention to the bees. The monochromatic coloration, again reminiscent of Seitei, emphasizes Gallé's belief in natural unity (Silverman 1992), recalling traditional East Asian philosophy and Haeckel's monism. The pieces of honeycomb are entirely unoccupied and overlap with the flowers — though still reminiscent of the bees' biology, the honeycomb now serves a far more decorative purpose.

One last example of insects in three-dimensional art is a Meiji case, called an *inrō*, featuring a cricket (Fig. 16). This case is fascinating because it is an unmistakably Japanese object, made with traditional materials — ivory and powdered gold — produced during a period of diminishing cultural and artistic boundaries. The botanical background is reminiscent of Meiji *ukiyo-e*: the ground color is neutral; the design is closely cropped, with



Fig. 14. "Vase," ca. 1890 Emile Gallé. From www.philamuseum.org.



Fig. 15. "Vase, Yellow with Bees," late 19th-early 20th century. Emile Gallé (designer; French, 1846-1904); France; Glass; 15.3 x 8.5 cm (6 in. x 3 3/8 in.); Gift of the Estate of Max Kobre, 1996-45-15; Photo: Ellen McDermott.



Fig. 16. "Case (Inrō) with Design of Cricket and Muskmelon Plants," ca. 1868-1900. From www.metmuseum.org.

the leaf and flowers rendered in subtle colors; the curled vines emphasize the sense of rhythm. In bright green, orange, and bronze, the cricket stands out from its host plant and dominates the scene. Insects were common features of *inrō* adornment for many years; because *inrō* are small objects, insects could be portrayed at a realistic scale and still dominate the decorative composition (Berenbaum 1995). This *inrō*, like so many other forms of Meiji art, combines typical Edo emphasis on ecology with the appreciation for insects that also characterizes Art Nouveau.

After Art Nouveau

Europe's love of decorative cicadas did not last forever. After World War I, Art Nouveau's flowing, asymmetrical lines and muted tones lost ground to Art Deco's rigid, straight lines and bright colors. As

earthy curves gave way to grids, insects fell out of fashion in the decorative arts.

Emile-Allain Séguy created the most memorable insects of the Art Deco period and published them in two volumes: *Papillons* and *Insectes*. One might argue that Séguy's insects demonstrate Meiji influence because *Insectes* contained a level of diversity rarely seen in traditional European art: wasps and lanternflies (Fig. 17) accompanied the dragonflies, grasshoppers, beetles, and cicadas of Art Nouveau. However, the busy layout and complete lack of ecological context are decidedly non-Meiji. In *ukiyo-e*, detailed features are balanced by simpler, more rhythmic elements within the same work of art (Fig. 9), but Séguy crams a wide array of insects into every plate, each with a dizzying amount of detail. Then, after Séguy and Art Deco had come and gone, the Surrealist movement kept



Fig. 17. "Plate 16," *Insectes*, ca. 1928 Emile-Allain Séguy.



Fig. 18. "Dragonfly And Morning Glory," 1919-1926, Itō Sōzan and Watanabe Shōzaburō. From open.asia.si.edu.

certain remnants of insect diversity alive in European art. Surrealists such as Salvador Dalí were fascinated by mantises in particular (Kritsky et al. 2013), but his insects were not remotely decorative — they were imbued with strong sexual overtones (Pressly 1973, de Gennaro 2000, Markus 2000).

During the Taishō period in Japan, which followed the Meiji restoration, tension erupted between new, hybrid, semi-Westernized customs and a yearning for traditional Edo culture (Dodd 1992). The Japanese avant-garde, fascinated with modernism and technology, lost its taste for the natural world as an artistic subject and preferred the expressive styles of European Post-Impressionists (Tipton and Clark 2000, Volk 2004). Members of the *shin-hanga* movement, spearheaded by Watanabe Shōzaburō, created semi-traditional prints for export to the West (Brown 2006). Among many other subjects, *shin-hanga* art includes the Edo-style garden scenes that had never truly disappeared. With Itō Sōzan, Shōzaburō created “Dragonfly And Morning Glory” (Fig. 18). Here a dragonfly, detailed but drab, perches on a lone stalk framed by a vine with bright flowers. The dragonfly is immediately noticeable, but far smaller than the colorful morning glory — when the Meiji period ended, so too did insects’ heyday in Japanese art. Decades after Edo traditions merged with European trends to create the fascinating insect art of the Meiji restoration, Western collectors sustained a revival of the Edo aesthetic that had long fallen out of fashion in its native Japan.

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