Insects are not only special to entomologists, they have also been a source of inspiration to artists throughout the centuries. From the 13th century until present artists have depicted insects in two-dimensional and three-dimensional works. Insects have often been used as symbols for the brevity of life, for the transcendence of the soul, but also because of the beauty of their forms and colours. Some artists paint or sculpt with insects themselves, either dead or still alive. Over the past 7 years I have visited 180 art museums and recorded the representation of insects in the works on display. As a result I have gained an entomological view of the history of art. This has provided insight both in the history of art itself as well as in the role of insects in its development. At present I have seen 3,045 works of art in which insects are represented. The majority occur in the Netherlandish still-lives of the 17th and 18th centuries, in surrealist works and in Jugendstil works. Some artists have depicted only a single insect while others have represented over 100 insects in a single work of art. Of some artists I know only a single work with insects, while of others more than 100 works are known.

Keywords: Lepidoptera, Hymenoptera, Coleoptera, Odonata, Diptera, Pieris, Vanessa, Melolontha, Lucanus

Entomologists are likely to consider museums as their least favorite places because museums preserve collections against decay and insects can pose a major threat to any collection. A major exception may be a natural history museum that can harbour a collection of insects, that yet have to be protected against destruction by other insects. However, art museums can offer many exciting surprises to an entomologist. Moreover, art and science have many things in common and I know of quite some scientists whose partner is involved in art in one way or another. Both scientists and artists should be creative to make important contributions, both like esthetics and both like to work independently. Several centuries ago it was not uncommon that an artist was also a scientist or vice versa. And it even was not uncommon that someone was a leading person in both fields.

Among the early entomologists there were several artists whose works have been preserved until today. Examples are Johannes Goedaert (1607-1668) and Maria Sibylla Merian (1647-1717). Merian was among the first to rear caterpillars to adulthood and to portray all developmental stages together with their host plant in a very detailed way. She made both naturalistic paintings and artistic ones such as still-lives. Even in the 20th century someone like Vladimir Nabokov combined entomology with writing novels.

The scientific subdiscipline of cultural entomology has gained considerable interest since a stimulating paper by Hogue (1987). Yet, the occurrence of insects in art seems to have received relatively little attention compared to other aspects of cultural entomology. Yet, some papers on this topic have appeared (e.g. Hutchinson 1974, Leclercq 1987, 1988). When we were searching for an art historian who could give a presentation on ‘insects in art’ in our lecture series ‘Insects and Society’ (http://www.dpw.wau.nl/ento/), and were not successful, I have initiated a study of insects in art myself back in 1996. As a result I have now obtained an insight in the history of art from an entomological point of view. The first findings were reported in 2000 (Dicke 2000). Here I will give an update and I will concentrate on some entomological details of my findings.

Approach
From September 1996 until present, I have conducted a survey of the occurrence of insects in western art. I included artists who used insects as a source of inspiration, as a symbol, or as clearly visible material in their artwork. I visited 180 museums (Table 1) and examined all works on display, irrespective of the art period or movement covered. In addition, I examined exhibition catalogs and books on painters and recorded all works in which insects were present.
Differences among centuries

The database that has resulted from my inventory comprises 3,045 pieces of art and has provided an overview of the history of art from an entomological viewpoint. The majority of the works are two-dimensional but especially in the 20th century three-dimensional works with insects are present as well.

The vast majority of works originates from the 17th and the 20th centuries with 935 and 1256 works respectively (Fig. 1). Lepidoptera are depicted the most by far, but Diptera, Hymenoptera, Coleoptera and Odonata are also well-represented (Fig. 2). Of the Lepidoptera, especially cabbage white butterflies (Pieris spp.) and the red admiral (Vanessa atalanta) and the painted lady (Vanessa cardui) are frequently depicted: Pieris butterflies have been found on 254, and Vanessa spp. on 325 paintings. Vanessa butterflies were especially depicted in the 17th century still-lives from the Netherlands and Flanders, while Pieris butterflies were commonly depicted during a

<table>
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<th>Country</th>
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<tbody>
<tr>
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<tr>
<td>Czech Republic</td>
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<tr>
<td>Denmark</td>
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</tr>
<tr>
<td>USA</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>180</strong></td>
</tr>
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*Table 1. Distribution of museums visited over countries in Europe and North America. Several museums have been visited more than once.*

*Figure 1. Insect representation in art throughout the centuries.*
much longer period both before and after the 17th century (Fig. 3). However, *Pieris* is not often depicted in the 20th century any more. Butterflies are often used as a symbol for the soul throughout the centuries (for more detailed explanation, see Dicke 2000) and especially the white butterflies are used for this as their colour represents purity, just as a white dove or a white lily have a symbolic meaning as well. The Dutch still-lives were especially symbolic paintings that flourished in northwestern Europe after the iconoclasm (1560-1566) when the Reformation dominated life in this part of the world. Insects have been abundantly used in a symbolic manner in the Dutch still-lives (Dicke 2000). It is remarkable to note that although the still-life movement has spread to other parts of Europe, insects have been used significantly more frequently in northwestern European still-lives than in southern European still-lives (Dicke 2000).

**Figure 2.** Representation of different insect orders and Arachnida in western art from 13th century until present.

**Figure 3.** Representation of *Pieris* and *Vanessa* butterflies in works of art from 14th through 21st century.
Flies were popular symbols of decay in the 15th through 17th centuries and their popularity steadily declined through subsequent centuries (Fig. 4). Yet, some more recent artists abundantly used flies in their works, such as Salvador Dali (23 works with flies in the database). Dali was fascinated by decay, especially because he was frightened of death. Another 20th century artist that depicts flies regularly is Ilya Kabakov: 14 of the 17 works by Kabakov in the database depict flies and he made a film, ‘An encounter (between the fly and the scarbeid)’ in 1997, together with Jan Fabre where Kabakov was dressed up as a fly and Fabre as a beetle.

![Figure 4](image-url)  
*Figure 4. Representation of flies in art from 15th through 21st century.*

![Figure 5](image-url)  
*Figure 5. Average (± SE) number of insect orders represented per work from 14th through 21st century.*
Beetles appear in paintings quite frequently (575 works), and especially the stag beetle (*Lucanus cervus*) and the cockchafer (*Melolontha melolontha*) are often painted in considerable detail: i.e. on 44 and 54 paintings. The stag beetle is used in a religious connotation. Albrecht Dürer (1471-1528) has a stag beetle regularly together with Mary and Christ and Georg Flegel (1566-1638) and Peter Binoit (ca 1590-1632) made paintings of breakfast or food-laden tables with stag beetles together with religious symbols such as bread, fish and wine. In the work by the 20th century artist Jan Fabre, buprestid beetles dominate. Given the universal popularity of coccinellid beetles at present, it is remarkable to find coccinellids predominantly in 17th century still-lives (36 out of 71 works with coccinellids in the database), but not in contemporary art.

The earliest works in my database that depict insects in western art appear in the 13th-14th century. One of these early works is the mosaic in the cupola of the San Marco church in Venice (13th century). In this mosaic the creation is represented, and God animates Adam by inserting a little manlike creature in him. This creature has butterfly wings and represents the soul.

**Major movements**

The major movements that depict insects are: the Netherlandish still-lives of the 17th century and to a lesser extent in the 18th century, Surrealism (20th century), Jugendstil (20th century), and the Pre-Raphaelites (mid 18th century, United Kingdom). Of these, the Pre-Raphaelites did not produce a large number of works but a considerable proportion of it contains insects, almost all butterflies.

**Biodiversity**

In many cases a single insect can be found on a painting, while on others there are more to be found. At most more than 100 insects were recorded by me on a painting by Jan van Kessel (1626-1679): this relates to the work *Europe – The continents* (1664) on which I counted 115 insects. It can be seen in the Alte Pinakothek in Munich. Several caterpillars make up the name of the artist on the painting by van Kessel. The companion paintings *Asia* and *America* (both on display in the same museum), by the same artist, contain 52 and 81 insects respectively. The works from the 17th and 18th centuries are richest in the number of orders depicted (Fig. 5). There are 8 works in the database that each represent insects from 8 orders and all 8 works are from the 17th century. The painters of these works are: Jan Davidz de Heem (1606-1683/84), Jan Brueghel de Oude (1568-1628) and Jan van Kessel. In many instances the paintings are so accurate that a taxonomist can identify the insects to family or species. This has been especially done by Sam Segal who gives accurate biological descriptions of 17th century still-lives (see e.g. Segal 1990, 1991). For example, on a painting by Jan Davidz de Heem, titled ‘A glass vase of flowers and cornstalks’, Segal identifies the following arthropods: (1) an orange tip *Anthocharis cardamine*, (2) a brimstone *Gonepteryx rhamni*, (3) the yellow underwing *Noctua pronuba*, (4) a larva of a carabid beetle, (5) a brown ant *Formica rufa*, (6) a pierid caterpillar, (7) a velvet mite *Trombidium* sp., (8) a vapourer caterpillar *Orgyia antiqua*, (9) a crane fly *Pachyrhina crocata*, (10) a damselfly *Coenagrion puella*, (11) a banded longhorn beetle *Strangalia maculata*, (12) a Paravespula vulgaris wasp, (13) a yellow underwing caterpillar *Noctua pronuba*, (14) an earwig *Forficula auricularia*, and (15) a digger wasp *Ammophila sabulosa* (Segal 1990, p. 216).

**Three-dimensional works**

The vast majority of works in my database are two-dimensional works: paintings, drawings, etchings etc. However, despite their delicacy insects have also been carved in stone, made in bronze or represented in other three-dimensional works. There are several sculptures of Amor and Psyche where Psyche is represented by a butterfly only, e.g. by Antoine-Denis Chaudet (1763-1810). The surrealist sculptor Germaine Richier (1904-1959) has made several works representing insects, such as an ant, a grasshopper or a praying mantis that could as well be a praying person. The latter has also been done by the surrealist sculptor Julio Gonzalez (1876-1942) that called his sculpture ‘The prayer’. In 1999 there was an exhibition in Arles (France) entitled ‘Dards d’Art – Mouches, moustiques … Modernité’ (Stings of art – Flies, mosquitoes … Modernness) exhibiting 20th century art among which there are many three-dimensional works.

I once came across a 20th century work in which insects were present, but here I am not sure whether that was on purpose or not. I think it was. It was a work by Diether Roth (1901-1998),
entitled ‘Spice windows’, made in 1971 and on display in the Hessisches Landesmuseum in Darmstadt, Germany. The work consists of glass windows covering shallow boxes filled with spices. I saw this work in 1999, so 28 years after its conception. In the layers of spices clearly burrowing paths of storage beetles were visible as if looking at an ant farm. The original spice layers had been disturbed and new patterns had been made by the insects. Thus, here the insects have an active role in constantly changing the work of art long after the artist had died.

The Dutch artist Jaap de Ruig made a videofilm (1999) in which he had connected 5 fly larvae to a small drawing of a human head. The flies represented the body and arms and legs and because they move the human figure moves.

A contemporary artist that creates a large number of thee-dimensional works in which insects are essential ingredients is the Belgian artist Jan Fabre (born 1958). This great grandson of the famous entomologist Henri Fabre employs vast numbers of buprestid beetles to create three-dimensional works. The colours of the buprestid elytra fascinate him and, in fact, he ‘paints’ with the red, blue, green and black beetles. He frequently has special exhibitions in European museums and, occasionally, in American or Japanese museums (Schmidt & Zeller 1995, Köttering 1999). Some of his latest work revolves around ‘Angels and Warriors’ (Köttering 1999), in which he presents suits of armour out of buprestids. Thus, he combines the knowledge on the exoskeleton of insects with human suits of armor that have a comparable function. In his drawings and watercolors, he depicts many spiders, beetles, and flies. His most recent employment of buprestid beetles was the decoration of a room in the royal palace in Brussels in 2002 for which he used thousands of buprestids to cover parts of the walls and ceiling and one of the chandeliers.

Conclusion

Insects have inspired artists for many centuries. With almost every visit to a museum I encounter new works, made by additional artists. The database size is correlated with the number of museums visited and the number of catalogs consulted. Especially in contemporary art there are many more artists and their work to be identified by me as including insects.

Entomology and art are an excellent combination. For scientists, art is not only something to enjoy from an esthetical point of view, but in addition entomologists can find exciting representations of insects as made by artists. Paying attention to insects in art museums can yield many exciting discoveries in addition to the enjoyment of the art in itself. The universal presence of insects in life on earth in general and in human societies in particular is also represented in the history art. Visiting an art museum can be a multifaceted joy for an entomologist.

References