Available Online: 4 November 2025 DOI: 10.54254/2753-7080/2025.28836

The transformation of nature: specimen-making in Flemish still life painting

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Abstract. This essay explores how seventeenth-century Flemish still life painting transformed natural objects into artificial, collectible forms, reflecting changing human attitudes toward ecology, science, and material culture. Focusing on Jan Davidsz. de Heem's Still Life (c.1664), it argues that the artist's meticulous depiction of fruits, flowers, and animals, arranged in temporally impossible combinations, reveals a process similar to specimen-making. Through hyperrealism and Baroque lighting, natural elements are isolated, polished, and aestheticized, losing their organic temporality to become preserved artifacts. This transformation aligns with early modern practices of collecting and classifying nature, where artistic representation intersected with the rise of scientific observation and the commodification of natural objects. Painters such as Jan van Kessel further emphasized this taxonomic impulse, depicting insects and plants against neutral backgrounds as visual specimens. By framing nature within a controlled pictorial space, Flemish still life painting mirrors Enlightenment efforts to catalogue and possess the natural world. The essay concludes that these works function as ecological portraits, encapsulating both fascination and control, transforming nature into an object of study, consumption, and display. In this sense, seventeenth-century still life reveals the convergence of art, science, and capitalism, shaping the way nature was represented and understood in early modern Europe.

Keywords: seventeenth-century painting, Flemish still life, ecocriticism

1. Introduction

The 17th-century Flemish still life paintings depict a variety of natural objects, ranging from fruits and flowers to birds and insects. Unlike landscape paintings, still life does not present nature as a whole but rather extracts and rearranges these elements from their natural environment, observing them from a micro perspective. This process reveals a thought-provoking attitude of 17th-century still life painters and Northern European society toward the relationship between ecology and human life. Taking Jan Davidsz. de Heem's Still Life (Figure 1) created around 1664 as an example, de Heem, who was active in Utrecht and Antwerp during the 17th century, was renowned for his Pronkstilleven, characterized by the depiction of exquisite, expensive fruits, luxurious utensils, and decorations.

This work presents a combination of various natural and man-made objects, including fruits, seafood, and live animals, displayed in an unnatural manner. Not only are these objects placed in an artificial environment, but their arrangement is also non-natural—ranging from raw oysters to snails, ripe wheat stalks to peeled lemons, budding to blooming morning glories, and a wine-filled glass—all juxtaposed in a single space despite their temporal impossibility. As asparagus spears are cut in May; strawberries (these are small wild ones) can ripen as early as May, but June is much more likely; gooseberries are picked from early July; and it's very unlikely that you would have found a ripe plum in seventeenth-century Holland before August.

Figure 1. Jan Davidsz. de Heem, Still Life, c. 1664, oil on wood, 33.7 × 24.2 cm, The National Gallery, London

In this painting, de Heem uses hyper realistic techniques to create lifelike details of still lives. The clementine orange, the lemon, and the cherries appear in vibrant hues of orange and red, with intricate highlights on their surfaces. The edges, including that of the wheat stalks, are sharp and distinct. Even in the darkened edges of the cherries, de Heem adds intense reflections, making these fruits and plants appear flawless and immaculate, subtly reminding us of their unnaturalness. Many contemporary still life paintings also enhance the dark parts of fruits with strong reflections, rendering them more like jewels than edible objects. For instance, the connection of rind and pulp on the peeled lemon is not depicted as fibrous but instead smooth and segmented. Every natural object is portrayed as polished and tidy. The fruits and flowers seem to harden from their natural softness, resembling artifacts made of glass or ceramic, blending seamlessly with the utensils holding them. The painting process eliminates all synchronicity of these natural objects, freezing them in their moments while juxtaposing them in a manner emphasizing aesthetic or symbolic appeal.

2. Specimen-making and the science of stillness

The transformation of natural objects into artificial ones is reminiscent of specimen-making. In the process of creating specimens, natural objects are treated with cleaning, drying, and shaping to repackage them as man-made artifacts. Similarly, in still life painting, fresh fruits and flowers undergo a metaphorical preservation process, dried, solidified, and encapsulated within containers. The natural objects in de Heem's Still Life are not as fresh as they look initially. The snail and water stains on the bottom left corner do not resemble real snail mucus but rather a gem-like representation of water. These water droplets exist as isolated objects on the tabletop without signs of absorption or evaporation. Other objects, as well, appear isolated, without casting shadows on one another.

When we examine the light and shadow composition of this painting, it is easy to recognize the profound influence of the seventeenth-century Baroque style on still life painting. The Baroque style emphasizes drama, commonly using dark, monochromatic backgrounds and strong contrasts with a single light source to create intense light-shadow effects and visual impact. Under this influence, objects in still life paintings are often depicted as placed against black backgrounds, illuminated by a stable and focused light source. This arrangement not only highlights the details and textures of the objects but also enhances the dramatic effect of the scene, as if each object is performing a unique story. This compositional approach again recalls the form of specimens — these objects seem to be captured, frozen, as if entering a timeless, motionless space. In terms of composition, this painting, like many other still life paintings from the same period, adopts a direct frontal, eye-level perspective. The horizontal surface of the table in the painting, together with the boundary formed by the frame, constructs an artificial space. This space carries a sense of reality while also possessing a carefully arranged, fictional quality, transforming it into a display

cabinet for these natural objects. In Tokumitsu Miya's article, she notes that Dutch still-life paintings often create an intersection between the painted world and the real world, as illustrated by 'the frequent depiction of tables whose edges appear flush with the paintings' surfaces — where painting and "real world" meet'. In this sealed and anti-decay space, the painting is not merely a representation of natural objects but also becomes a decorative item, symbolizing the wealth and taste of its owner. At that time Still life paintings, alongside other specimens and fossils, frequently served as tangible manifestations of wealth and power, displayed together in the same space.

Through this process, nature is transformed into a collectible, an object for observation. This notion contains dual meanings. Nature is regarded as a resource, much like the items in these still life paintings, most of which are food. However, these objects ultimately transcend their culinary identities. As Marc Eli Blanchard notes: 'the object in the painting which has a relation to the real object in the past (e.g., the dead animals were live animals before they became game) also has one to a real object in the future. Those pieces of game will soon constitute part of someone's festive dinner. For the moment, however seized, frozen by the hand of the painter, they are timeless, taken out of a continuum'. During their cycles, these objects may serve as natural entities or food. However, in form, still life painting abstracts a single moment from these cycles. In this preserved instant, they are neither natural objects nor food. Still life painting possesses a deceptive realism. Samuel van Hoogstraten, whose own art did cross from representation into illusionism, stresses the importance of imitating nature in his article: 'perfect painting is like a mirror of nature, in which things that do not exist appear to exist, and which deceives in an allowably diverting and praiseworthy manner'. The compositions within these paintings often fail to convincingly suggest a feasible meal, even though some still life paintings do depict food arrangements based on textual descriptions. These images, rendered on canvas, circulate as commodities within capitalist societies. The commodification of nature itself is unsurprising. As Paula Findlen writes, 'nature was for sale in many marketplaces throughout Europe', since it 'had always been a commodity'.Some still life painters of the same period, like Pieter Aertsen, depicted scenes of vendors selling food. Fruits such as oranges and lemons were regarded in Europe as symbols of luxury and extravagance, representing the refined lifestyle of the upper class.

In another sense, nature provided people with an enlightenment-style and scientism-oriented way of observation. Elizabeth Alice Honig, when discussing the motives behind Dutch still life painting, mentions that Dutch still life is very largely concerned to depict things that are, in biographical terms, either noncommodities (that is, they have never had a commodity moment) or else ex-commodities (that is, they were once commodities but have been reframed out of that state). The seventeenth century society saw a shift from religious to scientific knowledge. As religious authority waned, the intellectual currents of the Enlightenment began to view nature as a source of enlightenment and knowledge. As revealed by the concept of specimens, still life paintings were likewise regarded as not only an aesthetic pursuit but also a reflection of the Enlightenment-era intense interest in observing natural objects. In the context of the rise of natural sciences in the seventeenth century, still life painters, like naturalists, depicted natural objects through meticulous rendering and systematic arrangement. This classificatory depiction can be seen as an artistic precursor to ecological studies, prompting viewers to focus on the diversity and order of the natural world, thus laying the visual and cultural foundation for later biological taxonomy. As a more extreme example, Jan van Kessel the Elder, active in Antwerp in the mid-seventeenth century, fully demonstrated this biological representation through his paintings of insects and leaves. His works present various species of insects and plants arranged flat on a white background, resembling specimens, completely separated from their natural environment, and artificially arranged according to some typology. This way of presentation reflects the study, recording, and preservation of natural objects, embodying a scientific observation of nature. By separating the items from their natural environment and arranging them according to a certain logic, van Kessel's paintings reveal early attempts at scientific classification.

Figure 2. Jan van Kessel the Elder, Butterflies, Moths and Insects with Sprays of Common Hawthorn and Forget-Me-Not, 1654, oil on wood, 11.8 × 14.7 cm, The National Gallery, London

Figure 3. Jan van Kessel the Elder, Butterflies, Moths and Insects with Sprays of Creeping Thistle and Borage, 1654, oil on wood, 11.8 × 14.7 cm, The National Gallery, London

3. Knowledge, commerce, and ecological representation

These two meanings ultimately converge, because in the 17th-century Dutch society, at the dawn of capitalism, knowledge was an expensive commodity, a privilege used by the bourgeois upper class to flaunt their status. In some records, abstract knowledge was explicitly priced and traded as a commodity. Naturalism itself not only served as an object of knowledge but also existed as a commodity to be traded, and the still life paintings that carried this knowledge were accepted with a dual identity. At that time, according to Lorraine Daston and Katherine Park, refinement and pleasure were pertinent not only to the reception of certain works of art, but also, equally, to practices of natural inquiry, or pursuing new knowledge about the phenomenal world.

Let us return to the metaphor of the specimen. Whether the objects preserved in the specimen are insects, plants, or other natural items, they are carefully classified and observed, presented as a precise model for studying, recording, and preserving nature within the context of scientists. The creation of still life paintings reflects this model, or rather, this scientific process, transforming the natural world into carefully selected and visually presented objects. At the same time, the perspective from which still life paintings are observed is like that of a microscope. Specimens and the microscopes used to observe them are

products of highly specialized craftsmanship. They allow people to view the world from a miraculous microscopic perspective in a controlled and accessible form, offering a form of highly refined visual consumerism.

Figure 4. Jan Davidsz. de Heem, A Vanitas Still-Life with a Skull, a Book and Roses, c. 1630, oil on oak panel, 23.2 × 34.6 cm, Nationalmuseum, Stockholm

Back to the Still Life itself, when the artist sketches and arranges natural objects from different seasons in their studio, they treat the frame as a closed container, dividing the grand-scale nature into a collection of micro-individuals scattered across different categories, and then collecting and displaying them on the wall. The flowers in impossible temporalities, the metaphor-laden images and combinations of natural objects—all these representations ultimately point to how the natural world was understood and depicted. Marcaida and Pimentel, in discussing the role of still life in the development of modern scientific practice, note that:

Possessing nature, representing nature. To try to reduce the world to a manageable scale and reproduce it in a limited, private space, whether in the form of a cabinet or a garden, not only demonstrated social and political ambitions but also revealed an implicit conception of those aspects of reality that were meant to be recreated, that is, a set of theoretical assumptions about the world, its composition, and its limits—in other words, a natural philosophical account of reality. Once the order of nature was established, the assemblage of items followed the collector's preferences.

The plants, animals, minerals, and other natural elements in still life painting are not merely objects of artistic creation; to some extent, they also serve as symbols of the components of an ecosystem. A still life can be seen as an "ecological portrait," presenting an idealized or selectively curated version of the natural world. If we view the objects in a still life as ecological specimens, we realize that the information they convey is not just about the species themselves, but also about how humans attempt to control and understand nature through the processes of specimen collection, classification, and representation. In capitalist society, natural specimens are not only objects of scientific research but also symbols of social status and cultural identity. Their existence represents a detachment from nature, transforming the ecological connections and dynamic nature of the world into fixed objects that can be displayed and consumed. These works of art reveal not just the beauty and diversity of life but also the systems of power, knowledge, and control that underlie human interaction with the environment.

4. Conclusion

Seventeenth-century Flemish still life painting reveals not merely a fascination with the beauty of nature but also the transformation of that beauty into an object of knowledge, power, and possession. Through the meticulous depiction and arrangement of fruits, flowers, and animals, artists such as Jan Davidsz. de Heem and Jan van Kessel turned the natural world into a system of observation and classification. Their works blur the boundary between art and science, between organic vitality and artificial preservation. By transforming nature into a collectible image, still life painting reflects the early modern ambition to control and understand the environment within the frameworks of commerce and empiricism. These paintings thus stand as ecological portraits of their age, capturing not only the textures of life but also the human desire to possess and define nature through artistic, scientific, and economic means.

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