

"The current sharp distinction between the arts and sciences is a historical anomaly".
(Stanley David Gezelman)

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Romantic Clouds and English Rain

On the 250th anniversary of the birth of John Constable and William Turner

In his essay *"On the Modification of Clouds"*, published in 1803 in London, Luke Howard presented the first classification of clouds. Although this is considered the foundation of the World Meteorological Organization's (WMO) modern cloud classification system, it has two fundamental flaws. Firstly, Howard does not include the midlevel clouds, and secondly, he only vaguely describes rain clouds ("*Nimbus*") only vaguely. It was merely in the course of the 19th century that cloud physics developed from an empirically descriptive to a physically based science.

At the same time, a new view on nature developed in English Romantic landscape painting. John Constable and William Turner are undisputedly the most important English painters of this era. It is interesting to see how the findings of meteorologist L. Howard are reflected in their depiction of the atmosphere. Both painters knew Howard, studied his cloud classification intensively, and both produced numerous cloud studies, especially in the 1820s. In their landscape paintings, they assign a central role to the sky.

However, their approaches are diametrically opposed: Constable's attentive realism and Turner's dramatic, sublime vision are two radically different ways of looking at nature.

What they have in common, however, is that – like Luke Howard's cloud classification – their work underwent a striking development that shaped the new conception of landscape painting in the 19th century.

From empirical to abstracting descriptions of the sky

Meteorologist Howard, like the two painters, initially views clouds in a descriptive, empirical manner. But as they continue their work, their perception becomes increasingly analytical and abstracting. The development of cloud physics can be understood as the background for the meteorological phenomenon of clouds, while the evolution of the perception of landscape can be seen as the background for painting. This is particularly reflected in the phenomenon of rain. Howard was unable to clearly attribute the long-lasting steady rain to a cloud, and Constable and Turner always depict rain falling from towering shower clouds and never from the stratiform rain cloud *Nimbostratus*.

The different paths taken by Constable and Turner in their treatment of the atmosphere are most evident in their late works. Here, too, rain clouds are a good example of their respective paths of development. While John Constable moved away from the quasi-linear rendering of clouds in his early work, he remained true to his naturalistic representation until his late work (Fig. 1a). William Turner, on the other hand, moved

away from a realistic representation of the sky and used clouds purely as a mood-creating element (Fig. 1b).



Fig. 1a: J. Constable: *Hampstead Heath with a Rainbow* (1836), Tate Gallery, London
Wikimedia Commons



Fig. 1b: W. Turner: *Ostend* (1844)
Neue Pinakothek, Munich
Wikimedia Commons

Also, Constable's depictions of sunsets with low and midlevel clouds still clearly show traces of the realism that shaped his work, while Turner's work already shows early features of what Impressionism would later bring to full expression.



Fig. 2a: John Constable: *Stonehenge at Sunset* (1835), Yale Center for British Arts
Wikimedia Commons



Fig. 2b: William Turner: *The Fighting Temeraire* (1839), National Gallery
Wikimedia Commons

Fire and water?

To mark the 250th anniversary of their birth, London's Tate Gallery is hosting a comprehensive [exhibition](#) showcasing the works of these two English masters with emphasis on their contrasting approaches. They were certainly rivals in their day, but are their works actually that different?

The statements of the two painters: "*Painting is a science and should be pursued as an inquiry into the laws of nature*" (John Constable) and "*My business is to paint what I see, not what I know is there*" (J.M.W. Turner) are – on closer inspection – not really contradictory views but express, for landscape painting, what also took place in 19th-century scientific meteorology: the path leads from precise empirical observation to a more abstract description of the sky that complements this empiricism, here in brushwork and color design, there in the form of atmospheric physics.

Once again, it becomes clear that art and science are complementary to each other and not fundamentally different. They are two equally creative methods applied by humans to engage with their world.

Links:

J. Constable / W. Turner

https://en.wikipedia.org/wiki/List_of_paintings_by_John_Constable

https://en.wikipedia.org/wiki/List_of_paintings_by_J._M._W._Turner

<https://collection.sciencemuseumgroup.org.uk/objects/co66635/cloud-studies>

<https://www.tate.org.uk/art/research-publications/jmw-turner/a-rainbow-above-a-beach-r1208870>

L. Howard 1803 – 1865

https://meteo-maarssen.nl/lib_howard_1803.html

<http://bib.gfz-potsdam.de/pub/wegezukunft/goethe/Goethe and the Clouds.pdf>

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