

# A GUIDE TO AIR POLLUTION

During the past few weeks, London-born **Joseph Mallord William Turner** — one of Britain’s greatest landscape painters — has been in the news more than one time. His latest paintings were considered by his critics the result of a senile mind. Now, they’re presented as evidence of his radical brilliance. Many of these paintings will be shown at an exhibition in London, which will start in September 2014 and, in 2015, will go to Los Angeles and San Francisco.

Sam Smiles, the co-curator of the exhibition, told *The Guardian*: “The myth is that Turner’s mind and hand increasingly failed him, especially after 1845, that his work declined and he deliberately withdrew from active engagement with the public and critics, This exhibition will demonstrate that this is very far from the truth.”



The Lake, Petworth: Sunset, Fighting Bucks, by J. M. W. Turner

The forthcoming film of Mike Leigh is on Turner's personality. Leigh says in a video: "He is so complex and there's so much of him to get your head around.

Turner was a compulsive artist. Turner had to paint, had to draw, all the time ... it was an absolute obsession."

Now, a study published in the journal *Atmospheric Chemistry and Physics* (Further evidence of important environmental information content in red-to-green ratios as depicted in paintings by great masters) on March 25, 2014, shows that the colors of sunsets painted by famous artists — including J.M.W. Turner — can be used to estimate past air pollution levels.

On April 10, 1815, the Tambora volcano in Indonesia produced the largest known eruption on the planet during the past 10,000 years and sent more than 36 cubic miles of pulverized rock into the atmosphere. Entire villages were buried under thick pumice deposits. The ash and gas spewed into the atmosphere formed an aerosol layer and circled the planet. Average temperatures dropped over the next year, turning 1816 into the "year without a summer".

The aerosol particles scattered sunlight and produced bright red and orange sunsets in Europe for up to three years after the eruption. J.M.W. Turner was one of the artists who painted these stunning sunsets.

For the study, researchers used his paintings — along with paintings from other artists — to estimate the past composition of the atmosphere.

They found that red-to-green ratios measured in the sunsets of paintings by great masters correlate well with the amount of volcanic aerosols in the atmosphere, regardless of the painters and of the school of painting. Skies more polluted by volcanic ash scatter sunlight more, so they appear more red. Thus, they identified a methodology to obtain information on the atmosphere conditions from times when instrumental measurements were not available and to evaluate how pollution levels in the Earth's atmosphere change over the centuries.

There is more about J.M.W. Turner. Recently, “detective work worthy of Sherlock Holmes” revealed that some of his latest paintings — those including oil paintings and watercolors collectively known as *The Burning of the Houses of Parliament* — do not depict the same event. While the oil paintings show the fire of the old Parliament building in London that occurred on October 16, 1834, the watercolors actually depict a fire that occurred on October 30, 1841, at another landmark, the Tower of London. All this work is included in the exhibition (mentioned above) that will open in London on September 2014.

Source: <http://theglobalfool.com/j-m-w-turners-sunsets-a-guide-to-air-pollution/>