

P35. SCHELEE'S GREEN: IT COULD BE A KILLER FOR NAPOLEON!

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Scheele's Green discovered by Carl Wilhelm Scheele in 1742 a native German chemist who resided in Sweden. It known as 'Arsenide of Copper', also 'Hydro Cupric Arsenide', 'Mineral Green' and 'Swedish Green' is composed of arsenide of copper and represented by the Formula $CuHAsO_2$.

It has strikingly fine light green color and it was used dye cotton, linen, as a pigment for paper, wax candles and even some children's toys.

Two main theories on the cause of wallpaper poisoning events have been proposed: dust particles caused by pigment and paper flaking and toxic gas production. Tiny particles of the pigment can flake off and become airborne and containing arsenic following certain chemical processes, such as heating or metabolised by an organism. When the wallpaper becomes damp and moldy, the pigment may be metabolised, causing the release of poisonous arsine gas (AsH_3). Fungi genera such as *Scopulariopsis* or *Paecilomyces* release arsine gas, when they are growing on a substance containing arsenic.

During Napoleon's exile in St. Helena, he resided in a very luxurious room painted bright green, his favourite color. His cause of death is generally believed to be stomach cancer and arsenic exposure has been linked to an increased risk of gastric carcinoma. Analysis of his hair samples revealed significant amounts of arsenic. As St. Helena has a rather damp climate, it is not unlikely fungus grew on the walls. It has also been suggested that the presence of such abnormally high levels of arsenic might be due to attempts preserving his body.

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