



a dress TO DYE FOR



Fashion could kill as Eleanor Keene discovered when researching a fashionable Victorian era dress

For me, unpacking items consigned for auction can be a little like Christmas. Lots of boxes full of goodies, carefully wrapped, and with little knowledge of what may be hidden within the layers of tissue paper. Is it going to meet expectations or is it going to be a disappointment?

I was recently cataloguing an auction in Sydney when I came across an unusual Victorian era vibrant green dress from the 1860s. Throughout my years of experience I had never seen a green dress like this. I had seen the colour used on trimmings and button covers, but never a whole dress, and here it was in all its green glory, 150 years old and in a wonderful condition. The voluminous skirt was a little faded in parts, but otherwise the green shade had kept its colour well.

A complete Victorian story

The dress itself comprised of a skirt with two matching bodices: a low cut lace

trimmed evening bodice, and a long sleeved, high necked plainer day bodice; and to finish it off, a bow fronted sash fastened around the middle of the waist. All in all the dress comprised of four pieces, which is rare to find complete today.

The condition of the dress was fantastic too, with little signs of wear. The silk fabric was pretty robust showing only little signs of deterioration that occur with age. Often with dresses of this age the silk is badly stained under the arms from perspiration. Unusually, this bodice had what appeared to be its original sweat pads sewn into the bodice lining, with no signs of wear at all. Had this dress ever actually been worn? The dress had come to us to be auctioned from an antique shop which had closed after the owners had passed away, so I had no one to ask of its origins.

I assumed that what I had found was a rare dress from the beginning of synthetic chemical dye technology. Chemical colours dominated much of the mid to late 19th century and we can see this today through the large quantities of Victorian dresses in vibrant shades of blue and purple in museum collections around the world.



Sir Henry William Perkin

Invention of aniline dyes

Sir Henry William Perkin (1838 - 1907) was the first to successfully develop and commercialise aniline dye. In 1856, aged 18 years, he created a shade of purple (mauveine) derived from coal tar. This paved the way for many more vibrant chemical colours to follow. As to the vivid green dress I had unearthed, it was far more interesting and slightly sinister! Something I had not initially imagined. The lovely shade of 'granny smith' green had arsenic to owe for its wonderful colour! Yes, arsenic, the poison!



dyeing lace





History of colour production

Arsenic has been used as a compound in paint for many centuries; however I was unable to find when it had first started being used in textile dyes. I did however find many references to the dye being used in and around the same period of the dress.

Arsenic appears to have been widely used in the production of household items and clothing in the 19th century. Arsenic was also found in many other dye colours, often mixed with the aniline dyes, but the green was by far the most potent, with much heavier levels of arsenic being used.



Creating an arsenic dye

Arsenic dye is created by a chemical reaction with copper and arsenic. This is found in 'Scheele's green' and also in a similar chemical makeup in 'Paris green' and 'Emerald green'.

Turning a blind eye: arsenic: a popular poison for domestic consumption

We may think today, how could they use arsenic in clothing dye? But the Victorians used arsenic for so many purposes. It was like the wonder drug of the 19th century. They were aware that too much was poisonous and was a popular drug for murder. However, the consensus of medical practitioners at the time believed the right amount and usage of arsenic was medicinal, and the violent symptoms arsenic ingestion could bring on was necessary in shocking one's body back to health!

Arsenic increases the blood flow and was used by some as a sexual stimulant, like a Victorian Viagra! It was also found in many vanity products such as shampoo, soap and face creams. When a university student, a young Charles Darwin was prescribed arsenic for his eczema.

Commercially responsible?

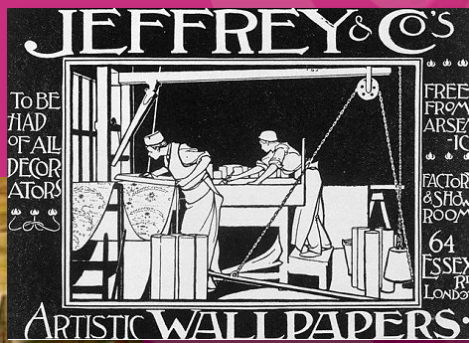
Synthetic green dyes of different types did start to be developed in the 1860s, but arsenic green was popular and relatively cheap to produce. Arsenic was a by-product of other mineral mining in the age of the

Industrial Revolution, making it more readily available than ever before. The wealth of industrial England ruled, and although concerns were raised about the use of arsenic in the manufacture in domestic products, the concerns were reported to be ignored by successive parliaments.

Expensive commercial patents for alternatives perhaps were other factors that contributed to the length of time arsenic dyes were used. It wasn't until the end of the century that information advising consumers of the dangers of arsenic became more readily available and so arsenic products were shunned. Consequently, manufacturers had to change direction and use more expensive alternatives.

Was arsenic responsible for those mysterious Victorian era deaths?

Arsenic can possibly be attributed to many mysterious deaths of the 19th century. You could be absorbing, inhaling or ingesting arsenic without even knowing it. Wallpaper was a common contributor to arsenic poisoning. Green was a popular Victorian colour and was found painted on anything from children's toys and sweet wrappers, to playing cards and cookware.



Painting of a girl embroidering by George Friedrich Kersting, c. 1814, note the deadly Scheele's green wallpaper



THE ARSENIC WALTZ.
THE NEW DANCE OF DEATH. (DEDICATED TO THE GREEN WREATH AND DRESS-MONGERS.)

'The arsenic waltz' cartoon published in *Punch* magazine, 1862

It is now thought by many that Napoleon, who died of arsenic poisoning in 1821, was poisoned, not by food, but the slow ingestion of the off-gassing vapours from the green wallpaper where he was held captive in the last years of his life.

A torturous death

As for clothing, it was used on everything from dresses, to hats, gloves and socks. Arsenic poisoning could cause horrendous suffering and side effects. Prolonged or large exposure caused death. Many suffered skin irradiation where in contact with arsenic directly, followed by terrible stomach aches.

Various newspapers in the 19th century ran articles questioning the effects of arsenic green, but appear to be taken little notice of by many. I guess like today, we are constantly bombarded with different beliefs on health and medical issues, and choose what we want to believe. Who would imagine a colour we associate with nature could be so poisonous!

One doctor writes in a medical

journal of the time, after examining a ball gown belonging to a London society hostess, it contained 60 grains of Scheele's green per square yard, which is enough to kill 12 people, and that the colour was so poorly applied that even a light waltz would send poisonous dust wafting out in a cloud around her. The doctor is reputed to have said: 'Well may the fascinating wearer of such a gown be called drop-dead gorgeous... She carries in her skirts poison enough to slay the whole of the admirers she may meet within half-a-dozen ballrooms.'

In 1862 *Punch* magazine published a cartoon of 'The arsenic waltz' with a male skeleton in a suit asking another skeleton dressed in a ball gown to dance. The cartoon is captioned: 'The new dance of death. (Dedicated to the green wreath and dress-mongers).'

I found a similar dress to ours had been exhibited in New York as part of an exhibition at the Fashion Institute of Technology in 2010, entitled *Eco Fashion: Going Green*. Spanning 250

years, looking at the best and the worst offenders of fashion, the exhibition explored the ecological and ethical issues that fashion creates. The museum's arsenic dress from the 1860s made for a great pun on the title of their exhibition. Here was a 'green dress', but it was a far cry from being 'Green' in an environmental sense.

Postscript

Perhaps the original owner of our dress realised after having the frock made at great expense that it was in fact poisonous, and although she didn't wear it, couldn't bring herself to throw it away either. This would explain how the dress remained packed away with all its components, with no signs of wear, up for sale in an antique shop and later at auction.

The dress was sold at auction in mid 2012, it fetched in the low hundreds; the arsenic I am sure putting many buyers off. It was sold to a private fashion and textile collector and dealer who plans to keep it for her collection.