The Tree That Once Was
Rosaceae
19540360*A

Malus domestica
‘Flower of Kent’
Isaac Newton’s Apple Tree

Garden Origin
Cambridgeshire Champion Tree
Artist Nabil Ali

“Newton’s Apple Tree” in Cambridge University Botanic Garden was a direct descendent of an apple tree in the garden of Woolsthorpe Manor, near Grantham in Lincolnshire, which is said to have inspired Sir Isaac Newton to formulate his theory of gravity by watching the fall of an apple from the tree in the 1660s.

‘The Tree That Once Was’ is an apple installation created using an apple cast originally made from an actual apple from the Botanic Garden back in 2016 by Artist Nabil Ali. The apples were cast sixty-eight times, the age of Newton's tree when it died, and was blown down in the Storm Eunice in 2022.

The tree bark was made into a colourant with the apples painted in a yellowish colour inspired by a late medieval recipe on making apple dye and can be found in a German manuscript: MUNICH, Bayerische Staatsbibliothek Cgm. 821 Liber illuministarum, pro fundamentis auri et coloribus ac consimilibus collectus ex diversis: (‘The book of the illuminator, on gold grounds, paints and similar, collected from various sources’).

The replicated apples are made using stone plaster which is poured into the apple mould, then coated with paper which is dyed with apple bark dye and sealed with a binder.
The recipes below are translated into English from the c.15th-16th German manuscript by Dr Mark Clarke, an authoritative on technical painters’ and illuminators’ manuscripts and author of ‘The Art of All Colours’ – a catalogue of recipe books which focuses on techniques and practices of medieval arts.

Yellow dyes from tree bark and the leaves of the wild or cultivated apple tree (Malus sylvestris (L.) MILL. or Malus domestica BORKH.) contain flavonol glycosides and condensed Tannins. The range of colours can vary depending on the process and length of soaking time from golden yellow, greenish yellow to dark brown when using iron sulphate – salt found in iron mines.

The leaves can also be used to dye red textiles and leather as indicated in the MUNICH, Bayerische Staatsbibliothek Cgm. 821 manuscript:

How to dye leather red –
Take red leaves from the crab apple tree around St. John's Day [June 24] and dry them; after that boil them in wine and dye the leather with it.

A yellow color –
Take the middle bark of wild apple trees, boil it down with alum and dip the thread [or other materials] into it.

The bark turns yellow on alum stain, particularly pure yellow colors achieved when only the inner bark is used. Analogously, the brown-red aqueous extract of the inner bark with alum produces a yellow dye.
Newton’s Bark Dyes
‘...gravity explains the motions of the planets, but it cannot explain who sets the planets in motion...’

Isaac Newton
attacked by a hungry fox
Acknowledgements

I would like to thank the following people for their support and expertise. Dr Mark Clarke, Dr Sam Brockington, Wendy Godfrey, Helen Needham, Sally Petitt, Maria Del Mar Millan Pita, The Botanic, Horticultural and Education Staff at Cambridge University Botanic Garden. Dr Louise Walsh, Jessica Keating and Nick Saffell, University of Cambridge.


Artist Residency June 2023 – July 2024 at Cambridge University Botanic Garden. The project is supported by the Arts Council England.

Photo Credits: Nabil Ali, Helen Needham, Louise Walsh and Sam Brockington. Signage and plant label: Maria Del Mar Millan Pita.

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www.nabil-ali.wixsite.com/artist
artistnabilali@gmail.com