



Traditional chestnut (*Castanea sativa* Mill.) embroideries (Marvão, Portugal)

Luis Mendonça de Carvalho and Francisca Maria Fernandes

Correspondence

Luis Mendonça de Carvalho^{1*} and Francisca Maria Fernandes²

¹Botanical Museum, Beja Polytechnic University, Campus do IPBeja, Beja, Portugal

²IHC and Lab In2Past, FCSH Nova University of Lisbon, Avenida de Berna, Lisbon, Portugal

*Corresponding author museu@ipbeja.pt

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Notes on Ethnobotany

Abstract

By the late nineteenth century, in Marvão (Portugal), women created a new art by embroidering the chestnuts' pericarp – *Castanea sativa* Mill. – in linen fabric. This tradition has been kept alive and is now the most representative traditional art from Marvão. The pattern of the embroideries includes flowering branches in which the chestnut's pericarps are used to create imaginary leaves and petals. The embroideries are always framed and protected by glass and can include photos of family members and friends.

Keywords: Chestnut fruits, *Castanea sativa* Mill., chestnut embroideries, Marvão, pericarp.

Marvão chestnut embroideries

The European chestnut (*Castanea sativa* Mill.) belongs to the Fagaceae family, and its female flowers (later, the fruits) are protected by a spiny cupule of bracts called burr (Figure 1). The fruit is dry, monospermic and indehiscent, with a shiny brown epicarp; the endocarp has a dense layer of hairs that protects the seed. The fruits are dispersed when the burrs fall and roll on the ground (Franco 1971, Aguiar & Tereso 2021).

The name of the genus *Castanea* Mill. carries a rich historical and cultural significance. It derives from the Greek *kastanéa* (Latin *castanea*), a classic name attributed to the chestnut tree and to its fruit. The Roman author Pliny, the Elder, traced its etymological origin to a toponym of a Greek city in Thessaly. Still, some authors suggest the name comes from the Armenian *kaskeni* = chestnut tree; *kask* = chestnut (Afonso 1990).

The author of the protologue, Philip Miller (1691-1771), wrote in *The Gardeners Dictionary* (8th edition), volume 1 (no page number) (1768): *It takes its name from Castana, a city of Thessaly, where this tree anciently grew in great plenty* (Miller 1768). In book 15, chapter 25 of the *Natural History*, Pliny mentions that the Greeks named it *God's acorn*: *Sardibus hae provenere primum: ideo apud Graecos Sardianos balanos appellant, nam Dios balanu (Διὸς βαλάνου) nomen postea inposuere excellentioribus satu factis. nunc plura earum genera* (Pliny 1960). In Christian traditional iconology, chestnuts are an attribute of Christ and the Immaculate Conception of the Virgin Mary; chestnuts are also a symbol of virtue and purity because although surrounded by "thorns" (temptations), they remain firm and unaffected by them (Ancona 1977). The epithet *sativa* derives from the Latin *sero* (participle *satus*) = to sow, to plant; lat. *-iva* = suffix indicating capacity, possession or ownership, alluding to its cultivated status (Stearn 1996).



Figure 1. Chestnuts inside the burr. Photo: hiphoto40.

The chestnut tree originated in East Asia and Asia Minor. During the Tertiary, its distribution was more extensive, but the glaciations that occurred during the Pleistocene caused a contraction in the geographical area of this species (Lang *et al.*, 2007). The genus *Castanea* Mill. has a Holarctic distribution, thus being limited to the Northern Hemisphere. The only species native to Europe is *Castanea sativa* Mill.; other accepted species are found in North America, the Eastern Himalayas, Korea, China and Japan (1).

The Romans were responsible for spreading chestnut cultivation in Portugal, although evidence suggests that the species existed in mainland Portugal before the Roman invasion and colonization (Aguar & Tereso 2021). Today, chestnut cultivation extends from the coast to 1350 m above sea level, with a more significant presence in the north and central interior of the country. Small populations are found on the West Coast, Serra de Sintra/Lisbon, Portalegre/Marvão, and Serra de Monchique (2).

The chestnut tree is known for its sweet, nutrient-rich seeds, but its wood is also commonly used for furniture and other applications. In Portugal, there are plantations whose ultimate purpose is the timber industry (*castinçal*, in Portuguese), and the laminated chestnut wood is also used for basketry, although this activity is rapidly declining.

Around Marvão (Figure 2.A-B), located in the Alto Alentejo region, chestnut groves (*souto*, in Portuguese) produce high-quality chestnuts with unique morphological and organoleptic characteristics. Since June 21, 1996, they have been protected under European and Portuguese laws with PDO (Protected Designation of Origin) status – the *Castanha Marvão-Portalegre DOP* (3, 4). Here, a unique tradition began by the end of the 19th century, which consists of applying (embroidering) the pericarp of the chestnuts to a linen fabric (*Linum usitatissimum* L.).

The preferred nuts are the largest and most developed ones, with a flat pericarp, i.e. little or no curvature. These are usually the nuts that grow in the center of the burrs. The nuts are immersed in hot water, so the pericarp separates easily from the seed coat. The pericarp is then removed and cut with scissors to obtain small pieces in the shape of petals or leaves.



Figure 2(A) Location of Marvão in the map of Portugal; Figure 2(B) Aerial view of the walled town of Marvão. (A) Photo: Wiki Commons (Rei-artur); (B) Photo: Achim Schneider.

Embroidery begins by selecting the design, which usually includes a flowering branch leaning to one side (Photo 3), decorated with a bow at the base. The embroiderer traces the pattern of the design, previously created on tracing paper, onto a white linen fabric (Fig. 4-7). The traced drawing does not include the leaves or the petals. Next, she attaches the fabric to a frame, stretches it out and, using cotton thread, embroiders the pattern she has traced: bow, branches, leaf petioles and flower peduncles or pedicels. After, the leaves and flower petals, made from the chestnut's pericarp, are applied. These pieces are attached to the fabric using delicate stitches made with a needle and cotton thread. The chestnut's pericarp can be applied in two ways: leaving the brown epicarp or the fuzzy endocarp visible (Fig. 8). They are usually alternated to create different colors that enrich the embroidery. Other decorative elements can be used, such as pearls and shiny threads. The hydrated pieces of pericarp can inadvertently stain the linen fabric, so special care must be taken because the embroidery cannot be washed. Once finished, it is framed and protected with glass.

In the past, it was typical for the embroideress – this has always been a woman's activity –, to include a photograph of relatives or friends, living or dead, or a milestone in personal life, such as a wedding, and hang it on the wall of the living room or bedroom (Fig. 9-10). This practice followed the tradition of building small decorative Catholic wall boards (*registos*, in Portuguese) – votive images that represent Christ, Mary, or a saint and are effusively decorated with plant motifs.

In the past, these embroideries were done by the fireplace during the long autumn and winter evenings when chestnuts were available. The nutrient-rich chestnut seeds were used for human consumption, and the pericarps were seen as raw materials for this new craft. Now, the embroideries are sold at fairs and traditional arts and crafts exhibitions (Photo 11). The Municipality of Marvão is preparing an application for chestnut embroidery to be listed as an Intangible Cultural Heritage in Portugal (UNESCO).



Figure 3. Traditional chestnut embroidery pattern. Photo: Beja Botanical Museum.



Figure 4 Instruments used to transfer the pattern from the paper to the fabric, and frame used by the embroideress. Photo: Municipality of Marvão (Câmara Municipal de Marvão)



Figure 5 The embroideress Adelaide Martins contributes to keeping the tradition alive. Photo: Municipality of Marvão (Câmara Municipal de Marvão)



Figure 6 Fixing the chestnut pericarps. Photo: Municipality of Marvão (Câmara Municipal de Marvão)



Figure 7 Finished embroidery. Photo: Municipality of Marvão (Câmara Municipal de Marvão)



Figure 8. Detail of the embroidery, in which the stitches that fix the chestnut pericarps are easily seen and the different patterns obtained when using the brown epicarp or the fuzzy endocarp. Photo: Adelaide Martins.



Figure 9. Early twenty-century embroidery. Photo: Municipality of Marvão (Câmara Municipal de Marvão)



Figure 10. Contemporary embroidery with a photograph of relatives and friends. Photo: Adelaide Martins.



Figure 11. Sale of framed chestnut embroideries. Photo: Adelaide Martins.

Declarations

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