



Fig.3 Cork Furniture

Material sources, Availability & Sustainability

"Cork's innate renewability is considered its finest feature as it can be harvested from the outer bark of the cork oak tree (*Quercus Suber*) without causing harm and leaving the tree to regenerate. Cork trees, generally found in Mediterranean countries, are slow growing and can live up to 250 years with the harvesting cycle typically occurring every nine years. Initially, the tree needs to mature for approximately 25 years to allow the trees' cellular structure to mature which produces the thermal and acoustic properties of cork." (Muratto, 2016)



Fig.4 Cork Tree

Life-cycle & Durability

"Cork has been known to last up to 50 years when used in interiors thanks to its resilience to pressure, which makes it very suitable for high traffic areas such as flooring in hallways or on kitchen counter tops. Cork is used extensively as a backing to many other materials for its compressive strength and as a backing to many other materials for its acoustic and thermal attributes." (Muratto, 2016)

CORK

One of the most innovative materials of the 21st century



Fig.2 Cork In Bedroom



Fig.1 Cork In Interior Design

Use, Maintenance & Application

A not long time ago people have rediscovered the beauty of many natural materials, one of them is cork. Thanks to its wide range of textures and colors cork started to be used more and more both in interior and exterior design, fashion design, and as an exceptional engineering solution. In interior design, we can see cork used as flooring, the base for decorative elements, decorative ceiling or furniture design. Cork's functionality continues well after its installation, it is easy to clean and even easier to maintain. Cork is also often used as an underlay under hardwood, ceramic and marble floors. In fashion design, "Yves Saint Laurent, Prada, Stella McCartney, Dior, Manolo Blahnik, Costume National, Dolce & Gabbana and Gucci are proud to integrate it into their jewellery, clothing and footwear collections." (Amorim Cork, 2019) In exterior design cork can be used as a facade or exterior decoration, a Portugal's Pavilion at the Expo 2010 Shanghai is a good example of using cork in the exterior. Entirely covered with cork, a courtesy of CORTICEIRA AMORIM, the Pavilion of Portugal won an award in the category of pavilions covering less than 2,000 square meters.



Fig.5 Cork in Fashion Design

“For a material that has been used since antiquity, the Chameleon like versatility of cork is astonishing (...) thanks to its capacity for renewal and for adapting to new technological demands.”

The Chemistry of Cork, National Geographic



Fig.7 Cork based chairs

Natural Qualities & Structure

“Cork can be ground and shaved to be applied to soft furnishings while its natural grain can be tinted and stained to develop a multitude of pattern and colour finishes. Cork is waterproof and fire retardant, so application in bathrooms, kitchens and laundries is quite popular from flooring to cabinetry and bench tops. Its insulating qualities allow it to absorb and retain heat while it is applied to many commercial buildings for its acoustic properties. Like many natural materials that have been around for centuries, the design industry can expect the continuing resurgence of cork for its environmental benefits and flexible application opportunities in interiors. “ (Dezeen, 2019)

Cork and Innovation & Technology

Portuguese studio Digitalab has won the rising star award at Stockholm Furniture Fair, with an innovative method of turning cork into thread.

“The 100 per cent natural and sustainable expanded-cork agglomerate is transformed through generative design algorithms and advanced digital fabrication processes, expressing a new formal aesthetic,” said Silva.

“This creative and disruptive system not only optimises cork's thermal and acoustic properties but also adds artistic value to traditional walls,” he continued. (Brimet Silva, architect of Digitalab)



Fig.8 Cork lamp produced through advanced digital fabrication processes



Fig.6 Portugal's Pavilion entirely covered with cork