

USES OF VALUABLE BROADLEAVES TIMBER IN CATALONIA



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This publication has been produced within the framework of the MixForChange project (LIFE15 CCA/ES/000060) financed by the LIFE Programme of the European Union

Edition: Marina Ordóñez - Up To You Studio

Acknowledgements: Eduard Busquets and Àngela Muntada (CTFC), Joan Rovira (Diputació de Barcelona) and all the companies who participated in the preparation of Chapter 4

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Illustrations of tree leaves: Marina Ordóñez

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Solsona (Spain), February 2020

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Suggested citation: Coello J, Piqué M, Beltrán M. 2020. Uses of value broadleaves timber in Catalonia. CTFC, Solsona (Spain)

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This publication is the result of a collaboration between the Forest Science and Technology Center of Catalonia (CTFC), the Catalan Timber and Furniture Guild (GFIM) and the Catalan Wood Institute (Incafust). It has been produced within the framework of the EU-funded project LIFE MixForChange (www.mixforchange.eu), coordinated by CTFC.

The general content is as follows:

Chapter 1 introduces the main valuable broadleaved species in Catalonia, and the conditions and the forests where they grow.

Chapter 2 explains how this natural resource can be used in a sustainable way through forest management and how a series of objectives can thus be achieved simultaneously: promotion of forest vitality and diversity; increase in resistance to the impacts of climate change (drought, fires, pests) and therefore help in preserving forests and the ecosystem services they provide: water regulation, carbon fixation, biodiversity conservation and recreational use. In addition, forest management favours the bioeconomy related to local and renewable products, with a low carbon footprint and a structured value chain. Overall, local wood consumption enables the implementation of sustainable and multifunctional forest management and therefore forest conservation and rural economy.

Chapter 3 shows the main industrial destinations of the wood of these species as well as the main processed products. We briefly present the history of these industries in Catalonia and their interest and potential, in order to highlight the diversity and innovative capacity that characterizes them.

Finally, Chapter 4 presents some short interviews with members of representative companies of the different transformation industries, seen through the eyes and words of their managers. This publication has been designed to have an attractive format and easily accessible language so as to reach the maximum audience and draw attention to this sector which has high strategic interest.

0. Presentation



1. The valuable broadleaved species

Valuable broadleaves (also known as noble hardwoods) are deciduous tree species producing timber with highly appreciated aesthetic and technological properties. It is not possible to make a definitive list of the species belonging to this category, but some of the main exponents are oak, cherry, ash, maple, chestnut or walnut. This chapter describes these and other valuable broadleaves present in our context.

A peculiarity of many of these species is their sporadic occurrence pattern, so that well-shaped examples of these species are a scarce resource. Another consequence is that they usually grow in mixed forests, where two or more species coexist.

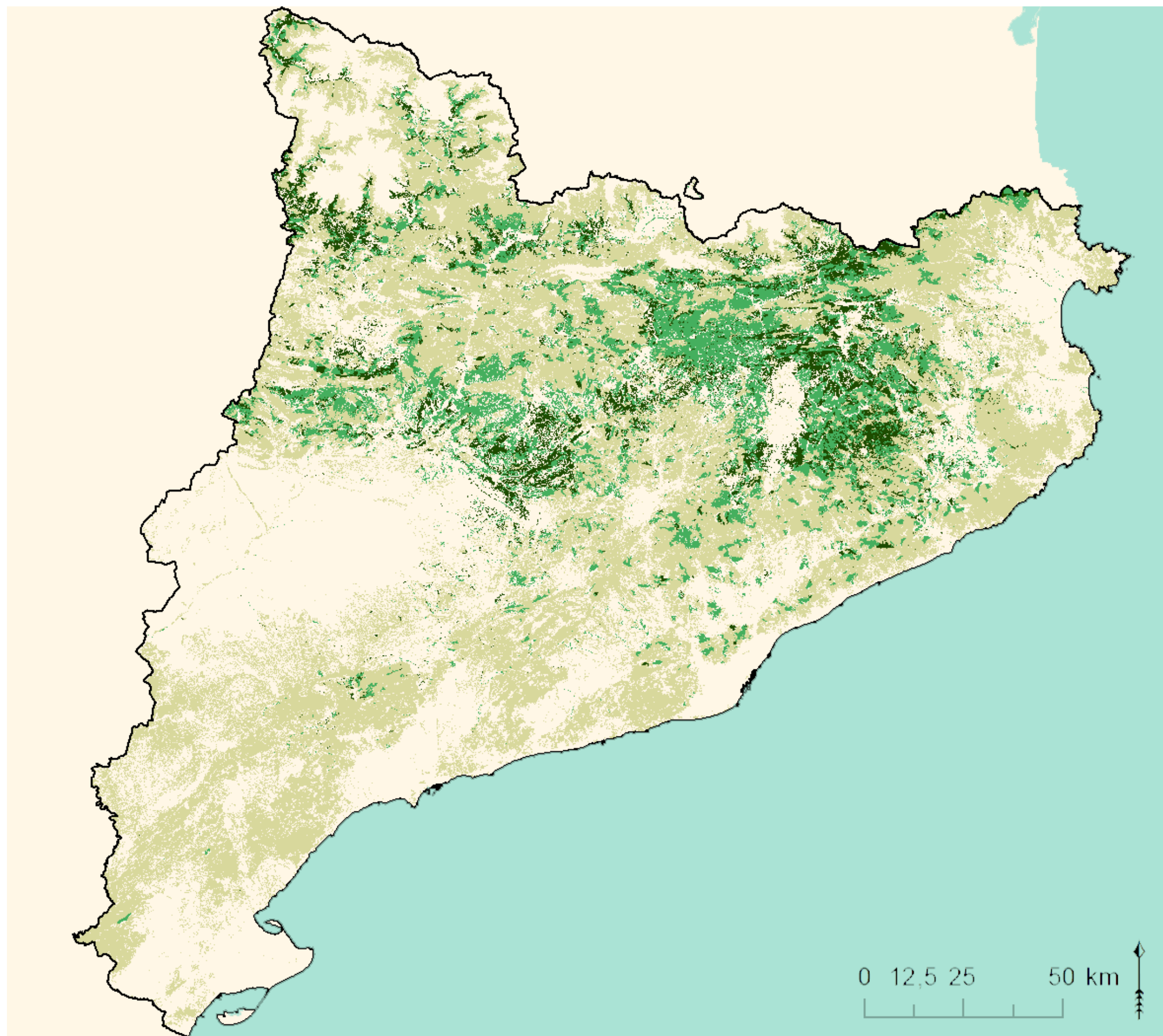
In Catalonia there are more than 650,000 ha of mixed forests (more than a fifth of the territory), with a variable presence of these species, which are more frequent in the most humid areas. Despite being a resource present in our forests, almost all (more than 90%) of the wood from these species that is transformed in Catalonia comes from other areas, mainly North America and Eastern Europe.

The application of sustainable forest management is an opportunity to value these local and renewable products, produced naturally a few kilometres away, which favours the bioeconomy and rural development, avoids the use of non-renewable materials and reduces emissions from the transport of wood and other resources from remote areas, where sustainable management is not guaranteed. The next chapter provides more details about sustainable forest management.

Below we list the main valuable broadleaved species present in Catalan forests. These are especially abundant in sub-humid Mediterranean conditions, in areas with a relatively high rainfall (above 600-700 mm per year), but where the Mediterranean influence avoids the low temperatures typical of Pyrenean conditions.



This map shows the area in Catalonia covered by forests. The different colours indicate the forests in which valuable broadleaves are dominant; forests with a significant but not dominant presence of these species and also forests where these species are not significantly present:



Sessile oak
(*Quercus petraea*)

This is the most highly appreciated wood for cooperage and is considered to be one of the two “French Oaks”. It is also used for veneer, cabinetry, carpentry and flooring.



Sycamore
(*Acer pseudoplatanus*)

This wood is pale and easy to work, appreciated for cabinetry and turnery, as well as for the manufacture of musical instruments such as guitars and violins.



Algerian oak
(*Quercus canariensis*)

This is a good quality wood that can be used in cooperage, cabinetry and carpentry. It has also been used to make sleepers.



Italian maple
(*Acer opalus*)

This wood is heavy, with a homogeneous colour and fine fibre. It is appreciated in cabinetry, carpentry and turnery



Downy or pubescent oak
(*Quercus pubescens*)

This wood has a somewhat lower quality than that of sessile oak but is useful for making hard, resistant pieces (handles, tools), as well as for cabinetry.



Field maple
(*Acer campestre*)

This slightly yellowish or reddish wood is highly appreciated in carpentry and turnery, and also for making high-resistance pieces such as handles and firearm butts.



Chestnut
(*Castanea sativa*)

This wood is very versatile and resistant to outdoor conditions. It is used for beams, cooperage, cabinetry and carpentry, flooring, sleepers...



Common ash
(*Fraxinus excelsior*)

Dense and flexible wood, with a pale colour. It is highly appreciated in cabinetry, carpentry and turnery. It is also used to make tools.



Cherry
(*Prunus avium*)

Heavy, reddish wood, highly appreciated in cabinetry, carpentry and veneer. It is also used for cooperage, turnery and flooring.



Narrow-leaved ash
(*Fraxinus angustifolia*)

Wood similar to that of common ash, although it is less well known as it grows in drier conditions and is available in smaller quantities.



Walnut
(*Juglans regia*)

This is one of the most expensive woods in our context, especially used for making veneer and luxury cabinetry, as well as for decorative elements.



Pear tree
(*Pyrus communis*)

This strong wood is very pleasant to work with and to polish. It is highly appreciated for its veneer and for marquetry and top cabinetry, as well as for making wind instruments.



Service tree
(*Sorbus domestica*)

This very hard wood has exceptional technological and aesthetic properties but is of limited use due to its slow growth and scarcity.



Wild service tree
(*Sorbus torminalis*)

This is the most expensive wood in Europe thanks to its technological and aesthetic properties and the shortage of large pieces.



Apple tree
(*Malus sylvestris*)

Pink wood with a fine grain. It is of slightly lower than the pear tree, and is more irregular, as well as less abundant.



2. Sustainable and multifunctional forest management

The forests in Catalonia

The current area and type of forest cover have evolved as the result of human action since ancient times. At present, forests in Catalonia cover an area of 1.6 million hectares (49% of the territory), according to the Spanish Fourth National Forest Inventory (2017). This figure is the highest available in historical records and since the mid-20th century, has shown a sustained increase in the area and volume of standing timber. The main cause of this increase is the natural forest expansion which has taken place as a result of the abandoning of arable and pasture land, especially in mid-mountain areas.

The most abundant tree species in Catalonia are Aleppo pine (*Pinus halepensis*, 334,000 ha), holm oak (*Quercus ilex*, 212,000 ha) and scots pine (*Pinus sylvestris*, 181,000 ha).

It should also be noted that the forest area in Catalonia is mostly (75%) privately owned.

What are forest ecosystem services?

Ecosystem services are all the benefits that a certain use of the territory generates for society. The main ecosystem services of the forests are:

- Support services: nutrient cycles, soil generation, biodiversity protection, pollination.
- Provision or supply services: raw materials (wood, fodder, cork), food products (fruits, mushrooms, game meat).
- Regulation services: carbon storage, temperature regulation, hydrological regulation and improvement of water quality, soil protection, filtering of dust, particles and sediments.
- Social and cultural services: recreational, educational, scientific, cultural, landscape, therapeutic uses.

What are the main threats to our forests?

In our conditions, the main current threats to the vitality and persistence of the forests (and therefore to the ecosystem services they provide) are interrelated: increase in temperatures and in drought severity make forests more vulnerable to large wildfires and to the action of pests and diseases.



What is sustainable forest management?

The United Nations defines sustainable forest management as a “dynamic and evolving concept, which aims to maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations”. Sustainable forest management is the main tool for guaranteeing the conservation and persistence of forests, their multifunctionality (provision of ecosystem services) and at the same time for avoiding or mitigating the impact of their main threats. Achieving these goals is a complex challenge from various points of view:

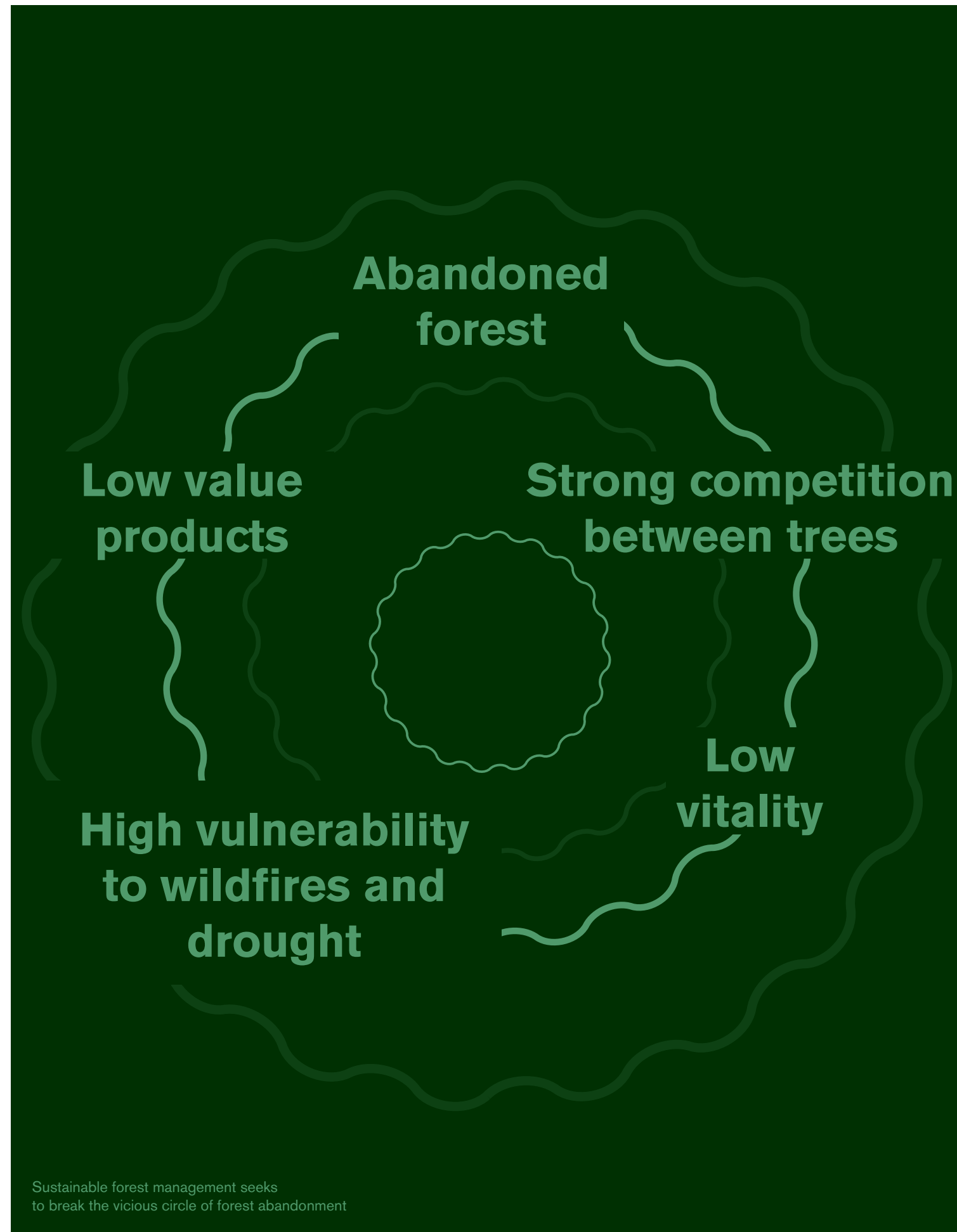
- Technical: forest ecosystems are very complex.
- Social: multiple demands are made on the forests by their owners, and rural and urban populations, some of which may be opposed.
- Economic: forest management is, in general, an activity with a very low profit margin and this limits its implementation, especially in fragmented, inaccessible and areas of low-productivity.
- Legal and regulatory: forest management is subject to a wide body of regulations, standards and controls that go from initial planning to field implementation.

The difficulties imposed by these challenges are compensated by the continuous generation of knowledge related to forest ecology, fire behaviour, harvesting techniques, governance models, etc.



How can sustainable forest management guarantee the conservation and improvement of forests?

Modern trends in sustainable forest management aim to promote forest complexity, both in terms of species number and of forest structures (creating discontinuities in the forest cover), in order to reduce their vulnerability to various threats. In addition, the state of the forest can be improved by promoting the most vital and interesting trees from the viewpoint either of biodiversity (trees with valuable microhabitats, scarce species) or of economic value: well-shaped trees with the potential to generate high value logs. The promotion of trees of greatest interest is achieved by eliminating those trees that compete with them for light and water. This intervention is carried out gradually so as to maintain a humid microclimate in the forest that limits the direct impact of the sun and the drying wind, as well as excessive proliferation of the understory and vertical continuity of the vegetation (fuel continuity). The overall effect is an improvement in the vitality of the forest in general and of the trees of greatest interest in particular, with a general reduction in vulnerability to large forest fires, droughts, pests and diseases. Thus, the continued existence of the forest and the provision of its ecosystem services can be guaranteed, avoiding the problems associated with forest abandonment.



What can I do to promote forest conservation and persistence?

The economic sustainability of forest management is achieved through the commercialization of its products and services. Therefore, as consumers we have a key role in the conservation of our forests, if we buy products made from local wood, local forest biofuels (chips and pellets) or non-wood forest products and their derivatives: mushrooms, pine nuts, chestnuts, wine with a cork stopper etc. In this way we contribute to the sustainable management of forests and their conservation and promote the rural bioeconomy.



3. What is done with this wood in Catalonia?

This chapter shows the main types of valuable broadleaves wood transformation industries in Catalonia. We describe the particularities and products made in each industry type, show the versatility of these woods for a wide variety of uses and highlight the diversity of companies that transform them.

Cabinetry

Cabinetry consists of making furniture. Therefore it is a very diverse industry, covering a variety of company profiles, from artisans making unique and personalized pieces to factories building serial furniture. Cabinetry can also refer to techniques typical of other wood transformations presented below: carpentry, turnery, marquetry...

In recent years, the emergence of large, international stores which specialize in low-cost furniture has had a strong impact on the local industry, especially those dealing with the manufacture of serial furniture.

The main valuable broadleaved species traditionally used in cabinetry are oak, maple, cherry, chestnut and ash.



Carpentry

Carpentry generates pieces that can be used directly (doors, windows) or be part of other construction elements (stairs, railings) or furniture. It is, therefore, a very diverse activity with many different company profiles. This industry can use all the broadleaved species mentioned, although the most widely used are the most abundant oak, ash and chestnut.

Carpentry is the main processing industry of wood from broadleaves in Catalonia and is highly diversified. Some of the most relevant company profiles are sawmills that buy roundwood and sell planks or lathes; manufacturers of intermediate parts for other wood industries; ready-to-install manufacturers of wood parts and installers/manufacturers of custom wood parts.



Turnery

In turnery a piece of wood is worked by turning it at high speed on a lathe. The resulting product therefore has a partial or total circular section. The main elements manufactured by this industry are small or intermediate-sized pieces for making furniture (mainly legs, railings, and balusters) or small pieces, tools, and tool parts: handles, toys and miniatures, bobbins, covers of cosmetics containers and alcoholic beverages, brushes, etc.

Of the species mentioned in the previous chapter, this industry mainly uses ash and chestnut, in addition to beech.

Turnery has a long tradition in Catalonia, especially in the central area, although the current industrial network consists mainly of small family businesses, some dedicated to new applications such as the manufacture of covers for high-value packaging.



Marquetry and modeling

Marquetry consists of creating figures and forms based on combining pieces of wood of different colours or textures, while modeling consists of making scale representations of different architectural elements, vehicles, etc.

The main products of both industries are decorative elements, toys and models for recreational or commercial use.

This is a highly specialized industry. In Catalonia we find examples of companies dedicated to making models, which are very well-known internationally.



3. What is done with this wood in Catalonia?

Structural wood

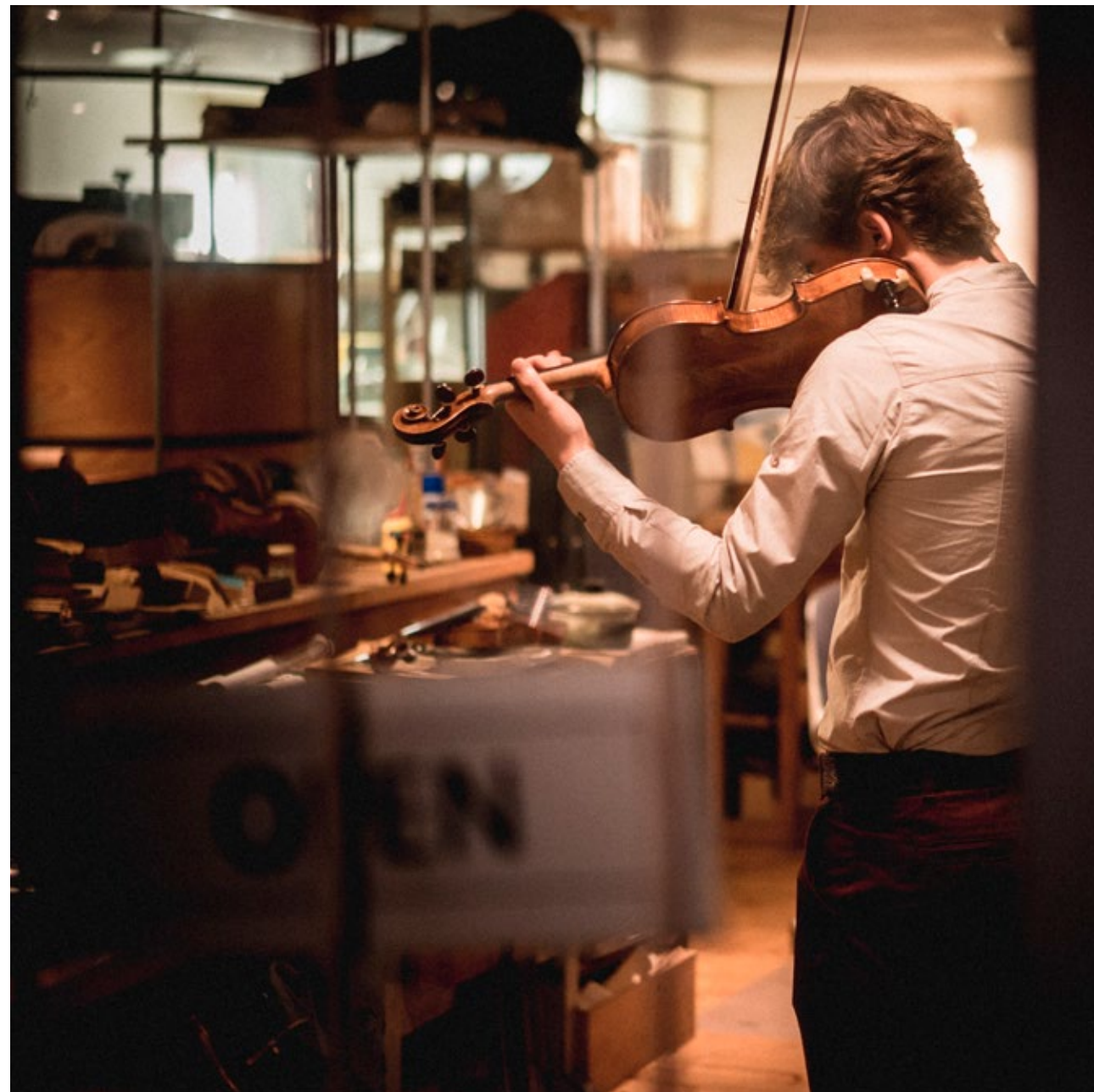
This industry creates pieces for building larger structures (mainly solid beams) or small structures (porticos, shading structures, etc.). Solid beams made of wood have always been essential in traditional construction, especially in mountain areas, and their use has recently continued in restoration work on rural houses and old buildings. The most widely used broadleaved species for solid beams are oak and chestnut. At present, however, most new timber-framed buildings are based on modern assembly technologies (cross-laminated timber or CLT; glued laminates), where coniferous species rather than broadleaves are used. This industry is located mainly in central and northern Catalonia.



Musical instruments

The manufacture of musical instruments or luthery with wood has a long tradition in Catalonia and includes both local and standard instruments. The main instruments made from valuable broadleaves are violin, viola, cello and guitar (often using maple and sometimes walnut), *dulzainas* (oboe-like traditional instrument that can be made with wood from the pear tree), and small percussion instruments (oak, chestnut, cherry).

At present, competition with low-cost instruments on the international market has led to this activity being limited to small workshops with a high artisanal component, specializing in high-end and personalized instruments.



3. What is done with this wood in Catalonia?

Cooperage

Cooperage consists of making barrels for the production and maturation of wines, vinegars and liqueurs. The most prevalent species used in wine barrels is undoubtedly oak, and especially *Quercus petraea* or *Q. robur*, which in the wine sector is commonly referred to as “French oak”. The barrels made from this wood are the most highly appreciated for making long-maturing wines. Other oak species, such as *Quercus canariensis*, can also be used for cooperage. Cherry and chestnut are also used in sweet and white wines. The need to offer a differentiated and fully local product is an opportunity for wineries to work with barrels made of local wood.

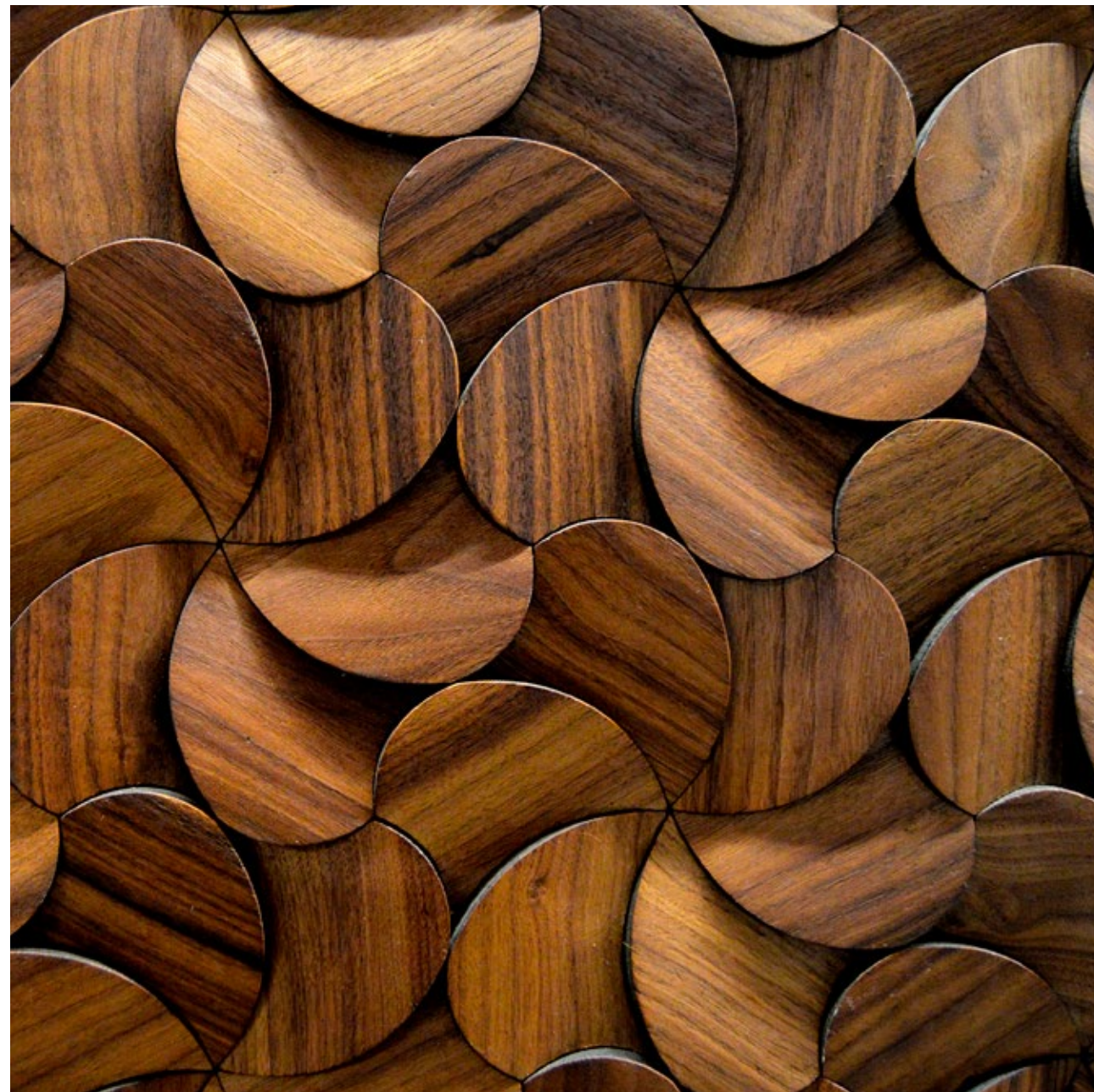
Nowadays there are very few companies dedicated to the manufacture of barrels in Catalonia, These are located in the south.



Decorative elements

This industry consists of making decorative elements from wood both for indoor and outdoor objects, merchandising, jewellery, etc. This subsector is very diverse in terms of the products made, the size of the company and its degree of specialization.

In the past, decoration with carved wooden pieces was especially common in religious ornamentation. In recent years, advances in printing and cutting technologies, especially with computer-controlled equipment, have allowed for the production of wooden elements of unprecedented detail and precision, which has multiplied the potential of wood for this purpose. In addition, nowadays it is possible to produce new mixed elements and pieces combining wood with other materials (e.g. plastic) based on 3D scanning and printing technologies, which can be used, among other things, in decorative elements of high-end vehicles.



Veneer

Veneer consists of cutting wood into very thin sheets (usually 0.5 and 0.8 mm thick) to cover high-end furniture and objects. Only the highest quality logs (with a diameter greater than 40-45 cm, straight and without knots or defects) are used in this demanding industry. Walnut is generally the most valued species, although all the valuable broadleaves mentioned can be used when they comply with the necessary dimensions and quality.

In Catalonia there has been a sharp decline in this industry since 2006 due to the economic crisis and the proliferation of synthetic substitutes made by printing images that simulate wood appearance. The few companies continuing with this activity (either manufacturing the veneer or *re-veneering*, that is, preparing and gluing a veneer sheet to a wood surface) are highly specialized and situated in the Barcelona metropolitan area.



4. The voice of the companies working with valuable broadleaves

In this chapter, the managers of 11 companies that work with valuable broadleaves wood introduce their activity, the products they manufacture and the history of their company. We have selected these entities as they are representative of the main broadleaves processing industries and their involvement in promoting the timber and forestry sectors.



*Salva Bardolet
Manager
Bardolet Ebenistes*

My family has always been linked to wood. My grandparents were turners and my father started a carpentry apprenticeship when he was 14 years old. Initially, he made flat wooden pieces (shelves and auxiliary elements) and in the 70s, he set up the company *Mobles Bardolet* (Bardolet furniture) with my mother. Now I and my brother Eduard run the business, with 8 employees.

We are one of the few remaining companies that make solid wood furniture, from initial project conception to the finished product, for which we use different techniques of carpentry, marquetry, varnishing, etc. Mastery of traditional techniques is the



basis of our work, but we also employ new technologies such as laser engraving. We have our own catalogue and we also restore and manufacture all kinds of custom furniture. We are proud to say that the furniture we manufacture has a lifelong guarantee.

The valuable broadleaves I like most are maple and ash, although the most popular at present are oak, chestnut and cherry.

info@bardoletebenistes.com
<https://www.bardoletebenistes.com>





Germán Peraire
Handcraft cabinetry
Germán Peraire Handcrafted Fine Furniture

My father restored musical instruments professionally and I learned the values of meticulous craftsmanship from him. After working in general carpentry, in 2018 I started my own project designing and making unique pieces of furniture with noble woods.

I am currently working on my first collection, the *Standards*, which are designs of high quality and detail produced in small batches. My designs have a contemporary and light appearance, although I mainly use constructive solutions from traditional cabinetry. I have studied in depth the traditions of Anglo-Saxon and French cabinetry, and I combine furniture making



with teaching traditional cabinetry techniques in Barcelona and Madrid.

In order to use as much local wood as possible, since 2017 I have been using a saw to cut some ash and cherry logs I bought, among other species. This year I have started using my own stock, as it has now dried. Although I am interested in North American broadleaves, I want local wood to end up being dominant in my work.

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<https://www.germanperaire.com>





*Jordi Solà
Manager
l'Auba Decoració*

I come from the industrial mechanical sector. In 1998 I started a company in Freixinet (Lleida province) which manufactured and installed stairs and railings, when I realised that this service was missing in central Catalonia. We worked in this area until the economic crisis forced us to reinvent our business. In 2015 we started exploring a new market niche: the manufacture of solid beams, parquets, flooring, panels, cabinetry and carpentry made with local wood, mainly from the *Solsonès* county.

The broadleaved species with which we work most are oak, ash, cherry and walnut, and occasionally elm and pear. We buy roundwood or sawnwood and we store it for



three to four years until it reaches a suitable level of humidity, and that is when we begin to work with it. This wood is denser and contains more nerves (and is therefore more difficult to work with) than that available from warehouses. Even so, this wood has a unique character which is the main added value for us and for our clients.

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Instagram: auba.decoracio





*Isabel Pujolasos
CEO
Pujolasos*

We are a company which specializes in the development and manufacture of wooden packaging for the perfumery and cosmetics sector. This year, 2020, the company is celebrating its 53rd birthday. Until the 1990s, our main activity was wood turnery for furniture accessories, such as knobs and legs, but then we radically transformed our work.

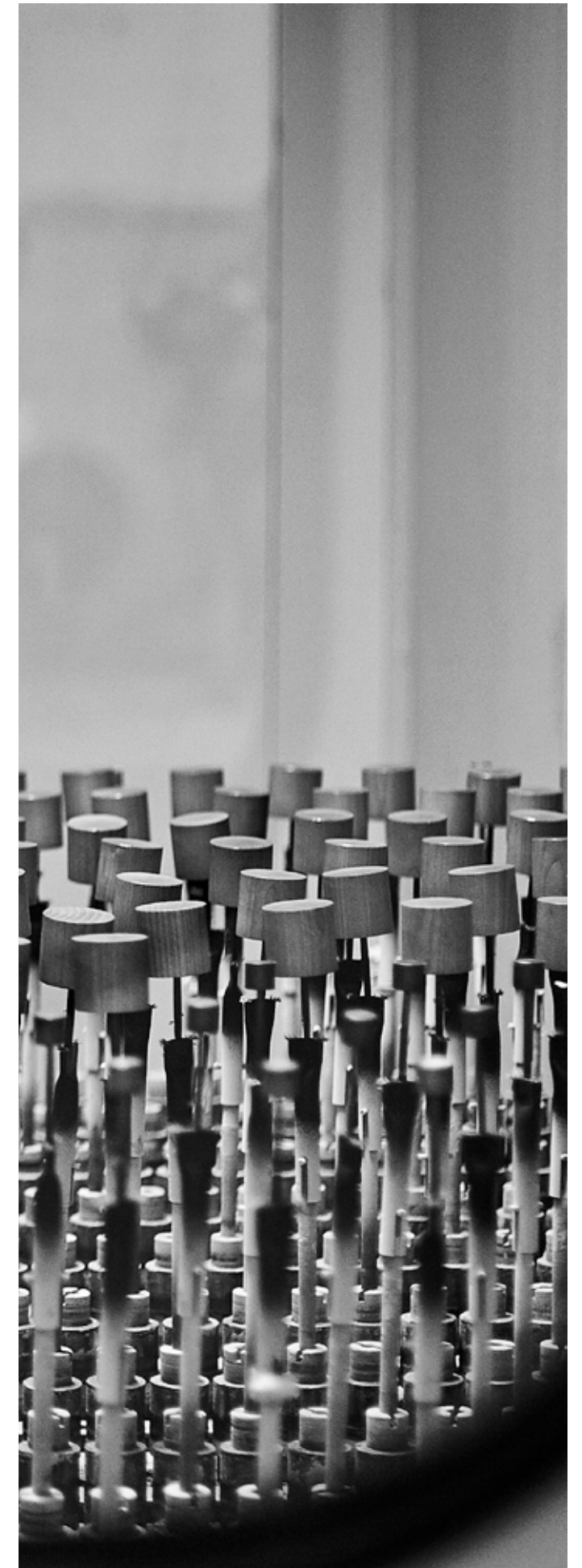
The company currently covers the three main manufacturing areas within the “beauty” industry: perfumery, cosmetics and makeup, developing projects with a high degree of innovation, design and customization. We supply internationally recognized brands such as Puig, LVMH,



Rituals, Loewe, Tous... At the present time we export about 75% of our production.

Wood is appreciated in our sector, as it is considered a noble, natural, sustainable and organic material. This is why many brands rely on it for their packaging needs, with the seal of sustainable forest management. The main tree species that we use are ash, beech, oak and maple. Market awareness of sustainability issues is helping us consolidate our position as a leading company in the eco-luxury packaging sector.

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www.pujolasos.com





*Pau Nieto Montserrat
Manager
Fustaeco*

I have worked in the forestry sector for more than 20 years. I initially carried out silvicultural work, where I became interested in local wood. The company "Fustaeco. cat" was established in 2016 from the cooperative "Fem ecologia de muntanya al Polell" (*Doing mountain ecology on the Polell estate*) and built on my training and experience in timber framing (wooden structures with wood joints), with the intention of setting up a business dedicated to transforming and constructing with local wood.

We work mainly with chestnut wood because of its durability, taking advantage of its natural forms, and we combine it with



Douglas fir when we need more rectitude. The wood we use comes from our estate or from nearby massifs and we have seldom worked with oak, cherry or walnut. Our products include solid beams, timber framing structures, outdoor furniture and logs for playgrounds. We work with local wood to promote our natural products, generate income opportunities for rural communities and maintain the landscape. The origin of the wood, moreover, provides a traceability guarantee that is highly valued by our clients, who are interested in healthier and more sustainable habitats.

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<http://fustaeco.cat>





*Rafael Montes Ramírez
Master luthier
Estruch Luthiers*

Our company started operating 140 years ago, and I have been working here for the past 50 years. I started as an apprentice when I was 14 years old and now I'm continuing the legacy of three generations of luthiers of the Estruch family. When I started we were faced with the challenge of becoming one of the first manufacturers of electric and jazz guitars in Europe, and we added these to the list of instruments that were already common: classical guitar, violin, lute and local instruments.

Now our main activity is manufacturing and repairing all kinds of guitars, especially classical and *flamenco* models, and traditional instruments.



In our workshop in Rubí (Barcelona metropolitan area) we mainly work with high-end and often highly personalized instruments. We also have a factory in Valencia producing instruments on a more industrial scale, but it is difficult to compete with instruments made in China.

The valuable broadleaves we work with are maple and walnut. I enjoy my work very much; I use my hands, my ears and my head... what more can I ask for?

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<https://www.luthiers.es>





*Agustí Torner
Manager
Boteria Torner*

We are honoured to be the eighth generation of Torner coopers, established in 1739 but continuing an even older family tradition. We build and repair wooden barrels of various sizes, including some of more than 500 litres. We complete the whole manufacturing process using artisanal techniques but with the support of modern machinery. We prepare the wood, build the barrel, toast the interior according to the client's needs and make and install the lids. When constructing a barrel we cannot use glue or any element that might alter the quality of the drink, so precision in our work is essential in order to achieve water tightness, which we check unit by unit.



The main species that we use is, logically, oak, both European and American, for all kinds of wines. We are also making more and more barrels using chestnut from the Montseny mountain range, especially for white wines, and cherry for sweet wines.

Whenever possible, we try to use local wood, so as to make the production of wines using only renewable local products.

torner@boteriatorner.com
<http://boteriatorner.cat>



FRAPONT®

WOOD WORKS

*Francisco Pont
President
Frapont, S.A.*

For more than 75 years FRAPONT has been combining traditional craftsmanship with the most contemporary trends in the carpentry and fit-out market.

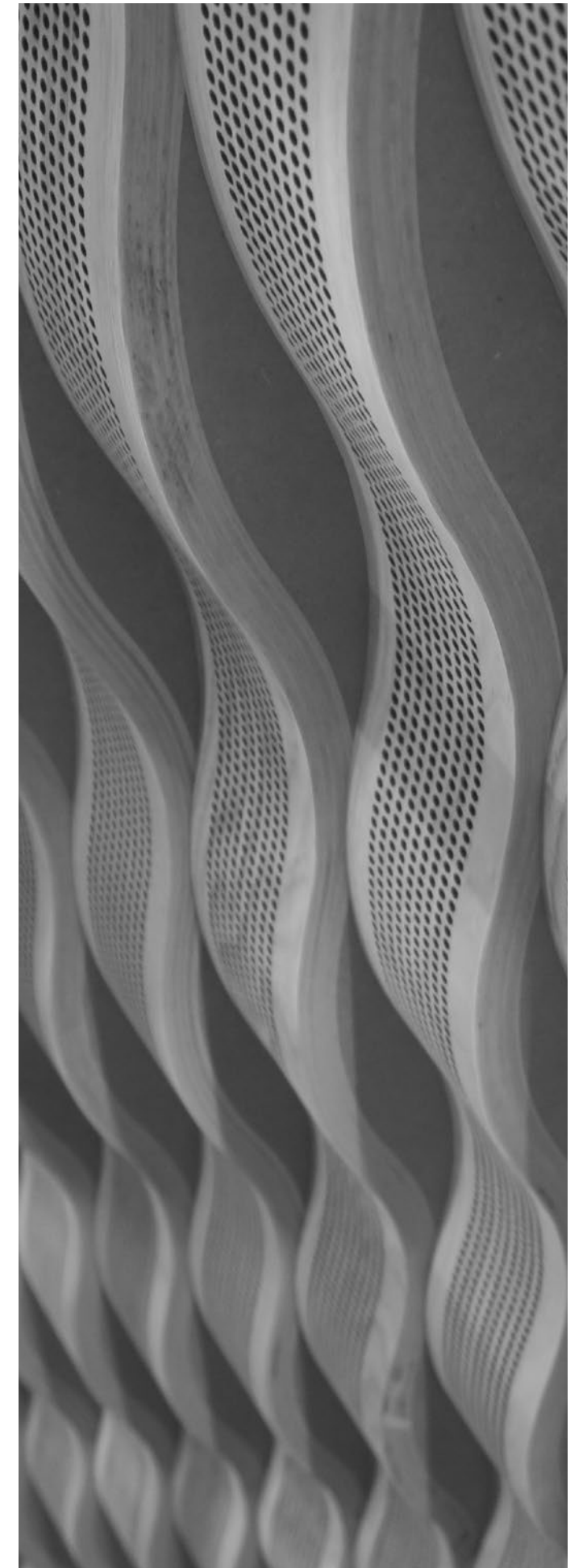
We provide technical solutions, manufacture and execute singular architectural projects in which the beauty and warmth of wood stands out. We work with all types of wood (beech, oak, ash, walnut...) and combine it with other materials to deliver a turnkey solution according to the needs of each project.

Nowadays, with different techniques and treatments, a great variety of wood finishes can be achieved, allowing us to cover floors, walls and ceilings in innovative ways

thereby achieving all kinds of effects that bring elegance and modernity to the rooms. Proof of this are the acoustic cladding of the Auditorium of *La Seine Musicale* (Paris), wrapped in wavy oak wood or the unique ash wood staircases of the *Axel Tower* (Copenhagen).

Our technical knowledge allows us to use wood in order to achieve unique aesthetic results and also high acoustic and fire performances, that are of vital importance in public buildings such as auditoriums, hotels or offices.

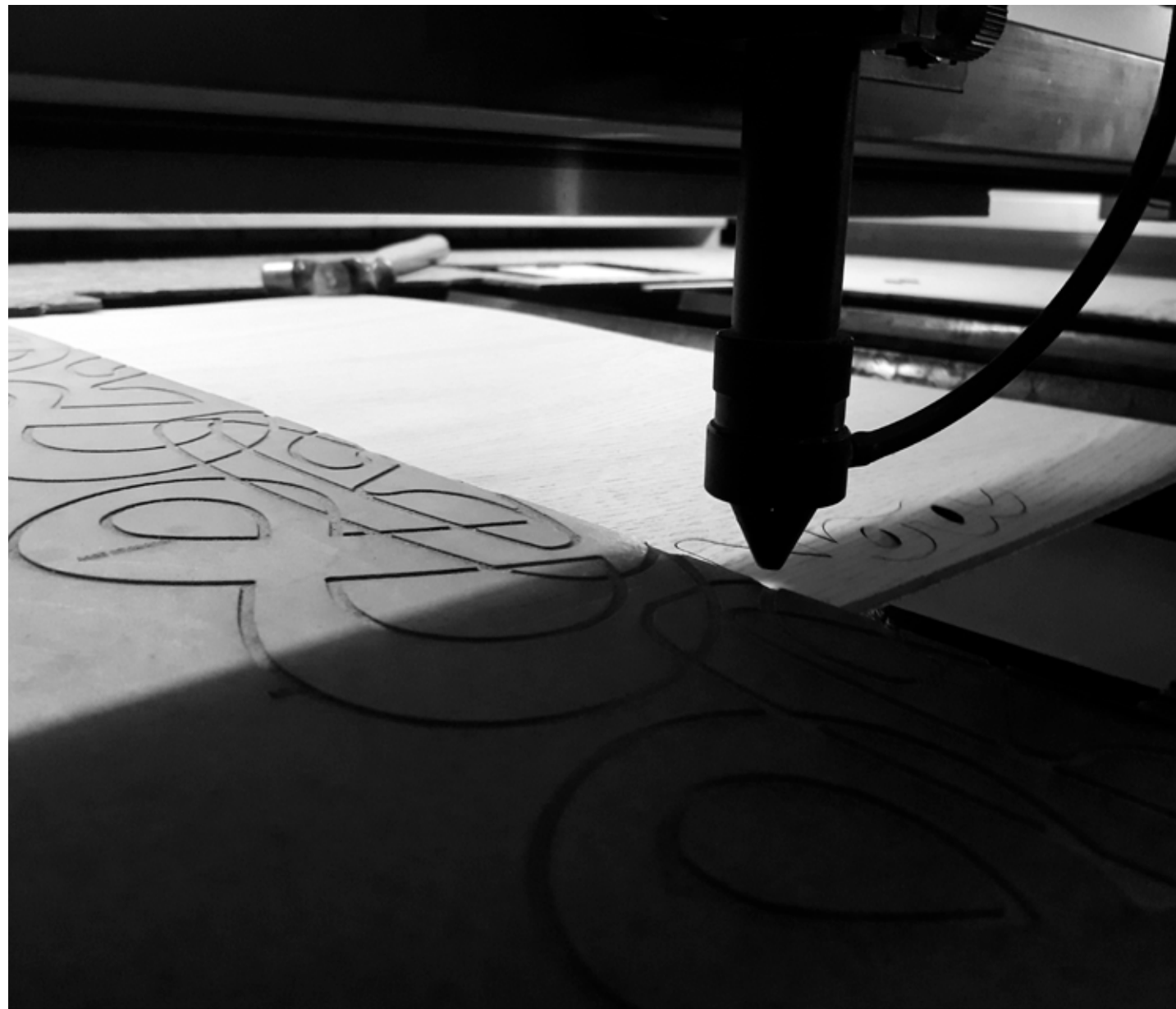
frapont@frapont.com
<http://www.frapont.com>





Denis Boglio
Manager
Ars Gratia

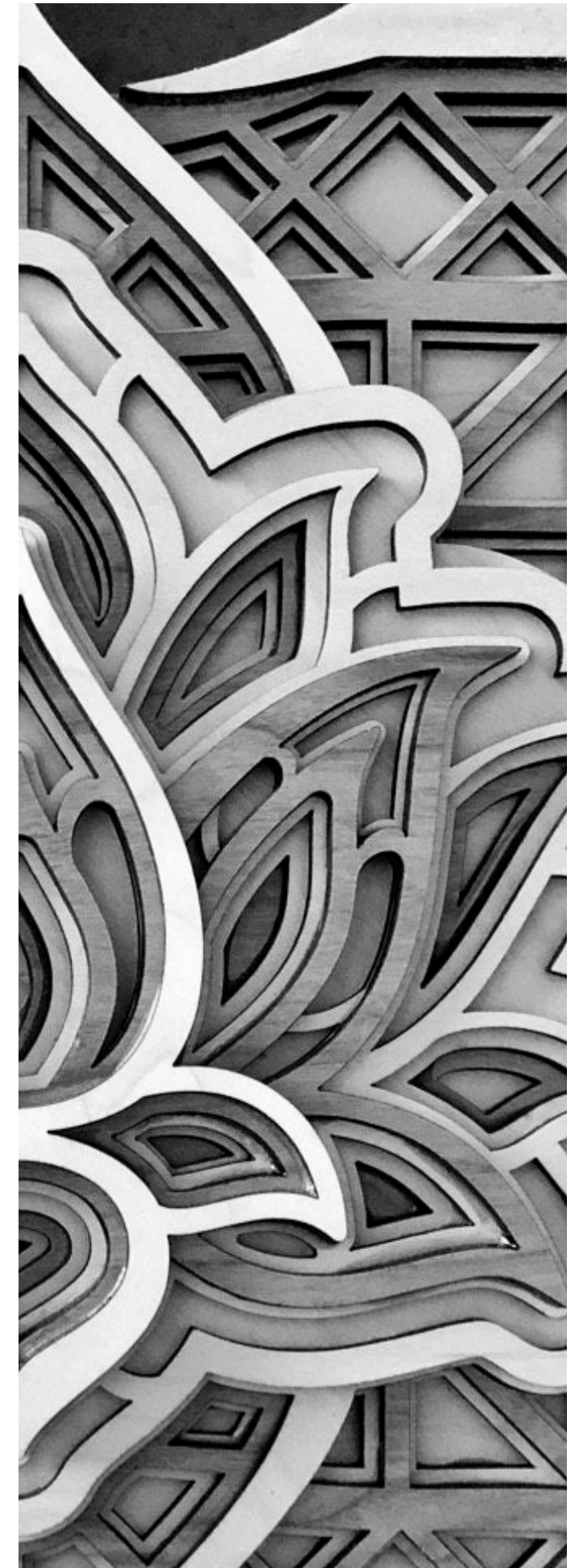
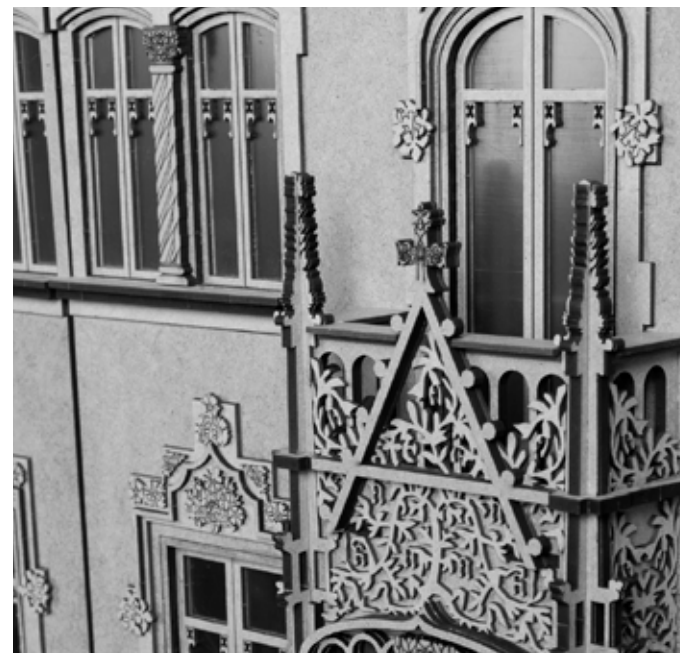
After a professional career managing public and private institutions, I wanted to remain linked to the forest and timber sector. I have always been passionate about design and wood, so in 2017 I bought the company *Fitaller*, which was already in operation. I have recently created *Ars Gratia*, a branch of the company focused on decorative wooden elements. We specialize in high precision laser cutting and we can make all kinds of shapes with wood, mainly as indoor decorative elements, but also accessories, trophies, pieces for outdoor signage and modeling.



Of the valuable broadleaves we mainly work with oak and to a lesser extent with ash and cherry, which I buy as re-veneer or striped board. Now we are doing tests to start using holm oak, a wood that fascinates me.

In the future I would like to work mainly with local wood to offer a zero-kilometre product, but at present it is very difficult to choose or even know the origin of the pieces of wood provided by the main suppliers.

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*David Ferrer
Manager
Rechapados Ferrer*

My grandfather founded the company in the 1950s, when many cabinetry and carpentry companies emerged in the town of La Garriga, 30 km north of Barcelona. My father continued the business and now I have taken over. Since we started, we have done re-veneer, that is, preparing a surface with various wood veneers and then attaching this to the visible part of all kinds of elements: furniture, doors, panels...

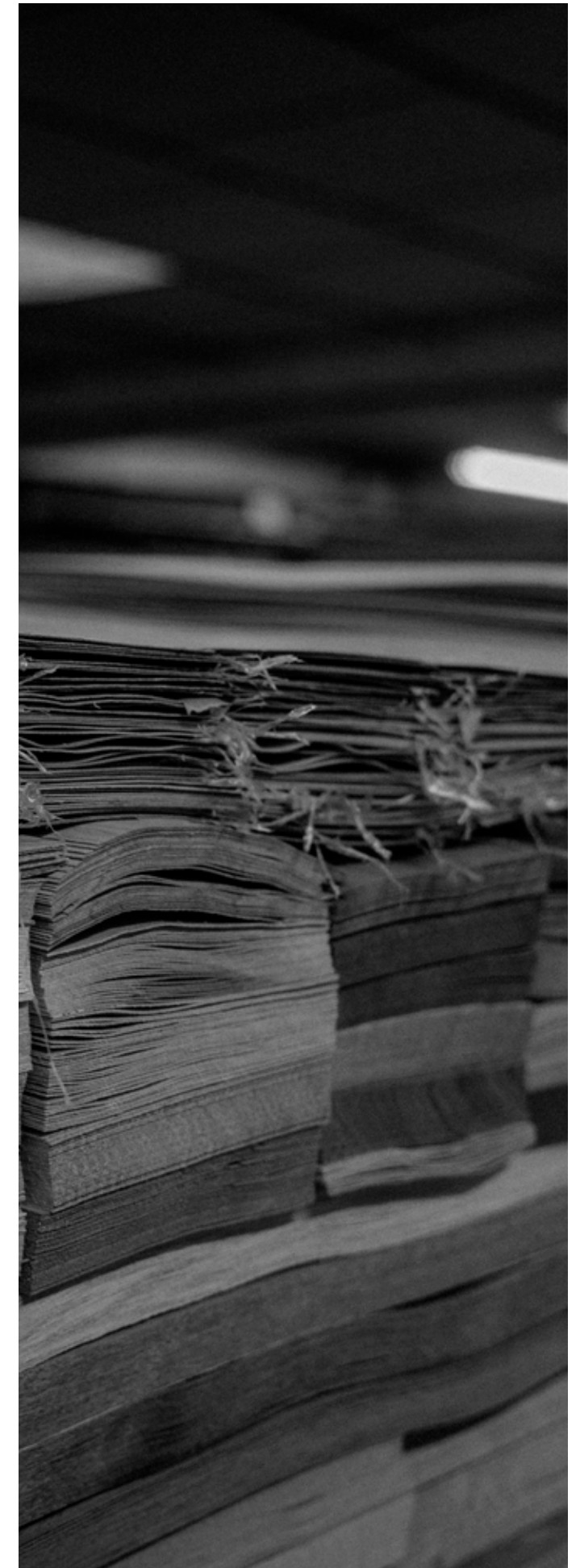
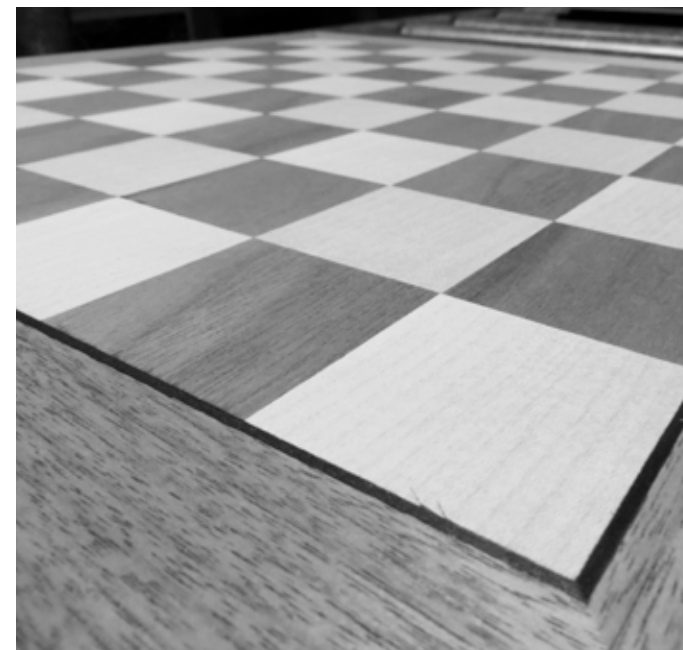
In addition, since the 1960s we have had a second line of business: chess boards. We are probably the world's leading manufacturer of wooden chess boards and export 95% of our production. In addition to traditional models, we assemble wooden



boards with electronic components for professional players and international championships. We make boards in series and also customized versions.

Of the valuable broadleaved species we mainly use oak, especially for re-veneer, which is currently in high demand. Other species we work with are walnut, ash, maple and, occasionally, pear.

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*Jaume Crous Busquets
Manager
Maderera Gerundense, SA*

MADEGESA is a sawmill founded more than 70 years ago, which initially focused on the use of chestnut to make pieces for cooperage and furniture. In the early 2000s, with the crisis in the furniture industry, we opened up to other species, making glued timber pieces for carpentry and turnery. At present we work with chestnut, oak, ash, beech, some *Platanus sp.* and, occasionally, other local species. Our products include sawn wood, laminated profiles and edged-glued panels.

About fifty percent of the wood we use is produced locally and the other half comes from France. Whenever we can, we prefer to work with local wood since transport costs



are lower, communication with suppliers is more fluid and access to wood is easier. We only import wood from France when what is available locally lacks the characteristics we require.

Although society is increasingly valuing the importance of the local origin of wood, few of our current customers value this aspect. One of our challenges for the future, therefore, is to raise awareness about this.

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