AMORIM NEWS

YEAR 39 / NUMBER 3

First the Earth, then the Moon, now Mars

Did you know that cork is the only organic material used in rockets which prevents the incineration of space vehicles? This is due to cork's unique thermal insulation properties which have made it an essential component of ablation systems that protect the interior of rockets. Only cork can leave the atmosphere and return to the Earth's orbit while fully preserving its innate characteristics. That's why we've been supplying NASA since the 1960s. A few years later we added ESA to our list of clients and, very recently, added SpaceX to our set of aerospace partners. After having already landed on the Moon, mankind's exploration of Mars will also be achieved with the support of our favourite raw material.

Research, innovation and creativity stand at the heart of Corticeira Amorim's strategy, and make a decisive contribution to its operational efficiency, vertical integration of its business activity in a circular economy model and expansion of cork's vast fields of application.

We know that cork has unique characteristics and properties, that no other material can reproduce. Today, we are researching the optimal composition of each product and each application, in order to ensure that they incorporate the right amount and correct formulation of cork and, of course, explore its properties to guarantee excellent performance, while optimising sustainability.

This same model is applied in all our Business Units: key challenges, priorities and objectives are identified, research projects are designed, combining in-house teams and relevant partners - universities, knowledge centres, technological centres, among others, with the objective of expanding knowledge and implementing design projects and ground-breaking technologies, innovating our business practices and developing new products and solutions, which enable us to reinforce our leadership of the sector and influence others by our example. We can thereby fulfil our goal of creating value for everyone, in a sustainable and responsible manner, in harmony with Nature.

To this effect, Corticeira Amorim has been implementing a broad action plan that makes cork available to society, in its most diverse forms, based on our team's know-how and technical expertise, building new knowledge and developing educational, scientific and research and artistic projects. We are also implementing an ambitious strategy worldwide to position cork at a high-profile level in the fields of architecture and design, fostering its incorporation in the construction of more sustainable and resilient cities.

This ranges from experiments with cork by students around the world, to its use by leading players in the fields of architecture, design and the arts, to its presentation in some of the world's most important creative platforms.

To cite Philippe Vergne, director of Serralves Museum, "even if it is not a new material, the possibilities offered by cork have become something new. And that generates tremendous curiosity."

In this issue of Amorim News, we are pleased to present several initiatives that are exploring new ways to use cork, creatively and functionally, and present it in a unique manner: Maison du Jardin, the latest circular economy project installed in the Domaine de Boisbuchet, with cork-based insulation and technical finishes; Serralves' iconic rose garden, protected by a cork granule-based mush; the Fibonacci Bricks created by Jonas Trampedach, entirely made of cork, whose machining enables a high degree of precision; the exhibition at the Museu del Disseny, in Barcelona, which highlights cork as a key raw material at the service of mankind's cultural evolution, sustainability, the planet and underpins the circular bioeconomy.

Another important event is the celebration of the Amorim Academy's 30th anniversary. Over three decades of uninterrupted activity it has recognised and supported the scientific work of dozens of researchers in order to improve our knowledge about wine.

This issue also includes a brief reference to Amorim's aerospace programme, which connects us to entities such as NASA, ESA and SpaceX, as well as Mankind's great odysseys into space.

This is a small sample of the countless initiatives and partnerships that testify to our commitment and leadership ability, that is also based on research and knowledge.

I hope you enjoy this issue!

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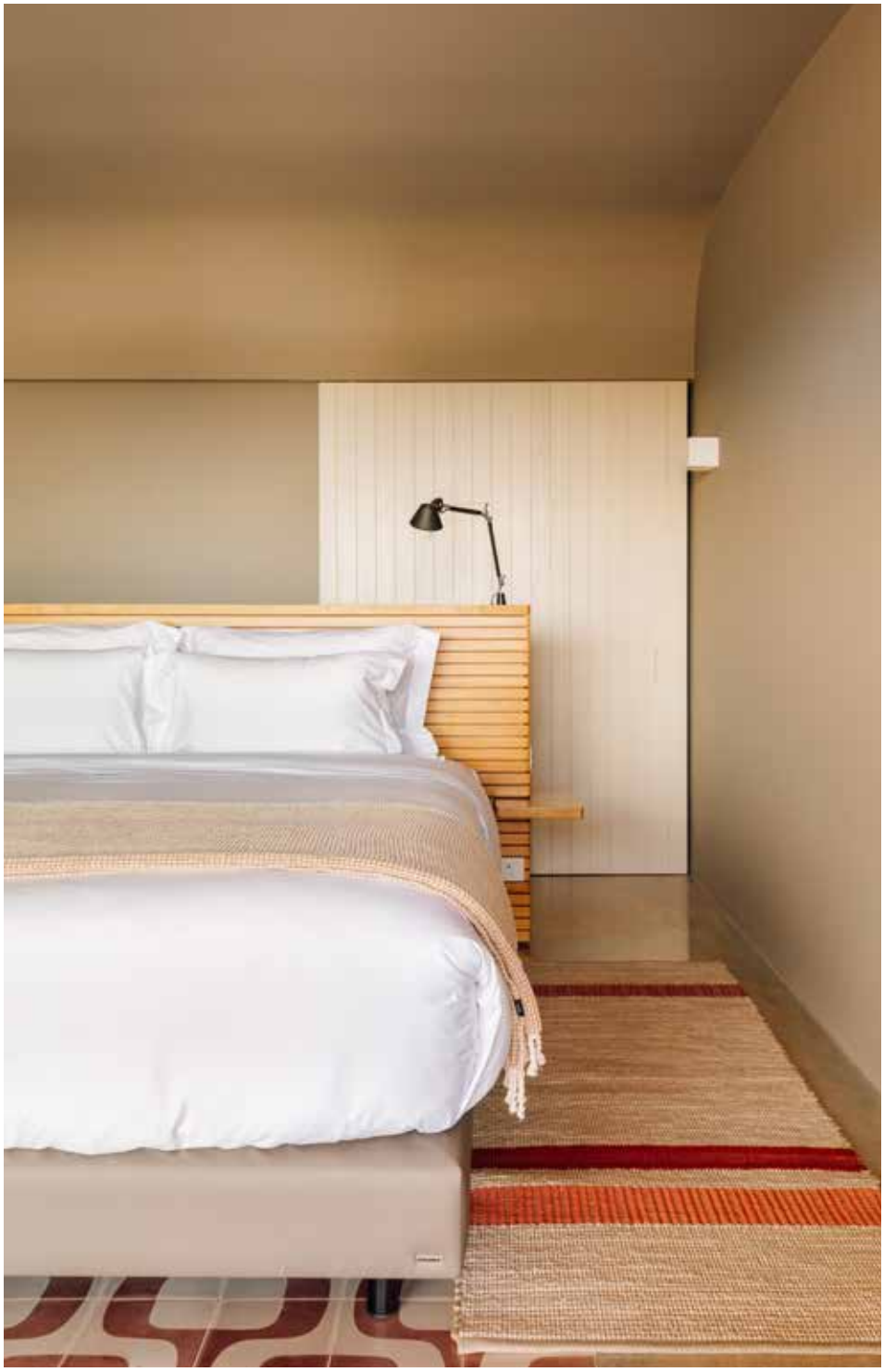
Souto Moura applies a cork flooring solution in his studio

After the architect Eduardo Souto Moura, in partnership with Álvaro Siza Vieira, used cork in the Portuguese Pavilion in Hannover, he realised the construction possibilities of this natural material. Since then, he once again opted for cork in the exhibition «Continuity» that he presented at the Centro Cultural de Belém (CCB), as part of the «METAMORPHOSIS» project, at the invitation of Corticeira Amorim. More recently, he incorporated cork in his studio in Porto. "No one can work well in a place that they don't like", he says. After the two-year pandemic, in which teleworking became the norm for many people, Souto Moura recognises the importance of creating an aesthetically pleasing and comfortable workplace, for which he believes that cork can make an important contribution.

The renovation project for his studio in Porto, was developed in collaboration with Álvaro Siza, Fernando Távora and Rogério Cavaca, who also share the same work space. They chose a flooring solution from Amorim Cork Flooring's Wicanders Cork Essence line, which is a floating floor with a cork visual. The solution is easy to install (the cork flooring replaced an already worn linoleum floor) and the Pritzker Prize-winning architect, considered thatit was the ideal solution. In conversation with Amorim News, Souto Moura underlined, in addition to the aesthetics of cork, «its insulation qualities, whether acoustic or thermal» and «very interesting texture», whose result positively surprised him. In an interview published in 2020, Souto Moura said that «cork shouldn't be hidden. It is to be seen." This statement is now evident in the award--winning architect's workspace, where the surroundings of this organic, versatile and sustainable material can serve as an inspiration for future projects.

© João Ferrand

SUGO Cork Rugs embellish the IMMERSO Hotel



© Francisco Nogueira

When the designer Susana Godinho was contacted in 2020 to develop a series of rugs to for the rooms of the new IMMERSO Hotel, in Ericeira, she admits that she immediately fell in love with the project. She invented SUGO Cork Rugs - the first brand in the world to incorporate an innovative solution that uses cork, an organic and sustainable material, in traditional rug-making techniques. The company is the result of a partnership with Amorim Cork Ventures. It therefore seemed perfectly natural for her to work with a hotel where sustainability is a core commitment and slow living is a way of being.

This is the first five-star hotel in Ericeira, which is immersed in the local surroundings. SUGO Cork Rugs now adorn the floors of multiple spaces of the hotel, thereby bringing the connection with nature inside the building. The rugs inside the rooms have more neutral tones and combine cotton with cork. The bar and restaurant have more colourful rugs, made of cork and wool that guarantee greater resistance to use by a high number of guests, due to the durability of this material.

From the outset, Susana Godinho preferred to use natural materials and adopt circular economy approaches, such as recycling waste products from the textile industry. Cork is therefore not just a raw material but also an inspiration. She explains: «Cork is increasingly one of the preferred materials [for use in interior decoration], not only due to the greater comfort provided as a result of its thermal and acoustic properties, but also for the recognised environmental credentials of cork, the cork oak tree and the ecosystem made possible by the cork oak forest».

© Joaquim Norte de Sousa

«The idea of a material that is natural, homegrown here, is very attractive»

With "Micro|Macro" as a starting point – an immersive cork-insulated art installation by Japanese artist Ryoji Ikeda, currently on display at Serralves – we spoke with the museum's director, Philippe Vergne, about his relationship with Portugal, cork and the future. We also talked about Serralves, the art world and the planet

You came to Portugal in 2019, just before the pandemic. What is your experience of the country so far and what strikes you the most about our culture?
That's a tough question. Like everybody, I knew a bit about Portugal, I knew a few artists, such as Julião Sarmento, Helena Almeida, Lourdes Castro, Cabrita Reis, Pedro Paiva, a bit of Portuguese cinema and literature. But I didn't really know much.
I knew about Serralves, because a lot of my friends are artists and had exhibitions there. So I actually knew Portugal mainly through the filter of Serralves.
That was interesting to me. Because Serralves meant that Portugal was open to the new. To the avant-garde, to contemporary art, to performance and to the international – everything I stand for.
Then I discovered the country. If I try to summarise what I enjoy the most about Portugal is that it's a layered culture, that combines tradition, modernity, lifestyle, tradition, technology and the pursuit of progress. And I see that in the DNA of Serralves as well.

As a natural and cultural phenomenon, cork is a quintessential Portuguese material. Has your perception of cork changed since your arrival?
Yes, it has, because I first travelled to the Alentejo region, so I learned I had no idea how cork was made before. But then I saw the trees and that gave me a sense. I look at cork differently now because I view it like living entity, that keeps coming back. Something that encapsulates time. And I have a better understanding of the possibilities and applications of cork. I saw that you could apply it to architecture, to design, even car design, I think. I also learned from working with the artist Ryoji Ikeda.
So now I understand that it's more than just what is at the top of a bottle of wine.

Do you have any early memories of cork?
I do actually. Because my dad and my family used to be in the wine trade so my dad would collect wine, and he would actually bottle the wine himself. So, I remember spending hours and hours and hours in a cellar with my dad, where I was in charge of corking.

How old were you at the time?
Around 10, 12 years old.

So you have the memory of when you were ten years old, and then, after three years in Portugal, you now understand cork is not just about cork stoppers. And in the meantime you came into contact with Corticeira Amorim, right?
Well, because of what I do, I'm always interested in figuring out who does what around the museum. I think the history of industry is part of the history of culture and the history of art, and that industry and art are often connected for different reasons. There is also the tradition of patrons of the arts, and all that is part of the same ecology. So when I arrived here from the United States, I tried to figure out the big industry around Serralves and I learned about the Amorim family from a friend. And that triggered my curiosity.

What can you tell us about this commission to Japanese artist Ryoji Ikeda, "Micro| Macro", particularly about the very start of the project and the idea of using cork?
Ryoji Ikeda is a Japanese musician/artist who is very well known in the experimental music scene. For people who are interested in electronic experimental music, he is an absolute God. He's also an artist who does sound and image installation, all based on his understanding and his craft at managing digital data. I'm obsessed with his music and I've known him for quite a while. So when I started here, I was talking with our President Dra. Ana Pinho about the possibility of inventing a programme that would bring together art, architecture, science and technology and Ryoji Ikeda came to mind.
I began thinking I would love to ask artists and architects to invent a room, that does not exist yet, and I based my thinking on the 1960s and 1970s. So I asked: Can you invent a room that does not exist? And that was really the start.
So he came up with this idea. The room is almost like a loop of infinity because you have a 5x5 m LED screen on the ceiling, reflected in a 5x5 m mirror on the floor, that creates these bottomless space of image and sound. A space that you can experience, like a tea ceremony, where you come and you sit down and you meditate. So that was the very beginning of this collaboration between Ryoji Ikeda and the Porto-based architect, Nuno Brandão Costa. Ryoji explained his vision and Nuno Brandão designed it.

And when did cork enter the process?
Cork entered because in order to have the full experience of "Micro | Macro" you need a certain level of insulation. So I met with Amorim to figure out what kind of insulation we could use, and the architect and the artist defined what they wanted. Because there's cork everywhere, when you enter this space and you feel the reverb of the sound and the temperature, you feel like you're entering a different world.

"Micro | Macro" combines art, science, architecture, installation, music and technology, as you said. It addresses our relationship with nature and the cosmos. So why, in your opinion, are these such relevant themes nowadays?
We need to reboot. It's like the planet is a computer. You know, when your computer starts to freeze, you either kick it, or you reboot. So I think this piece is a little bit about that. We have all the challenges that the world is facing right now. The environment, the presence of technology, how technology can be applied to help the environment. Also, how do we manage our time? And this is basically a time capsule, you know. A place where we can reboot, go back to the beginning. A place to understand where we're coming from. Where we might be able to go. It's an intellectual experience, a physical experience of art, of yourself, that can help you regenerate.

We've seen cork being used by some of the world's most acclaimed artists and designers. Why do you think it has become such an interesting material for art, architecture and design?
I think artists are always porous to the new. They always look at either new ideas, new materials, new sites... Even if it's not a new material, the possibilities of cork became a new thing. And that triggered a lot of curiosity. I also think that the natural aspect of the material is something that many artists are curious about. Artists are citizens of the world. They think of their footprints, their carbon footprint. They think about how their art is not only affecting people visually, but they think about how the production of the art has an impact on the planet. So if cork comes with this aura of sustainability, I think it helps some artists to really reconsider the materials they should use. There is also a desire from a lot of creative minds to go back to things that are basic. I mean, for instance, after years of concrete and steel in architecture, wood is making a huge comeback because of this increasing concern with sustainability. To produce concrete and steel, it's a nasty business. It pollutes. So the idea of a material that is natural, homegrown here, is very attractive.

As the director of one of Portugal's pivotal museums, what is your vision for Serralves?
That's a big question. First of all, I have to say that I'm very privileged to inherit the work and the vision of previous directors and administration. And the fact that Serralves has been a multidisciplinary institution working with film, performance and, of course, visual art in a very international way. For me, that's the basics and my vision, from the moment I started to work in the museum, has been framed by this.
Because of its architecture and the way it's inserted in the community, I also believe Serralves has the potential to meet some of the aesthetical ethical challenges coming to us. I used to work in the United States, for instance, in one institution called the Walker Arts Center in Minneapolis, and it was very much like Serralves. It was for the community. You had the feeling that it was in everybody's backyard. I have the feeling that Serralves here in Portugal has this status, that it is in everybody's backyard, whether they come for the architecture, the park or the artists we bring here.

«Cork... don't leave Earth without it»

© NASA

Let's begin at the beginning. In the 1960s, while the world was adjusting to the "British Invasion" led by The Beatles, the premiere of «Breakfast at Tiffany's» with Audrey Hepburn, and the first Woodstock festival, in the USA, Corticeira Amorim had its eyes set on space exploration programmes. Because the 1960s was also the decade in which Yuri Gagarin was launched into space and Neil Armstrong landed on the moon. The desire to pursue an achievement beyond the atmosphere transformed the company into the main Portuguese technological partner in providing insulation solutions for NASA and the European Space Agency (ESA).

Cork - which is has a low weight and is an extraordinary thermal insulator - is considered to be a fundamental component of ablation systems, that protect the interior of space vehicles, thereby preserving their integrity. There are only a few minutes between the moment when the spacecraft takes off, leaves the atmosphere and enters space. This is one of the most difficult human achievements, due to multiple factors: from extreme temperatures to supersonic speeds, the margin of error must be kept to zero. Corticeira Amorim has been supplying high quality products to the aerospace industry as a way to mitigate all possible constraints - from the Scout rockets in the 1960s to NASA's iconic Space Shuttle in the mid-1980s, until the recent Falcon, Delta, Ariane or Veja projects. Luís Gil, the coordinator of the Division of Materials and Energy of the Portuguese Society of Materials, and a member of the Studies, Research and Renewables Department of the General Directorate of Energy and Geology (DGEG), stated in the work that commemorated the 150th anniversary of the Amorim group that «aerospace components must be lightweight structures that offer high resistance. Hence, various sandwich components, in particular based on composite materials, with reinforced sheets and lightweight core materials, are considered for this type of application». Cork, our principal raw material, offers all these characteristics.

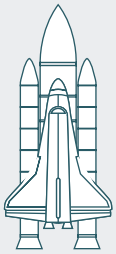
The researcher also adds that given that «cork composites have high resistance under static and dynamic loads, associated with the fact that they are lightweight, have a natural origin, good impact resistance and good thermal and acoustic insulation characteristics, which have therefore been considered for use in the cores of these sandwich components, and deliver a better performance compared to some high-performance foams.» Luís Gil adds says that cork and cork-based materials have been applied in several parts of the spacecraft, such as solid fuel tanks, lining of the engine, cone, nose and main body, and the lining of the connection rings of the external tank, passing through the tunnel covers and assembly areas, transition lids of the security systems and also in the heat shields of the space capsules.

Success stories

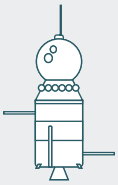
1960s
Scout
Mercury Spacecraft
Gemini Spacecraft
Saturn V

1970s
Apollo
Ariane 1
Viking Landers

1980s
Ariane 2
Ariane 3
Titan III



1990s
Space Shuttle
Ariane 4
Titan IV
Pegasus XL



Today
Mars Rovers
Delta IV
Beagle
Pegasus XL
Ariane 5
Atlas III-A
Atlas V
Vega
Falcon 9
IXV Spacecraft

A trustworthy material

In terms of the reliability of cork, the history of aerospace has also been based on teamwork involving several people, such as Katherine Johnson, who correctly and manually calculated the atmospheric entry routes, John Glenn in the Friendship 7 mission, Darrel Davis, the NASA space engineer who highlighted the «ease of cutting and machining» this thermal protection material, or even Donald Thomas, an astronaut who flew in the Space Shuttle on four emblematic missions, who underlines the «fundamental role played by Corticeira Amorim in providing the thermal protection system of solid fuel boosters'. «Cork...isn't just suitable for use on planet Earth! Cork has been an important component of the thermal protection systems of almost all rockets launched from Earth. I predict that there will be similar applications for cork as we visit other moons and planets in our solar system and eventually launch rockets from their surfaces back to Earth. Cork... don't leave Earth without it!"

Over recent years, Amorim Cork Composites (ACC) has collaborated in various development programmes of aerospace ablative materials, such as Aerofast and Ablamod, thereby opening up a new path for new generation solutions that are lighter more and efficient in terms of thermal protection.

Corticeira Amorim's composite cork business unit even has a factory in the state of Wisconsin, USA, that is dedicated to the production of solutions for the various components used in this sector, marketed under the TPS brand.

António Rios de Amorim says that: "Aerospace equipment encompasses the world's most demanding applications. NASA contacted us over 50 years ago and told us "your product is fantastic, it's the only one that can solve a series of problems that we are confronting and for which we have never been able to find a solution". Cork is a very good solution in this context and we must continue to capitalise on it».

The designs of the ships and rockets may differ, but the safety of using cork continues to be unquestionable.

Historically, cork supplied by Corticeira Amorim was used in the Scout, Mercury and Gemini Spacecraft, Saturn V and Apollo (various missions), Ariane 1,2 and 3, Space Shuttle and Titan, Pegasus XL and Delta IV, amongst many others. Currently, the most important applications are Vega, Falcon 9 and Artemis. The latter is from NASA, which has been creating efforts to "send astronauts back to the moon, Earth's natural satellite". The project, whose name is increasingly present on radio and television worldwide, foresees that a space station will be installed in a lunar orbit, which will serve as a basis for future expeditions to the Moon, as well as a launch pad to send astronauts into the highly-coveted territory: Mars.

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© ESA

The terracota colour of the red planet

Mars seems to be getting closer and closer. In 2020, Corticeira Amorim signed an agreement to supply cork-based components for the SpaceX rockets, produced by Elon Musk, founder and CEO of Tesla. More recently, in February 2021, Corticeira Amorim was involved in the mission that took the Perseverance rover to Mars, a vehicle that looked for signs of life linked to the past of the «red planet». Amorim also participated in an ESA project whose focus was the development of a thermal protection and shock absorbing shield on landing. This study also relied on the engineering certification authority, ISQ (the Welding and Quality Institute), the research institute, PIEP (Innovation Pole in Polymer Engineering) and the company, Stratosphere. These links underpin a curious common denominator: the terracotta colour of our stripped cork oak tree superimposed over the red hues of the planet Mars.
Launched in 2012, ESA's Vega rocket was equipped with technology produced by Amorim Cork Composites - TPS (Thermal Protection Systems).
TPS materials are pioneers in the thermal protection of shields, thanks to a unique cork compound that has withstood decades of space travel.
Built to support a weight of up to two and a half tons, the giant Vega rocket was designed to be able to orbit at altitudes between 300 and 1500 kilometres. Technically, in order to prevent overheating, cork was applied to the cone and the areas that are most sensitive to high temperatures, making this material the ideal choice for thermal insulation, vibration and fire resistance.
In 2015, in the Intermediate eXperimental Vehicle (IXV) project, of the European Space Agency, cork was once again highlighted as part of the Ablative Thermal Protection System, conceived as part of a sophisticated engineering programme. The project was coordinated by Thales Alenia Space, from Italy, and the ESA, and also involved the collaboration of Amorim Cork Composites (ACC), which used TPS solutions – that are capable of protecting the spacecraft's structure from the effects of the thermal environment, ranging from the initial phase, whole still on the ground, to re-entry into the atmosphere and the descent phase. ACC's P50 composite agglomerate, which has a very high thermal insulation capacity, is used to cover the antennae and electronic devices.

Components for the space industry

The paradigm in the aerospace industry is rapidly changing. «Over the coming years, we will observe an exponential increase in the number of public and private flights per year, not only for military, space exploration or communications purposes, but also for transporting passengers and goods. This new reality is placing great pressure on the price of each space launch and therefore the adoption of reusable materials is increasingly becoming a key requirement of this market», explains João Pedro Azevedo, Amorim Cork Composites' CEO. He also reveals that the company is being challenged to produce components for the space industry, instead of just supplying materials "which then have to be machined and worked'.
Scheduled for 2022, the Artemis project focuses on the concept of gender and racial equality and the right to discovery. Through the Artemis missions, NASA will land the first woman and first person of colour on the Moon, playing a pioneering role in offering new images of our galaxy. Corticeira Amorim is once again involved in this mission to send mankind into space and ensuring that cork continues to be used in North American rockets in the future. Orion, the capsule in which the crew will travel, will be lined with cork components. The Space Launch System, NASA's new space launcher, which is expected to be available soon, will also incorporate cork. John Honeycutt, the head of the North American launch programme, the Artemis I mission and Space Launch System will prepare NASA for future missions and will make it possible to «increase our knowledge of how vehicles behave in relation to what already we understand about (...) our sensibilities associated with rocket design».

© Paul Piron

«If it weren't for the Amorim group, no-one would be concerned with cork right now»

30 years ago, Miguel Portela Morais decided to leave the world of finance and dedicate himself to agriculture and forestry production. In charge of the Herdade de São Bento, in Alcácer do Sal, he is concerned about the future of the forest, and in particular of the cork oak forest. But he will never give up. New solutions are being found, it is necessary to apply them.

"Filho de peixe sabe nadar" (a Portuguese idiomatic expression which means "Like father like son, a baby fish knows how to swim"). In Miguel Portela Morais' case, it took him a bit longer to follow his calling, but when he did so it was to powerful effect. «My father and mother were both agronomists, and I always liked agronomy», explains the forestry producer, who has been in charge of the Herdade de São Bento estate, in Alcácer do Sal, since the 1990s. "I didn't study agronomy, because my parents didn't want me to do so. But I returned to this field as soon as I could». After more than 20 years working in the field of finance and insurance, an opportunity arose and Miguel Portela Morais acquired this estate in the Alentejo. There was already a family tradition, including several properties in the north of Portugal, but Miguel Portela Morais' adventure was destined to be south of the river Tagus.

There are 2400 hectares, basically covered by cork oak and stone pine forests, and some rice fields. «The cork oak forest is relatively young», says Miguel Portela Morais, adding: «I didn't know anything about this subject. I basically learnt almost everything about cork from the Amorim Group, especially Mr. [António] Freitas, and I slowly began to learn».

Miguel Portela Morais' personal evolution spans many years - like the cork oak tree itself - during which he has learned a great deal. What has been the biggest revelation of cork? "I think one thing that is important is that one has to be patient before extracting the cork. While it grows on the tree, the cork improves its calibre and quality".

The challenge of striking the right balance

Miguel Portela Morais has his eyes firmly set on the future, and is calmly looking for different ways to sustain his passion for the cork oak forest, ensuring that his forestry production becomes more attractive. Having observed the evolution of his forestry area over recent years he has no illusions: «It seems to me that management of the cork trees has to be complemented with other trees, such as stone pine, and also with some pastureland and some cattle. It has to be a set of different uses, it can't just be cork trees because that is ultimately less profitable".

«I am an impartial witness: over the last 30 years, Amorim has defended cork worldwide

This is the situation at the Herdade de São Bento. "Climate change can be a serious problem for the cork oak forest. Over the past 30 years, we have seen a progressive decrease in the levels of rainfall, which poses a threat to the cork oak forest», explains Miguel Portela Morais. «On the other hand, I think that natural renovation of the trees, as occurred in the past, has become difficult. This is a complicated binomial – to ensure that there is renewal of the trees I can't cut the surrounding undergrowth, but if I don't cut it there is a risk of forest fire».
How does he envision the future? «I think that forestry, in particular the cork oak forest, necessarily has to move towards artificial growth, for which it is essential to have support», he sums up. From his perspective, protection and valorisation of the cork oak forest requires measures that go far beyond protecting the tree. Forest producers who want to increase their profitability and diversify production and cultures, encounter major obstacles.

Protecting the young trees

There are multiple challenges and Miguel Portela Morais envisages various solutions. There are many different alternatives – in relation to planting, increasing the density of trees and cork extraction procedures. The key issue is to put them into practice.
«The big question at the moment, which is a big concern for me, is that the implantation of the cork oak forest is decreasing throughout Portugal.» Initiatives such as that pursued by Corticeira Amorim, via its Forestry Intervention Project, that encourages the planting of cork oak trees, may be insufficient.
For Miguel Portela Morais, there must be a commitment to «create support measures for the intensification and densification of the cork oak forest, through plantation, irrigation and fertilising of new trees, thereby protecting these new trees".
The installation of protective guards around the trees, which are expensive, allows animals to remain in the cork oak forest without damaging the trees, he explains. Protection of young trees effectively means planting for the future. But Miguel Portela Morais is fairly pessimistic in this regard. Drought, for example, is a more urgent problem, even in a resilient ecosystem such as the cork oak forest. "I've been experiencing problems over the last five years that I've never faced in the last 25", he confesses. "It's a serious problem. Many cork oak trees are dying because their cork was removed in a dry year and it won't be of a very high quality. That worries me a lot. I think the future of the cork oak forest doesn't look bright unless important measures are taken to consolidate and renew the cork oak forests.
It's a very complicated situation.
«It's not enough to prohibit cutting down cork oak trees". Miguel Portela Morais is adamant: cork producers don't have enough support. «The cork oak forest doesn't have sufficient agro-environmental measures for its protection. The problem is that if things are not profitable - either because of the price or because of the lack of agro-environmental support - people will move to another place'.
Another critical issue concerns innovation and technology, both in relation to the cork oak tree and in terms of cork extraction, in which regard he considers that Corticeira Amorim has played a leading role. «If it weren't for Amorim, no one would be concerned with cork right now. I am a reliable witness about this situation: over the past 30 years, Amorim has defended cork worldwide. And it has protected it with new technologies and new solutions."

Introduction of mechanical resources

Amorim has made major investments in scientific research related to cork oak trees and cork extraction, paving the way for the introduction of mechanical resources in the harvesting process, in order to compensate for the serious problem of lack of skilled and qualified labour. «In this area we must continue to research and find new extraction solutions», he suggests. "We have found the solution". Basically, it's about perfecting the saw and its sensor.

Amorim Academy marks 30th anniversary

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The Amorim Academy, founded in 1992 in France, has just celebrated its 30th anniversary. It is anchored in the visionary ingenuity of Américo Amorim, who defended permanent exchanges with the world of science, vines and wine as a sine qua non condition for the construction of a corporate colossus in the cork industry. The original reasons that led to its creation, three decades ago, have become even more relevant today, in view of the challenges posed to the wine-growing world today: climate change, the ecological balance of the planet and sustainability. «Cheers», congratulations, best wishes.

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«In my eyes, the Amorim Academy represents much more than an institution with an international reputation. It is a talent pool with different personalities, a permanent source of shared knowledge»

António Rios Amorim
Chairman and CEO
of Corticeira Amorim

The Amorim Academy - an international organisation created by the Amorim Group to encourage research in winemaking, knowledge about wine and innovation in winegrowing practices - organised the seminar, "Climate change and the challenges for vines and wine", held in the World of Wine, in Vila Nova de Gaia, to mark the Academy's 30th anniversary. The seminar was attended by wine experts, including Jocelyne Pérard - one of the leading figures in climatology and wine research, professor at the University of Dijon (Burgundy – France), who is the head of the UNESCO commission "Culture et Traditions du vin" (Culture and traditions of wine). The «Grand Prix Sciences & Recherche» award was also attributed during the event - to Charlotte Brault, for her thesis on «Optimisation of the selection of new grape varieties using genomic prediction and phenomics', and the 'Prix Coup de Coeur' was attributed to Aurélien Nouvion, for her study «Times and actors of vines and wine in the Middle Ages: a comparative study of Burgundy - Champagne (5th-16th centuries)». Chaired by Jean-Marie AURAND - the honorary director general of the International Organisation for Vine and Wine (OIV) - the Amorim Academy thereby provided yet another enriching discussion of one of the key topics currently facing the world of wine: climate change, the ecological balance of the planet and sustainability. We are currently witnessing disturbing changes in the characteristics of the global climate, that could trigger substantial changes in the aromas and flavours of different types of wine. Furthermore, the extreme weather events covered in the news influence the growth and maturation cycles of vineyards in different wine-producing regions. It is therefore urgent to identify solutions that will mitigate the impact of climate change on wine production. Several international experts identify potential alternative responses, such as the correct choice of grape varieties, the reorganisation of the way that vineyards are planted and migration of production to other latitudes (and altitudes).

« Maison du Jardin » is a *case-study* in circular construction

Cork is returning to Domaine de Boisbuchet, one of the most internationally-renowned design and architecture research centres. On this occasion this genuinely Portuguese raw material is being integrated as a sustainable material in a circular construction project. In an idyllic setting, perfectly integrated in the landscape, the «Maison du Jardin» (garden house) project has been designed by the German company Polycare and the Belgian atelier dmvA. Its construction includes cork supplied by Amorim. The building hosted the launch event of this year's edition of France Design Week, held in the Domaine de Boisbuchet. Cork has been used in the Domaine de Boisbuchet for several years, where it is one of the preferred materials for experimental design and architecture projects. Since 2011, Corticeira Amorim has participated and supported several workshops in Domaine de Boisbuchet, led by some of the most renowned professionals in the field, and involving an international community of students, architects and designers, who are looking for a place to test practical experience. This all occurs in a unique, engaging natural and creative environment that allows participants to explore and reveal the potential of materials that they are in the process of discovering. Moreover, the «Maison du Jardin», which now forms part of the architectural park in Boisbuchet, is based on this idea of experimentation and innovation, thus paving the way towards the architecture of the future. Set in one of the historic gardens of this 150-hectare estate, the building offers a case-study in circular construction, and also provides accommodation for the gardener, as well as a guest house and a laboratory for plant-related seminars. The Maison du Jardin's construction is based on an innovative modular structure, which enables it to be dismantled and reused, avoiding waste. In line with the building's circular philosophy, Corticeira Amorim's business units, Amorim Cork Insulation and Amorim Cork Composites, supplied cork solutions for the house's insulation and interior finishes, respectively. The project was completed in 2022.

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Cork, design and sustainability in the Museu del Disseny

Portuguese cork is one of the materials of choice for the exhibition «Toquem fusta! Disseny, fusta i sostenibilitat» (Let's knock on wood! Design, wood and sustainability) organised by the Museo del Disseny (Design Museum), in Barcelona until mid-January 2023. In addition to a wide range of cork objects from the collection of Corticeira Amorim's various business units, the exhibition includes a purpose-built house in the museum space based on sustainable solutions, in which the genuinely Portuguese raw material assumes an important mission.
Cork supplied by Amorim Cork Flooring is used in the flooring and also the house's interior and exterior insulation.
The Wise Cork Pure flooring delivers greater comfort, more well-being and superior indoor air quality. The Amorim Wise range of flooring solutions have a marked negative carbon balance, and thus help combat climate change.
MD Fachada - Amorim Cork Insulation's iconic application - is used for the interior insulation of homes, and is recognised as one of the essential materials for the "green building" concept that focuses on the use of sustainable, energy efficient solutions, derived from circular economy practices.
Light, elastic and antistatic, cork is also an excellent insulator against vibration, and is therefore a beneficial option for the construction sector. This set of attributes make expanded cork agglomerate an excellent application for various contexts, including facades. Based on that assumption, one of the exterior walls of the house inside the Museo del Disseny of Barcelona was insulated with the Wave product, supplied by Corticeira Amorim's Insulation Cork Business Unit.
The cork objects on display in the exhibition, «Toquem fusta! Disseny, fusta i sostenibilitat» (Let's knock on wood! Design, wood and sustainability) include a chaise longue, designed by the American designer, Daniel Michalik, «stool» by the Portuguese architect Álvaro Siza Vieira, a pair of «cork shoes» created by the British designer Jasper Morrison, a «cork bench» conceived by the Japanese educator, designer and author Naoto Fukasawa and a coat designed by the American industrial designer Todd Bracher.
The exhibition's collection also includes ASPORTUGUESAS flip-flops, items from the MATERIA Cork collection by Amorim, curated by experimentadesign and Nike cork trainers. It also includes a surfboard produced for the Hawaiian surfer Garrett McNamara as part of the partnership with Mercedes-Benz.

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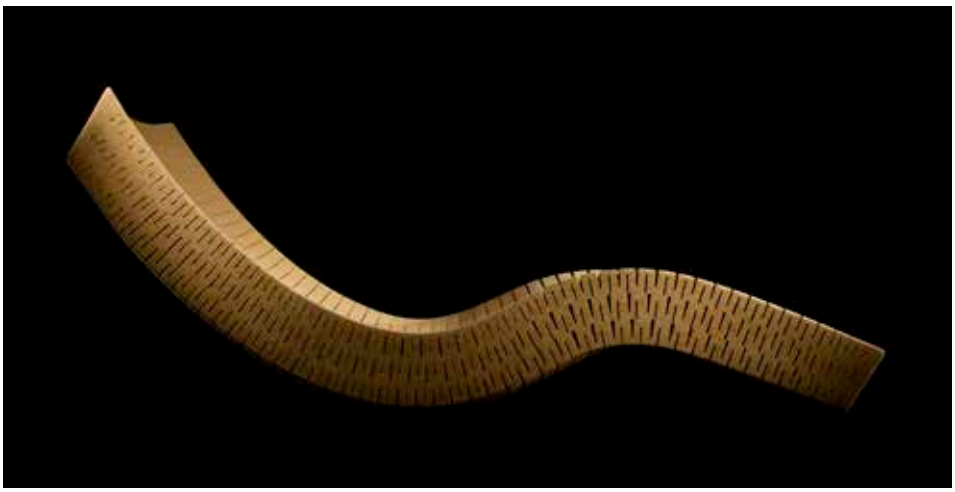

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Fibonacci Bricks: high precision of cork

Cork was showcased in Denmark's biggest independent design event - the S.E. (Snedkernes Efterårsudstilling) – in a project that applied the Fibonacci Sequence's principles in order to build cork furniture. «Fibonacci Bricks», by Jonas Trampedach, was shown in the Fabrikken for Kunst og Design (Copenhagen). Given that the Fibonacci Sequence is a phenomenon observed in nature, in particular in tree branch structures, it seems natural to associate this principle with a material, such as cork, that is also born from a tree.

Jonas Trampedach, a Danish artist who graduated from the Royal College of Arts, and has worked for furniture brands such as FRAMA, Hay/Ikea or Karaketr, considered that this was an opportunity to reimagine this concept and then place it at the service of innovative, sustainable and ergonomic items of furniture. Based on the mathematical principles of the Golden Ratio and the Fibonacci Sequence, the measurements of Trampedach's «Fibonacci bricks» – originally made on a small scale with aluminium and then transformed into oversized pieces of cork – follow a sequence in which each number is the sum of the two previous numbers (0, 1.1, 2, 3, 5, 8, 13, 21, ...). This makes it possible for the "bricks" to be arranged in multiple arrangements and compositions. Visitors to the S.E. in Copenhagen were invited to rearrange, climb and sit on the items – and thereby experience cork's unique tactile qualities. Integrated within the largest independent design event in Denmark, whose 2022 edition was dedicated to "FABRIK" (translated as handicrafts), the items respond to the annual event's principal objective: to encourage the continuous development of experimental design of contemporary furniture.

"An inherent self-repairing ability»

Trampedach considers that the material used to develop this project - cork – was an obvious choice. He strongly praised its capacity for machining, that permits «a high degree of precision», «its tactility and warmth», making it ideal to be used in furniture, and its high resistance to wear and tear, almost as if it «has an inherent self-repairing ability». He has no doubts about the potential of using this material to build the furniture of the future: «Due to cork's sustainable characteristics and credentials, I would be surprised if we don't see it being used more extensively in the future. It's versatile and suitable for a wide range of applications and manufacturing processes, which is why I believe it will play a leading role in our sustainable future»

Amorim subscribes to the Porto Climate Pact

Corticeira Amorim has subscribed to the Porto Climate Pact, thereby joining forces with various partners who are equally committed to making Porto a leading city in terms of carbon neutrality. Created by Porto City Council earlier this year, the Porto Climate Pact has more than one hundred signatories, including companies, associations and educational institutions. The City Council aims to reduce carbon emissions by 2030 and thereby build a competitive, resilient and fair city. Joining the Porto Climate Pact is more that a resolution that pays testimony to Corticeira Amorim's commitment to adopting, cultivating and promoting best practices in terms of ESG (Environmental, Social and Governance) and ensuring its activities are aligned with the UN Sustainable Development Goals (SDGs), in particular, in this case, alignment with SDG 17 "Partnerships for implementation of objectives". Corticeira Amorim has also recently jjoined the UN Global Compact - a voluntary movement of the United Nations that brings together more than 15,000 companies, based in 163 countries, whose strategies, activities and operations are aligned with universal principles of human rights, fair labour practices, environmental protection and anti-corruption.
António Rios de Amorim, Chairman and CEO of Corticeira Amorim, commented in this regard: «At Corticeira Amorim we are committed to growth, ensuring everyone's safety and well-being, the development of our People, efficient resource management, protection of the balance of ecosystems and the circularity of processes and the economy». He concluded: «We develop low carbon products and solutions that help mitigate climate change and we are aware of our positive contribution throughout the value chain. Every day we work to reduce the environmental impact of our activities and to promote sustainable development throughout our sphere of influence».

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Serralves Rose Garden protected by cork

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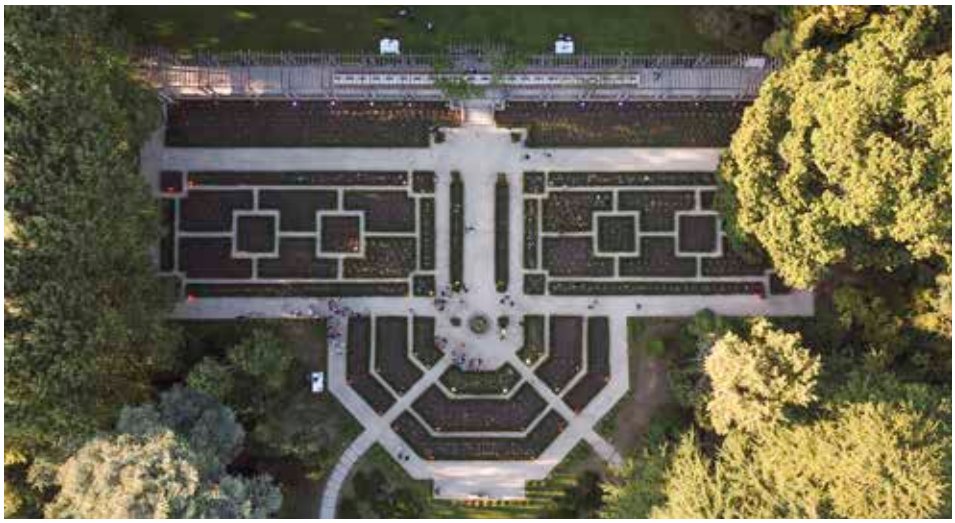

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Serralves rose garden has a total of 1862 rose bushes, with 29 different varieties, whose growth is now protected by black granules supplied by Amorim Cork Insulation.
The granules were chosen by the English landscape architect Gerald Luckhurst who, in partnership with Serralves Park's management team, coordinated the renovation project of Serralves rose garden.
Almost a century after it opened, and after four years of meticulous, dedicated and intense restoration work, conducted by 11 gardeners, one of Portugal's largest rose gardens has been reborn.
The underlying idea was to discover a "mush" that would reduce the impact of fungi on the rose bushes, while preventing the growth of weeds.
The black granules supplied by Amorim Cork Insulation - Corticeira Amorim's insulation cork business unit - respond to this challenge. In addition to retaining moisture they also offer mechanical functions. This is a natural, organic and sustainable solution, capable of providing a better response to the problems of climate change, carbon sequestration and sustainability. Gerald Luckhurst described it as a "practically inert material that is difficult to decompose and is resistant to fungi".
This innovative alternative solution endows the rose garden with "a feeling from the 1930s and 1940s, when it was originally built, but technically evolved for the 21st century», explains the director of Serralves Park, Ricardo Bravo.
The project for the 18-hectare Serralves Park dates from the early 20th century, designed by the French architect, Jacques Gréber. It includes woodlands, rolling lawns and about 200 types of different plants. It is classified as one of the world's 250 most remarkable gardens in the book «The Gardener's Garden» by Phaidon Press. Serralves rose garden, that occupies an area of 2490 m2, harbours various species of roses, such as «Charles de Gaulle», «Mildred Scheel», «Chevy Chase», «Beautiful Portuguese» or «Santa Teresinha». The latter is widely cultivated in Portuguese gardens.

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