

WORLD LEATHER

THE WORLD'S NO.1 MAGAZINE FOR THE LEATHER INDUSTRY

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Volume 34, Number 1

Leather's rivals fall short in tests
Radley seizes Selfridges chance
Leather Leaders: Federico Brugnoli
Nothing To Hide: animal welfare

ODOUR CONTROL STRUKSORB SYSTEM

STRUKSORB L-15

Beamhouse | Tenside with absorber

DERUGAN AMF

Tanning | Glutaraldehyde with odour control additive

LIPSOL FT-10

STRUKSORB OZ-69

STRUKSORB OZ-67

Fatliquor | Automotive fatliquor with absorber

STRUKSORB FIN-1

Finishing | Resins with absorber

FOR LEATHER PROCESSING FROM BEAMHOUSE TO FINISHING

- supports you through every step of leather processing to obtain leathers with a reduced to almost neutral smell
- capable of reducing or suppressing external malodour within the interior environment of the car
- odour forming molecules will be chemically fixed
- more comfortable and pleasant driving experience



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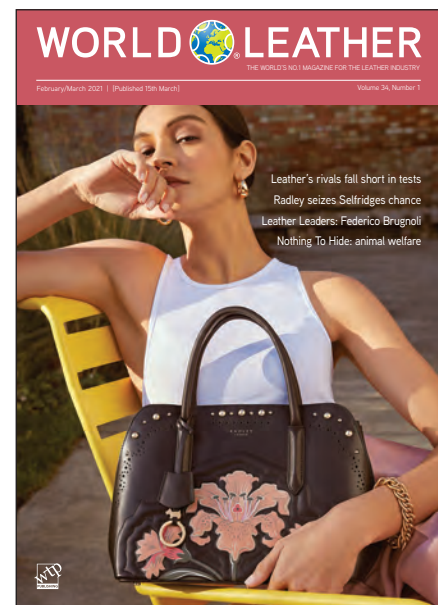
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The World Leather team has been publishing a new series of original, dynamic podcasts regularly since November 2019. The whole series is available on Anchor, Spotify, Apple Podcasts, Google Podcasts, Pocket Casts, Overcast and other podcasting platforms. Just search for the World Leather Podcast on the platform you prefer.



Cover image: The Liverpool Street bag from Radley, one of the products available through the brand's partnership with Selfridges. CREDIT: RADLEY LONDON



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GERMANY The general manager of Germany's main footwear and leathergoods industry association HDS/L, Manfred Junkert, has issued a statement in support of a return to face-to-face industry events. Mr Junkert said the industry urgently needs some semblance of normality in the form of face-to-face meetings and direct contact with new products and collections. He said this in reaction to confirmation from the organisers of the Gallery Shoes event in Düsseldorf that they will go ahead with plans to host a special edition of the show from April 18-20 with all mandatory physical distancing guidelines in place.

FRANCE According to research data recently published by Italian business outlet Finaria, Paris-headquartered luxury conglomerate LVMH is currently the highest valued company on European stock markets. As of the end of February, the group's market capitalisation stood at €264.55 billion, surpassing Nestlé's roughly \$292 billion market cap. LVMH's share price rose by 65.4% between April 2020 and February 2021.

BELGIUM Brussels-based luxury leathergoods house Delvaux is poised to restructure its operations in the country, where it has been based since 1829, owing to "economic difficulties mainly linked to the covid-19 pandemic". Jobs potentially at risk include those linked to logistics. While many Delvaux pieces are today manufactured in France (on the Avoudrey and Bourg-Argental sites), quality control of both raw materials and finished goods is still ultimately carried out at the brand's headquarters in the Belgian capital.

NETHERLANDS Exor, the Amsterdam-based holding company controlled by the Agnelli family, has announced an investment of €541 million in Christian Louboutin. Exor will, therefore, become a 24% shareholder in the high-end footwear brand and will nominate two of the seven members of the company's board of directors. It said it wanted to help accelerate the next phase of the company's development. It said it saw "significant scope" for developing the Louboutin brand's presence, notably via further geographic expansion, particularly in China.

ITALY Leather Chemists Association (AICC) has confirmed that the third IULTCS EuroCongress will take place in Vicenza in 2022. The congress will begin with an opening ceremony on the evening of September 18, 2022, and run until the afternoon of September 20. A visit to the nearby Arzignano tanning cluster will be part of the programme. AICC said it had liaised closely with national tanning industry body UNIC to arrange dates that dovetail with the projected schedule for the Lineapelle exhibition in Milan.



TURKEY Commentators in Turkey say it is common now for small-skin tanners there to carry out all wet-end processes in their own tanneries but then to pass the semi-processed material to specialist contract tanners for finishing. Brand-facing garment leather suppliers have found this to be an efficient way to serve their customers. They can save on running their own specialist finishing operations and the cost of specialist equipment and auxiliaries.

EGYPT The inaugural Pan African Leather Fair (PALF), which was originally to take place in Cairo in June 2020 but was put back until June 2021 because of covid-19, has been cancelled again. Organiser, Informa, gave no new date for the event, saying only that it was cancelled until further notice.

TANZANIA Kilimanjaro International Leather Industries Company Limited (KILICL) is expanding its products to include sports shoes and accessories in a move aimed at "improving sports in the country". This follows the company's recent sponsorship of a national marathon, at the end of which CEO, Masud Omari, said the aim was to raise the company's profile on the domestic and international stage.

SOUTH KOREA Italian luxury brand Dolce&Gabbana has opened a new flagship boutique in the affluent Cheongdam-dong area of Seoul's Gangnam District. The brand described the Jean Nouvel-designed store as an "architectural ode to the encounter between love for tradition and ceaseless innovation."

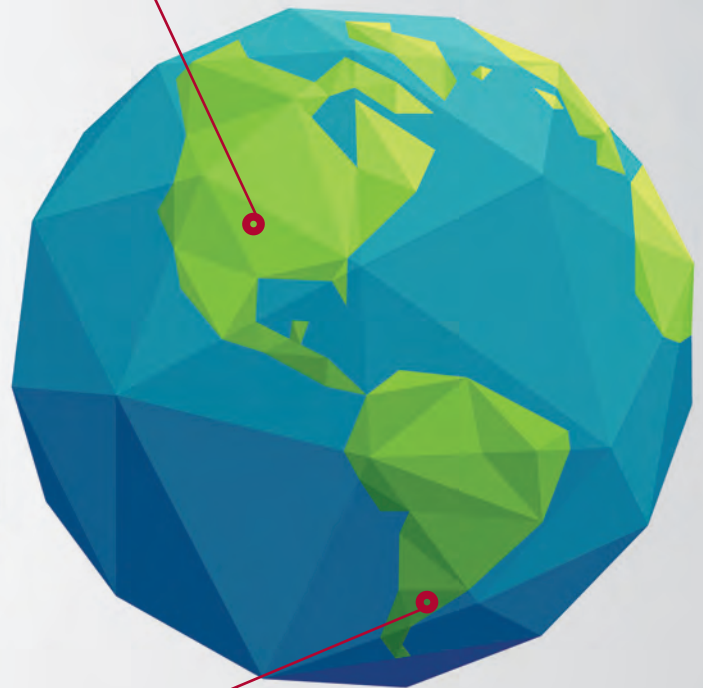
JAPAN French luxury house Hermès opened a new store in Tokyo's Omotesando district at the end of February. The new store is the brand's first free-standing new outlet in Tokyo since the opening of Maison Hermès Ginza in 2001. It incorporates the historic stone wall of one of the area's most notable buildings, preserved by Parisian architecture agency and frequent Hermès collaborator RDAI. The façade has been styled to play on light and shadows, as in a bamboo grove.

US In January this year, packers and traders in the US exported just over 2.2 million hides, 1.95 million wet-salted hides and just over 260,000 wet blue. The total value of these shipments was \$84.7 million, made up of \$58.4 million for wet salted and \$26.3 million for wet blue. In volume terms, shipments overall were up by 10.5% year on year, an increase of 17% in exports of wet-salted hides. Exports of wet blue were down by 21% compared with the same month in 2020. The average price of exported wet-salted hides was \$29.93 in January, compared to \$38.02 a year earlier, 21% cheaper. Wet blue had an average export price of \$101.10 in the first month of this year, compared with \$107.22 a year earlier, a fall in price of 5.7%.



INDIA The Indian leather industry has reported a fall of one-third in its export revenues for the first nine months of the current fiscal year, April to December 2020. Its export earnings for the period were \$2.6 billion. For the same months in the previous financial year, the figure was \$3.9 billion. Finished leather exports fell in value by 36.4% to \$263.4 million. Leather footwear's export revenues were down by 35.4% to just over \$1 billion. The figure for leather garments showed a decline of 32.1% to \$231.6 million, while for leathergoods there was a fall of 36.3% to \$673.6 million.

TAIWAN Leather sculptures by Taiwanese artist Yeh Fa-yuan are currently on display at Taoyuan Cultural Bureau in the north-west of the country. Mr Yeh, whose artworks have previously been exhibited at the Louvre, uses leather to make lifelike representations of human and animal figures, as well as scenes from nature. In order to achieve his three-dimensional depictions, the largely self-taught artist reportedly grinds raw cowhide into powder, which he then builds up into a sculptural material by hand. He also undertakes some leather carving.



ARGENTINA A meat industry federation in Argentina has called on the government to resolve a roadblock in exports of wet-salted hides from the South American country. The organisation, FIFRA, said its members had asked for an extension to arrangements for exporting wet-salted hides that was in place in Argentina until the end of 2020. FIFRA said it had received assurances from two government ministers that they would grant an extension and that meat companies would be able, once again, to bring in much-needed revenue from shipping wet-salted hides to tanners overseas. However, it said approval of the extension had not yet emerged.

AUSTRALIA Australia's red meat sector has achieved a 57% reduction in its greenhouse gas emissions since 2005, according to industry body Meat and Livestock Australia (MLA). In recent comments, MLA managing director, Jason Strong, said the red meat sector was now contributing 10% of Australia's total greenhouse gas emissions and he insisted continued progress was vital as the industry moves towards a target it has set itself of being carbon-neutral by 2030.



Degrease is the word

Chemicals company Stahl is expanding its range of Proviera Probiotics with ProDegreaze Plus, which it says offers improved degreasing performance. It combines the fat distribution of the original ProDegreaze with stable emulsification action to disperse it in the float, which delivers a cleaner grain and brighter colours, while having an odourless effect on hides, skins and tannery equipment.

It can be used at any stage in the beamhouse process: presoaking, main soaking, unhairing, liming, deliming, and degreasing. It can also be used with pelt, pickle, wet blue, and wet-white systems, plus Stahl BeTan beamhouse solutions, Stahl EasyWhite and EasyBlue tanning systems, Densodrin and Densotan waterproofing systems, and to create Stahlite lightweight leather.

The original ProDegreaze will still be available.

All Proviera Probiotics products use probiotic microorganisms to produce metabolites that behave as wetting, dispersing and degreasing agents in the leather process. These can replace the traditional fossil fuel-based agents, contributing to a cleaner process for workers and a lower environmental footprint, said Stahl.

LWG updates its protocol

Multi-stakeholder body the Leather Working Group (LWG) has published version 7.0 of its protocol for auditing tanneries. It will replace version 6.7 of the protocol in August 2021. LWG said the version will feature "more robust criteria" as well as new social, traceability and chemical management requirements.

On chemical management, LWG said its requirements are aligned with the restricted substances list that brand-driven membership organisation the Apparel and Footwear International RSL Management (AFIRM) group has put in place for leather.

The existing traceability section in the LWG protocol has undergone "significant revision", it said, with additional due diligence measures to tackle deforestation risk. On social responsibility, it said that it will recognise third-party social audit certifications for the first time. "We recognise this is a critical element of responsible sourcing," it said, adding that the importance of social responsibility in LWG audits will increase in future.

Stricter requirements for the treatment of effluent are also part of version 7.0 of the protocol.

Chairman of the LWG executive committee and Prime Asia's vice-president for procurement, Ian Scher, explained: "This



Lectra aims to boost Industry 4.0 offering with Gerber acquisition

Leather cutting technology provider Lectra has announced its intention to acquire US-based rival Gerber Technology.

It said that if it completes the acquisition, it would be able to enhance its offering of "Industry 4.0 technology that will enable customers to boost the productivity and profitability of their operations".

Combining the businesses would occur "at an opportune time" for both companies and their customers, Lectra said. Together, the two companies would have a large installed base of product development software and automated cutting solutions, with a worldwide presence and "a long list of prestigious customers".

At the same time, consolidating the two companies' research and development capabilities would enable the combined entity to accelerate development of Industry 4.0 technologies and help customers seize the full potential of these innovations.

Lectra argued that the uncertain economic climate and "unprecedented challenges" that users of its technology, in industries including automotive and furniture, are facing owing to covid-19 made it "more important than ever for them to transform, digitalise and optimise their operations".

Details of the planned acquisition are that, through cash, debt-clearance and new shares in its own business, Lectra will invest a total of €300 million in the deal. Gerber Technology's revenues in 2020 were €165 million. The most recent figure for Lectra is from 2019, when it achieved revenues of €280 million. It will invite its shareholders to agree to its plan for the acquisition in a vote on April 30.

Daniel Harari will continue as chief executive of the combined company. His counterpart at Gerber, Mohit Uberoi, will act as a special advisor to Mr Harari until the end of 2021. On making the announcement, Mr Harari said: "Today is a historic day for our companies that will bring tremendous opportunities for future growth."

new protocol represents the most important evolution in our certification requirements to date. Protocol 7 will set a unique and unmatched bar in terms of providing an all-encompassing surety of supply for those who source from accredited leather manufacturers under our programme."

University to run online leather course again after "huge success"

The University of Northampton's Institute for Creative Leather Technologies (ICLT) has announced that an online leather training course it launched at the start of this year has been such a success it will run the course again, starting in May.

ICLT's online Foundations of Leather Technology Course began in January with

the institute's director, Rachel Garwood, describing it as ideal for people new to the leather industry or those already working in the leather value chain who want to increase their knowledge and understanding of the material.

It is an introductory, pre-degree course, but it looks at every step of the leather-making process. Sessions have run every Wednesday for 90 minutes on the university's Collaborate web-based platform and the course takes 12 weeks to complete.

Ms Garwood said the first edition of the course had been "a huge success" and that this had motivated ICLT to set up a second edition, which will start on May 12. The cost is £500 for representatives of companies and £300 for students.

Tanners and fertiliser company claim project success

An Igualada-based fertiliser manufacturer, Labin, has successfully completed a project to use waste from some of the nearby tanneries of the Barcelona Leather Cluster as raw material for products it will present to the agri-food sector as organic fertiliser.

A local business organisation, the Business Union of Anoia, and the Catalan government's waste management agency supported the project and helped fund trials and environmental analyses of the products.

Work began on the project in 2019, focusing on using hair from hair-saving operations in tanneries as a source of nitrogen for fertiliser.

Labin and the Barcelona Leather Cluster are both members of a circular economy network that the Business Union of Anoia has set up. They are already working on new circular economy projects together.

Seaweed in cattle feed can eliminate 99.9% of methane

An Australian idea that won a \$1 million prize at the end of 2020 can almost entirely eliminate methane emissions from cattle according to one of the scientists who developed the project.

Researchers from Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO), from meat industry promotions body Meat & Livestock Australia and from James Cook University in Queensland launched a project to examine the effect on emissions of adding a native seaweed, *asparagopsis*, to cattle feed.

They found that adding a handful of the seaweed to the diets of beef and dairy cattle almost eliminated methane emissions from the animals. From this, they launched a start-up, FutureFeed, which went on to win one of the Food Planet Prize awards of \$1 million from the Curt Bergfors Foundation at the end of 2020.

Gelatine in demand

A number of leather manufacturers in Turkey have announced plans to open their own gelatine factories as demand for gelatine from lime splits from bovine hides picks up.

While extensive gelatine production from pig-skins is well established in Europe and North America, demand for gelatine from bovine sources has increased from the food industry in Muslim countries.

To meet this demand, sources in Turkey say at least three new factories for making gelatine from lime splits are in development. Tanners in Gonen, Gerede and Tuzla are all in the process of setting up these operations.

Waste reduction

Luxury group Prada has agreed a new finance package of €90 million with Milan-based financial services group UniCredit. This five-year loan is the latest in a series of ESG loans that Prada has signed up to, financial facilities with a mechanism that allows for a reduction in the interest rate if the borrower achieves sustainability targets. ESG is a reference to environmental, social and corporate governance.

Targets Prada will seek to meet as part of its agreement with UniCredit will include reducing waste from its leathers and footwear production. It has committed to passing waste materials on to third parties so that they can be used to make new products, to generate energy or to make fertiliser.

Research investment

A consortium of tanners has secured investment to expand Poteco, the Santa Croce-based leather research centre. Around €1.6 million will be provided by public money, with an additional €1.4 million from local tanners, according to local reports.

Tuscany's president, Eugenio Giani, described the industry as "a source of pride for all of Tuscany". Giulia Deidda, president of Poteco, said the agreement was "an important injection of confidence for the tanning industry" at a time when business has slowed due to the pandemic.

Intelligent shoe making

A new intelligent footwear manufacturing base is currently under construction in Wenzhou's Lucheng district. The total amount invested in the project by local conglomerate Juyi Group is said to be around \$300 million. Production plants, exhibition centres, and research and development spaces are all included in the plan. Artificial intelligence (AI), the Internet of Things (IoT) and digitised logistics have been incorporated as well.

ZDHC announcements

German chemicals group Pulcra has achieved the highest level of ZDHC Gateway compliance for leather chemicals, Level 3 certification. It joined the Zero Discharge of Hazardous Chemicals (ZDHC) Foundation as a contributor in mid-2019 as part of the Global Chemical Industry Round Table initiative. The ZDHC Foundation manages the Roadmap to Zero Programme with the aim of phasing out hazardous chemicals in the textile, apparel, footwear and leather value chain by promoting safer chemistry and driving innovation.

Leather chemicals manufacturer Cromogenia has also joined ZDHC. On joining, the Barcelona-based company also achieved the highest level of certification, level three, for its contribution towards the programme's main aim of fostering innovation to reduce the impact on the environment of industries' use of chemicals.

Zschimmer & Schwarz is another group to have announced that "almost the entire leather auxiliaries portfolio" that it produces at its main site in Lahnstein, Germany, has received level-one certification from the ZDHC programme. It said this offered customers confidence that the auxiliaries contain no chemicals that are listed as hazardous.

In focus

Leather chemicals group Stahl has picked out four areas of strategic importance on which it will focus its efforts to drive progress. Digital transformation, open innovation, renewable feedstocks and sustainable development are the four areas on which it will concentrate. It said it would work with its partners to achieve greater operational efficiency, explore new markets, decouple from the consumption of fossil-based resources and create value for all of its stakeholders while "doing good".

App unwrapped

Italian leather finishing chemicals group Finikem was inspired during lockdown to create an app for tanners to place orders, suggesting this will make purchasing quicker and simpler. Local tanners will have access via the app to the Castelfranco di Sotto-based company's 700 chemicals.

Two new testing commission convenors

The International Union of Leather Technologists and Chemists Societies (IULTCS) has appointed new convenors to two of its three test-method commissions.

Jackie Glasspool, group quality manager at research body SATRA, has taken over as convenor of the IULTCS physical testing commission, replacing Mike Wilson, who retired recently.

At the same time, IULTCS announced that Gustavo Defeo, founder of Ars Tintoria in Italy, will be the new convenor of its commission for fastness testing. He replaces Campbell Page, convenor of the commission since 1994.

Convenors of the test method commissions are also members of the IULTCS executive committee. The committee said it was grateful to Mike Wilson and Campbell Page for their "many years of dedicated service".

ICT urges Mini to think again about leather

Secretary to the International Council of Tanners (ICT), **Dr Kerry Senior**, has written to the head of design at car brand Mini, **Oliver Heilmer**, to ask him to reconsider a decision to phase out the use of leather.

In an interview with automotive industry publication *Autocar* at the start of February, Mr Heilmer said Mini would not be using leather in its interiors in future. "We don't believe it's sustainable," he said, adding that his preference was to use recycled fabric with lining made from 70% recycled fibres instead.

He went on to say that these recycled fabrics would still be able to satisfy his desire to offer customers an interior that is luxurious, small-footprint and with an aesthetic that comes "more from a home perspective than an automotive one".

In his response, Dr Senior expressed "deep disappointment" at the decision, especially as Mr Heilmer said he had taken it on grounds of sustainability. He pointed out that Mini's decision to reduce its use of leather "will have no impact on the consequences of livestock-rearing".

He added that leather production prevents the disposal of an estimated 8 million tonnes of material each year and made the point that turning hides and skins into leather prevents the emission of greenhouse gas emissions that would result from their disposal. "As such," he continued, "leather is a recycled product that valorises a renewable, biodegradable waste into a beautiful, functional material."

Dr Senior described leather as "the original circular product" and said it was a better option for satisfying Mini's ambition to use a sustainable, recycled material than fossil fuel-derived synthetic materials.

He also said that leather interiors hold a strong appeal for consumers, with research in the US finding that 69% of car buyers prefer leather upholstery in the interior and 54% of buyers of new Minis in the UK in 2020 choosing leather upholstery.

"I sincerely hope you will reconsider," he told Mr Heilmer. "Manufacturers of automotive leather have been at the forefront of the drive for sustainability in leather production, achieving huge improvements in the environmental profile of their products."

Leather is intrinsically circular

The president of Portugal's tanning industry association, APIC, **Nuno Carvalho**, has said a strategic plan the organisation is currently working on emphasises leather's place in the circular economy.



Stahl CEO to step down

Leather chemicals group Stahl has announced that chief executive, **Huub van Beijeren**, is to step down after 14 years in the role. He has decided to retire, the company stated, but will remain as a member of the board.

Stahl immediately announced that its new chief executive will be **Maarten Heijbroek**, who will join the company on July 1 from UK-based specialty chemicals manufacturer Croda International. Mr Heijbroek is Croda's president of consumer care.

Executive vice-president at Stahl's parent group Wendel, **Félicie Thion de La Chaume**, suggested that Huub van Beijeren had wanted to retire before now but had extended his tenure to help steer the company through the covid-19 crisis. He will retire when his successor joins the company in July. Ms Thion de La Chaume said he had developed a position for Stahl as a global leader during his years in office.

She also welcomed Maarten Heijbroek and said his broad experience in the chemicals sector and his track record of growing businesses organically and through mergers and acquisitions would be "real assets to support Stahl in the next steps of its development".

In a recent interview with national newspaper *Diário de Notícias*, Mr Carvalho said: "The circular economy is ever-present in this sector and this is an idea we reinforce in the ongoing strategic plan that APIC has in place at the moment. The tanning industry and leather are intrinsically circular."

Asked for examples, he said the tanning cluster at Alcanena in central Portugal had developed a project to convert waste from leather production into electricity. He said this could have generated enough electricity to make the cluster's common

effluent treatment plant self-sufficient in terms of energy supply. However, the local authorities opposed the plan.

Entrepreneur opens tannery

Business figure and former politician **Rostam Abdulrasul Aziz** has opened what local media in Tanzania have called the biggest leather-processing facility in Africa.

The country's president, **Dr John Magufuli**, formally opened ACE Leather Limited's new facility in the Morogoro region of Tanzania in February.

Mr Aziz used the occasion to call on the president to ban the export of raw hides and skins from Tanzania. The president responded by saying he wanted to encourage hides and skins from the country's 34 million head of cattle and 21 million head of goats to remain in Tanzania and for companies there to add value to the material.

He said a possible next step would be to increase the export tax on hides and skins from the current level of 80% to 100%.

ACE Leather aims to employ 600 people making finished leather by the end of this year and to increase this to 1,000 people in 2022.

IFAD president reappointed

Member states of the International Fund for Agricultural Development (IFAD) have reappointed **Gilbert Houngbo** as the organisation's president for a second term. He first became its president in 2017.

Mr Houngbo is a former prime minister of his native Togo. He was born in a rural area of the African country and has also lived, studied and worked in Canada.

IFAD works to address hunger and poverty in rural areas, where three-quarters of the world's poorest and most food-insecure people live. It has said that decades of progress on extreme poverty are now in reverse owing to the covid-19 pandemic.

According to IFAD, as many as 150 million people could fall into extreme poverty by the end of this year. On being reappointed as IFAD president, Mr Houngbo said the organisation would continue tackling hunger and poverty, and addressing the impacts of climate change and youth unemployment.

Vexation with Volvo

Automotive company Volvo has announced that the pure-electric vehicles it produces in the years ahead will be 100% leather-free.

Volvo presented new electrification plans at the start of March. It announced that by 2025, half of the vehicles it sells will be fully

electric. By 2030, the company said all of its cars would be 100% electric. It said this was part of a broader strategy for the brand to be "fully climate-neutral" by 2040.

As part of the same announcement, it unveiled a new electric car, the Volvo C40 Recharge, which will be Volvo's first electric-only car. It will also be the first of the brand's vehicles to be sold exclusively online.

Chief technology officer, **Henrik Green**, said that, with the C40 Recharge, Volvo was "also taking a stance for animal welfare". He said this as a preamble to the announcement that this car and the other pure-electric vehicles it brings out in the coming years as it transforms its portfolio will be leather-free.

World Leather asked Volvo to explain what connection it saw between "a stance for animal welfare" and its decision to stop using leather. The company said it would make a further announcement on the subject in the coming weeks.

Chief executive starts work at TFL

The new chief executive of leather chemicals group TFL, **Dr Wolfgang Schütt**, started his new role on March 1. His predecessor, **Dr Peter Amann**, stepped down at the end of 2020.

Dr Schütt was previously chief executive of another global chemical company, Eckart, which operates mainly in the automotive, industrial coatings, printing and cosmetics industries. Eckart is part of the Altana group. Wolfgang Schütt joined Altana in 2005.

On accepting the role at TFL, he said that combining the company's strengths with those of Lanxess's organic leather chemicals business was the main area of focus. TFL announced the acquisition of this part of Lanxess's business in August 2020. It expects to conclude the deal in the second quarter of this year.

New manager for University of Northampton tannery

Experienced leather industry professional **David Miller** has been appointed as the new manager of the tannery at the University of Northampton's Institute for Creative Leather Technologies (ICLT).

Mr Miller will run the tannery that ICLT has on site at the university, taking over from **David Sherwood**. He arrives after 18 years as production manager at Blenkinsop Leathers near Rushden.

David Miller's career in leather manufacturing began in 1980 when he joined TH Geary in Kettering as a teenager. He later worked at Odell Wilson & Tilt (Pittard Group) in Northampton and at Clifford Collins in Rushden.

His work at these different companies has given him the experience of making a wide variety of articles, from heavy vegetable-tanned leathers to leather from small skins. He therefore, has an extensive range of knowledge and skills to pass on to ICLT students. He became a member of the UK's Society of Leather Technologists and Chemists (SLTC) in 1992 and was appointed as its treasurer in 2017.

Board change for Leather Naturally

Campaign group Leather Naturally has announced that **Rodrigo Henríquez** will leave his role on its management board

in mid-2021. Mr Henríquez is the communications manager for leather chemicals manufacturer Lanxess.

He has served on the Leather Naturally management board for four years but, with TFL's acquisition of the Lanxess leather chemicals business now confirmed, has decided to stand down.

Leather Naturally said it was grateful for Mr Henríquez's "professional and energetic input" and that it would now begin its search for a replacement. It said: "We are open to enquiries from passionate leather industry volunteers willing to take Rodrigo's position, taking responsibility for promotion." 🌐





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World Leather's publishing cycle and limitations on space make it impossible for us to run more than a carefully selected sample of news from across the industry. However, we publish hundreds more stories on *leatherbiz.com*. The site is updated every day with news from every continent and every part of the industry, making *leatherbiz.com* one of the most comprehensive archives of news anywhere on the web for the global leather industry.

We list below just a few of the headlines that have appeared on the site in recent weeks and can still be accessed.

12/03/2021

Hermès unveils mycelium-based Victoria bag

11/03/2021

ATP Atelier awarded Positive Luxury's Butterfly Mark

10/03/2021

Chloé revamps vintage Edith bags with leftover leather

Tokyo showcase for circular accessories brand

09/03/2021

Mimosa bouquet tradition continues in Tuscany

Lockdown surprise for Casadei

08/03/2021

Versace bets on revival with updated La Greca maze monogram

05/03/2021

Livestock sector is a circular champion, new group says

04/03/2021

Trump Organization sues Marc Fisher for almost \$1.47 million

03/03/2021

UK: Financial support for leather industry parents

Pre-owned luxury a real and deep-rooted trend, Kering says

02/03/2021

LVMH-backed firm buys Birkenstock in €4bn deal

01/03/2021

US West coast port problems resurface

26/02/2021

Mixed news on the fair front

ZDHC publishes 'simplistic, structured' chemistry guide for suppliers

25/02/2021

Hermès Himalaya Birkin offered by Christie's - for immediate purchase

24/02/2021

'Buy local' campaigns boost South Africa's master plans

IULTCS announces research grant winners
New York debacle could cost Valentino more than \$200 million

23/02/2021

Leathersellers' Company opens student grants programme

Leather key to China's 'beautiful' circular strategy

22/02/2021

International Footwear Congress postponed
Asian growth lifts Hermès

Burberry granted preliminary injunction in Chinese 'copycat' case

19/02/2021

Flawed figures have led to Veja's 'less leather' decision

Idoia Cuesta creates one-off leather basketweave pieces for Loewe

18/02/2021

Shanghai CAR symposium to go ahead
Farfetch launches Farfetch Fix for aftercare
Tapestry partners Black in Fashion Council

17/02/2021

Car parts stuck at borders
Ecco Leather makes University of Oregon donation

Kering poised for rebound with "excellent momentum" in leathergoods

16/02/2021

COTANCE and industriAll launch collective bargaining project
'More opportunity than risk' for Pittards
Coach adds Pillow Tabby to leathergoods stable

15/02/2021

Jaguar Land Rover announces electric ambitions

Falls in value and volume for Clarks before covid-19

12/02/2021

China leads global leather-sector exports, but its share falls

Mulberry celebrates 50th anniversary with time-hop collection

11/02/2021

Pilot year for Leather Impact Accelerator under way

Covid-19 costs Tyson millions, but beef performs well

10/02/2021

Bangladesh leather industry falls short of export target

China: 12 'leather cities' across eight provinces to link via cloud

Full-year figures show rise in volume of US hide exports in 2020

09/02/2021

Leather-heavy look for Super Bowl

Spanish shoe group forges ahead with China plan

GRSB prepares to launch global goals for sustainable beef

08/02/2021

Students everywhere invited to take part in leather design competition

Rising raw materials costs lead to Buckman price hike

Leather shines at Copenhagen. Fashion Week

05/02/2021

Crowdfunding for Metcha passes \$1 million
Tapestry expects to emerge from pandemic stronger

04/02/2021

All-time high in China lifts Lexus 2020 sales figures

03/02/2021

March editions of Lineapelle, Micam and Mipel are cancelled

Brexit leaves UK luxury sector at risk of decimation

Louis Vuitton unveils new, permanent colourways

US meat companies offer bonuses for vaccinations

02/02/2021

Cobbler's Suggest receives \$1.5 million in financing

Tanzania aims to emulate Ethiopia's leather industry

01/02/2021

Plans in place already for 2021 edition of Sustainable Leather Forum

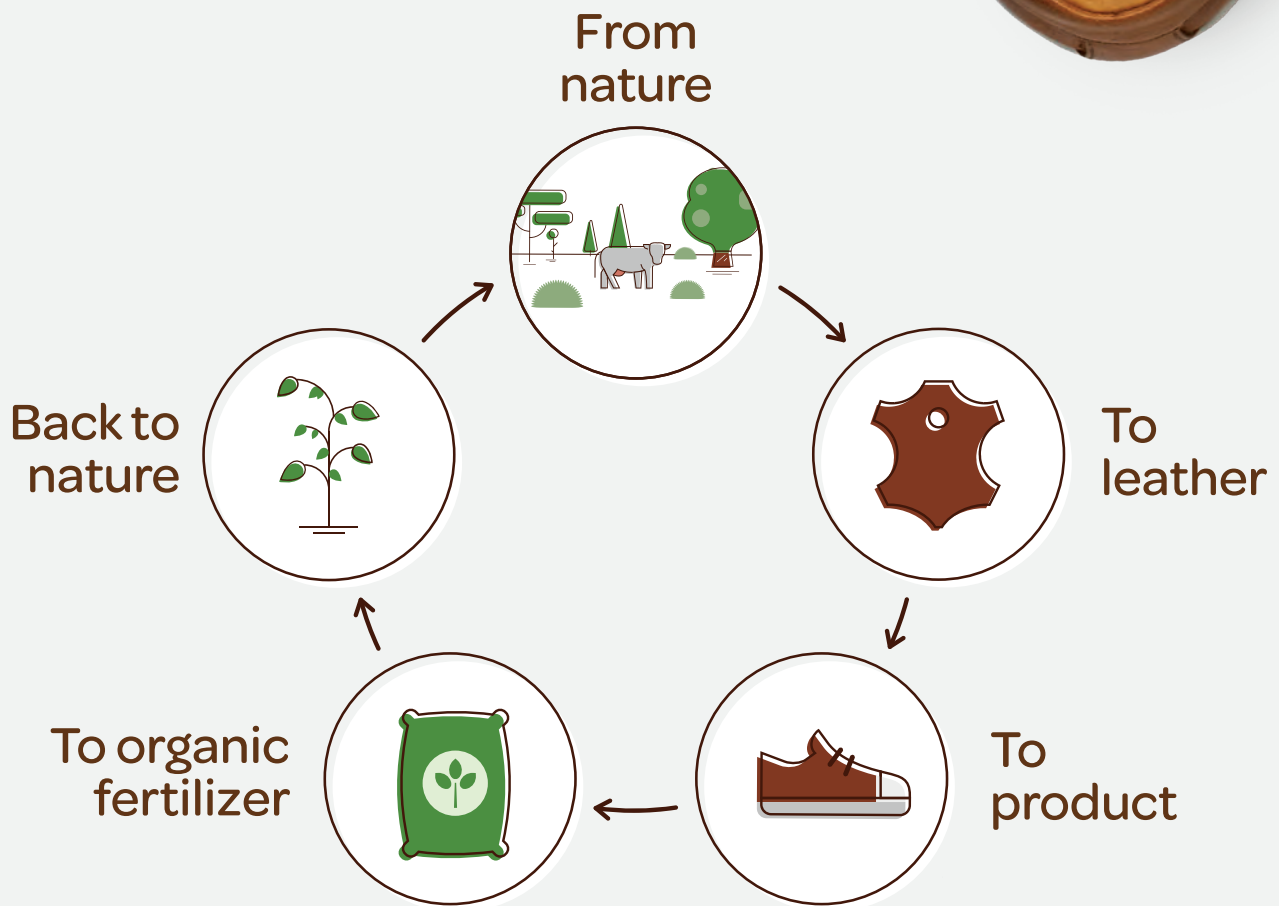
Argentinean gaucho saddles inspire Dior's leather artisans

Funding from Kering for regenerative farming projects

Ferragamo sales fall a third in 2020



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Innovator and entrepreneur Federico Brugnoli, the founder and chief executive of Milan-based consultancy Spin360, has been involved for years in innovation in the leather industry and other sectors, always aiming to promote sustainable business models. He was also one of the main architects of European leather's product environmental footprint category rules. He explains here that his focus has now moved on from mere lifecycle assessment (LCA) to a new philosophy he calls lifecycle thinking.

Lifecycle thinking

Why is it important for leather manufacturers to keep thinking about innovation and investing in innovation during this time of, let's hope, recovery from the effects of the covid-19 pandemic?

The pandemic has been an accelerator for many processes that were undergoing change naturally; the changes are now going much faster. Innovation is the key for moving onwards. There is no other way out except either dying or innovating. What we innovate is the question that everybody has. If we look at a broader spectrum, I think a lot of innovation should be on the side of sales, the hybridisation of relationships with customers, exploiting the digital potential. But it's not about leaving everything to digital because leather is still a material that has to be felt, experienced with at least four of the five senses.

What does hybridisation mean in this context?

It's a new way of engaging with the customer. If we speak about hybridisation in retail, it means something that is also called 'phygital', meaning physical and digital. Leather manufacturers could evolve by partnering with logistics companies to send samples and have digital meetings while people in different parts of the world feel the samples. It's a new way of allowing customers to touch and feel leather and at the same time avoid travelling. Trade shows are cancelled or they are digital, so how is leather going to be selected or improved or prototyped? This is making things very difficult, especially at the high end of the market, where seasons are still important, where product development is crucial and where people were used to meeting during the year to check the possible evolution [such as the development of new ranges]. In high-end luxury, we have had Lineapelle doing two main fairs and two small ones every year. Première Vision was the same. How are they going to replace this? This is still a question in a period of uncertainty, when nobody knows what's going to happen in the next six months. We have also been working on innovation in terms of sustainability. At Spin360, we have been looking at lifecycle design of

Federico Brugnoli has worked on complex lifecycle assessments for years. He says the figures they produce are just the beginning.

CREDIT: FEDERICO BRUGNOLI





products, conceiving leather to be sustainable, not assessing the numbers afterwards but using the numbers and the techniques of lifecycle assessment (LCA) to design processes and products a priori.

What is your assessment of the levels of financial and other help available to companies in the European Union to support recovery and what is the best way for SMEs (which includes most tanners) to claim some of that support?

Something that is expected in the next few months is the so-called EU recovery fund. It will be based on several pillars, among which will be "greening the economy" or the Green Deal. Another will be digitalisation. We don't know how much impact it will have, but we expect a lot of public funds to become available. There are some key values. I speak for European tanners, but also in general for the European leather-linked sector. I include footwear and leathergoods production in Europe. There are a lot of keywords that have links to the EU recovery fund that are typical of these industries, things like craftsmanship and investment in innovation. Digitalisation of processes is also important because if, 10 years ago, tanners were to sell a square-metre of leather, the documents accompanying it were, basically, price, delivery-time, quality and physical tests. Now you have physical safety, chemical safety, PRLs (prioritised requirements lists), MRSLs (manufacturing restricted substance lists), PRSLs (product restricted substance lists), LCA. The amount of information going with the product is increasing. Everybody speaks about blockchain, but blockchain does not apply yet to a set of parameters that are key and very important for leather makers, all the ones related to product performance, product compliance and sustainability parameters.

When you say that this does not apply to blockchain yet, it implies that, one day, blockchain will be able to help tanners. You must have a way of explaining what blockchain is and how it can help.

Well, very simply, blockchain is a technology that is able to connect very rapidly and in a consistent and reliable manner information that is available in tanneries, in companies. By

Events such as Micam X at the start of 2021, which Federico Brugnoli curated, show that knowledgeable industry figures can still share their expertise successfully when events are completely or partly digital.

CREDIT: MICAM

available I mean that this information is already in the ERP (enterprise resource planning) system, the informative systems that companies have. If companies have a well developed ERP, they have all the advancement of production, all the different production logs, costing, delivery-time, bill of materials, everything that is in the informative system. So blockchain is able to pick information from all these systems and make it easily available. Blockchain can be linked to traceability, for example. But the point is that much of the information, and traceability is an example of this, is not yet in the informative systems, the ERP that companies have. We at Spin360 have developed a software platform and we are collecting monthly information on traceability from nearly 100 tanneries, but they still need to provide this information outside of a blockchain scenario because it is not embedded in the normal systems.

We know a little about some of the other support programmes, including ELIIT, and about your involvement in a project called Leather Smart LCA. What is the idea behind this project?

ELIIT is for small and medium businesses that have the ability to innovate but not with really high-end objectives, but more down-to-earth, achievable objectives. I was just holding a workshop this morning on ELIIT and I said that these are the kind of projects that tanners can really benefit from. It's not a lot of money [€70,000], but it is very focused, with objectives that are close to the market. Smart LCA is a project aimed at developing two important technologies. One is an advanced software for lifecycle assessment and lifecycle costing. Basically, an existing process is run, then we analyse the data. When I speak about analysing data, I mean that, for a normal product, we can collect more than 2,700 environmental indicators. We apply algorithms that allow us to make what we call hotspot analyses, the identification of



the most important contributors to impact. It's not AI (artificial intelligence) yet but we hope to get there very soon. We can suggest what it's best to focus on and formulate a hypothesis for improvement. The second part is the concept of a smart drum. We have a prototype of that technology and, with the simulation we have done, we can make some hypotheses. We can use the figure for the environmental impact of the chemistry, we can reduce the running-time, we can reduce the usage of water. This hypothesis can be checked in an R&D (research and development) drum and if the product goes okay, then the improvements can be industrialised (scaled up). The smart drum is a tool for a science-based approach to tanning. The power of this way of thinking is that, apart from LCA, we can do lifecycle costing.

When we talk about leather and lifecycle analysis or lifecycle assessment, it's impossible not to think about the years of work you contributed to helping the leather industry secure European Commission approval of product environmental footprint category rules (PEFCR) in 2018. We hoped that achievement would end the debate about leather's carbon footprint, but it hasn't. Why not? How can Veja announce that its leather has a carbon footprint of 100.5 kilos of CO₂-equivalent per square-metre when the figure UNIC gives as an average for Italy is 1.9 kilos?

It looks like the industry is coming towards a convergence of the most important factors that influence carbon footprint. LCA is a complex discipline and is based on science. It has to be done by professionals. Just to communicate a number doesn't mean much. The amount of data required to carry out a proper assessment is vast, and data quality is very important. I am trying to move as far away as possible from presenting single numbers in this debate now. We are moving into a new philosophy. If you take the work assessment, it means that you are assessing what you have done in the past. We are working on the concept of lifecycle thinking. That is to say the numbers that are coming out are not the end of the work. They are the start of an improvement plan. This is the reason we obtain so many numbers for each product. The important thing is that

“The numbers that come out of lifecycle assessments are not the end of the work. They are the start of an improvement plan.”

customers are sitting with the tanners and they're looking at the impact improvement plans can have on the reduction of carbon footprint. This is what is making them happy. Lifecycle thinking is the new forward, in my opinion. It's time to move forward.

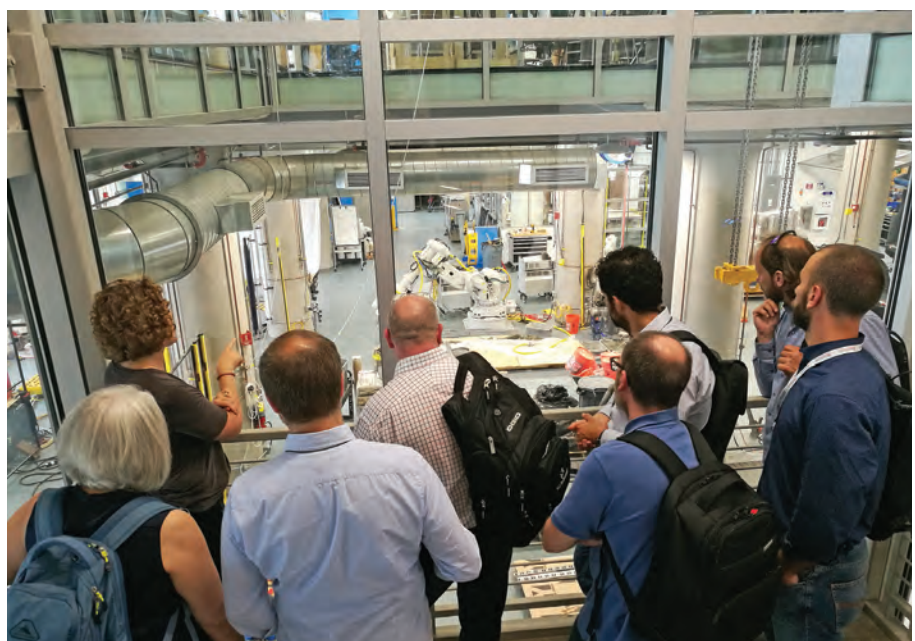
Immediately before the pandemic, you devoted a lot of time and energy to ideas such as the Innovation Square component at Lineapelle and other initiatives such as Innovation Training. What have these ideas involved and how have they gone?

Innovation Square has involved people from renowned academic organisations all over the world, and we're still doing it. There is bad news and good news. The bad news is that, most probably, it won't be possible to organise events at that level in the near future because of constraints in travelling. The good news is that knowledge is becoming more available now. Before, if I had to organise an Innovation Square event, I had to convince famous people to take a plane, come to Milan, be away from their

home and office for a week. Now everything is simpler. The network of people with whom we are in touch is willing to keep on sharing their knowledge and their innovations. This will be possible in a digital form. We are thinking also about having digital training done by these people. We call it democratisation of knowledge.

And Innovation Training, when you went with a group of European tanners to visit important technical institutions in the US?

I am still in touch with colleagues on the other side of the Atlantic. We recently organised the online version of the other very big event we do, which is called Micam X. Micam X is now online, accompanying the digital version of the Micam show. We have had people from MIT (Massachusetts Institute of Technology), Harvard, the United Nations. We have had a huge number of speakers and we created it as a TV show. Everything is recorded in a real studio and it will be broadcast over two months. This is where we are going. 🌐



Tanners from Europe have visited institutions in the US to see automation and artificial intelligence in action as part of the Innovation Training initiative.

CREDIT: FEDERICO BRUGNOLI

CROMOGENIA'S RANGE OF SUSTAINABLE PRODUCTS

CROMOGENIA

Cromogenia Units have always been aware of the need to bet on the development of more sustainable products that respect the environment, especially in the leather sector.

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FATLIQUORING AGENTS:

FOSFOL ST-AW is a sustainable fatliquor of natural origin for car upholstery in wb and ww. It stands out for its high softness, high dye intensity, good tensile strength and tear load, low COD, and good fogging values in both wb and ww.

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FOSFOL ST-MB is a sustainable fatliquor based on natural and sulfited oils recommended for soft items such as furniture or garments.

RETANNING AGENTS:

RETANAL ST-MS is specially recommended for car upholstery providing high tightness.

RETANAL ST-MF provides fullness as well as a fine grain.

RETANAL ST-MP increases dye yield and improves buffing ability.

RETANAL ST-MC Liq. is recommended for soft articles, as clothing or furniture.

RETANAL ST-MT provides excellent fullness without hardening the leathers.

RETANAL ST-MN is a dispersing and dye levelling agent.

RETANAL ST-FC is a retanning agent with filling and softening properties.

ACRYLIC RETANNING AGENTS:

RETANAL ST-AA is an acrylic biopolymer that stands out for its high fullness when applied at the retanning stage. It also provides the leather with high tightness which, makes this product highly appropriate for milled articles requiring excellent grain tightness.

RETANAL ST-AP is an acrylic biopolymer that stands out for its high fullness when applied at the retanning stage. It also provides the leather with high firmness which, makes this product highly appropriate for milled articles requiring excellent grain tightness.

RETANAL ST-A2P can be used for the retanning of all types of leather articles with loose structure, providing fullness and medium soft hand.

CROMOGENIA'S RANGE OF SUSTAINABLE PRODUCTS 2021

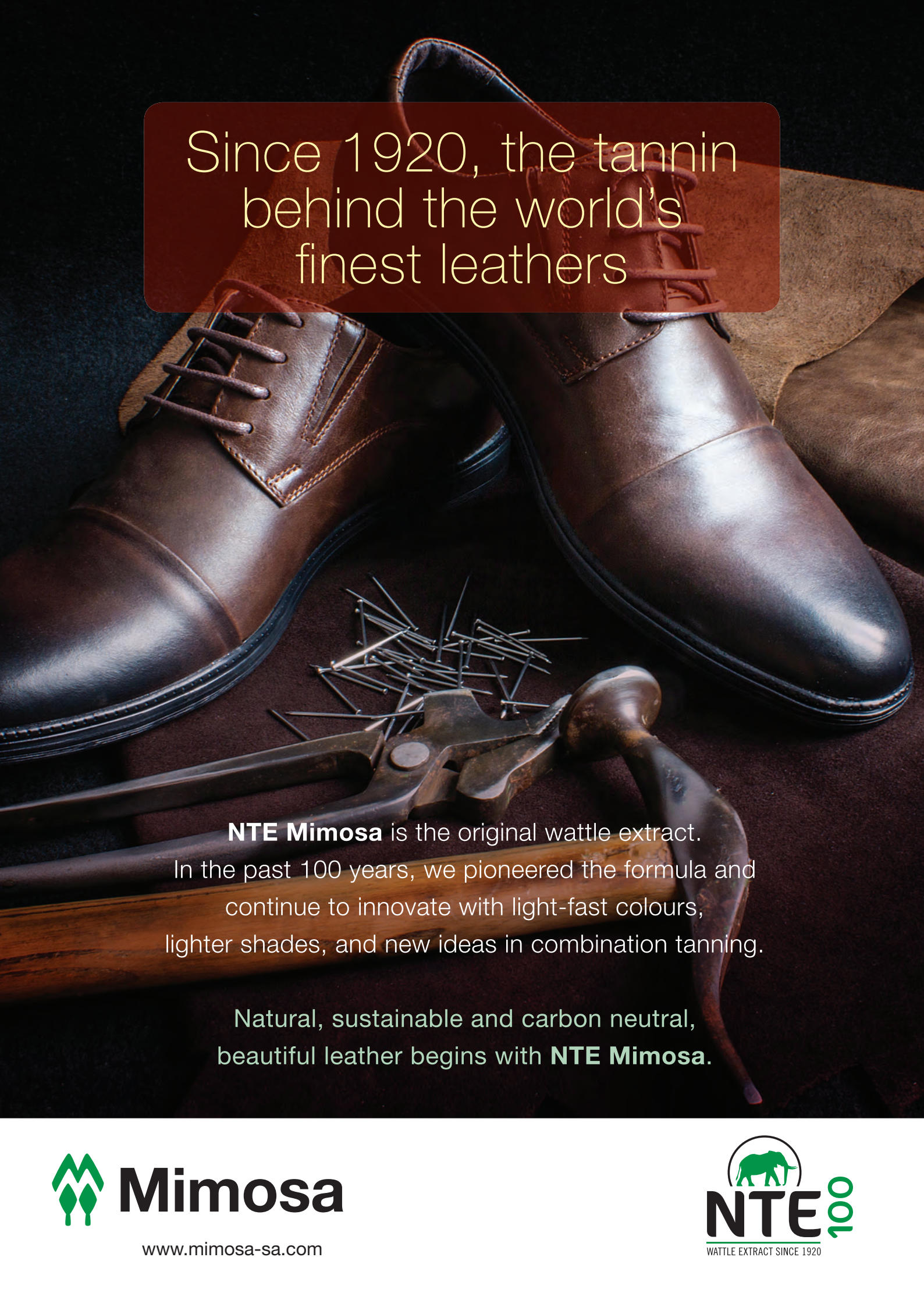


RETANAL ST-MS
RETANAL ST-MF
RETANAL ST-MP
RETANAL ST-MC Liq.
RETANAL ST-MT
FOSFOL ST-AW
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Nothing to Hide: The importance of animal welfare to the leather industry

Animals live in a sensory-based world, Dr Temple Grandin says. They react to what they see.

CREDIT: KEITH WELLER, USDA



Executive summary

As well as being an authoritative speaker and writer on the subject of how meat companies should treat cattle, Dr Temple Grandin developed a now widely used scoring system that tells big corporations how well their animal slaughter operations are working. She has said many times that she believes her own situation as a person with autism has helped her understand much better the way animals experience the conditions that people impose on them.

Her belief is that farmers, meat companies, retail groups and consumers have the right to raise, own, sell and buy cattle, and the meat and by-products that derive from the animal's slaughter. However, she is adamant that this brings with it responsibilities to care for the animals and treat them well up to the point of slaughter.

In recent years, tanners, the principal users of the main by-product from cattle slaughter, have also begun to address questions about animal welfare, prompted mainly by their consumer-facing customers. Most consumers are still inclined to accept the use of materials or products of animal origin, but, increasingly, they require reassurance that the animals were well looked after while alive.

No cattle, sheep or goats are raised for their hides and skins, which means that, for leather manufacturers, animal welfare concerns must focus on careful raw material sourcing strategies, constructive dialogue with their upstream supply chain partners and transparency in the information they share with their customers.

As this essay makes clear, the leather industry of the 2020s is responding well to this challenge. 🌱

About this essay

Nothing to Hide Essay Two was first published in 2014. The updated information in this new version has come, principally, from a talk that Professor Temple Grandin of Colorado State University gave to the UK's Agriculture and Horticulture Development Board (AHDB) in February 2021: www.ahdb.org.uk.

Dr Grandin was inducted into the Colorado women's Hall of Fame in 2012 for her work on livestock welfare and her life story is the subject of an award-winning film made by television company HBO; actress Claire Danes plays the part of Dr Grandin in the film: www.grandin.com

This updated essay also includes information about programmes connected to animal welfare that leather manufacturing groups have launched in recent years. These include JBS Couros's KindLeather initiative, PrimeAsia's Responsibly Raised and ISA TanTec's Greener Pastures: www.kindleather.com; www.primeasialeather.com/sustainability/responsibly-raised; www.liteleather.com/uploads/media/main/Green%20Pasture%20Protocol.pdf



Twin Hereford calves being well cared for on a farm in Montana. CREDIT: JACK DYKINGA, USDA

Nothing to Hide: The importance of animal welfare to the leather industry

Animal welfare has always mattered to tanners because animals that are well cared for usually have better hides and skins, making it easier to produce high-quality leather from them than from hides that show the signs of poor care. In today's market, there is an even more pressing reason to pay close attention to animal welfare. Consumers care about this issue more than ever and rightly demand that the products of animal origin that they buy meet high standards.

Animal welfare strategies have long been at the forefront of how big meat corporations run their businesses, with consideration for how the general public would view the way they treat the animals at the core of these policies. Now, animal welfare commitments are also part of the sustainability strategy of lots of non-meat companies, including large numbers of consumer-facing leathergoods brands, big and small. And just as tanners look upstream to hide suppliers or meat companies or farmers for the reassurances they need, consumer products manufacturers are turning to tanners for these same guarantees.

For meat companies, whose connection to animals is more immediate and more obvious, there are audit systems in place. These have the support of big consumer brands such as fast-food restaurants. Abattoirs know they will fail and lose business unless they

can maintain high standards. In highlighting these practices and explaining how she helped put them in place, Dr Temple Grandin, professor of animal sciences at Colorado State University, draws the conclusion that as long as we continue to give animals a decent life and carry out slaughter under the correct conditions, we are entitled to continue to raise them and bring to market meat, milk and by-products, including hides.

The twenty-first century meat industry, and by extension the global leather sector, which is completely dependent on meat for the raw material it uses, owes much to Dr Temple Grandin. The Colorado State University academic has made it her life's work to study the practices involved in taking cattle and other livestock through feedlots and abattoirs and making the systems that farmers and companies operate in these facilities better.

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Change over the decades

Dr Grandin says she saw more improvement in one year, 1999, than in the 25 or so years' work leading up to that. Two years after that, in a paper presented at the US National Institute of Animal Agriculture in Colorado, she explained that one of the biggest drivers for change were fast food brands, especially McDonald's. "In 1999 McDonald's Corporation started auditing handling and stunning practices in the plants that supply them with beef," she stated in the paper. "They used a scoring system that I developed for the American Meat Institute¹ and I trained the food safety auditors. The results of the McDonald's audits clearly showed huge improvements²."

Two years on, the improvements were ongoing: 90% of the plants supplying McDonald's were, by 2001, able to stun 95% or more of the cattle with a single shot, which is the key to painless slaughter, the experts say. Abusive behaviour on the part of employees towards the cattle had mostly stopped; for example, many plants had stopped using electric prods and had begun using much gentler tools, such as flags or paddles, for driving animals through cattle-runs. Another simple idea that has begun to take hold is to use a type of awning over holding pens to give shade to the cows. All of this is also to admit that practices in industrialised abattoirs in the twentieth century often fell far short of the standards Dr Grandin believes people owe to the animals in our care; in a survey she carried out for the US Department of Agriculture (USDA) in 1996, she witnessed "severe abuse of cattle" in three beef plants. She is adamant that "conditions improved greatly when McDonald's started its plant-auditing programme".

A scoring system for abattoirs

The audit system Dr Grandin developed, based on observing samples of 100 animals at a time, counts the percentage of animals stunned correctly at the first attempt, the percentage of animals that remain unconscious until slaughter (which has to be 100% for the facility to pass), the percentage that "vocalise", moo or bellow, during their passage through the abattoir ("a measure of distress", the professor says), the percentage prodded with an electric prod and the percentage of animals that slip or fall over. 'Yes' or 'no' answers for each animal combine to give a score for the abattoir, but Dr Grandin is insistent that another component of a good audit system is to have a more subjective valuation, for which she has stipulated that auditors must walk through the facility noting any indications they see of poor maintenance, overcrowding, slippery floors, etc.

Famous for applying her experience as someone with autism to her understanding of how conditions in plants affect cattle, she calls herself "a practical person" and says she has done little more than incorporate into the audit system things that the general public would regard as acceptable. She has put this to the test by taking "many non-meat industry people" to well run slaughter plants and, in her experience, visitors found what went on there "acceptable". More recently, she has become an advocate of video-monitoring of abattoirs to make the audit process easier. The audit system she designed is still in place and used by big consumer-facing companies.

As well as common sense, she talks about the importance of being a good observer of how animals react to different situations. This insight, too, she links to her condition. "I am a visual thinker," she

explains. "Everything I think is in pictures, not words. Animals live in a sensory-based world. They react to what they see. Things we might not normally notice can scare them and it's when they feel fear that they can become agitated."

A survey with mixed results

Before the slaughterhouse, she is also interested in the treatment animals receive at feedlots and quotes a survey of 39 feedyards in Texas in 2019. Between 60% and 70% of the people working in those facilities scored well in the survey for their stock-handling skills. Dr Grandin is pleased these people were "doing things right" and says it is a huge improvement on the way things would have been 20 years ago or even 10 years ago. She attributes the improvement to low-stress workshops that livestock and meat industry organisations have been carrying out in the US in recent years.

However, she points out that still having 30% or more of the people working in feedyards handling the cattle badly is far less pleasing. She does not like people yelling at the animals and is surprised that there are still feedyard workers who will stand at a cow's head and poking the animal in the butt. This is less about causing any pain (these prods are usually gentle), but it shows her that workers have been poorly trained. "This action is telling the animal to move forward and go back at the same time," she explains.

She insists that there are simple techniques everyone in the business can and should learn, which would allow them to get rid of "electric prods and other bad things". If the person walks quickly past the shoulder of the animal in the opposite direction, the cattle will move forward and they will follow each other, she insists. "It sounds counter-intuitive, but it works," she says, "without any need for yelling."

On the whole, Dr Grandin believes cattle have become calmer in the last 20 years, but recent changes she has observed convince her that the need for good stockmanship skills will continue. In general, beef cattle are growing bigger and heavier and are going to slaughter at a younger age³. She says the industry ought to be careful about how far it goes in pushing for extra productivity, suggesting that leg ailments, for example, are becoming more common now. "We have to have animals we can handle," she says.

The leather industry's efforts

Work on animal welfare has also been going on in the leather industry for years. As long ago as 2011, its representative body in the European Union, COTANCE, launched a plan for better hide traceability and said social and environmental mismanagement in the area of raw materials was adversely affecting the tanning sector's image⁴. It wanted tanners to drive better governance. By 2014, demand for tanners to exert some control, to try to take some responsibility for what happens to the animals from which their raw materials derive, was clearly coming from the customer base. That year, luxury group Kering began updating sourcing guidelines to say it wanted animal welfare to be part of better management of its leather supply chain⁵.

Andreas Kindermann, the chief executive of Wollsdorf Leder in Austria, who was elected president of COTANCE in 2018, referred to the subject: "Our customers want to know where the leather comes from and we want to know where the hides come from. All stakeholders

need to work together on this.”⁶ In further comments at the start of 2021, however, Mr Kindermann said leather manufacturers in Europe were still encountering resistance from the livestock sector when it comes to transparency and traceability in raw materials management⁷.

An example of what the different players in the supply chain can achieve when they work in partnership came to light at the end of 2017. A project called SELAMBQ was launched to try to halt the deterioration in quality of entrefino lambskins, a type of leather much coveted by luxury leathergoods manufacturers, with Madrid-based company Loewe at the forefront of its admirers. European tanners supported and financed SELAMBQ⁸. Those involved included Russo di Casandrino from Italy, Riba Guixà, Colomer-Ledexport, Inpelsa and Bosch Girona from Spain, and Bodin-Joyeux, Mégisserie Richard and Mégisserie Alric from France. The Spanish associations of lamb farmers and meat producers, Interovic and Anafric, also took part. During the first year, activity focused on mapping more than 300,000 Spanish entrefino skins, with analysis of their defects carried out by a team of researchers at the University of Zaragoza. Their analysis highlighted a series of defects that the researchers attributed to breeding and slaughtering practices. Based on this, the tanners called for an improvement in technical solutions and good practice, including at the animal welfare level.

Programmes from large groups

Two years later came the first in a series of announcements from large tanning groups addressing this question. Brazil-based JBS Couros launched Kind Leather, with its chief executive, Roberto Motta, saying it would “revolutionise the industry”⁹. Kind Leather is a range of leather, part of JBS Couros’s wider product offering. It involves production and environmental efficiencies at the group’s tanneries and at partners’ cutting plants in the making of this range, but it also involves using traceable hides. Monitoring technology is in place to oversee and verify the activities of more than 80,000 cattle suppliers in Brazil, ensuring they comply with the social and environmental standards. The system monitors a wide range of issues, including having a team of specialists monitor animal welfare practices.

JBS Couros says it works with cattle farmers to make sure the animals are cared for throughout their lives. This care focuses on the famous Five Freedoms, which seek to make sure animals are protected from pain, disease, discomfort, hunger and thirst, and are allowed to carry out behaviour that is in keeping with animals of their own kind. As part of the Kind Leather programme, JBS Couros has invested in training for farmers to help them provide good conditions for their cattle.

One year later, PrimeAsia and Tyson began telling the world about an initiative called Responsibly Raised¹⁰. The beef division of Tyson was already running a programme Open Prairie Natural Meats, which ensures that the cattle involved are all responsibly raised, with strict third-party verification. Animal care standards are an important part of this, with all employees and all partners having to meet them. The animals have a 100% vegetarian diet, and are raised with no antibiotics, no added hormones and no growth-enhancements. PrimeAsia makes a range of leather from the hides arising from this Tyson programme, with each hide traceable to the animal’s place of birth and throughout the production cycle. Later in 2020, PrimeAsia announced it was working with partners in Brazil to apply the

Responsibly Raised principles to the hides they supply, too.

Towards the end of 2020, another leather manufacturing group, ISA TanTec, expanded an existing concept called LITE to reflect animal welfare commitments. The group introduced LITE 16 years ago to celebrate the low impact on the environment of its products and manufacturing processes; LITE will now cover its sourcing of cattle hides as well. It has developed a sourcing protocol called Greener Pastures to make sure the hides it sources for its tanneries are traceable to the farm or ranch they came from¹¹. There must be full transparency and documentation to show that these farms meet animal welfare requirements and that treatment of the animals at the time of slaughter is in keeping with the protocols of the US Department of Agriculture’s Humane Handling programme, which includes a list of ten examples of “egregious inhumane treatment” that the people working at slaughter plants must avoid¹². ISA TanTec is bringing to market Greener Pastures leather for footwear and luxury products.

Conclusion

Dr Temple Grandin concludes that animals with a well developed nervous system, including cattle, have rights, but this does not mean we cannot breed them, own them, sell them and use them. Laws in most parts of the world mean we can. By the same token, our ownership of them brings with it obligations to treat them well, right up to the moment of slaughter. After that, we have the right to sell, buy and eat the meat and use the by-products, which include the hides. Some people remain unconvinced that people ought to have the right to breed animals and use them in this way, even when treating them well. Temple Grandin said she first addressed this particular question more than 30 years ago: how could she say she cares about animals while designing systems in slaughterhouses that are used to kill them? “I answered this question in 1990,” she recalls. “None of the cattle going into my systems would have existed unless people had bred and raised them.” 🌱

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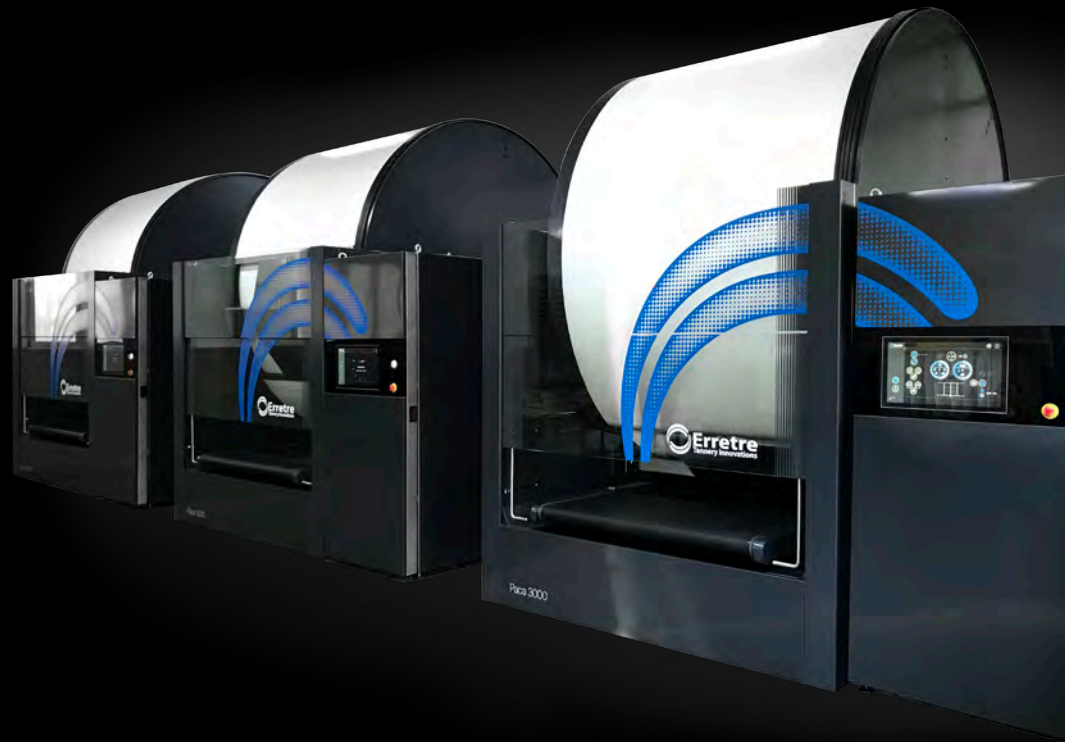
+20%
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+15%
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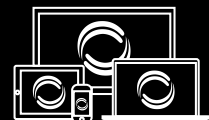
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Alternatives to leather fall short

In the face of the ongoing presentation in many parts of the fashion industry of non-leather alternatives as being more desirable than the real thing, the leather industry's representative body in the European Union, COTANCE, decided to put some of the claims to the test. It engaged the help of renowned testing and research centre FILK and, together, they published the results in early March.

At the request of industry body COTANCE, tanners around Europe recently procured samples of ten materials that are widely talked about as alternatives to leather, often being presented as more sustainable options than the real thing.

Tired of the talk, COTANCE asked research body FILK to examine these materials alongside leather to report on and compare the material properties of them all. FILK has now published its results in a paper called 'Comparison of the Technical Performance of Leather and Trendy Alternatives'.

None of the substitute materials exhibited all of the performance characteristics of leather, FILK has reported, and some of them contained chemicals of concern. On announcing the results, COTANCE said: "The fascination with one of the oldest natural materials in the world remains unchanged, and no wonder, because the material is a true all-rounder. It lends a noble touch to fashion, footwear, accessories and furniture, and it brings many functional properties such as durability, tear-resistance and breathability."

FILK experts carried out standardised physical and chemical tests on the substitute materials, all of which have come to market in recent years, and subjected a sample of leather to the same tests. It concluded that technical progress among the manufacturers of synthetic materials has led to some of these having "individual properties that are similar here and there to leather's". However, it found that none of the tested substitutes could "truly be called an alternative to leather".

In the tests, leather proved superior in terms of water vapour absorption and water vapour permeability, with the other materials scoring "significantly lower than leather" in these tests. Leather also showed a superior performance in flex and tear-resistance tests, indicating greater durability. Another point that COTANCE made was that, although the producers of synthetic alternatives often present their products as being good alternatives to leather, there is frequently a lack of transparency about exactly what these alternatives are made from. The FILK tests have uncovered more detail.

For example, one of the materials it subjected to the tests was Desserto. The tests showed that the material does contain cactus fibres, as its manufacturers say, but in the sample that FILK tested, the plant fibres were contained in a polyester carrier fabric that had two layers of polyurethane on top. The sample was 65% polyurethane.

The alternatives

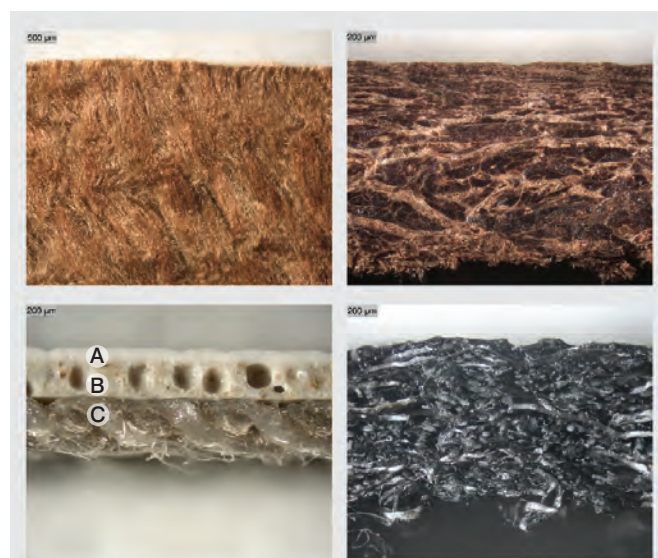
In the study, COTANCE requested the testing of nine alternatives to leather (one of the original ten, Noani, was not subjected to the tests because its composition was too different from that of the others), using a shoe upper leather

as the control. In recent years, much has been published about these innovative products that, in the manufacturers' terms, offer vegan, "cruelty-free" and more sustainable alternatives. All can be considered fibrous, but their make-up differs physically and chemically. Some materials are naturally grown, making use of the dry mycelium of mushroom fruitbodies; others are made as alternatives to fossil-based raw materials, replacing them with more natural materials such as pineapple leaf fibre, the milled cactus leaves mentioned or apple pomace.

All are commercially available and are in use in products ranging from bags and small accessories to shoes and garments. The materials were analysed both physically and chemically. Based on their design, the more innovative materials can be sub-divided into three conceptual categories: animal-free grown materials, multi-layered coated fabrics with plant-based additives and non-woven fabrics with or without surface finish.

Grown

Muskin: Made by Grado Zero Espace, a naturally grown single-layer fibre, made from the mushroom fruitbodies of various fungi. Due to the restricted availability of the fungus (*Phellinus ellipsoideus*), this material is only grown in small size pieces approximately 40 cm x 20 cm.

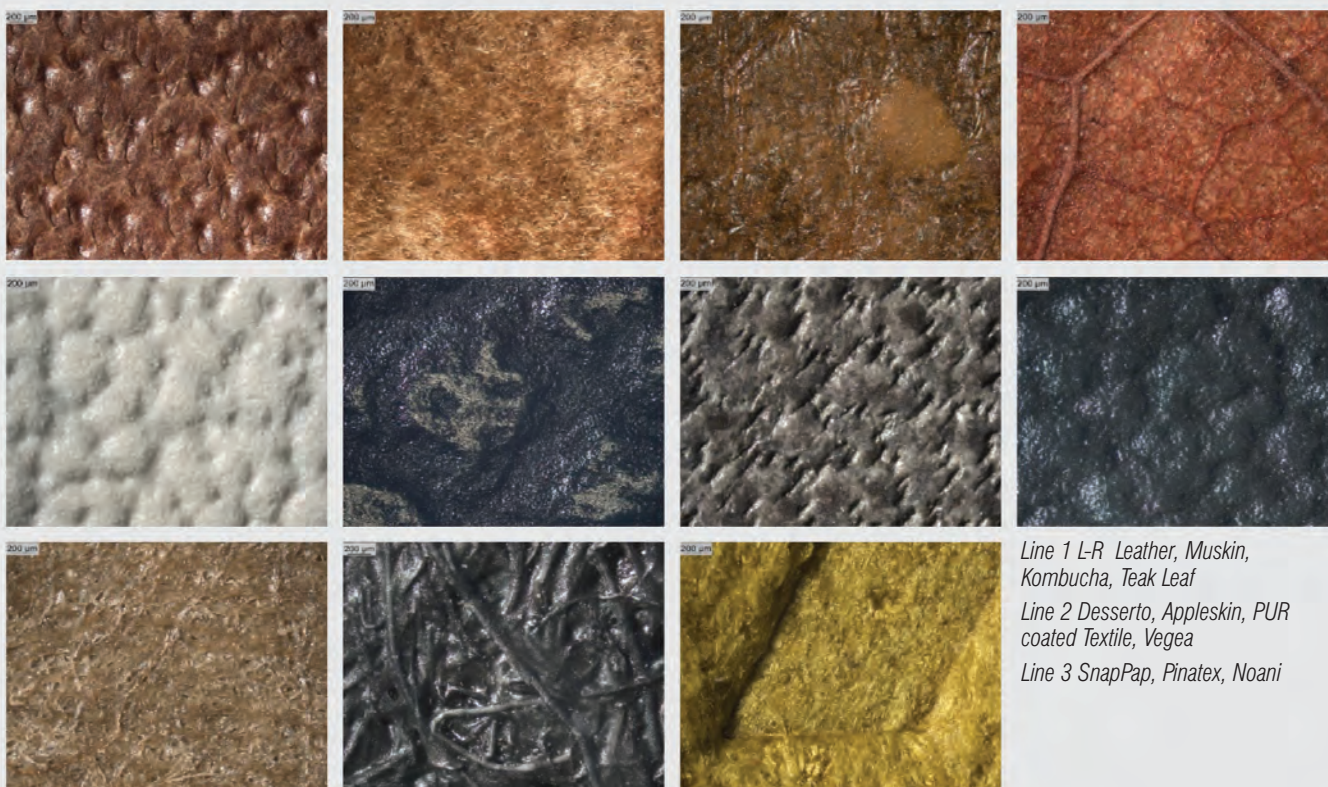


Materials with naturally grown fibre structure (MuSkin) (top left) and leather (top right); structure of a typical coated textile (example Desserto, bottom left, A) top coat; B foamed middle layer; C textile support); non-woven made of natural fibres (example Pinatex) (bottom right).

ALL CREDITS: COTANCE



Surfaces



Line 1 L-R Leather, Muskin, Kombucha, Teak Leaf
Line 2 Desserto, Appleskin, PUR coated Textile, Vegea
Line 3 SnapPap, Pinatex, Noani

Kombucha: A dense and compact material, based on polysaccharides. Made from the fermentation process of the Kombucha beverage, it is a symbiotic community of bacteria and yeast that grows on the top of the fermenting liquid. Subsequently dried out to form a hardened sheet.

Coated multi-layer

Desserto: Manufactured from the nopal cactus, known colloquially as the prickly pear, it originates from Mexico and is the most widespread and most commercially important cactus species. Using the dried “pads”, the macerated cactus leaves are incorporated into the material, which is essentially a coated polyester-based textile with a compact polyurethane layer and partially foamed layer where the organic material is used. The material is made using a reverse roller-coating process.

Appleskin: Made by Frumat, this is a polyurethane-impregnated coated textile carrier with thin compact polyurethane layers and a foamed layer incorporating apple waste. The material is manufactured by a coagulation process. It is 50% polyurethane.

Vegea: Produced by Vegea, this coated textile is a combination of compact and foamed polyurethane layers on a cellulose-based carrier with organic constituents from grape waste in the foamed layer.

Teak Leaf: Manufactured by Nuvi, this material consists of coated and laminated leaves from the teak tree. Non-woven textile layers are laminated onto the back of the leaves while the topcoat is based on polyolefin wax.

Polyurethane-coated textile: Made by a coagulation process, this, a classic alternative to leather, was a coated textile consisting of a thin, compact polyurethane topcoat on a modified cellulose mid-layer. The textile carrier was based on polyester.

Noani: A composite material of three individual layers. The upper layer consisted of polyester microfibre, the core layer was leather fibreboard, and the bottom layer was a coated textile with polyurethane compact layer and foamed polyvinylchloride layer. Being a structured material and unrepresentative of a single material, no further investigation was carried out.

Non-wovens

Pinatex: Made by Ananas Anam, this non-woven material is made of cellulose-based natural fibres from the waste leaves of the pineapple plant. A felt-like material is made when these fibres are combined with polylactic acid. Final finishes vary but most incorporate resin topcoats.

SnapPap: Marketed as vegan paper with a leather look, this cellulose-based material incorporates natural rubber and an acrylate-based polymer.

The tests

Focusing purely on material performance, the materials underwent identical tests, according to the appropriate internationally recognised specifications for shoes, gloves and apparel. The materials were evaluated by 10 well trained panellists for touch and feel. Additionally, they were also screened for hazardous substances.

Thickness: measured by determining the cross-section under microscopic analysis.

Tensile strength: Determining the tensile strength, elongation at a specified load and elongation at breaking point. This is one of the most important physical properties for materials used in shoes, gloves and apparel, for which the ISO specification requires a 15N/mm² minimum.



Tear strength: Determining the tear strength of materials using a single-edge tear. The method is sometimes described as a trouser tear. A figure of 40N/mm² denotes a satisfactory result.

Water vapour permeability: Often referred to as breathability, vapour permeability describes a material's ability to allow water vapour to pass through it. In this case allowing the humidity from the body to be transported out and away from the material. In this test, results of greater than 0.8mg/ (cm² x h) must be achieved for comfort.

Water vapour absorption: Describes the amount of water vapour absorbed by the material.

Flex resistance: Determining the flex resistance of materials in the folded condition, with the fold made in the test specimen caused to move back and forth along the specimen during the test. In this test, the specification states 80,000 flexes.

As can be seen from the table, leather outperforms all the other materials and while some come close to leather's inherent properties, no single alternative product can match them all.

Leather has the highest mechanical stability, representing the highest values for tensile and tear strength within the survey. The coated textiles' tensile strengths ranged from 9 to 20 N/mm² with the figures dependent on the properties of the textile carrier; leather's score was 39.5. For the non-woven samples, physical properties were reliant on their respective fibre-bonding methods which, in the case of SnapPap were compromised in tear strength by the short fibre length, with little compensation given by the polymeric binder used.

In use, materials used for shoes undergo concave and convex flexing. In the flexometer test, once anything more than minor cracks in the topcoat are observed, the test must be stopped. It was noted that only the coated textile and pinatex had a similar performance to leather's; all others were deemed insufficient.

For a pleasant feel, humidity from the body must be transported away from the skin. Water vapour permeability is a measure of the efficiency of a material to allow this to take place. From the study, leather, Muskin and SnapPap exceeded the limit set in the ISO standard for a full chrome upper leather (ISO 20942) of sufficiently greater than 0.8mg/ (cm² x h), whilst the polyurethane coated fabric was satisfactory, all other materials were deemed unsatisfactory.

From the haptic testing, the Muskin was said to feel pleasant while the Desserto, Pinatex and SnapPap felt rough. The materials that had synthetic surfaces (Desserto, Vegea,

PU-coated textile and Appleskin) had a soft feel, but the touch felt artificial with a sticky tendency; this applied even more so with the Kombucha sample.

Hazardous substances

Using thermal desorption analysis, where the analysis involves heating the materials to release contaminants or chemicals of interest, which are then identified and quantified by gas chromatography, all the samples emitted volatile organic compounds. Restricted substances were found in the polyurethane-coated textile but also in the Appleskin, Pinatex, Desserto and Vegea, all of which could also be classed as forms of coated textiles. Appleskin was found to contain Butanone oxime and traces of dimethylformamide (DMFa). Desserto contained five restricted substances – Butanone oxime, toluene, free isocyanate, foltpet (an organic pesticide) and traces of the plasticiser Diisobutyl phthalate (DIBP), which was also found in the Pinatex. Toluene was also detected in the sample of Vegea.

Conclusions

Alternatives attempting to replicate the natural composition of leather, namely a graduating density of fibres through the structure increasing from the grain side towards the corium or flesh layer, was, in most instances of the coated textiles, attempted with multi-layered materials. The main strength of the structure was reliant on the composition of the textile backing or carrier. In most cases, water vapour permeability was all but lost, with a corresponding effect on flex resistance.

For the naturally grown materials, the best attributes appeared to be water vapour permeability or absorption, but to the detriment of the tensile or tear strength. For the Muskin sample, while the short fibre length aided the vapour permeability, this had a negative impact on the tensile and tear strengths. Fibre orientation was also a contributing factor and the probable cause of a lower flex resistance. Converse to this, the Kombucha showed an almost impermeable nature but one that was highly hygroscopic, most likely due to the high sugar content and its gel-like consistency prior to drying.

In conclusion, hazardous substances aside, the challenge remains for alternatives to leather to replicate the full functionality of the bionic structure of the skin. Additions of biobased content to the already widespread polyurethane-coated textiles may give some sustainability credentials to the material, but their addition has yet to show any physical advantage to the product. 🌱

Table: the weak performances of alternatives to leather

Physical Properties		Thickness	Tensile strength	Tear resistance	Water vapour permeability	Water vapour absorption	Flex resistance
		ISO 17186-A	ISO 3376	ISO 3377-1	ISO 14268	ISO 17229	ISO 32100
		[mm]	[N/mm ²]	[N/mm]	[mg/(cm ² x h)]	mg/cm ²	flex cycles to grade ≥ 2
Naturally grown material	Leather	1.93	39.5	73.6	4.6	8.4	> 200,000
	MuSkin	6.22	0.2	0.5	10.4	6.0	10,000
	Kombucha	0.29	9.2	5.1	0.1	9.2	10,000
Coated textile	PUR coated textile	1.37	10.2	17	1.1	1.4	200,000
	Desserto	0.81	20.8	37.2	0.5	2.5	30,000
	AppleSkin	1.14	14	18.4	0.4	1.7	50,000
	Vegea	0.95	9.4	16.6	0.6	3.0	50,000
	Teak leaf	0.57	12.2	30.7	0.1	0.1	100
Non-wovens of plant fibers	Pinatex	1.43	4.5	31	2.5	3.8	150,000
	SnapPap	0.57	24.9	7.5	10.3	3.7	5,000

The biodegradability of leather

Biodegradation is the biological degradation of organic materials by living organisms, such as fungi and bacteria, down to base constituents such as water, carbon dioxide, methane, basic elements, and biomass. We refer to a product or material being biodegradable when it can decompose naturally and ecologically in a relatively short period of time and be non-polluting to the environment. To this end, Quimser have introduced SERTAN WT, a raw material that is more respectful of the environment with wastewater that does not generate issues for a world that is increasingly demanding about the impact that processes and products generate on the environment.

Working to achieve highly biodegradable leathers, we have all heard that there is a demand for “eco-leather”, “metal-free” and “chrome-free” leathers, but what is really being sought?

We also have another competitor: “vegan leather”, made with synthetic materials (plastic and PVC) which is gaining

market share since it is not of animal origin. It must be made quite clear that natural leather is a waste product that is upcycled to give new life.

Regarding leather of animal origin, we know that a transformation is being sought in order to carry out processes that are more respectful to the environment and

Biodegradability test #1

Carried out with ovine leather samples

We sample four tanned and retanned sheepskins with different processes and products to determine the impact they generate on the environment.

1. Crust tanned with vegetable extract and aldehyde. Retanning with synthetic extracts.
2. Crust tanned with chrome and retanned with synthetics.
3. Wet white tanned with Sertan WT
4. Crust tanned with Sertan WT and retanned with vegetable extract.

Using a commercially available compost, the leather samples were composted for seven weeks to observe the time it took to degrade, after which we checked the condition of the leathers and monitored their condition.

Composting conditions were:

Universal compost for plants (mixed vegetable and organic compounds).

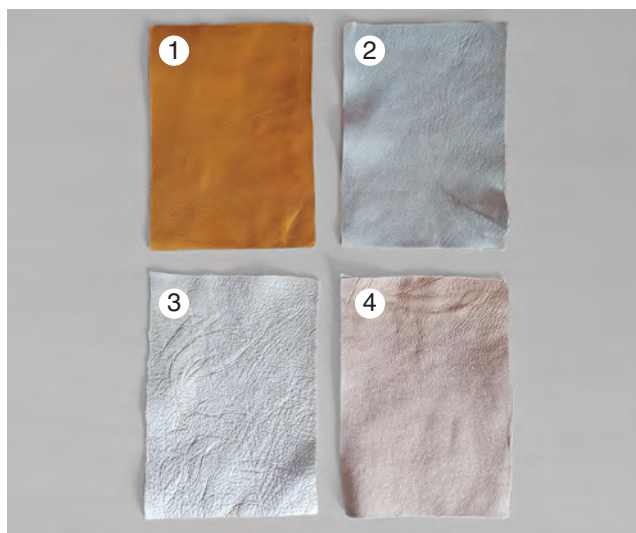
- **Organic matter over dry matter:** 62%
- **Electric conductivity:** 68 mS/m
- **pH:** 8

Biodegradability conditions:

- **Temperature:** 40°C
- **Humidity:** 40-60%

Conclusion

Leather tanned with Sertan WT in optimal composting conditions (temperature and humidity), are highly biodegradable. In just fifty days the skin decomposed. Therefore, we can affirm that the environmental impact of leather tanned with Sertan WT is much lower than that of leather tanned with mineral salts or synthetic products, derived from petroleum.



for the health of the community; taking into account the requirement for different products with different names, we have attempted to define concepts, products and processes, in order to achieve biodegradable leathers.

Chrome Free Leather: Leather processed without chromium.

Metal Free Leather: Leather without any form of metal.

Ecological Leather: We consider that a leather is ecological when the result and the processes to obtain it are environmentally friendly.

Chrome-free leathers are those that can be worked with aluminium, synthetics, aldehydes, and other products that may be ecological, without considering the biodegradability of the leather obtained or if the process causes less ecological concern. Only chromium is removed since it is perceived as a contaminating and toxic material. Many of these products are derived from petroleum derivatives and have potential to cause a high pollutant load.

Metal-free leathers involve the elimination of all metals (chromium, aluminium, zirconium, etc.) which does not necessarily mean that these products and processes are

eco-friendly or that the resulting leather is biodegradable.

Finally, ecological leathers are those that have been worked with more eco-friendly products and processes to obtain leathers with high biodegradability and very little or no impact on the environment. In these cases, the resulting waste does not create any problem. Leather is a waste that is recycled to give new life.

With Sertan WT, leathers are obtained that are white, with very low or non-existent oxidation (yellowing) and achieve shrinkage temperatures of approximately 80-85°C. In addition, it has been realised that the resulting leather is highly biodegradable.

Being a zeolite-based product leaves very little aluminium. Even though the Manufacturing Restricted Substances List (0-MRSL ZDHC V 2.0 2019) does not prohibit the use or the presence of aluminium in leather, some markets have requirements for metal-free products. At Quimser we defend this product as an alternative for ecological leathers, since it is a component that is not restricted and has multiple uses in other sectors that consider it an eco-friendly substance: food, agriculture, cosmetics, etc. 🌱

Biodegradability test #2

Carried out with bovine crust leathers

Samples of bovine crust, having been tanned using different processes. These tests allow us to evaluate the degree of biodegradability of the leathers and thus determine which products are more sustainable for the environment.

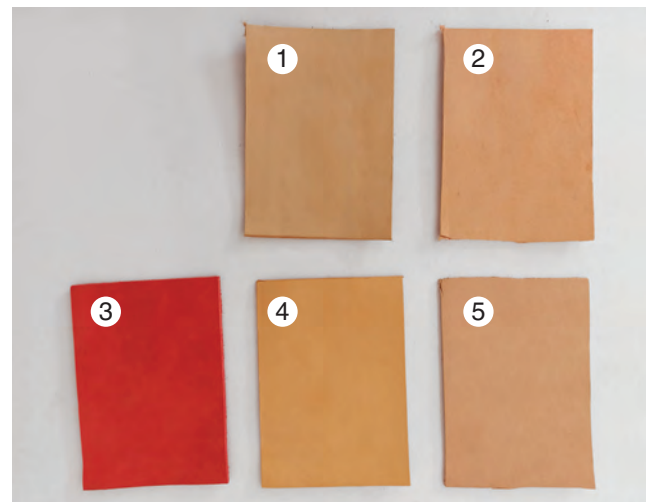
In this second test we have analysed the following samples:

1. Crust tanned with chrome and retanned with standard market products.
2. Crust tanned with Sertan WT and retanned with standard market products.
3. Crust tanned with Sertan WT and retanned with vegetable polymers.
4. Crust tanned with Sertan AL and retanned with standard market products.
5. Crust tanned and retanned with vegetable polymers.

Conclusion

It was observed that in 30-35 days the leathers tanned with Sertan WT begins to decompose. We emphasise that in sample 5, Sertan WT + vegetable polymers (Article EA-R-10170), the decomposition is greater, which leads us to affirm that within a year and under specific conditions of humidity and temperature, the skin will totally decompose. Article EA-R-19170 was retanned with natural polymers to have the minimum impact on the environment, both in terms of the resulting leather and the products used throughout the process.

Finally, every day the skin remains in the compost, we can see how it is biodegrading. We can affirm that our tanning and retanning process achieves excellent biodegradability and composability, ultimately enabling complete degradation in 60-80 days.





Injecting Touchmill products into the dry milling drum and controlling the temperature and humidity, gives the leathers a natural effect and results in significant savings in production costs.

CREDIT: GSC

Treatment and upgrading of the milling process

For GSC, things have moved on since the introduction of the “follonaggio barrel” at the beginning of the 21st century. AA machine used to soften the skins in the final process stages, essentially a wooden barrel without any form of control, the weather or the surrounding environment affecting the characteristics of the finished skins. Within a few years these machines were able to condition, feed and upgrade the skins. For this producer of chemical specialities for the tanning industry, the Touchmill line was designed to meet the “customisation” needs of the leather.

What is milling? Milling is the mechanical process where the fatliquors that have been introduced during the wet phase, are redistributed between the fibres by flexing mechanical action. Main objectives are to soften the leather, but it characterises the aesthetic aspect, and highlights the texture of the leather. In addition to this it also levels the humidity contained within the skins. The three main variables involved with milling are mechanical action, humidity, and temperature.

For the mechanical action, processing time is critical. If prolonged running is carried out, then there is a danger of over opening of the fibres – mechanical damage – too short and the desired softening or grain effect might not be seen.

The term humidity normally incorporates multiple concepts e.g., relative humidity, absolute, specific, etc.,

and for this reason it is essential to understand what kind of humidity we are talking about. In the field of tanning there are two types of humidity which are regularly denominated and sometimes confused: relative humidity of the air and leather's humidity.

Relative humidity is the amount of moisture in the air, compared to what the air can hold at that temperature – often expressed as a percentage.

Humidity of the leather is the humidity or moisture as directly measured in the leather and it is the total quantity of water retained. The humidity of the leathers depends on the type, i.e., full grain, buffed, crust etc., and on the tanning and retanning. To further compound the issue, the



moisture contained in the leather can be further split into two different forms, these being free moisture – that being present as liquid water physically sitting in *situ*, and bound moisture – that being weakly but chemically bound to the collagen fibre. With respect to these and the relation to the relative humidity, the free moisture can reach equilibrium under set conditions and is often observed for certain physical testing regimes: bound moisture on the other hand is integral for the leather to function to its optimum. Drying leather to levels below that of the free moisture level can damage the fibres and rehydration is almost impossible.

The milling process

The drum for the milling process has now become a powerful tool for the tanner where we can condition the leathers. If we condition the leather with differing temperatures and air humidity, different effects can be conferred to the leathers to the point that we can regulate the formation and appearance of the grain texture. More recently, advances to the milling operation led to the introduction of feel modifiers; through collaboration with their customers, the Touchmill line is the culmination of 20 years' experience.

The products are designed to work in an environment with temperature and humidity control. Technically, temperature control is very important for the Touchmill line, in fact the products should never be added to cold skins, but at a minimum internal temperature of 40°C. If added cold, the skins absorb the materials too quickly, becoming heavy and the print changes. After the addition of the products, it is very important to give adequate running, with at least 60 minutes allowed for the product to give an equalisation on all skins.

The Touchmill line is designed for this type of technology

Experience has led us to eliminate or at least drastically reduce products such as silicones that are used as touch modifiers in fixatives or sprays, resins or polyurethanes and all solvent products. The silicones fix to and dirty the insides of the drum and cause problems for the skins that will go for drumming later, resins or polyurethanes spoil the drum injection plant and solvent products are absolutely forbidden from use. Injecting Touchmill products into the dry milling drum and controlling the temperature and humidity, GSC claims it gives the leathers a natural effect and results in significant savings in production costs.

Finished leathers tend to have a plastic feel, from the use of polyurethane finishes that perform well in physical testing. The Touchmill line, ranging from softeners that are applicable to automotive upholstery, with the added benefit of being odourless and low fogging, brighteners that enhance and intensify dark colours without oiliness, particularly beneficial to suedes and nubucks or the feel modifiers that can give a touch of waxiness or increased grip with various feel modifiers, helps to achieve a more natural looking leather.

"We know that touch can be critical, if customers hold a product in their hands, they are more likely to make a purchase. Touch is a powerful form of communication, when we touch, we create a connection with the object" said Renato Bertoli, Touchmill Director. 🌐

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TRUMPLER
SIMPLY GOOD CHEMISTRY



Dry milling – part of the finishing operation – is one of the most complex stages in the tanning operation and has the aim of improving the softness to give the desired final feel and appearance to leather.

CREDIT: ERRETRE

Erretre's Black Line represents the latest generation of milling drums

After several years of research and development in the engineering and software fields, Erretre has introduced its new Blackline range of milling drums. Technological innovation, management system compatibility with Industry 4.0 and a touch of Italian design.

Whether it is a hot or cold environment, in the milling operation, it is essential that the temperature and humidity are carefully controlled to all but guarantee a high-quality result. Cold Milling is particularly suitable for leathers that are sensitive to temperature and humidity such as non-chrome tanned leathers and all smooth leathers in general. Erretre Chief Operating Officer, Antonio Galiotto, explained that there is more to the name than just temperature. He explained that what Erretre aims to offer tanners with Cold Milling is the ability to make better, flatter, softer leather. "It's not simply about keeping the temperature low," Mr Galiotto said. "This system has two independent circuits, which gives it the ability to absorb heat that is generated by friction during milling. It's this that gives flatter, softer leather."

The Black Line version is a process patented by Erretre and has resulted in a reported 15% increase in milling efficiency over its standard milling drum process, which reaches up to 30% in the Cold Milling version. The dust

abatement capacity has also seen a 20% improvement. Speaking to *World Leather*, Mr Galiotto said, "We have several patents, relating to different points of the drum operation. Many have already been approved and extended abroad, others are in the process of being approved."

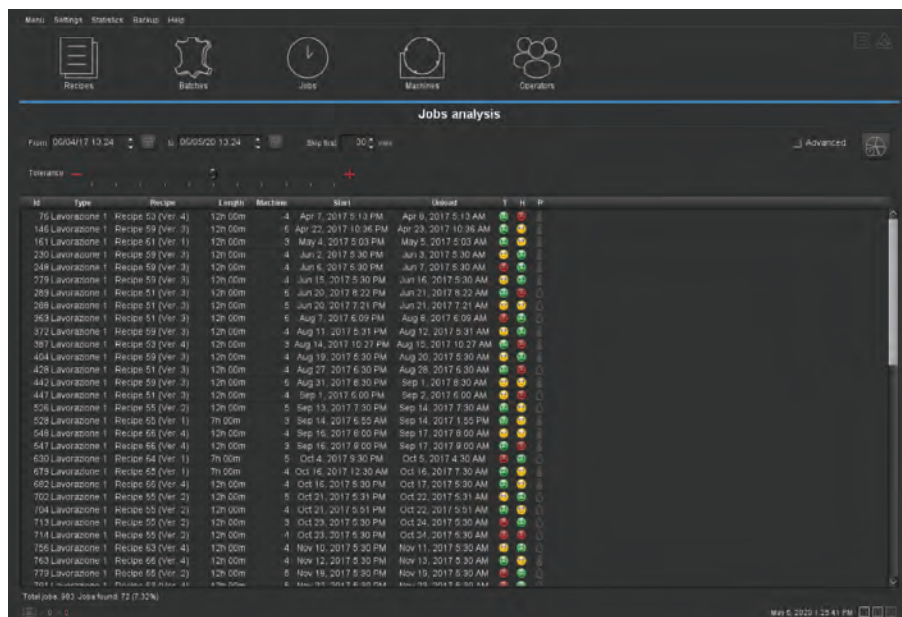
Through an intuitive interface, the local computerised automation with PLC software, known as LCIS, process parameters such as humidity and temperature can be controlled, and the injection of chemical products (Chemical Milling) can be administered. Using universal infographics, the software helps operators carry out different functions such as creating or modifying recipes or examining the history of the manufacture directly from the machines. Further control can be implemented through the milling organisational resource (M.O.RE) technology. This system allows network connection of all drums running on the LCIS software and manages the programming and control of all the drums from a centralised "host" computer.



Practical Innovations

Incorporating glass safety gates gives added benefits for the operators when using the automated drum door function, as the possibility of trapped leathers can be seen and avoided.

The automatic unloading belt, which can be added on request, has been revised by creating a curved system that follows the drum's shape to maintain a constant safety distance from it. This avoids the creation of leather accumulation points behind and below the drum and therefore possible damage to the hides. Correct unloading of the hides is as crucial a process step as the milling itself. The curved belt avoids not only the physical damage that the drum could cause but also allows the continuous ejection of the hides from the back of the drum, avoiding creases that would also cause damage to the leather. Explaining this, Mr Galiotto said "Unloading a drum, if done correctly, should be done to keep the hides warm. If the hides are allowed to stand and cool in the drum, this will lead to them drying out and wrinkles and creases forming.



Historical processing analysis can be clearly seen. Conformance to process parameters displayed in a universally understood manner.

By having the automatic unloading, the drum can continue to rotate, and the hides can be horsed up whilst in the best condition and in addition to

keeping the leathers smooth and crease free, the continuous drumming reduces static and subsequently keeps dust attraction to a minimum".

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Spheroidal shaped polymer "Sferes", replacing a specific volume of water, help to efficiently drive the chemicals into the fibre structure of the leather.

CREDIT: QUALUS

Improved chemical uptake in leather processing

R. P. Daniels, D. Cutner, A. Sadeghi
Qualus, UK

The part-replacement of water in a float by the addition of inert polymer spheres allows good distribution of products between individual skins in leather making. At the same time, the increase in concentration enables chemical savings within the existing process.

Cost advantage can be gained by reduced chemical offers if coupled with an improved uptake of chemicals. Benefits can be considerable – as long as the properties of the original leather are retained. And these savings are not just limited to the purchase values of those products. Pristine chemicals are no longer channelled directly for wastewater treatment.

In leather manufacture, the chemical process is managed mainly by adjustment of pH, temperature, and concentration. In particular, adjust the pH or temperature within an established process, and the uptake and distribution changes. It is no longer the "same" leather.

A lowering of float levels is another option, as low floats and higher concentration favours both chemical uptake and penetration. This however, can lead to excessive mechanical action, and leathers are easily over-stressed: they can tear,

especially at low substances.

It can also change the leather movement from separate well-opened pieces to that of bundles of leather or a tangled mass. There are limitations to low float uses as issues of poor distribution, staining, irregular penetration, and non-uniformity are raised.

An engineered approach

The mechanical action provided by the processing vessel and its internal fittings and configurations defines the lowest float levels that can be used in a process. This sets limits for the delivery of chemicals to well-opened skins, and the mechanical action needed for penetration.

However, these drum actions can now be changed. If inert polymer spheres are introduced into the process, the float volume can remain the same but with less water in the



system. The increase in concentration makes the chemical uptake more efficient, and the free movement of pieces need not be jeopardised.

Moreover, the spheres provide a massaging action upon drum rotation as they are folded within the flexing leather structure, and this assists penetration. Uptake, distribution and penetration can mirror the original process, but from a lower chemical offer.

These developments are based on technology transfer from the industrial washing of fabrics, where spheres are incorporated into washing cycles. The lowering of water content means fewer detergents and conditioners are needed. Moreover, the operation results in less creasing when the fabrics are removed.

Similarly, in the areas of neutralising, retanning, dyeing and fatliquoring, reductions of between 10% and 15% are being achieved and water reductions of 30% have been reached too.

Savings: process and environmental

Chemical uptake is difficult to quantify. It involves measurements of float levels, chemicals of unknown composition and their uptake, and losses as residual products contained within wash waters.

But reductions in environmental impact become clear by considering a process of, say, 70% efficiency, but where the same result is being provided by a 10% reduction in

chemicals. Originally, the uptake would be 70 kg for every 100kg of product offered, with 30kg of unused product remaining for disposal. If the uptake remains at 70kg, but with a 10% reduction in offer, i.e., 90kg, the unused product is lowered to 20kg. The load for subsequent chemical treatment, energy for biological treatment, and management of solids is reduced by 33%. In reality these values will differ, but they serve an illustrative purpose.

Judgements can be based on final leather aesthetics, physical leather properties, and precisely costed chemical savings. But in this new situation, significant quantities of pristine products avoid expensive wastewater treatment too.

Managing the technology

Sphere applications are fully established, and advantages can be gained especially in the high expense areas of retannage, dyeing and fatliquoring.

Developed over six years by Qualus before introductions to industry, the technology includes systems to retain spheres throughout float exchange and washing sequences. It includes the collection and cleaning of spheres after process, their storage and delivery to following processes.

There are few limitations within tanneries that would prevent the implementation of this technology. It is a safe and long-awaited means to reduce chemical offers, to reduce waste, and a major step towards a sustainable future. 🌱

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Short term preservation

Fungal contamination of leather products leading to mould growth is a major economic problem for producers and distributors of leather goods. This is a particular problem when the leather product is being imported from a hot humid country and causes issues which affect the price and availability of leather goods across a range of different productions, including the automotive, clothing and furniture industries. Microfresh, is a solution to be applied externally to the leather and one that, in this study, is designed to prevent the growth of fungi.

Preliminary experiment

Four variants (different colours and textures) of suede material which had been exposed to the environment and thus to commonly encountered airborne microbes were cut into pieces of approximately 1 cm². One piece of each variant was treated with either neat Microfresh, pure sterile water or diluted (in sterile water) Microfresh (1:5, 1:10, 1:15, 1:20, 1:30) resulting in seven treatment groups per suede variant.

The procedure for each group was the same; the samples were soaked in the solution they were being treated with for 5 minutes before being removed and dried for 10 minutes in a clean class II biological safety cabinet. The four suede variants for each of the seven treatment groups was placed onto a 90 mm sterile petri dish containing approximately 20 ml common fungal growth media (potato dextrose agar supplemented with antibiotics (16 µg/ml chloramphenicol and 4 µg/ml gentamicin)), sealed with nescofilm and incubated at room temperature. The plates were observed after 7 days.

Result: All variants of suede in the untreated group (sterile water) were covered in fungal growth after 7 days, suggesting that no additional fungi would need to be added to the suede in order to test the efficacy of Microfresh. There was little difference between 1:5 and 1:10 or 1:15 and 1:20 dilutions, therefore for subsequent experiments fewer dilutions would be required. The 1:20 dilution is the strength recommended by the manufacturer of Microfresh.

Main experiment

Small samples of the four variants of suede (approx. 1 cm²) were placed into one of four different treatment groups: untreated (sterile water) or diluted (1:10 1:20 or 1:30) and treated as per preliminary experiments. Initially, the experiment was performed in duplicate, and plates observed after 7 days. Subsequently, the experiment was repeated in triplicate and the plates observed after 2, 3 and 7 days. The presence, number and morphology of any fungal colonies present was recorded.

Results

Fungal growth was categorised using a semi-quantitative scale whereby a score was assigned to the plate based on how much fungal growth was observed (Table 1). Twelve samples of suede per Microfresh treatment group were observed after 2 and 3 days, and 20 pieces after 7 days (Table 2).

Table 1. Semi-quantitative scale used to grade level of fungal growth

Score	Definition
0	No colonies on or near suede
1	Single small colony touching suede
2	2 or more small colonies or one large colony touching suede
3	Suede totally covered

Effect of Microfresh on fungal growth over the period of a week

After 2 days, there were no colonies visible on any of the treated plates, but one or two small fungal colonies on each of the control, untreated plates (Fig. 1).

After 3 days, there was still no growth on any of the treated plates, and there was more growth on all of the untreated plates.

After 7 days, all of the plates had some level of fungal growth, but the untreated plates had considerably more growth.

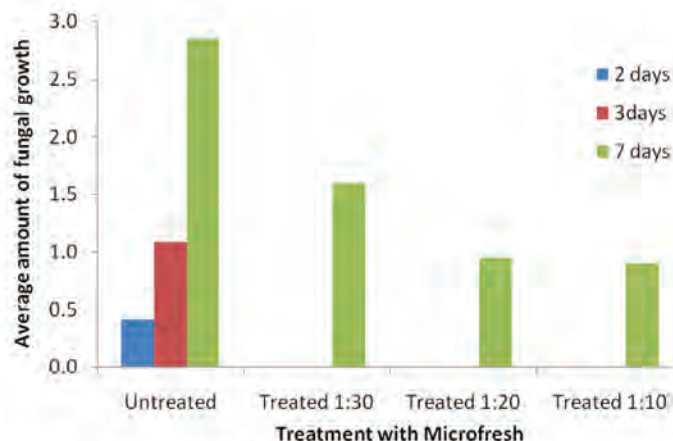


Figure 1: Bar chart showing level of growth on treated and untreated suede after 2, 3 and 7 days.

ALL CREDITS: UNIVERSITY OF LEICESTER



Efficacy of Microfresh after 7 days

There was less fungal growth on suede treated with Microfresh compared to untreated suede after 7 days (Figures 2 and 3).

Based on 20 samples of suede at day 7, the effect of treatment was shown to be statistically significant ($P < 0.0001$) using 1-way ANOVA (Friedman) test.

Dunn's multiple comparison test showed that there was no significant difference between untreated suede and the highest dilution of Microfresh (1:30), but that there was a significant difference between the untreated and both 1:10 and 1:20 dilution groups ($P < 0.0001$) (Table 2).

When used at the concentration recommended by the manufacturers, Microfresh significantly reduced the growth of fungi on the samples of suede tested.

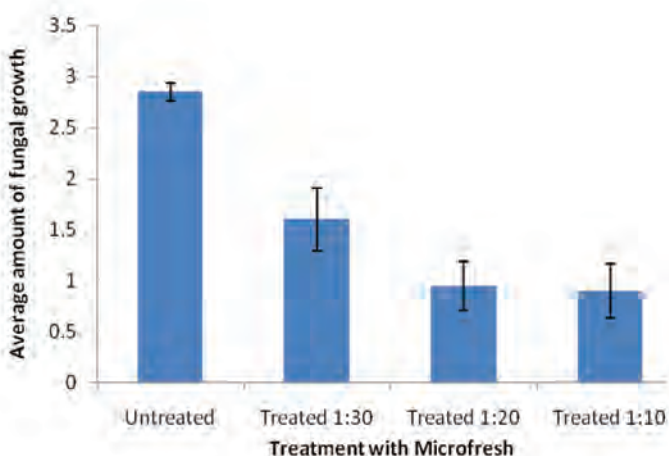


Figure 2: Bar chart showing the effect of treatment with Microfresh on fungal growth on suede after seven days. Bars represent mean with standard error based on 20 segments of suede per treatment group.

Increasing the concentration did not make any difference (1:20 vs. 1:10) but reducing the concentration does seem to reduce the efficacy (1:20 vs. 1:30), although this is not a statistically significant difference. At concentrations of both 1:20 and 1:10, there was a significant reduction in fungal growth compared to the untreated samples. Treatment of leather products with Microfresh at the recommended concentration should greatly reduce the growth of mould on the products during storage/transit. 🌱

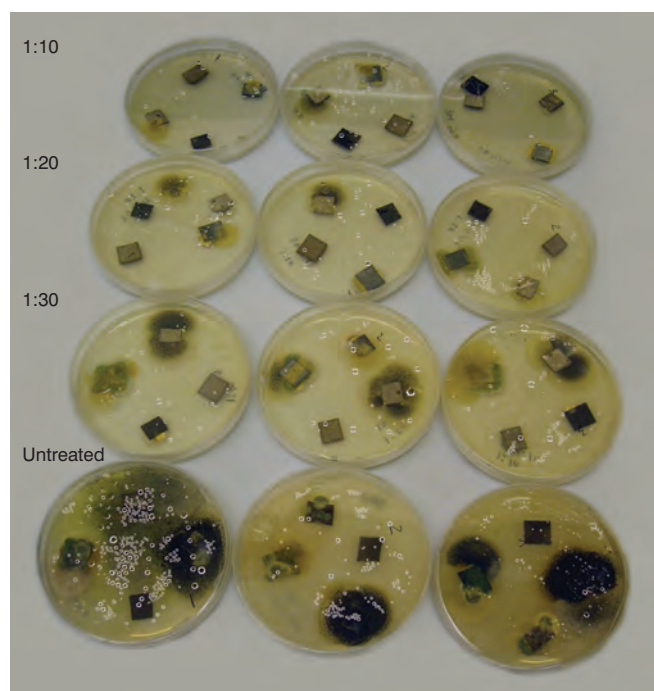


Figure 3: Photograph showing a representative set of plates from the different treatment groups after 7 days.

Table 2. Raw data showing the amount of fungal growth on samples of suede following treatment with Microfresh, based on the semi-quantitative scale show in Table 1.

Untreated			Diluted 1:30			Diluted 1:20			Diluted 1:10			
Sample	Day		Sample	Day		Sample	Day		Sample	Day		
	2	3	7	2	3	7	2	3	7	2	3	7
1	0	0	3	1	0	0	0	1	0	0	0	0
2	0	1	3	2	0	0	1	2	0	0	0	0
3	1	2	3	3	0	0	3	3	0	0	2	2
4	1	2	3	4	0	0	2	4	0	0	2	2
5	1	2	3	5	0	0	0	5	0	0	0	0
6	0	1	3	6	0	0	3	6	0	0	0	0
7	0	1	3	7	0	0	2	7	0	0	2	2
8	0	0	2	8	0	0	3	8	0	0	2	2
9	0	0	3	9	0	0	0	9	0	0	0	0
10	0	1	3	10	0	0	1	10	0	0	0	0
11	1	1	3	11	0	0	2	11	0	0	2	2
12	1	2	3	12	0	0	3	12	0	0	2	2
13	-	-	3	13	-	-	0	13	-	-	0	0
14	-	-	3	14	-	-	0	14	-	-	0	0
15	-	-	3	15	-	-	3	15	-	-	1	0
16	-	-	2	16	-	-	3	16	-	-	2	3
17	-	-	3	17	-	-	0	17	-	-	0	0
18	-	-	3	18	-	-	0	18	-	-	0	0
19	-	-	3	19	-	-	3	19	-	-	1	0
20	-	-	2	20	-	-	3	20	-	-	3	3



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Leather and the circular economy



Leather uses renewable raw materials



Waste from other sectors (meat and dairy) is the input for making leather



The material is long-lasting



Leather products are eminently repairable



Leather is in keeping with sustainable consumption and sustainable production and, thus, supports the UN's Sustainable Development Goals (SDGs)



Use of leather aids the battle against marine pollution, also part of the SDGs



The leather industry opens up pathways into the circular economy for companies of all sizes, including many thousands of small and medium enterprises



Leather content fulfils finished product manufacturers' desire to use recycled material



Finished products made from leather will meet criteria for green tax relief and for green procurement exercises



Leather manufacturing supports green employment commitments

Long-lasting, repairable, recyclable, durable, beautiful materials lend themselves well to subscription services for clothing, shoes and bags. Leather is the leader of the pack. Credit: WTP/Flaticon

Cheap fossil fuels are the problem

Like almost every other business event for the past year or more, the 2021 World Economic Forum (WEF) took place online rather than in person. This proved no barrier to an interesting discussion on the circular economy, featuring leathergoods group Kering.

The Paris-based group's chief sustainability officer, Marie-Claire Daveu, pointed out to the virtual Davos audience that Kering committed itself to moving to a circular economy model years ago. It created a Materials Innovation Laboratory in 2013. Then there was an announcement the group made at the start of 2017, setting itself a series of milestones and targets for 2025. It tied its sourcing of raw materials into this from the outset. "We have to be sure our raw materials have the least possible impact," Ms Daveu said, "and that they are in keeping with our social criteria."

She told the WEF that, although the milestones announcement came in 2017, the group had drawn up this strategy the year before, meaning it has been working on this for almost five years now. And in 2020, it created a new Sustainability Innovation Laboratory to identify opportunities for using materials that will help it meet its commitments for 2025 and beyond. She described the shift from linear to circular as being a key challenge for the wider fashion

Efforts to shift businesses to a circular-economy model are being undermined, the 2021 Davos audience hears, by fossil-fuel subsidies the size of the GDP of Japan.

industry, responsible, she claimed, for 4% of global greenhouse gas emissions. To move forward with strategies for reducing this requires putting thought into what would be "a fair amount" for companies to produce while establishing circular practices for making that output.

However, during the same Davos discussion, another speaker, Ken Webster, said he feared fashion companies, like most businesses, are still "fully embedded in a linear system". Based in Wales, Mr Webster is director of the International Society for the Circular Economy (IS4CE), an independent international academic society set up in 2019. Before that, he was part of the team that set up the influential Ellen MacArthur Foundation.

On the cheap

He said that, to change the status quo, it will be necessary to address the “system conditions” that promote a linear economy. Explaining what he meant by this, he said: “There are lots of experiments such as subscription models, de-branding and so on, but the linear economy is driven by cheap fossil fuels and by cheap labour. There is an artificial cheapness when it comes to fossil fuels because the level of subsidy for fossil fuels is about \$5 trillion per year, which is about the same as the GDP (gross domestic product) of Japan.”

The International Monetary Fund estimated post-tax fossil fuel subsidies at \$5.2 trillion in 2017¹. Japan’s is the third-biggest economy in the world. Its GDP in 2019, according to The World Bank, was just over \$5.25 trillion².

Many synthetic textiles derive from fossil fuels, he pointed out, adding that the cheapness of these products also subsidises cotton production by making low-cost fertilisers available to farmers. These low price-points make discarded material unattractive (compared to cheap, new polyester, polyurethane and others) to businesses who might, otherwise, have been able to make something of the waste. “Prices send a message,” Mr Webster said. “All the efforts to move to circularity are being undermined by this distorted market. We have to look hard at these system conditions or it will be very hard to make the degree of shift that policy-makers and everyone in business want to see.”

Mr Webster said he would like to see prices “telling the truth” because this would make the market more realistic. “We’re going to have to look at this for climate-change reasons anyway,” he added, “so let’s get ahead of the curve.”

Design and supply chain links

Marie-Claire Daveu again said that she thought Kering was ahead of the curve, measuring “the circularity of our materials since 2019” and finding that 39% of those materials “are already circular”. Examples she quoted involved two of the group’s biggest names. Last year, Gucci launched a collection of accessories and shoes called Off The Grid, which it announced as part of a wider circular economy project, Circular Lines. Off The Grid placed emphasis on materials that were recycled, organic, bio-based and sustainably sourced. While products such as a tote bag in yellow or black did use leather, in this case in the trims and handles, other material such as recycled nylon predominated.

Balenciaga also merited a mention in Marie-Claire Daveu’s presentation at the Forum. In its summer 2021 pre-collection, 93.5% of the plain materials in use are either certified sustainable or upcycled. She said these examples show that links are possible between the desires of design teams and what today’s supply chains can deliver.

If leather has had only a token role in this so far, Ken Webster suggested that models he has seen for the production set-ups of the future could work well for leather and for all of the relatively expensive materials. He talked of the rise of extended producer responsibility for what we make and consume, and said this made locating or relocating production facilities in Europe or North America more likely. He said he had seen sketches of manufacturing set-ups of this kind, with on-demand production predominating.

Cheap fossil fuels drive the linear economy.

Credit: Kendall Anderson, Shutterstock





A busy shopping street in Osaka. The global fossil-fuel sector receives subsidies worth \$5 trillion per year, the same as the value of the entire Japanese economy.

Credit: Wildsnap, Shutterstock



Director of sustainability at Kering, Marie-Claire Daveu, points out that the group's work to prepare for a circular-economy future has been going on for a number of years.

Credit: Sustainable Leather Forum

Radical thinking

He said that, unlike the factories that use the low-priced materials he talked about earlier in the discussion, these new facilities would be able to work with more expensive raw materials. Recovering those materials for reuse at the end of the initial product's life will become the norm rather than the exception, as will designing products to be easily disassembled. He also spoke enthusiastically about subscription services for clothes and other fashion items. If we rent these rather than buy them, clothes, shoes and bags will need to be long-lasting, repairable and able to sustain their beauty in spite of passing from hand to hand and wardrobe to wardrobe. It would be difficult to think of a material that would lend itself better to this than leather.

"This needs to be design-led," Mr Webster continued, "and there needs to be radical thinking over what things are made from, making sure there is value in the material." More than that, he said that if manufacturers continue to produce fashion products using mixed materials that are difficult to deal with when it comes to end-of-life processing, it is unlikely they will be able to do this "free of penalties".

Brands, he added, will have to be careful about what they ask their outsource manufacturing partners to produce. "It's hard to see a way out unless you start at the design end," he continued, "and mandate what is able to be put into the system, rather than just try to cope with what someone has done."

No material lends itself better

Reflecting a little later on the problem of over-production and over-consumption, he made another reference to the subscription models that will work well for high-quality, circular, long-lasting fashion products. Businesses are inclined to produce high volumes of products, he said, because aiming to sell ever-greater volumes is how most of them hope to grow their revenues. But there are also opportunities in subscription models and in offering clothing as a service, he went on.

To make the most of these opportunities, brands should take the keenest possible interest in the materials they use in their products, Mr Webster argued. "You'll see them again," he said. "The products will come back to you, but you will get a lot of use out of those assets. Subscription ideas are interesting because they will provide revenue for the business from selling less. The amount of clothing that is unsold is amazing. Tailoring what you produce to what is actually demanded would be an excellent approach. Nobody now buys films now. We don't need to own a film, we just need to have access to it." 🗨️

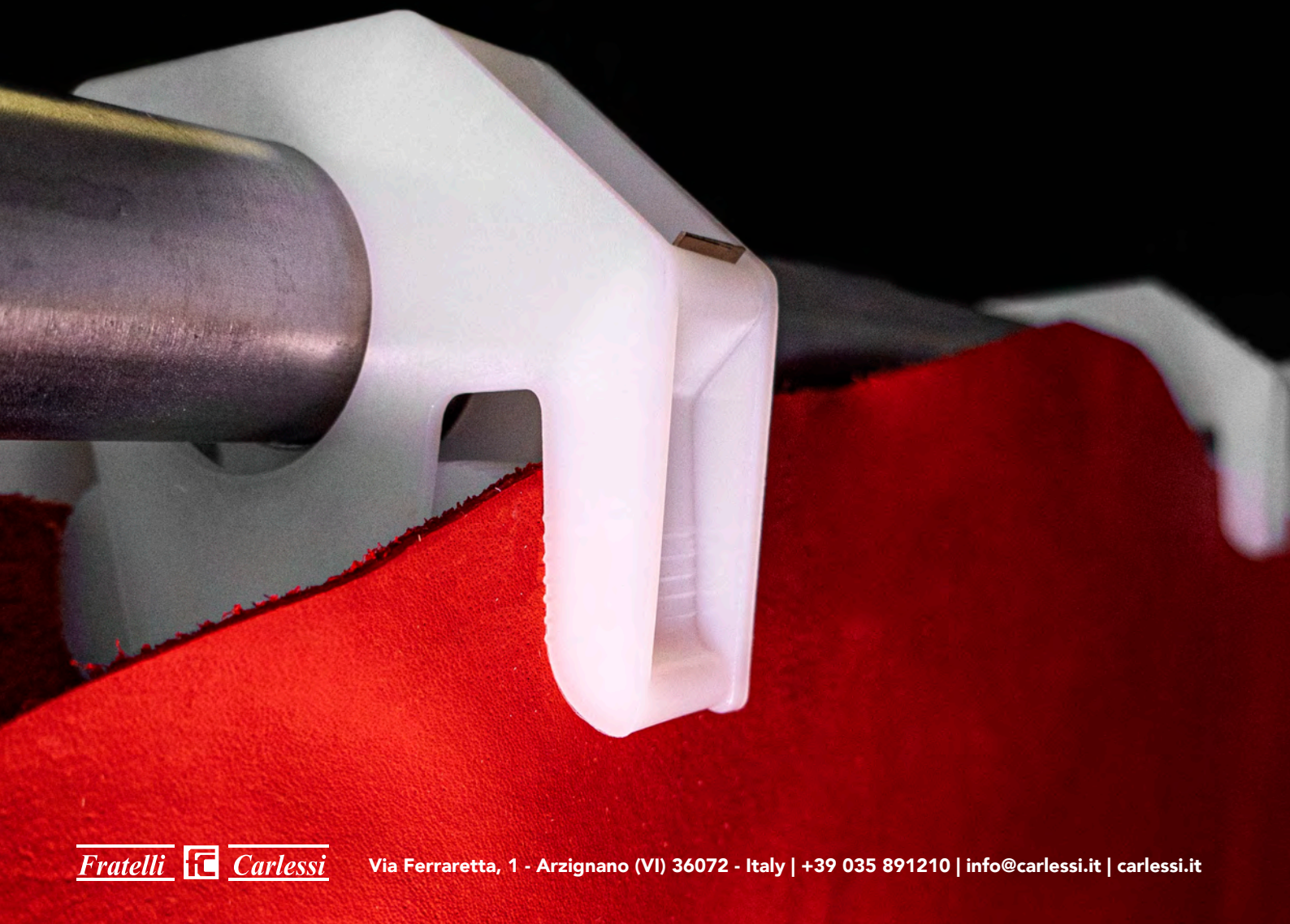
NOTES

1. www.imf.org/en/Topics/climate-change/energy-subsidies#Who%20Benefits%20from%20Energy%20Subsidies
2. www.wdi.worldbank.org/table/WV.1

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Small enterprises make up a big proportion of leather-sector companies in Europe. The ELIIT project aims to help them use resources well and become as circular as possible.

Help is at hand



Money, coaching and networking opportunities are on offer to help small-and medium-sized enterprises (SMEs) in the leather, textile, clothing and footwear sectors in Europe make their businesses more circular. The European Commission has launched a second call for proposals for its European Light Industries Innovation and Technology project (ELIIT) having declared the first round, which it ran last year, a success.

The Commission's criteria for medium-sized firms is that they must have a headcount of fewer than 250 people and an annual turnover up to €50 million. If the company has fewer than 50 people and turns over €10 million a year or less, it is officially 'small', while those with fewer than 10 people and an annual turnover of €2 million or less, are classed in this instance as micro-enterprises.

Not just the EU

Geographically, eligibility is wider than many companies and commentators might have imagined. Companies of the required smallness from all 27 European Union (EU) states are, naturally, entitled to apply to take part in this second round of projects striving to secure support under ELIIT. However, the opportunity goes beyond that.

Funding for ELIIT came from a programme called COSME, a platform the Commission set up in 2014 to help engender more competitive SMEs. COSME ended in 2020, but its funding, in turn, came from the EU's multiannual financial framework (MFF) for 2014-2020. The UK left the EU in 2020, but it contributed to the COSME budget and, therefore, UK-based SMEs from the four industry sectors are eligible to take part in ELIIT.

Other non-EU member states that can be represented are the COSME associated countries: Iceland, Albania, Bosnia and Herzegovina, North Macedonia, Kosovo, Montenegro, Serbia, Turkey, Moldova, Ukraine and Armenia. The programme includes these non-EU countries to help SMEs make their businesses more international. As long ago as 2015, the Commission estimated that at least half of the EU's smaller businesses already had customers outside the single market and it wanted them to continue to seek growth beyond their own borders. Identifying partners, especially in countries that are close neighbours, is considered a good way to do this.

Disruptive

Partnerships are crucial in ELIIT proposals because at the heart of the programme is a desire to convince SMEs that they, too, can have access to "disruptive and innovative technological solutions" that will help them survive covid-19 and thrive as circular companies in the 2020s.

Proposals should show how technology providers will work with SMEs to help them improve productivity, make their value chains more integrated and their use of resources more efficient. All of this should help increase the added value of their products and services.

Eyes on the prize

The prize ELIIT offers for successful proposals is three-fold. Winning projects will each receive €70,000 in financial support to help them develop products or prototypes with high added-value and profitability. They will also receive coaching and advice, tailored to the environments and activities of the partners. Finally, they will have access to networking opportunities, including at workshops, conferences and exhibitions, to help them present their new ideas and build new business relationships on the back of them.

SMEs are the backbone of Europe's economy, the Commission states, providing 85% of all new jobs. The leather industry's representative body in Europe, COTANCE, has said that this sector, too, is dominated by SMEs, with the average size of tanning companies in the EU currently standing at 21 employees. It is logical, therefore, that a programme such as ELIIT should offer opportunities to leather-sector companies.

Examples to follow

As proof that the possibilities are real, one can point to three of the 15 successful bids in the first call for proposals for ELIIT having connections to leather. On presenting this first group of winners midway through 2020, the project team put the winners into four different categories. Under 'Circular economy and resource efficiency', it listed two ideas linked to leather: Leather Smart Lifecycle Analysis and New White Leather. Separately, it also included a project involving a partnership between Edea, a Veneto-based producer of skating boots with leather uppers, and German

A leather jacket from Bratislava-based brand Nehera, which scouts independent artisans that are “not caught up in the mass production circuit” for its collections.

Credit: Nehera

wearable technology developer Vulpés Electronics, this time in the ‘High-value added solutions’ category.

Leather Smart Lifecycle Analysis, or Leather Smart LCA, is an Italian project with specialist consultancy Spin 360 and Conceria Gaiera Giovanni as the project partners. Spin 360 and its chief executive, Federico Brugnoli, have long been involved in LCA work in the leather industry. Conceria Gaiera Giovanni is a tannery based near Milan that specialises in kidskin, lambskin and calfskin leathers. Making LCA smarter in tanneries, through automation and detailed measurement, can help the leather industry lower its impact, the partners have said.

For its part, New White Leather is a project that comes from Portugal. Here, the country’s main testing and research centre for leather, CTIC, is working with Indutan, one of the tanneries close to Alcanena. Indutan makes leather from bovine hides as well as sheep and goat skins. Their joint project aims to develop a technological innovation for making white leather that is easier to keep bright and clean and will, therefore, lend itself to longer-lasting applications.

The third example, the partnership between Edea and Vulpés Electronics, will lead to smart ice-skating boots with leather uppers. Sensor-based technology in the boots will provide heat to the feet when wearers need it.

First time around, a total of 204 SMEs from the leather, textile, clothing and footwear sectors and 180 technology providers formally registered as interested parties on the ELIIT website. From this, 93 partnership proposals emerged, 20 of them connected to leather or footwear. The European Commission’s second call for proposals at the end of January, give April 14, 2021, as the deadline for applications. 🌱





Credit: The Cambridge Satchel Company

Clear goals



RENEWABLE



WASTE-FREE



LONG-LASTING



REPAIRABLE



SUSTAINABLE



MARINE-FRIENDLY



SMEs



RECYCLED



GREEN TAX



GREEN JOBS

Earlier this year, influential non-profit organisation the Ellen MacArthur Foundation published a new set of circular economy policy goals. In a paper with ‘Universal circular economy policy goals: enabling the transition to scale’ as its title, it explained what these goals mean and outlined its vision for bringing them to fruition.

The organisation says the aim of this initiative is to help governments and businesses in all parts of the world derive benefit from the circular economy, using it to help them address “key global challenges” including climate change, biodiversity loss and pollution. It lists five universal circular economy policy goals: stimulate design for the circular economy; manage resources to preserve value; make the economics work; invest in innovation, infrastructure, and skills, and, finally, collaborate for system change. Many aspects of these overlap with efforts to ensure leather’s place in the discussion about the circular economy.

Good examples

There are clear examples of this in goals one and two. Deciding to incorporate into a product’s design materials that will last a long time is to make durability a part of its appeal. Designing longevity into a product is to design for the circular economy; this is what goal one urges. For goal two, managing resources to preserve value, it is hard to think of any material, of all those we can use to make consumer products, that preserves value as well as leather.

Goal one encourages governments to introduce policies that will stimulate designs that incorporate durability, repairability and reuse. The paper envisages policies that will levy penalties on companies for “planned or premature

In early 2021, the Ellen MacArthur Foundation published a set of policy goals that make several things clear. The circular economy is the way for the world to put the current wasteful way of doing things behind it. It is critical for finished product companies to use available, renewable, bio-based materials rather than let them go to waste. It is imperative for governments to put economic measures in place to help drive this forward.

obsolescence”. It calls for fee-based extended producer responsibility (EPR) schemes that will place financial liability on producers with regard to the collection and sorting of the goods they bring to market.

It also says that it would be a good thing if the labels on products said more clearly what the material content is and made references to that material’s durability, upgradeability, reuse, repair, and recycling options. It wants brands and

manufacturers to highlight links between these characteristics and a product's environmental footprint. It also wants to see "clear marketing and advertising standards" around this.

Connections that are implicit

The document makes no explicit reference to leather (sadly, we should all be used to this by now), but the connections to leather that are implicit in the text are important. People in the leather industry should have no hesitation in poring over this paper and quoting the Ellen MacArthur Foundation when making the case for leather in discussions with customers about circularity. Suppliers of leather are in a wonderful position to help those customers achieve the circularity they seek.

There may be no specific mention of leather, but the wider arena of fashion receives considerable attention in the document. It estimates that our tendency to leave large numbers of fashion items lying forgotten in wardrobes the world over leads to the loss of more than \$500 billion in value per year. It insists that designs that have circularity at the forefront can help products remain at their highest value. For this, these products should be repairable, suitable for renting out and be made from materials that are ideal for reuse in new items at the end of one product's useful life.

The foundation makes it crystal clear: getting the design of products right means using the right materials. Beyond fashion, new buildings should have materials that are easy to maintain and that stop waste. Refurbishment projects should also give preference to circular materials. Leather is perfect for this, and if the leather industry has to work hard and tirelessly to put that message across, it should take encouragement from the rewards it can reap.

The Ellen MacArthur Foundation document says that public procurement exercises should make it clear that, if the authorities must spend their citizens' money, they should spend it on materials that are in keeping with circular principles. This means those bidding for public procurement contracts and those awarding them should favour projects that use materials made from renewable resources, materials that are recyclable, repairable, long-lasting and that prevent waste. It adds that there should be tax incentives to reward companies that make and use those materials; this, it says, would encourage "regenerative production".

Show us the money

Elsewhere, it talks about actively developing the market for secondary materials and for by-products. It says circular-economy business decisions must become the norm rather than the exception. Supporting this with taxation, subsidies, state aid and government funds is the focus of goal three. Without this support, it says there is a risk that the incentives and systems set up in goals one and two "can never truly scale and, at worst, may be unintentionally undermined".

It describes the economy we have at the moment as "wasteful and polluting". There are many sources of waste in this system, but hides from cattle slaughter and skins from sheep and goats ought not to be among them. Wasted hides and skins are the inevitable result of finished product brands using synthetic alternatives (that we do not need) instead of leather (made from raw materials that will accrue anyway and will go to waste unless we let tanners work their magic on them).



Use it or lose it. The Ellen MacArthur Foundation has called for a ban on putting into landfill organic waste that we can use to make valuable materials and products.

Credit: Nick Winters Group

The cost of waste

The foundation has a lot to say about waste. It contends, for example, that at least 30 diseases have been associated with uncollected waste, and that between 400,000 and 1 million people die each year in low- and middle-income countries because of diseases related to mismanaged waste. One of its proposals is that landfilling organic waste, which includes hides and skins, ought to be banned. Instead, what communities and industries must do with organic waste is create biomaterials from as much of it as we can and turn the rest into compost.

It goes on to call for governments to "unblock current waste legislation". If possible, it wants them to classify materials that we can recycle, reuse, repair, or remanufacture as resources rather than waste. It says this can bring important economic and environmental benefits because it will help make sure materials that are compatible with a circular economy stay in use. ♻️

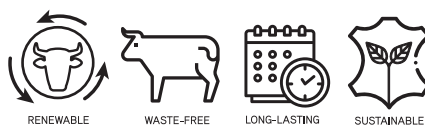
The Ellen MacArthur Foundation's five universal circular economy policy goals

- 1 Stimulate design for the circular economy
- 2 Manage resources to preserve value
- 3 Make the economics work
- 4 Invest in innovation, infrastructure, and skills
- 5 Collaborate for system change



Designer and developer of leather collections Moore & Giles has released a capsule collection of bags called Reclaimed. What sets it apart is that, on this occasion, the Virginia-based company has chosen hides with more natural flaws than it usually uses. The material had long lain unfinished, waiting for someone to recognise its beauty and value.

Bags that free hides from purgatory



The highest-quality leather it can source from its partner tanneries in Europe, Asia and South America is the key focus for Moore & Giles and this will not change. This is the material that its main customers, manufacturers of high-end furniture, require. Furniture became the main market for the Virginia-based designer and developer of leather collections at the end of the 1990s, following decades of service to the footwear sector. However, in 2007, it launched an accessories division too.

Its director of design, Thomas Brennan, says the company has always looked to use A-grade hides for all of its collections because the naturalness of the leathers it offers is of great importance to Moore & Giles. Hides that need correcting through buffing, filling, coating and other methods may have their visible flaws covered up or removed, he argues, but they will typically also lose some of the grain and wrinkles that give its each piece its unique character.

From a designer's point of view, Thomas Brennan says part of the value of this strategy is that it can help educate the market about what leather ought to look like. "There is a lack of understanding of what quality leather is," he says. His view is that, in some ways, this lack of understanding is understandable in a world that accepts uniformity and flawlessness as marks of quality. Consumers have come to expect high-quality products to be uniform.

The price of perfection

"This is being driven by some of the biggest global luxury brands," Mr Brennan continues, "who want customers in Hong Kong to be able to buy exactly the same bag that customers in New York can buy. This is not the customers' fault. Uniformity is important to those brands, but it pulls leather away from its natural state. Everything has a price, including perfection and uniformity. Leather is great as a raw material the way it is and it's a little misguided to think it would be better to try to achieve the exact same grain on every hide on an assembly line. Real luxury objects should be rare, special, unique."

One-of-a-kind leather objects are, generally, easier to offer if you use A-grade hides and this, as noted, is the long-standing policy of Moore & Giles. However, last year, it took the decision to use some C-grade hides to develop a new range of leathers called Heirloom. Mr Brennan then used



Moore & Giles director of design, Thomas Brennan.

All credits: Moore & Giles

Heirloom to create a collection of bags that he named Reclaimed. Moore & Giles names the company producing Heirloom as Conceria Adelaide, a leather manufacturer based in Bassano del Grappa in the province of Vicenza that has been in operation for 150 years. It has been supplying the US company for 25 years and the relationship is strong.

Wet-blue build-up

According to Mr Brennan, the real driving force behind the Heirloom and Reclaimed projects was Moore & Giles vice-president, Tray Petty. The leather manufacturer's trust in Mr Petty gave it the confidence to open up to him about how large a stock of C-grade hides had built up at the site, stored in one of the warehouses as wet blue. The team at the tannery asked if he could think of a customer in the furniture market in the US who might be able to make use of this material.



Tote bag in Heirloom Oak from the Reclaimed collection. Moore & Giles wants buyers to use these products for 25 years or more.



Discerning furniture customers who have understood that these hides offer naturalness, longevity, breathability and beauty the same as all other hides are using Heirloom in forthcoming collections. And, in parallel, after discussions with company president, Sackett Wood, Mr Petty eventually said that Moore & Giles would use some of the hides itself in its own accessories range. This is what led to the launch of Reclaimed.

Sackett Wood is of the view that there is value in all hides and that the grading system that divides them into As, Bs and Cs is subjective. "Leather is about authenticity," he says, "and we want to celebrate leather for everything it has, everything it is." He says that the qualities that made hides a central part of human existence millennia ago are the same qualities that make it a luxury material today.

At the same time, there has been what Mr Brennan calls "a significant rise in synthetics taking the place of lower-grade hides" in many finished products. Manufacturers have decided that it was not worth the effort of giving lower-grade hides all the love and attention required to make them fit into their particular manufacturing set-ups. Inventory has, therefore, continued to build up.

Alarm-bells

"The tanner in Italy probably hoped that the market for those C-grade hides would come back," Mr Brennan continues. "But customers stayed away and the volume just kept accumulating. The scale of this probably only became clear over a decent amount of time and it was when they eventually pulled the alarm-bell that they began to have those conversations with Tray and Sackett." Fittingly, considering the Italian connection and 2021 marking 700 years since the death of the author of *The Divine Comedy*, Dante Alighieri, Thomas Brennan refers to these hides as having been "languishing in storage purgatory"; but they have now emerged from there to be, as Dante put it, "made young again and ready to rise towards the stars". Or at least towards the tannery's finishing plant.

This partnership has yielded some of the favourites in the wider Moore & Giles leather range, including Brompton Brown and Titan Milled, the director of design reveals. Taking confidence from this, he was sure the Heirloom and Reclaimed ideas would work too and made no special request of the tannery for taking the C-grade hides from wet blue to finished. He explains: "We looked at what had worked in the past and picked colours, such as oak, that we knew would still look good years from now. We knew we were creating products with an eye towards them being heirloom pieces, as the name of the leather range suggests. Yes, we keep track of trends, too, but we don't want our products to look outdated five years from now. We want people to enjoy products, like the backpack, tote and duffel in the Reclaimed collection, for 25 years."

Start from scratch

Asked what difference buyers might notice between Reclaimed and the rest of the company's accessories collection, Thomas Brennan says that, apart from a lower price than usual, there are "superficial imperfections", that these vary from bag to bag and that this variation is broad. "We wanted a natural look and to keep things simple," he says. "This too is part of our efforts at education with



It's only a matter of time before long-lasting leathergoods pick up marks and scratches from wear and tear. Bags from the Reclaimed collection merely give the products a head-start.

regard to the beauty of leather's natural look." Precisely because buyers will use the bags for a long time, he says that it is only a matter of time before they make their own mark on the products they have bought: a scratch from a key, a blot from a pen and so on. "We've just given the bags a head-start in that process," he says.

The first six months since launch have been enough, in spite of the pandemic, to provide Moore & Giles with feedback that confirms that there is an appetite in the market for these products. The Reclaimed range has saved hides from going to waste, rescuing them from purgatory. The project has proved that there are consumers who are willing to accept that scratches and marks on hides do not necessarily make leather less beautiful. In the right hands, these characteristics can help make leather and leather products such as the Reclaimed collection even more beautiful, with each bag helping owners set themselves apart from the crowd. ☺

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An artisan undertakes a leather repair.
All credits: Treksta

Nontrivial pursuits



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Mountains move the South Korean imagination in a special, even sacred way. According to local folklore, Dangun, the mythical god-king founder of Gojoseon, the first Korean kingdom, was born on the slopes of Mount Paektu, an active volcano along today's Chinese-North Korean border. Considered to be the spiritual home of Koreans, therefore, the idea of Paektu (and its Heaven Lake) plays a significant role in the spiritual culture of the two contemporary Korean states. Paektu is even referenced by both countries' national anthems.

On a more material plane, leisure time in mountainous South Korea is, for many, all about scaling new, rugged heights. Previously the domain of the middle-aged and older, the mountaineering spirit is increasingly gaining ground among younger Koreans, particularly as a conveniently socially distanced pandemic pastime. Covid or no covid, though, the country's hiking culture is so prevalent that two-thirds of its citizens own a pair of hiking boots and head for a mountain at least once a year, *The Economist* says. Around a third go once a month.

In 2018, South Koreans collectively spent about \$2.3 billion on hiking gear – that is more than the famously image-conscious nation (it is the home of K-beauty or Korean beauty, after all) spent on cosmetics. *The Washington Post* has gone so far as to describe this phenomenon as akin to a new national identity.

Take the high-speed train down from mountain-rimmed Seoul to coastal Busan and you cannot fail to spot South Korea's trek-ready, hilly terrain, which winds itself up and down the country like a spine. Hiking culture is deeply entrenched, as is an ethos of having the 'right' gear. For green-minded brands like Treksta, the repairability of equipment goes hand in hand with this embrace of the wild.

From self-care to aftercare

Serious pursuits require considered equipment. South Koreans are renowned for wearing around \$1,000 worth of hiking garb apiece for a summer trek (potentially double that during winter, the Post claims). In this climate, domestic outdoors brand Treksta, founded in 1988, has

offered a lifetime repair service for its hiking footwear for over 20 years. Brand manager, Keun Kwon, tells *World Leather* that she believes Treksta was the first South Korean outdoor company to provide buyers with such a guarantee, in a similar vein to local electrical companies such as Samsung before it.

As a result of its after-sales repair care, the brand was recently named an “excellent” service company by its home nation’s Ministry of Trade, Industry and Energy for the eighteenth consecutive year. Eventual repairability is built into the design process at an initial stage, Ms Kwon says, so that only durable materials that can be repaired, such as leather, are selected. “We want to make the best product that people can truly appreciate for their entire lifetime,” she says. Reportedly, Treksta handles around 200 pairs of previously worn shoes for repairs each day. The brand’s customers are mostly long-term devotees.

As the repair process naturally differs from customer to customer, depending on how – and how much – they wear their shoes, it is difficult to quantify the length of time each repair will take, but the whole process is usually completed within one to three weeks. Repairs can be much more complicated than production according to Ms Kwon. Some of the Treksta shoes sent to the repairs centre were initially assembled around 30 years ago, so finding the right materials to fix them can be tricky. In many cases, sourcing a similar material is the only way forward. Only in “special cases” are shoes considered beyond repair, Ms Kwon states. “The reason we built this system is because we were sure that we could make the best product,” she states.

Green outlook

Going forward, Treksta is taking an eco-friendly approach to material research and development; however Ms Kwon acknowledges the difficulty of achieving the same function and durability, both highly necessary for outdoor pursuits, in footwear with recycled materials. The brand has also explored using a type of polyester that uses less water in the fabric-dyeing process, though. It is also currently developing a new collection which incorporates yarn made from recycled polyethylene terephthalate (r-PET) bottles, in order to lessen its negative environmental impact. It would, however, be difficult to replace leather, Ms Kwon says.

As an outdoor brand, sustainability and protecting the natural world are key elements of Treksta’s mission. It has been running its litter-picking Green Campaign alongside South Korea’s national parks for over 10 years. An inevitable consequence of more people frequenting scenic spots is an increase in the traces left behind, so Treksta instigated a movement which involves its brand ambassadors supplying walkers with rubbish bags at the entrances to national parks.

On exiting the park, hikers are invited to weigh the litter they have collected. They are then rewarded with credit, proportionate to the amount of litter picked up, which can either be put towards the cost of car parking at the park or the purchase of new gear via Treksta’s website. Putting such an ecosystem in place was “the least we could do for nature,” Ms Kwon tells us.

High performance, comfortable footwear may be essential to functioning well on the mountain, then, but so too is a healthy regard for the long-term impact of the shoes and of their wearers. 🌱



Footwear lasts stacked in a Treksta factory.



A footwear company from Denmark believes that using leather that consumers can trace back to the farms that reared the cattle that supplied the hides strengthens its brand and enhances its sustainability story. This level of traceability connects its products more clearly to the natural world.

Total transparency



Traceability is the name Danish footwear brand Roccamore has chosen for a new capsule collection it brought to market in late January. The collection's heeled ankle-boots in beige, blue and black are the first products to use traceable leather from Spoor, another Danish company.

Spoor, spun off from wet-blue and wet-white producer Scan-Hide, launched in September 2020. Its aim is to convince customers to support an idea it developed inhouse, a laser-technology based system for marking and identifying hides. A year before launch, Scan-Hide chief executive, Michael Sondergaard, spoke about the technology at a workshop on traceability that leather industry organisations COTANCE and UNIC arranged at Lineapelle in Milan. Mr Sondergaard said the system would be able to provide access to the whole life-story of the animal a hide had come from, from farm to finished product. He insisted this would add value to products because today's consumers are keen to know as much as possible about what they are buying.

The idea revolves around using laser technology to mark fresh hides with a sequence of characters. Through accurate supply chain management, these characters can link to the information contained in an animal's ear-tag about where it was born and how many times it moved farms before going to the abattoir. These laser markings survive tanning processes so that the code that denotes the hide's origin is still present in the finished leather. With careful control of what happens after tanning, including shipping the leather to finished product factories and, eventually, cutting it into pieces for, in this case, a particular shoe pattern, the system makes it possible for brands to connect all the upstream supply chain data to every style of shoe or boot, every sofa or every bag they sell.

Fashion connection

When Mr Sondergaard presented this idea to Birgitte Holgaard Langer she signed up to lend her in-depth expertise of innovation in fashion and retail to the project. Ms Langer was the chief operating officer and chief marketing officer of Lego Wear, a children's clothing brand run under licence from the toy company by fashion group Kabooki. Another achievement at Kabooki was establishing a childrenswear partnership with high-end automotive group Lamborghini, creating Automobili Lamborghini Kidswear. She has also worked for Vero Moda, part of the Bestseller fashion group.



The QR code on the inside of the upper unlocks access to the entire back-story of the leather, proving that the provenance of the hides is farms that look after their animals well.

Credit: Roccamore

"We met," Ms Langer explains, "and Michael explained what Scan-Hide had developed, showing me this completely unique system for laser-printing an individual code onto each hide it sends out. The connection to the data on the ear-tag on each animal gives proof and a guarantee that we can provide, not just premium leather, but also security and transparency about the raw material and how it has been processed. I said it was amazing. I started as a consultant, but I realised that my real wish was to stay with this mission and bring the idea to life." As a result, since its launch in September, she has been the business development director of the Spoor division of Scan-Hide, heading up this new brand for the group.

She wasted no time in talking to her contacts in the fashion industry about the ways in which the new technology might help them add value to their products and brands. "There is no lack of great stories in fashion and lifestyle," she says. "What Spoor makes possible is to present stories that are grounded in data."

Roccamore's latest capsule collection.

Credit: Roccamore



The first person to see the potential of this was Frederikke Antonie Schmidt, the shoe designer who founded Roccamore. She is a graduate of the Polimoda school in Florence and worked for a number of high-end brands before returning home to Denmark to set up on her own. She uses her ties to Tuscany to source shoes and boots from artisan manufacturers there. She is now using her ties to Spoor to incorporate traceable leather into her latest capsule collection. She can show that the hides originate in Scandinavia, are made into wet blue by Scan-Hide, are then shipped to Germany for retanning and finishing and sent from there to the artisan shoe factories in Italy that make her products.

Spoor's laser identification system provides all the back-up data Ms Schmidt requires to prove all of this, to guarantee that the cattle from which the hides came were well treated by Scandinavian farmers. Roccamore has taken that upstream supply chain information and made it available to consumers by means of a quick-response (QR) code printed on the inside of the upper of each of the boots in its Spoor-Traceability range.

Five freedoms

Scanning this code with a smartphone is enough to give consumers the assurance that the leather in the shoes and boots in the collection is from animals that lived in keeping with the so-called 'five freedoms' for livestock. These commitments seek to make sure the animals have been protected from pain, disease, discomfort, hunger and thirst, and have been allowed to carry out behaviour that is in keeping with creatures of their own kind. "Frederikke saw that she could use this extra traceability to strengthen her brand," Ms Langer explains. "She had already had meeting after meeting with suppliers about this. Some offered a little of the traceability she was looking for but she was not satisfied; they could not offer the depth required for what she defines as true traceability."

Spoor can provide that depth. After years of working in the meat industry, Michael Sondergaard brought a high level of knowledge of the livestock supply chain to this project. If they want to, supermarket chains can use the data they have in their systems to inform customers about the farm an individual, small joint of meat comes from. The information is there. In a similar way, Spoor's customers,



Spoor's system uses laser technology to mark hides with a unique alphanumeric code.

Credit: Spoor

including Roccamore, will, if they want to, be able to launch future capsule collections that use leather from only Danish hides, or, drilling down even further, only hides from the special landscape of southern Jutland. Again, the information will be available.

The only future

Roccamore founder, Frederikke Antonie Schmidt says she is very happy with the way the original project has gone so far, giving her confidence that traceable leather was a good step for her to take, following previous capsule collections that highlighted biodegradable leather, water-saving leather and naturally tanned leather. She says that she thought long and hard about bringing "yet another fashion business, a high-heeled shoe brand" into the world before she launched Roccamore. But she decided to go ahead with the launch because she saw the scope for building a brand in a better way.

Working with Spoor is another part of this. "It's important," she says, "because it ensures animal welfare. With the 100% traceable concept from Spoor, we have 100% certainty that the animals really have had a good life. This project is very important to me and I'm proud of how well it has turned out. We've had overwhelming interest from our customers and from people in general. Everybody is positive about the possibilities that we have launched with this concept. I am convinced that total transparency is the only future the

fashion world has. The concept of 100% traceability is an important step in that direction." Roccamore intends to bring out three new Spoor collections in the course of this year. One is in the pipeline for the end of April and others are planned for September and October.

The company has made a financial contribution towards a biodiversity project at a farm near Vejle from every sale it has made of products in the Spoor-Traceability collection. The farmer involved in the project, Michael Kjerkegaard, wants to return parcels of land on his farm to the way they were 500 years ago to enhance the quality of the soil and encourage flowers, insects, birds and wildlife to flourish there. "Cows are smart," Roccamore has observed. "They eat grass but avoid most flowers, unlike goats, who love eating flowers, causing all the insects, plants and small animals, who need the flowers to survive, to disappear."

Pioneer trail

Ms Schmidt has been a pioneer for a long time. Roccamore shoes have a special insole that she developed herself, working with an orthopaedic shoemaker. This insole allows wearers of the brand's heeled footwear to walk with their feet in a more natural anatomical position than high heels often allow. Tests have shown that, as a result, Roccamore products promise 19% less pressure in the heel area of the foot, 44% more arch support and 26% less forefoot pressure.



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Tracing hides back to the farm is a way of emphasising leather's connection to the natural world and enhancing its credentials as a renewable and sustainable material.

Credit: Spoor

In addition, she has, in the words of Ms Langer, “always looked at the industry from a sustainable point of view”. She does not over-produce to avoid waste; like Spoor-Traceability, all Roccamore products are limited-edition. She does not work with wholesalers, but sells her collections in her own stores in Copenhagen, Aarhus and Lyngby and through her own online shop. “She has created her own space and is doing things the way she wants to do them,” the Spoor business development director says. “Roccamore is a small start-up, but I have to tell you: Frederikke is a powerhouse.”

To prove the point, she explains that the government of Denmark has already recognised Ms Schmidt’s talent and the force of her personality. In August 2020, the minister of economic and business affairs, Simon Kollerup, announced a new export promotions forum to help Danish companies rebuild their export activity following the first wave of the covid-19 pandemic. The new forum consists of eight “restart teams”, each one dedicated to a specific area of the export economy and the wider business community. Mr Kollerup said he wanted to create “the best conditions for Danish export companies to remain strong in the global market”. One of the eight teams is devoted to fashion and textiles; the minister appointed Frederikke Antonie Schmidt as its chairperson.

To believe or to know

Lots of brands go to great lengths to show that they are sourcing their raw

materials and their finished products carefully, that they avoid cutting any corners on matters of fair treatment of workers or environmental responsibility. And for many, making statements to this effect is enough. But this wasn’t enough for Roccamore; it wanted to remove any doubt in consumers’ minds and to show the full story behind its material selection for the new capsule collection. It was determined to prove that it had put deep thought into the origins of the leather it was using. “It’s one thing to believe something,” Ms Langer says, “and it’s another thing to know. Frederikke wanted people to know and we were able to help her deliver that.”

The Spoor director’s insistence is that higher levels of traceability can help the

wider leather industry claim its rightful place in the circular economy of the future and she says other brands will begin using the laser-based technology in the course of 2021. “It’s through transparency that people will see clearly that leather is a by-product of the meat and dairy industries. I believe deeply that this can make a difference. Roccamore is definitely seeing already that connecting its products to nature is increasing the trust that customers have in the brand.”

As is often the case when pioneers push forward, Roccamore’s launch of a collection made from traceable leather involved a leap of faith. But it wasn’t alone; Spoor insisted that the two companies would take this leap together, hand in hand. ☺

Cows on a farm in Denmark. Brands working with Spoor can specify where they want the leather in their collections to come from.

Credit: Spoor





ALL CREDITS: RADLEY LONDON

The UK leathersgoods brand has expansion firmly in its sights. Radley's head of supply and development tells *World Leather* that a more sumptuous look, and increasing leather useage, is part of its growth strategy.

Radley – no underdog in luxury market

A new partnership with premium retailer Selfridges marks an important step on Radley London's so-called "journey of elevation". The UK-based leathersgoods brand that is perhaps best known for its distinctive Scottish terrier logo has been pushing into new markets, investing heavily in marketing and expanding its ranges in recent years "Selfridges is known for curating only the best brands and Radley will join an incredible line-up, sitting alongside an array of household

designer names," says CEO Justin Stead.

The idea of the brand started life on a stall in London's Camden market in the 1980s, with founder Lowell Harder selling accessories from an Indian manufacturer under the name Hidesign, and later joining forces with handbag company Tula Group. The story goes that Ms Harder felt the accessories market lacked fun and colour, and so started Radley to address this in 1998, sealing its appeal with the Scottie logo that soon appeared on every design. Its rapid growth, doubling turnover

between 2003 and 2006, made it an attractive target for private equity firms, wooed by its potential, particularly in international markets, and its strength in the "affordable luxury" segment.

It was bought for £42 million in 2004 by Phoenix Equity Partners, which made an astonishing return only two years later in a £130 million deal to Exponent Capital Partners. Exponent appointed Mr Stead when the then-CEO retired, and sold the company on to Bregal Freshstream in 2016. Freshstream hired Don McCarthy, a



former House of Fraser CEO and former boss of Mr Stead, as chairman to add clout. At that time, Radley had 33 stores and eight concessions, and a presence in 33 John Lewis stores, 58 branches of House of Fraser and more than 200 other shops.

The next few years saw a period of reorganisation, scaling some stores back “so as not to be distracted”, restructuring the teams and setting sights on the US and China. Mr Stead commented in 2017 that the previous entry into the US was a “disastrous initiative that simply was not well thought through”; this time he wanted to invest in marketing before the store launch, and boost ecommerce, aiming to double online sales over three years.

Indian connection

Away from the ownership and management changes, the company has maintained its strong ties with India, where the leathers are made. Up to 20 skilled craftspeople can work on each bag, and are described as “a longstanding part of the Radley London family”. They work closely with the London-based design team to bring the creations to life.

“Every Radley London piece is built to last season after season,” Martyn York, head of technical, supply and product development, tells *World Leather*. “We understand that for our customers this is a considered investment piece, and as such want to provide them with quality through our manufacturing processes in the hands of genuine artisans, so they can be enjoyed for years to come – we believe in buying well and investing in a piece that will endure time.”

Leathers are sourced from tanneries that are rated Leather Working Group bronze as a minimum, with 90% reaching gold. “We’re proud of the progress made with all our partners to reach globally recognised standards, which reflect the wellbeing of people, the environment and our progress in further improving our carbon zero programmes.”

The company has expanded product ranges and added extra leather footwear collections over the past 12 months. Its latest collection includes plenty of pastel shades, embellishments such as applique,

and floral motifs on bags, inspired by beaches and windswept dunes. “We thought about how we’d feel when the lockdown eases,” says head designer Zizi Hill, “how we’d embrace our freedom and travel to shores further away, taking in the warmer air as the season changes.”

She adds that “quality craftsmanship, attention to detail and amazing design” are the hallmarks of a great handbag. “The size, colour and shape are obviously important, but the handbag has to work with the needs of modern life,” she says.

Renewed optimism

The spring-summer 2021 designs and colour choices also reflect new beginnings, a feeling that the worst of the

pandemic is behind us, and that people will have confidence to meet – and shop – again. The company is “rapidly increasing” product categories further in the upcoming months, including additional choices of leather and a “more sumptuous look and feel” to the range, Mr York states.

“The quality of our bags rivals those of high-end designers, and we are proud that Selfridges have chosen to position us alongside them. Many sectors and businesses have had a level of impact during the pandemic, and leathers are no different,” he adds. “As retail lifts and customers search for more investment pieces, we believe Radley London is evolving to meet the expectations of our valued and loyal customers.”

Leathers are graded by hand feel and touch by partners in India.



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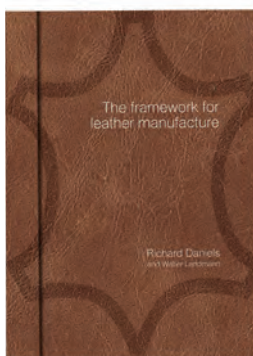
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