



EXHIBITION CONCEPT

Stefania Ricci

ORGANIZATION

MUS.E

PROMOTED AND ORGANIZED BY

Comune di Firenze
Fondazione Ferragamo, Florence
Museo Salvatore Ferragamo, Florence

WITH THE PATRONAGE OF

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IN COLLABORATION WITH

Museo di Palazzo Vecchio, Florence
Museo Novecento, Florence

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SUSTAINABLE THINKING

Museo Salvatore
Ferragamo
Palazzo Spini Feroni,
Florence
12 April 2019 – 8 March
2020
Opening times:
10 am -7.30 pm
Closed on
1.1, 1.5, 15.8, 25.12
Inauguration
11 April

CURATED BY

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Arabella S. Natalini
Stefania Ricci
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Architetti Studio
Associato

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SUSTAINABLE THINKING

OTHER VENUES

LUCY + JORGE ORTA

Sala delle Udienze,
Museo di Palazzo
Vecchio, Florence
12 April – 4 July 2019
Mon/Tue/Wed/Fri/Sat/
Sun: 9 am – 11 pm
Thursday: 9 am – 2 pm

Curated by

Arabella S. Natalini
Stefania Ricci
Sergio Risaliti

ROOM AND PERMANENT COLLECTION

LUCY + JORGE ORTA
Museo Novecento,
Florence
12 April – 4 July 2019
Mon/Tue/Wed/Sat/Sun:
11 am – 8 pm
Thursday: 11 am – 2 pm
Friday: 11 am – 11 pm

Curated by

Arabella S. Natalini
Stefania Ricci
Sergio Risaliti

PARADIGMA. IL TAVOLO DELL'ARCHITETTO BAUBOTANIK A RENAISSANCE OF WHAT EXACTLY? (ARCHETYPE. THE BAUBOTANIK ARCHITECT'S TABLE)

Museo Novecento,
Florence
12 April – 4 July 2019
Mon/Tue/Wed/Sat/Sun:
11 am – 8 pm
Thursday: 11 am – 2 pm
Friday: 11 am – 11 pm

Curated by

Laura Andreini

THE WALL SOS SCHOOL OF SUSTAINABILITY

Museo Novecento,
Florence
12 April – 4 July 2019
Mon/Tue/Wed/Sat/Sun:
11 am – 8 pm
Thursday: 11 am – 2 pm
Friday: 11 am – 11 pm

Curated by

Mario Cucinella
Architects
SOS – School of
Sustainability

CINEMA IN BETWEEN ART FILM. BEFORE WE VANISH

Museo Novecento,
Florence
12 April – 30 June 2019
Mon/Tue/Wed/Sat/Sun:
11 am – 8 pm
Thursday: 11 am – 2 pm
Friday: 11 am – 11 pm

Concept

Beatrice Bulgari

Curated by

Paola Ugolini

COORDINATION AND ORGANIZATION MUSE

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SYMPOSIUM A TALK ON SUSTAINABILITY AND THE FUTURE OF FASHION

Salone dei Cinquecento,
Palazzo Vecchio, Florence
10 April 2019
3.30 pm – 6.30 pm

The exhibitions at Museo di Palazzo Vecchio, Museo Novecento and the Symposium made possible with the support of Intesa Sanpaolo

CATALOGUE

Electa

CURATED BY

Stefania Ricci

IMAGE GRAPHIC AND DESIGN

RovaiWeber design

PHOTOGRAPHS OF CLOTHES AND INTERVIEWEES

Irene Montini

PHOTOGRAPHS OF ARTWORKS AND FABRICS

Arrigo Coppitz



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Contemporary Art,
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ARTISTS PARTICIPATING IN THE INITIATIVE

Paola Anziché
El Anatsui
Salvatore Arancio
Antonio Blanco
Bureau Baubotanik
(Hannes Schwertfeger
e Oliver Storz)
Mario Cucinella
Rä di Martino
Sheila Hicks

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Sigalit Landau
Masbedo
Elena Mazzi
Lucy + Jorge Orta
Michelangelo Pistoletto
Janis Rafa
Oliver Ressler
Tomás Saraceno
Pascale Marthine Tayou
Ari Versluis & Ellie
Uyttenbroek



FASHION DESIGNERS

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Alberto Brandoli for Progetto Quid
Cangiari

Romina Cardillo for Nous Etudions

Luisa Cevese

Lucía Chain for CHAIN

Maria Cornejo for Zero+Maria Cornejo

Rosario Dawson and Abrima Erwiah for Studio 189

Eileen Fisher

Javier Goyeneche for Ecoalf

Tiziano Guardini and Barbara Mugnai

Sylvia Heisel for Heisel

Shinichiro Ishibashi for KUON

Stella Jean

Katie Jones

Flavia La Rocca

Hoh Pabissi

Lilla Pápai for Wyhoys

Christopher Raeburn for RÆBURN

Maria Sole Ferragamo

Salvatore Ferragamo

Mats Rombaut for Rombaut

Adriana Santanocito and Enrica Arena (Orange Fiber)

for Salvatore Ferragamo

Cameron Saul and Oliver Wayman for Bottletop

Laura Strambi

Matteo Thiela

Angus Tsui

Hellen van Rees

Andrea Verdura

Bethany Williams

Matteo Ward, Victor Santiago and Silvia Giovanardi
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CONTRIBUTED TO
THE SUPPLY OF
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AND MATERIALS FOR
THE EXHIBITION**

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INTRODUCTION

According to the Brundtland Report of 1987, the term “sustainability” defines humanity’s ability to “meet the needs of the current generation without compromising the ability of for future generations to meet their own”, which means that it represents a condition of development capable of ensuring future standards of living comparable to those of our day.

It is clear from this definition that this “human ability” represents a global challenge, which can only be addressed by significant, well structured, and all-encompassing actions.

Not only does this vision concern production methods, but it also implies greater attention to the environment as a whole: the energy used, the amount of waste, the choice of raw materials, and workplace health. All these elements imply the need for a holistic approach, in which anthropocentrism no longer threatens the preservation of resources and the ecological balance of our planet.

However, considering that the human viewpoint is inevitable, this balance must be re-established and maintained in accordance with the central position of people, with a view to the quality of life, work, and relations within a fragile and threatened ecosystem.

It therefore appears that a new way of thinking is increasingly necessary and urgent at all levels, a process stemming from an aware and shared way of thinking, capable of creating new strategies for development and coexistence.

THE PROJECT

The *Sustainable Thinking* project will propose, from April 2019, exhibitions and collateral initiatives involving Museo Salvatore Ferragamo in Florence and other public institutions in the city, with the aim of suggesting reflections on such an important theme for the future and a shift in paradigm, at least in the world of fashion, art and architecture.

Actually, many artists are following this direction. Some of them have focused on the restoration of a more attentive relationship with nature, the use of organic materials, the need for the creative reuse of materials (*upcycling*), or the relationship between nature and technology; other artists stress the importance of a collective commitment to rethinking society as a whole.

Architecture is increasingly committed to designing and constructing buildings capable of limiting environmental impacts and takes into account ecological principles and sustainable development.

The fashion industry, for its part, has been aware of sustainability as a positive challenge for some years now, not only through the experimentation of a new generation of young designers, but also through the innovative choices of well-established brands in the luxury industry, in order to respond not only to consolidated consumer needs, but also to offer new opportunities for responsible innovation to its selected and international customers. Research is leading to the development of new ecological and performing materials and to the improvement of production processes so as to reduce water and energy consumption, the use of toxic substances and the generation of waste, which is very high in this industry.

For the Salvatore Ferragamo brand, investing in sustainable development means believing that the use of innovative materials, the bond with the local community, and the attention for the environment and people are key to success. It is perhaps the best way to follow the values passed down by the Founder, who, since the 1920s, had been experimenting with natural and unusual materials developing a philosophy aimed at the physical and psychological well-being of his customers.

The project is therefore part of the many activities that make the Maison Ferragamo a forerunner among the luxury brands that have embraced the principles of transparency and ethics.

Rather than presenting an exhaustive account of “sustainable practices”, *Sustainable Thinking* intends to present some contemporary artistic experiences that are particularly significant in this respect, making them engage and dialogue with the main areas of research in the world of sustainable fashion design and materials. The exhibition presents materials, works of art and recent clothes, and/or clothes specifically made for the event, projects aimed at explaining and illustrating the multiple and essential forms of “sustainability-centered ethics and aesthetics” in a format that all kinds of public can easily understand, giving people not only the chance to know, but also to interact with the themes addressed.

The artists, textile and yarn manufacturers and fashion designers invited to join the exhibition, of different generations and from different geographical areas, offer multiple perspectives, which, however, share the same focus on alternative production processes, providing suggestions for the development of projects capable of enhancing differences, using new technologies without being overwhelmed, combining local and global, and safeguarding our ecosystem.

Is this a utopia? Maybe it is, but it is also a very realistic, urgent need, which requires the most creative forces, in every field, especially in that creative laboratory consisting in artistic practices and aesthetics of everyday life, in which fashion is an active ingredient, in the belief that they can be a decisive driver of a fairer and more sustainable world. It is an invitation to take care of the future starting from the present.

The project will rely on a scientific committee of experts, scholars and art historians with a broad knowledge of sustainability issues, and on curators specifically appointed for the various locations, in order to present an exhibition at **Museo Salvatore Ferragamo in Florence** and in other prestigious venues in the city, such as **Palazzo Vecchio**, which is not only the municipal Hall but also one of the most important artistic buildings in the city, and **Museo Novecento**.

Conferences, workshops and laboratories held by the artists, designers and architecture studios involved are also envisaged. Many of these collateral initiatives are aimed at younger generations. One of these is intended to encourage the students of one of the most important high schools in Florence to make reflections. A competition has been launched for the most prestigious international fashion schools on the subject of recycling, with the use of cut-offs (including leather and fabrics used in the collections prior to the current one) donated by the Maison Salvatore Ferragamo. The result of their work will be displayed and made available to the public during an exhibition scheduled for the month of June during the Pitti Filati event in Florence.

An important **Symposium**, held by the most important representatives of sustainability, will be organized on the day before the opening of the exhibitions in the prestigious **Salone dei Cinquecento in Palazzo Vecchio**, which citizens are invited to attend for free: this will be an unprecedented chance to learn the meaning of the word sustainability in concrete terms, how business models are changing, what research is doing to improve our environment, and basically, how the future looks like.



THE EXHIBITION AT MUSEO SALVATORE FERRAGAMO

■ SECTION I ■

ENVIRONMENT AND SUSTAINABILITY

The opening room of the exhibition initiates the full immersion into the world of sustainability, starting right from the definition of the term and the representation of its complex situation. This implies respecting the environment and people, an economic system aimed at reducing waste, a strong push for innovation to mark out new production and consumption models and, above all, a more conscious and responsible way of thinking.

The informative aspect of this exhibition, which makes us think, is seen in the interactive involvement of the public. Already in this first section a large touch screen, organized by subject thanks to the contribution of **Hakan Karaosman, professor for the Luxury Fashion Management course at Politecnico di Milano**, allows even the less expert visitor to receive information and data, to view images and film clips in order to understand the changes taking place in the world of manufacturing, especially in fashion and materials, transformations which are now considered inevitable if the intention is to re-establish a balance within a fragile and threatened ecosystem.

The fact that the planet is at risk is not fake news and there can be no doubt that one of its worse enemies is plastic pollution. In November 2018, 290 international organizations, led by the Ellen MacArthur Foundation for the circular economy of plastic materials, signed the commitment to eliminate plastic waste. The images of oceans invaded by plastic which continuously circulate on the web and films such as *Albatross* (2017) by Chris Jordan, give us catastrophic visions which seem to announce the end of the world.

In reality, something is changing and the appeal to defend the environment is not just some empty announcement. In order to provide a positive and concrete message to give hope to new generations, above all before really getting into the issue, it was decided to create a large and captivating artistic installation in this section. The artist chosen to realize the site-specific work is **Pascale Marthine Tayou** (Nkongsamba, Cameroon,

1966), one of the leading lights on the international arts scene.

The artist started his career in Cameroon, his country of origin, and then continued in Germany, France and Belgium, where he currently lives.

His travel between Africa and Europe, and then worldwide, has been defined as “artistic nomadism”: an open attitude to encounters through which Tayou has created extraordinary works which denounce the injustices of the modern-day world and, at the same time, invite the viewer to a joyous celebration of life.

The exhibition starts with a previously unseen installation: *Invasion*, the intricate and colourful “contaminated landscape” specifically created by Pascale Marthine Tayou for *Sustainable Thinking*.

Right from the start, the artist’s compelling expressive ability has taken form through a “hybrid language”, not only in terms of cultural references, but also for the great variety of materials used (wood, chalk, straw, plants, stones, plastic, glass, mirrors, neon, photos, found objects, ...); in particular, the frequent use of plastic in Tayou’s works arises from its – pervasive and polluting – spread to every corner of the planet. However, for the very reason that its presence cannot be ignored, the artist manages to take advantage of some features to present us with “light” works, of great aesthetic impact, which allow us to perceive the degree of instability of our globalized culture and, at the same time, may suggest a joyful chance for redemption.

Invasion, in a similar way to pollution caused by plastic, seems to invade the space of the museum with thick multicoloured smoke. As you move closer, the “cloud of smoke” reveals itself to be made up of a messy entanglement of coloured straws from *Colorful line C*, which mysterious characters flow, African-style sculptures and masks dressed in miscellaneous and varied ornaments.

A small crowd of *Poupées Pascale* – the famous crystal sculptures which the artist has been making for some time in Tuscany – rises from the ground thanks to high wooden “pedestals”, consisting of tree trunks which carry the geographical coordinates of some of the most polluted places in the world, while a similar number of “geni” peek out from above, “in formal clothes”, as if they lived comfortably on the large plastic cloud which soars above us.

A “multiethnic population” full of joy – consisting of timeless figures which rest on natural materials harking back to places where nature has been destroyed, and of faces which look down on us in amusement from above, like gods from an artificial paradise – live naturally in a synthetic jungle suffocated by a light, but no less disturbing, mass. *Invasion* presents an unbalanced and fantastic ecosystem: a metaphor, then, that can represent the heterogeneous world we live in, but also the presence of lights and shadows which have always characterized human existence.

This introduction to the central theme of the exhibition includes a homage to **Joseph Beuys** (Krefeld, Germany, 1921 - Düsseldorf, Germany, 1986), a prophetic and emblematic figure in art, an artist-shaman. He is considered one of the great masters of the second half of the 20th century, the precursor of environmental, political and cultural issues, as well as founder of the German Green Party, the Organization for Direct Democracy and the Free International University for Creativity and Interdisciplinary Research.

His works – drawings, sculptures, installations, performances – take their cue from a moral, educational and political commitment aimed at spurring greater critical awareness in the public and arousing in each person a personal perception of the value of art.

All his work aims at the never-ending search for deep harmony between men and nature, which is essential for the development of man and protection of the planet. The main tool in this transformation is creativity, which must be “freed” in each individual to activate a revolutionary process which involves us personally since, as Beuys stated, not only “every human being is an artist” but “we are the revolution”.

Joseph Beuys’ beliefs, his philosophy and his mottos transmit the importance of collaboration between human beings, the values of culture, intercultural integration and respect of the environment.

In order to disseminate and encourage environmental awareness, Beuys created a great project, known as *Defense of nature*.

From the early 1970s, the artist has worked to disseminate and encourage environmental awareness by creating the *Defense of nature* project. In this sense, the famous work *7.000 Eichen*, launched in 1982 at Documenta 7 in Kassel, is emblematic. Beuys takes collective action which envisages planting 7.000 oak trees (accompanied by as much blocks of basalt) in the German city and, subsequently, 7.000 different plants in Bolognano: 14.000 live sculptures which sprout from a mundane action such as the planting of trees, in a great collective ritual that can evoke the deepest bonds between man and nature.

In the small town of Bolognano near Pescara, on the farm of his friends the Durini family, baron Buby Durini and his wife Lucrezia De Domizio, Beuys' work in *Defense of nature* took the form of various artistic, political, environmental and humanitarian projects. From 1972 to 1985, in Bolognano there were debates and agricultural works accompanied by sculptures, drawings, photographs, film clips, sound recordings, drawings on board and publications. These works were fully preserved thanks to the personal commitment of baroness Lucrezia De Domizio Durini, who continued to keep the Beuysian experience alive. Thanks to direct collaboration with the baroness, it has been possible to include in this exhibition some works by the German artist, belonging to the *Defense of nature* artwork: an essential recognition of the importance of his groundbreaking work and his ability to rethink the social role of the artist as the driver of sustainable and essential transformation.

■ SECTION 2 ■

SALVATORE FERRAGAMO AND HIS MATERIALS

This section of the exhibition is dedicated to Salvatore Ferragamo and the passion for materials that characterized his work since his beginnings in the United States in the 1920s. In each model, Salvatore Ferragamo placed as much emphasis on the material as on the shape and the manufacture, which determine the beauty, comfort and durability of footwear, so as to maintain the material's characteristics unaltered as well as adapt it to the functionality of the shoe.

This interest and relentless experimentation concerned not only leather hides and embroidered uppers, part of a century-old tradition of Italian craftsmanship, but also humbler materials that nobody used to make footwear in Salvatore Ferragamo's time: paper, bark, raffia, fish skin, and cellophane.

Salvatore Ferragamo often used natural products in order to ensure people's wellbeing. An example is the famous cork *wedge* heel made from the bark of a tree widely found in the Mediterranean basin, which supports the plantar arch while allowing the foot to breathe freely.

This is the teaching that runs through Salvatore Ferragamo's work: every material, no matter how humble and apparently unfit for a luxury industry it may be, can be brilliantly and creatively modified when ideas, which are tied to the materials, are driven by outstanding technical skills and a boundless talent for innovation.

Salvatore Ferragamo's research into materials came into its own especially in the 1930s and 1940s, a few years after his return to Italy in 1927, when he settled in Florence and decided to use local artisan techniques for his creations, such as silk and cotton embroidery, the needlepoint lace from the surrounding countryside and the straw plaiting used to make Florence's famous hats. In the mid-1930s, the use of innovative fibers and fabrics—from fish skin, to hemp, a plant traditionally associated with the textile industry in Italy—was largely related to the nationalist propaganda used by the fascist government, which was reinforced by the economic sanctions that the League of Nations imposed upon Italy in 1935. During World War II, the shortage of quality

materials and the laws limiting the use of leather hides widely used in the footwear industry to military shoes forced Salvatore Ferragamo to explore new options. Those were the years in which he used cellophane from candy wrappers, felt used for hats, and natural fibers such as nettle. Here is what the international press of the time said about Salvatore Ferragamo and his creations: “Italian footwear has become widespread in America thanks to the superb products born out of the genius and eager entrepreneurship of Salvatore Ferragamo, who shows no sign of slowing down even as raw materials become scarce (...). On the contrary, this fuels the artist’s creative spirit and leads him to use the most diverse autarchic materials, from which he derives the noble elements that go into the production of models representing authentic jewels of elegant practicality”. The mix of world-class craftsmanship and experimentation of those years laid down the foundations for the international recognition of Italian fashion after World War II, symbolized in 1947 by another creation of Salvatore Ferragamo, the *Invisible* sandal. This was yet another idea he stumbled upon by chance—a work of recycling, as we would say today. One day, Salvatore Ferragamo ran into one of his workers returning from a fishing trip with a big fish, which he had caught, as Salvatore Ferragamo himself recounted, “using a new type of nylon thread”. The master craftsman then used a fishing line for his *Invisible* shoe—the “metaphysical” sandal, as Emilia Kunster Rosselli defined it in the magazine “Bellezza”, that helped Salvatore Ferragamo win the Neiman Marcus Award in 1947.

Salvatore Ferragamo thus wrote one of the most important chapters in the history of Italian style, striking an ideal balance between imagination and engineering precision.

Several models included in this section may perfectly represent the topic of sustainability in today’s fashion industry, but in Salvatore Ferragamo’s time nobody talked about protecting the environment; the desire to try new things was born out of other reasons. What matters is Salvatore Ferragamo’s attitude in the face of adversity, his ability to address the problem that still serves as a model and warrants its inclusion in this exhibition: the change in vision resulting from adverse circumstances drives the truly creative to refine their research and look for alternative solutions that do not compromise the main goals of fashion, glamour and innovation.

This section takes inspiration from the Ferragamo archive and features 77 shoes that Salvatore Ferragamo created mostly in the 1930s and 1940s, with some exceptions dating back to the 1950s. The drawers underneath these shelves full of imaginative models contain patents, leather hides, manufacturing processes, and clips that visitors can access, in keeping with the idea of audience interactivity and engagement that runs throughout the exhibition. In the center of the section is the *Rainbow Future* sandal, created in 2018 as part of the Ferragamo’s Creations collection and inspired by the principles of sustainability and the legendary *Rainbow* sandal, one of the “inventions” symbols of Salvatore Ferragamo, made in kidskin and suede in 1938 for the actress Judy Garland. The shoe features a hand-finished platform in veritable wood and it is crafted in organic crocheted cotton (certified in accordance with the strict environmental and social criteria GOTS - Global Organic Textile Standard*), with lining in leather finished with no carbon dioxide emission or water consumption (Layertech* technology). Water glue, non-galvanized brass, and sewing thread in 100% recycled material complete the sandal *Rainbow Future*, which embodies the brand’s creative continuity between the past and the present as well as Ferragamo company’s commitment to a corporate social responsibility strategy that, true to the values of the founder, pursues economic growth while placing more and more emphasis on the social and environmental impact of its operations.

■ SECTION 3 ■

TRANSFORMATION

This section features clothes, works of art, and materials. The layout of this area starts from the materials and collects the stories of those high-quality materials which, according to a conventional mindset, have reached the end of their useful life, and which, instead, thanks to smart companies – both in terms of thought and latest-generation technology approach – are transformed into quality materials and products, with high performance values. The underlying concept is the circular economy.

We therefore talk about transformed materials when we refer to fibers from secondary raw materials – which can therefore be pre- or post-consumer, or pre-industrial.

Transformation can take place through a mechanical process, which does not envisage the use of chemicals and additives, or through a chemical process. The transformation of secondary raw materials requires a high technical know-how.

The clothes and the accessories in this section are the result of this process of transformation and reuse of scraps. The same principle also driven the choice of the works of art, in a wider conception which involves not only the material used by the artist, but also his attitude towards materials taken from environments other than those strictly related to art.

ART

A large-scale work from the private collection of **El Anatsui** (Anyako, Ghana, 1944), the leading African artist of his generation, is on display in the room. The artist started his career as a sculptor, mainly working with clay and wood, and then moved on to using recovered materials more and more often.

In his works, poor and everyday materials (including, besides clay, fabrics, but also cassava graters or lids from milk cans, ...) become the raw material for compelling compositions which reinterpret the African tradition with an innovative language.

At the end of the 1990s, El Anatsui started a new coloured cycle of works using bottle caps that were flattened and assembled with copper wires to form large multi-coloured “tapestries” inspired by the rich Ghanaian fabrics (specifically, Kente cloth and the precious Nyekor ceremony clothes). Although the creative process is consolidated, the final form of these works is never pre-established: the folds and drapes arising spontaneously transform during their creation and change in relation to the place, giving rise to sophisticated and enticing installations.

In *Energy Spill* (2010), the work on display at the Museo Salvatore Ferragamo, the dominant colours are gold and red but, as we draw near, we can make out fragments of tins and other debris, read the logos and spirits brands on the bottle caps: this multiple elements are arranged as tiles in a valuable contemporary mosaic, connecting Africa to the West and, at the same time, past, present and future.

The other work of art in this part of the exhibition is by **Sheila Hicks** (Hastings, USA, 1934). The artist started her long career studying painting, under the guidance of Joseph Albers, but she soon chose fabrics as her main medium of expression. Subsequently, also thanks to the teaching of Anni Albers and to long stays in South America, she developed a particular interest for colour and pre-Columbian culture; numerous trips took her to Morocco, India, South Africa, and Japan.

She chose materials such as cotton, wool, linen and silk, often using entire bundles for a single work.

“The bases of my work are the lines which form sculptures in space”, said Hicks.

The American artist would never turn her back on her training as a painter. She would develop the poten-

tial of colour, drawing and line in the three dimensions, using “thread, fibers and colours, as a painter uses pigments” and at the same time “sculpting the colour as much as the fabric” to make works which move and capture all the observer’s senses.

The charm of her works does not depend on their size: some of them invade space – such as *Escalade Beyond Chromatic Lands*, the large installation presented at the 2017 Venice Biennale d’Arte, which overlays hundreds of bales of coloured natural fibers, creating an extremely compelling/energetic environment – others show their intensity with smaller formats, such as *Satellite Interplanétaire*, the sculpture hosted at the Museo Salvatore Ferragamo which is part of the *Satellites* series: circular sculptures which are laid out on the walls and mark out space “like constellations of an interplanetary garden”.

While recovering old techniques, Sheila Hicks has developed her own particular and influential language which makes her one of the most appreciated contemporary artists.

FASHION DESIGNERS

Paul Andrew from 2019 is Salvatore Ferragamo company Creative Director.

The evening dress presented at the exhibition is made of perPETual jersey, a material which owes its name to the raw material it is made from: plastic taken from bottles and transformed into a thread with a patented polymerization process. The garment was created for the American actress **Elizabeth Chambers** and worn at the Green Carpet Fashion Awards Italia on September 23, 2018, at the Teatro alla Scala in Milan.

Bottletop is a Brazilian brand of luxury accessories, especially bags, which has chosen the sustainability of materials as its fundamental principle.

Tatiana, the new iconic bag for the 2019 spring/summer collection, is on display: a cobalt blue travel bag made with crocheted aluminum tabs and leather straps. The leather comes from the Amazon forest, through supply chains that can ensure the protection of forests, threatened by livestock breeding. Accurate handcrafted details decorate the zip closure along its length and the lining of the inside pockets.

CHAIN. A clothing brand based in Buenos Aires, founded by Lucía Chain, an Argentine designer.

23 is the name of the dress that Lucía Chain has created for the exhibition, which shows the designer’s desire to connect back to the origins and history of her family. Inspired by the theme of migration, the dress consists of 23 garments, such as those her grandmother brought with her in her suitcase when she emigrated from Europe to Argentina. These are made with various kinds of linen and raw cotton and produced by the social cooperative Inimbò based in the north of Argentina, on which the different areas of her grandmother’s suitcase were highlighted using an environmentally-friendly black ink. Some details are embroidered. The buttons are made of 100% recycled wood.

Ecoalf by Javier Goyeneche arises from the Spanish stylist’s desire to create, thanks to technology, high-performance materials derived from the recycling of fishing nets that have been abandoned at sea.

Because there is no planet B (this is the only one we can love and protect) is the name of the garment that will be on display, created from a collaboration with the British clothing brand **Felder Felder**: a silver-coloured padded coat made from yard upcycled from fishing nets and 100% recycled polyester, with water repellent, downproof and ultralight technical properties. The brand’s motto has been highlighted on the garment.

Maria Sole Ferragamo, Salvatore Ferragamo's granddaughter, has transformed the family tradition into a new form of creativity, using leather waste to create unique pieces: light and airy jewels. *Artemisia* is the name of the piece Maria Sole Ferragamo has designed for the exhibition. Through the use of recovered leather in gold and bronze tones, she has created a jewel-dress that immediately reveals her thoughts on sustainability: "All of us who work in the fashion industry – declared Maria Sole – must find innovative solutions to protect and improve the environment. One way is to use already existing resources instead of always developing new ones. This is why I use recycled leather for my creations: in order to respect nature, the origin of all forms of beauty. *Artemisia* is a tribute to the earth, to women and to their womb from which life borns. Thanks to the leather cutting technique, the dress perfectly fits the beautiful female body, making it feel protected. Taking the form of a golden tree, a forgotten piece of leather is brought back to life by the body of a woman". The dress on display is made of pieces of leather recovered from the slow-moving inventory of Salvatore Ferragamo which are then joined together with Gutermann thread, 100% polyester, Made in Germany, a water-based glue for leather goods and sealant.

Eileen Fisher is an American designer who was one of the first to talk about sustainability. In 2009, she launched an important recycling program: she buys back used clothes from her customers; clothes in good condition are sold again, while others are reinvented and felted by Sigi Ahl, a longstanding collaborator and artist. This particular technique characterizes the four kimonos specifically designed for the exhibition and called *Felted Kimono Coats*. The garments are made with recycled Eileen Fisher clothes bought directly from customers and reprocessed using the felting technique, ultimately creating a new felt fabric which is 90% biodegradable. Thanks to the use of top-quality materials such as organic cotton, wool, silk and cashmere, each kimono is unique in both its pattern and colour, reaching a high standard in terms of quality and durability.

KUON is a Japanese clothing brand which took inspiration from the passion of its founder Shinichiro Ishibashi for the ancient art of **Boro Sashiko**, a darning technique used by Japan's rural populations to recover scraps of used linen (the so-called *boro*) and by sewing them together create unique, unparalleled garments. The jacket designed for the exhibition is an example of the style and philosophy of KUON. It is made from 100% recycled cotton denim fabric, sewn together in patchwork style using the Boro Sashiko technique.

RÆBURN by Christopher Raeburn is a British fashion brand, well-known for the recovery of military fabrics, such as for example old air force used parachutes, to create innovative and casual clothing with a typically British ironic and irreverent attitude.

The project for the exhibition is a celebration of his ten years in business: an outfit consisting of **eleven of the most innovative RÆMADE garments** created over this period of time. The garments which make up the outfit are: *Blast Hoodie – REMADE*, a hooded sweatshirt in ripstop nylon from military fabrics in shades of grey and blue (autumn/winter 2011); *Map T-Shirt – REMADE*, a T-shirt made from the original Royal Air Force maps from the 1950s in printed silk in shades of grey (spring/summer 2013); *Mig Pilot Suit Rucksack – REMADE*, a rucksack which imitates the flight suits of Chinese MIG pilots in khaki (spring/summer 2015); *Life Raft Shark Bag – REMADE*, a bag in the form of a shark made with the orange fabric from life rafts (autumn/winter 2015); *Airbrake Parachute T-shirt – REMADE*, a T-shirt made using the black fabric from the airbrakes of parachutes used by Royal Airforce Jaguar Jets (spring/summer 2016); *Military Parachute Joggers – REMADE*, sports bottoms made from British khaki coloured parachutes (autumn/winter 2017); *REMADE Orangutan Rucksack*, a rucksack in the shape of a monkey in grey and pink nylon from the sails used for windsurfing (spring/summer 2018); *REMADE German Military Rain Cape Jacket*, a jacket in transparent fab-

ric made from German military rain jackets (spring/summer 2015); *REMADE Panda Rucksack*, a rucksack in the shape of a panda made in black and white fabric from military parkas (spring/summer 2019); *REMADE Chameleon Bag*, a bag in printed fabric from the waterproof jackets used by British soldiers (autumn/winter 2017); *Clarks Boots*, Clarks boots with uppers in moose leather and a Trigenic flexible sole (autumn/winter 2017).

Bethany Williams is a British designer driven by a social spirit which leads her to collaborate with people in need.

The *No Address Needed to Join* coat made for the exhibition is in a multicolour fabric consisting of fully recycled cord and thread and waste materials from the publishing industry. It was made in collaboration with the Quaker Mobile Library, the London-based library which lends books to the homeless, and the British publishing house Hachette UK. It was made by the San Patrignano textile workshop under the supervision of Barbara Guarducci by young women who are following a drug recovery program.

MANNEQUINS

The **mannequins** used to exhibit the clothes in this exhibition were generously provided by **Bonaveri**, the Emilia Romagna based company which is a leader in the production of top-quality mannequins, and represent their latest innovation, the first **biodegradable mannequin in BPlast and BPaint**, patented in 2016.

FIBERS AND TRANSFORMATION FABRICS

ECOTEC® is a smart, “Made in Italy” cotton yarn, whose production can save up to 77.9% in terms of water consumption, up to 56.3% in CO₂ emissions and up to 56.6% in energy consumption. It comes from the transformation of 100% cotton pre-consumer offcuts, a hi-tech process developed by **Marchi & Fildi**, the manufacturer of this yarn.

EVO® manufactured by Fulgar. It is a hi-tech, new generation, bio-based biopolymer. It is produced from crops of castor seeds, which grow in dry zones and therefore are not used in agriculture.

Lightness, extra-fast drying, comfort, odour-control, thermal insulation and bright colours are the main characteristics of this multifunctional fiber which is especially suited to sportswear.

The fabric is made by **Clerici Tessuto**, one of the most important textile companies in the world. A leading player in the “*Fil d’oro*” network, it brings together around ten outstanding companies operating in the textile finishing business, with a constant focus on sustainability and innovation.

Re.VerSo™ is the brand of a new “Made in Italy” production system based on zero waste circular economy principles for wool and cashmere, created by expert Italian partners and with a fully integrated, transparent and traceable supply chain. Re.VerSo™ collects, selects and transforms exclusive pre-consumer cuts of wool and cashmere, which have already been dyed, to create yarns and fabrics.

The top-level supply chain of Re.VerSo™s is based on the collaboration of five premium Italian textile manufacturers: **Green Line**, **Nuova Fratelli Boretti** for raw material, **A. Stelloni Collection by Mapel** for fashion fabric, **Filpucci** for high-end yarns of knitwear and **Filatura C4** for contract-yarns.

Newlife™ manufactured by Sinterama is a new-generation yarn manufactured using the High-Tech Model, which fully transforms 100% used plastic bottles, which are fully traceable, into a hi-tech polymer of unparalleled quality, through a mechanical, “Made in Italy” process.

The fabric manufacturer is **Gruppocinque**, a company which is well-known for the manufacture of top-quality, 100% Made in Italy, shuttle-woven, dyed fabrics (single colour and jacquard).

Pizzi Smart manufactured by Iluna Group. The collection of sophisticated, “Made in Italy” lace by Iluna is now GRS* certified, bearing witness to the excellence of its materials, which are 100% based on responsible innovation.

Q-NOVA® is a polyamide fiber made solely with scraps from the weaving facilities of the manufacturing company **Fulgar Italia**: these materials give rise, through a mechanical process, to the innovative 6.6 polyamide fiber. Otherwise, they would not have been used in any other way except for disposal.

The Q-NOVA® knitted fabric on display was made by **Maglificio Ripa**, a company which constantly focuses on the research of innovative and socially responsible materials.

Regenerated leather is a material derived from fibers obtained through the mechanical or chemical demolition of leather scraps or offcuts, which otherwise would not have been recycled. The company which manufactures it, **Prodotti Alfa**, recovers every year over 3.000 tons of chrome-tanned leather scraps, reusing them by transforming them into a raw material which can be used for a range of applications, from leather goods, to footwear, and furniture.

Green Fibers recycled silk by Felice De Palma is a new silk yarn created from the transformation of highly valuable waste materials from top manufacturing companies from the Biella textile district.

The fabric on display was made by the Italian company **Tessitura Serica A.M. Taborelli**, which is now a leader in the production of womenswear fabrics, scarves, ties and furniture fabrics, both unprocessed and yarn-dyed.

■ SECTION 4 ■

CRAFTSMANSHIP AND SOCIAL FASHION

In this overview of the world of sustainability, an important chapter is dedicated to craftsmanship and social fashion, issues which are often addressed together. Many of the stories in this exhibition refer to two categories of craftsmanship which can meet sustainable criteria: the craftsmanship focusing on recycling which, albeit to a lesser extent than the industrial sector, reuses fabrics or plastic materials to transform them into something new, as exemplified by the work of Andrea Verdura; and the recovery of ancient manual traditions, which risk to disappear under the negative pressure of globalization and are reintroduced by giving them a modern touch, enabling not only the relaunch of aesthetic models and techniques, but also of local communities, which, through such activities, can find a source of economic growth and social reaffirmation. In addition, craftsmanship in itself is based on the fundamental criteria of sustainability by assigning a significant value to the time needed to design and make a product, the technical experimentation, the search for perfection and the passion for what you are doing. Craftsmanship allows those who practice it to rediscover within themselves unexpected talents and an inclination to beauty which is in each of us.

There are five fashion designers at the exhibition. They passionately created exclusive garments and accessories, which describe their vision of craftsmanship as a key element of sustainability and social responsibility.

Stella Jean was born in and works in Rome. Her story and that of her multi-ethnic fashion are a process of integration between Italy and Haiti, where the designer collaborated with artisans from the indigenous communities, with the dual aim of preserving a wealth of ancient know-how which was at risk of extinction and generating business opportunities and self-support in local communities, in order to support independence principles and weaken the role of an unsuccessful system based on handouts.

The *Ararauna* dress which Stella Jean has designed for the exhibition is in Italian viscose; the embroidery, which reproduces the Amazon parrot Arara, was hand-painted and embroidered in Italy by the Umbrian artist Ambra Lucidi. Ambra, a very experienced artisan, comes from a long family tradition of artists, who developed the manual technique of painting on fabric. She teaches this art for free in her workshop in Terni, using waste materials from the textile industry, so that this tradition is not lost.

Katie Jones is a British knitwear designer, with a wonderful sense of colour and rare expertise in the art of crochet.

For the exhibition, Katie Jones designed a leather patchwork jacket from recycled materials, surplus leather and yarns from her studio, crocheted together by hand. The entire process is handcrafted, without the use of machinery, required 150 hours' work and was directly controlled by the designer. The graphic design of the garment and the choice of the colours were inspired by the famous *Rainbow* sandal designed by Salvatore Ferragamo in the 1930s, a model which she has always admired and which she wanted to refer to on this occasion.

Progetto Quid is a social fashion cooperative established by Anna Fiscale, a young woman from the Veneto region who, thanks to her company has offered a safe working opportunity to vulnerable people, above all women, who have gone through and overcome difficult personal or social situations.

The dress made for the exhibition is called *Mosaico* because it brings together all the elements which characterize Progetto Quid: it is a romantic and special item, a high fashion garment which at the same time represents the company's core values, the values of ethical, fair trade and sustainable fashion. The dress structure consists of a furniture fabric normally used to upholster sofas, while spiral zips, overlaying one another and sewn together, become a sort of embroidery on the corset; the skirt features eco-leather offcuts, furniture fabric, gabardine, silk and many other materials which are combined and magically create a colour palette with a three-dimensional effect.

The garment was designed by Alberto Brandoli, in collaboration with Valeria Valbusa and Anna Antonini.

Studio 189 is a brand created by Rosario Dawson and Abrima Erwiah, based in Accra in Ghana and in New York. Its goal is to promote African culture, support development and the economic independence of local communities, and to create a bridge between traditional practices future and technology.

For the exhibition, Studio 189 has created an outfit, consisting of a shirt and a skirt, called *Multicolour Masquerade*. The source of inspiration are the masks and costumes worn in tribal celebrations, as depicted in 2004 by the New York photographer Phyllis Galembo, in Nigeria, in Eshinjok Village, during the traditional *Ngar Bell*. The maxi skirt *Alicia* is a patchwork of fabrics from various communities in Burkina Faso and India: recycled cotton, conventional cotton, organic GOTS* cotton, grown in Burkina Faso, woven and dyed in natural colours and azo dye colours with a low environmental impact. It was sewn in Ghana, in Accra, making reference to the Kente fabrics which are typical of the area.

The skirt is completed by an *Obi* belt in Piñatex, an environmentally-friendly faux leather obtained from pineapple, and by a shirt in Tencel, a biodegradable environmentally-friendly fabric, which can be completely reconverted and which is produced from eucalyptus trees, whose wood pulp is used after undergoing photosynthesis.

In the African tribal tradition, headgear and hairstyle have a key role. They allude to the family context, the social, spiritual, tribal and matrimonial status of each individual. The dress on display is finished with a biodegradable Haiti straw hat, obtained from recycled materials with low carbon emissions and water consumption.

Andrea Verdura's commitment to sustainability is real and tangible and his expertise in footwear craftsmanship is truly admirable.

The model which Andrea Verdura has designed for this exhibition is a pair of boots made from recovered fishing nets. The sole is in recycled rubber mixed with waste cork, an anatomical insole in natural cork, a cedar wood heel, an old brass zip, and a cotton upper. They are hand-coloured with natural indigo pigments.

The idea for these boots came from the sea, inspired by the pot, an ancient instrument which is still used for traditional fishing. The base of the pot is a conical opening which opens up to let the fish in, attracted by the bait held within it, and they cannot get out. A prison but also a very strong temptation as are shoes for women.

■ SECTION 5 ■ INTERWEAVINGS

This section of the exhibition features *Pensiero naturale (Natural thinking)* by **Paola Anziché** (Milan, 1975). The Milanese artist is famous for creating soft and tactile sculptures based on her investigation into the possibilities of art to cross and connect distant disciplinary fields, such as folk beliefs, ancient rituals, bio-organic architecture, and cutting-hedge science.

The project created specifically for the *Sustainable Thinking* exhibition began with a comprehensive analysis of the materials Salvatore Ferragamo favoured in the 1930s and 1940s. This resulted in seven suspended sculptures, made by expertly weaving fibers (including cotton, cork, linen cord, paper cord, organic cotton, raw wool, silk, natural raffia, corn silk, wool felt, pineapple, banana tree, jute, sisal rope) in concentric circles, making full use of their characteristics.

These sculptures come together in an unprecedented environmental installation – emphasized with a striking interplay of light and shadow that recreates natural lighting as faithfully as possible – that encourages the visitor to interact with the shapes and materials, look at them, touch them, and physically become part of the artwork: an invitation to refrain from consuming and experiencing things in a hurry, focusing instead on what exists and expanding our imagination.

“Through the shapes of these sculptures – says Paola Anziché – I have created a plastic vocabulary starting from the fibers, respecting the harmony of their texture—and thus the materials shape or resemble a sculpture. Inside the habitable sculpture, made with virgin wool felt, the material serves as a coating that both protects and demarcates a suspended space, an inside and an outside: the vertical elements represent the warp, and the horizontal ones the weft”. The fabric is made of warp and weft woven together to build, live, and clothe. These methods are based on the theories of the German architect Gottfried Semper: in *The Style* (1860–62), he offered a sophisticated interpretation on the “textile” origins of architecture, arguing that “the beginning of building coincides with the beginning of textiles”. Construction thus originated from plants

and leverages weaving as a production technique. The works on display in part refer to Semper's thinking, but also reflect on the body—a 'more intimate' aspect that encompasses tactile experiences and remains open to establishing a relationship with the visitor.

The other works in this room are sculptures featuring wefts that are so dense, geometric, knotted and twisted to the point that the fiber they are made of is almost unrecognizable. This section includes also a long kimono made in 2017 by **Cangiari** (which means "to change" in the Calabrian idiom), the first eco-ethical brand in the Italian high fashion market, launched in 2009. Its presence alongside the works of Paola Anziché is intended to underline the craftsmanship of Cangiari's hand-loomed fabrics, which revive the Calabria region's ancient weaving tradition that started in Magna Graecia and combine it with research and innovation to create unique products such as this kimono, featuring exquisite finishes as well as organic materials and colours—respecting the ecosystem and the wellbeing of the people that wear them.

Peonia Kimono Coat is woven from two organic wool fabrics (organic wool 63%, Alpaca wool 27%, Mohair 7%, silk 3%, Ica – GOTS* 2010-021 certification, Made in Italy), first loosely matted. The design reinterprets the traditional *pitteja* design from Magna Graecia.

■ SECTION 6 ■ SOCIAL INNOVATION

The section of the exhibition dedicated to social innovation occupies one of the most evocative areas of the Museo Salvatore Ferragamo, in front of the medieval well where tradition has it that the poet Dante Alighieri met his muse, Beatrice Portinari. Here visitors can admire *Life Guard* by **Lucy** (Sutton Coldfield, UK, 1966) + **Jorge Orta** (Rosario, Argentina, 1953).

The artistic couple started working together in the early 1990s, exploring environmental and social issues through strategies that involve denouncing problems, raising awareness, and taking direct action.

Their different educational backgrounds (Jorge studied art and architecture, while Lucy studied fashion design) helped them tear down the walls between art, fashion, design and architecture, creating works intended to stimulate public life and transform society. Quoting the artists: "Together, we would like to become active agents in a world that we are all dreaming of".

Body, environment, habits and society are thus the raw materials Lucy + Jorge Orta combine in each work, experimenting with sculptures, videos, installations, fashion, painting, and performance as part of an investigation constantly supported by a close dialog between context, ethics, and aesthetics.

Since the beginning, the artists have been working on projects that develop in cycles – often over a long period of time – including *Refuge Wear and Body Architecture*, dresses that can turn into portable architectures reinterpreting fundamental social structures; *HortiRecycling*, works focused on food; and *OrtaWater*, which reflects on the issue of water resources.

One of their most famous works is certainly *Antarctica*, a large-scale project developed in close partnership with scientists and experts to investigate the impact of climate change and migration flows.

Finally, among their more recent cycles is *Amazonia*, exploring the connections between ecosystems, and, since 2002, *Urban Life Guards*, which, as Lucy Orta says, "reflects on the body as a metaphorical supportive framework". Created in response to a social context that can no longer protect individuals, these "wearable sculptures" are designed to make the human body self-sufficient and protect it—as well as reflect on the relationship between in the people who need help and those offering it.

The work selected for the Museo Salvatore Ferragamo from the collection of the two artists, *Life Guard* alludes to this fragility. Is a military stretcher bed bearing a "protective garment" emblazoned with three pictograms alluding to the state of emergency caused by the multiple conflicts underway and the consequent dramatic wave of migration in recent years: an invitation to “*REAGIR*” [react] an allusion to “*MOR*”, the immorality of refugee trafficking, a plea to contribute to achieving “*PACE*” [peace].

■ SECTION 7 ■ INNOVATION

This room features a selection of fabrics, dresses and accessories that introduce a new generation of cutting-edge materials and technologies, the results of a vision integrating innovation, responsibility, nature, and creativity. It is not a process as an end in itself. It lays the basis for a change, a great evolution both in the industry and in the market, able to overcome standards and conventions, starting from creating something completely new. There are no limits or set pathways, the key for renewal lies in experimentation, not only by merging sectors that once were clearly divided, but also perfecting production processes.

FASHION DESIGNERS

Luisa Cevese, from Milan, has experience in textile research and design for the most famous fashion houses. In 1996, she invented a machine able to enclose textile waste in polyurethane sheets. With this process, for this exhibition she has made three raincoats in three different colours: bronze, black iridescent, and transparent iridescent. The garments are made in a material Luisa Cevese calls Eleven (1+1=11): a combination of post-production or post-consumption off-cuts recycled into a yarn of polyester, polyamide, viscose and polyurethane. The garments' design is simple and essential, as is all the designer's production: her creations seem to have always been before our eyes, look familiar, but use a “surprising” and innovative fabric.

Nous Etudions by Romina Cardillo is an Argentine menswear brand focused on sustainability and veganism. *La biomimesis*, a man's outfit created for the exhibition, consists of jacket and trousers made from kombucha, a fabric composed of black tea, sugar and microorganisms that ferment and create cellulose and 100% recycled cotton. The inspiration comes from nature, which is reflected in the three-dimensional relief on the texture.

This section of the exhibition features a knitwear twin set by **Salvatore Ferragamo**, consisting of a cardigan and a short-sleeve T-shirt in 67% cellulose fiber (Orange Fiber fabric), 33% silk and 55% cotton and 45% viscose. The outfit was produced for the spring/summer 2017 collection and was part of an outstanding partnership between Salvatore Ferragamo company and **Orange Fiber**, launched for the 47th edition of Earth Day. It is a green capsule collection, which combines fashion and design with a virtuous manufacturing cycle, using exclusively sustainable and natural fabrics. In keeping with its motto, *Responsible Passion*, Salvatore Ferragamo was the first brand that used the exclusive Orange Fiber, taking up both its challenge and opportunities. In presenting the new fiber for the first time, along with an even more exclusive end product, the architect and designer Mario Trimarchi (Golden Compass Award in 2016) was asked to translate his strongly Mediterranean vision into textile molds. The result was an almost metaphysical design, inspired by the nature of southern Italy and its fruits, combining them with abstract patterns of flowers and floating clouds. The art

prints and textiles create essential garments in lines and shapes, with a delicate daily wear style that combines simplicity and comfort.

The American **Sylvia Heisel** communicates through technology and specializes in 3D printing.

The robe dress *Names Gown* created for the exhibition was manufactured in November and December 2018 by Sylvia Heisel in partnership with Sophia Georgiu, the creator of Morphi, a software for 3D design, and printed with 3D Ultimaker printers. It is made from WillowFlex, a premium eco-filament from compostable raw materials. The graphic design consists of names of women who stood out for their innovative projects and ideas in S.T.E.A.M. (Science, Technology, Engineering, Arts & Design, Mathematics, Media) fields.

Flavia La Rocca, from Rome, believes in the concept of modular clothing, suitable for women who travel and work.

The dress designed for the exhibition allows for thirty different combinations. It consists of five modules, three belts, a collar and two interchangeable and removable basques. The parts are joined by hidden zips, all of the same size, placed horizontally on each piece. Sail rings and drawstrings allow each module to be worn individually, with belts or suspenders. The collar is intended as a removable and loose necklace, the basques instead can be placed on the garment in different positions by adjusting buttons and buttonholes, thus becoming also straps or sleeves.

The basis of the look, the “Little Black Dress” is from Newlife™ polyester, a 100% Made in Italy fabric. The garment above is in organic cotton GOTS-ICEA N 2014-023* Certified.

The appliqué decorations are made with small pieces of old sails from an historic sailmaker on the coast near Rome, with post-use aluminum sequins and glass beads and tinsels originating from off-cuts from the manufacture of figure roller skating competition dresses. The basques and the collar are from silk and raffia, lined in Newlife™ polyester.

Hoh Pabissi, a Londoner brand, creates ethical and fanciful fashion with fully biodegradable materials and manual processes. Its imagination goes well beyond the boundaries imposed by society, linked to the function of garments and accessories.

The long dress created for the exhibition is embroidered in linen, 3D printed with an urban landscape with skyscrapers, roads and even 3D cars. It is made from a fully biodegradable cotton, decorated with strips of organic light blue denim, which recalls the city streets, and recycled toy cars. The sleeves and the hem of the dress are decorated with biodegradable white fringes.

As for the other artists on display, the creation of the Belgian designer **Mats Rombaut**'s footwear is based on environmental issues.

For the exhibition he created laser-cut thigh boots in Piñatex, a leather obtained from pineapple leaves and silver laminate. The sole is in recycled rubber.

Matteo Thiela is a Milanese fashion designer.

The dress on display is called *Lucciole (Fireflies)* and was created in 2018. It is made of glass fiber, PVC, viscose, cotton, and polyester. It documents the important patent for 3D Bombyx weaving, obtained by Thiela after years of experimentation. This is an innovative technology inspired by the silkworms' technique for creating their cocoon. In this case, it is man who directly weaves on the body a garment of threads, a kind of “anatomic shell” that keeps its shape over time and does not change with washing. It is a long and manual task, even

with the help of a machine – which makes the model spin more quickly. It takes 24 hours to have a garment ready after the drying stage. This process bypasses many stages of tailoring: the fabric is not purchased, paper patterns are not used and there are no off-cuts.

Angus Tsui is a fashion brand created in Hong Kong.

The dress shown in this exhibition is part of the *Xenomorph* collection with which the brand won The Eco Chic Design Award in 2012. Inspired by *Xenomorph (Alien)*, it is a short dress, whose structure is defined by 3D pleating, with environmentally-friendly embroidery and printing.

Hellen van Rees is a Dutch fashion and textile designer, who believes in technology and innovation. Her garments are made on demand, with specifically created fabrics. They are cutting-edge products mixing traditional shapes and unique textiles, handmade with contrasting textures and innovative finishes.

The outfit created for *Sustainable Thinking* celebrates recycled materials from the textile sector, emphasizing their beauty. “Post-production off-cuts – the designer argues – have their own irregularity that makes them unique and not banal at all. Creating new yarns for fabrics and knitwear from waste materials is a great challenge. The fibers of a recycled yarn are weaker and must be combined with virgin materials. The goal is to use a high percentage of recycled materials while keeping the quality high”.

The garment consists of a top and a skirt. The top has buttons on the back, is made from a double layer of 100% silk georgette and is finished with a handmade collar from waste yarns. On one side, along the whole length, symmetrical laser-cut fabric pieces in felt, recycled denim, and organic cotton have been applied – they represent geometric shapes revealing birds and a fish.

The design is inspired by the works of the Dutch engraver and graphic designer Maurits Cornelis Escher. “Thanks to new laser-cutting technologies – van Rees states – it is possible to create even the most complex shapes. I started to assemble square pieces and subsequently I transformed them into the figurative representation of animals, those animals that are the innocent victims of our industry and our consumerism”.

The skirt is large and consists of eighteen panels. The fabric has been specifically woven for this project by the Dutch company Enschede Textielstad. “For this fabric I was inspired by a cloth that had a flaw. One section of around two centimeters had fewer dark warp threads and this revealed the white of the warp. I wanted to emphasize this effect arising from a flaw, showing its beauty, giving it a circular form that recalled the circularity of the skirt”. The number of the threads changes gradually, showing more weft threads in the central area and more warp threads at the top part and on the hem. The yarn used for the weft is 100% cotton, for the warp 72.5% recycled cotton, 12.5% polyester and 15% organic cotton. There is one supplementary layer on the hem which has been heat fixed by hand following the shape of the skirt, weaved with various waste yarns. The lining is 100% organic cotton.

WRÅD is a brand founded by Matteo Ward, Victor Santiago and Silvia Giovanardi. They rediscovered the ancient Calabrian art of dyeing fabrics with a local mineral, graphite, without using water, and they decided to relaunch this dyeing process by recovering waste graphite from industrial processes.

GRAPHI-TEE is the brand’s best-selling item: a jacquard jersey fabric in 100% organic cotton, GOTS* certified – dyed with graphite.

For this exhibition, the whole GRAPHI-TEE manufacturing process is presented on video and two specifically created T-shirts with the image of the exhibition, one printed and the other embroidered, are on display.

INNOVATIVE FIBERS AND MATERIALS

Among the most interesting materials is **Amni Soul Eco® by Solvay**, the first polyamide yarn in the world which degrades in just five years. It is a polyamide with additives which give it the highest possible level of biodegradability. These additives facilitate the access of bacteria to the microscopic structure of the fiber, “swelling” the fiber when exposed to high humidity and triggering the process of biofilm formation. Once the biodegradation process has started, the polyamide, with its chemical structure based on carbon and hydrogen, essentially provides nourishment to the bacteria. The fabric is made by **Mectex**, the textile department of Manifatture Italiana Scudieri, the textile company based in Erba (Como), belonging to the Adler Group of Paolo Scudieri, leader in technical fabrics since 1956.

Appleskin manufactured by Frumat. The company was established with the aim of solving problems concerning pollution and disposal of industrial organic waste. Being based in Bolzano, which is considered the home of apples, in 2015 Frumat created Appleskin, a 100% vegan product obtained by apple processing residues with a high organic content, which can be used for bindings, fashion, furniture, footwear and accessories.

Bemberg™ by Asahi Kasei, manufactured since 1931, is a new-generation, unique and precious material, which is derived from the smart-tech transformation of cotton linters, a material which is perfectly in line with the concept of circular economy. The result is an anti-static, versatile product with a high level of humidity control.

The Bemberg™ fabric on display is manufactured by Brunello.

Crabyon was patented in Japan by Omikenshi, a company which has invented an industrial process to crush the shells of edible crustaceans and mix them with other natural fibers without using solvents. Most of the raw materials for the production of the chitin/chitosan contained in the crabyon derives from the recycling of crustacean shells. Chitin and chitosan are substances with numerous hygienic properties and their biocompatibility has been scientifically confirmed. Since these natural antibacterial properties remain unchanged over time, crabyon is the ideal fiber to make textile products to be used in contact with the skin. The manufacturer of the yarn is **Pozzi Electa**. The fabric is manufactured by **Tessitura Serica A.M. Taborelli**. Polylactic acid (PLA) by **Natureworks**, sold under the **Ingeo™** biopolymer brand, is a biopolymer which is 100% produced from renewable resources. It is obtained by the polymerization of lactic acid, produced through the fermentation of plant-derived sugar molecules. Natureworks currently uses the best technologies to “capture” the carbon dioxide contained in the sugars and transform it into a range of high-performance Ingeo™ materials.

Ingeo™ fabrics are manufactured by **Tessitura Serica A.M. Taborelli** (the orthogonal fabric), and by **TIN-TEX Textiles** (the jersey). Both fabrics are present in the exhibition.

The orthogonal fabric is made from an Ingeo™ yarn manufactured by **Trevira GmbH**, an historic German manufacturer of filaments and fibers with over sixty years’ experience and expertise in high-performance, high-quality polyester, suitable for any textile application. The filaments and fibers in PLA (polylactic acid) represent a sustainable alternative to oil-derived fibers and filaments and are used to manufacture smart fabrics with additional functions. The yarn is processed by **Lei-Tsu**, a company set up in 1954, which specializes in the processing of filaments in its two plants in Lombardy, Bellusco and Tirano.

Orange Fiber is the Italian company which patented and manufactures sustainable materials from citrus

by-products. The patent registered by Orange Fiber makes it possible to transform orange processing residues into a high-quality and highly innovative fabric, without depriving the food industry of raw materials and thus using by-products which otherwise would be disposed of.

Piñatex manufactured by Ananas Anam is an innovative, natural and sustainable material derived from pineapple leaf fibers. It is breathable, flexible and with a resistance to traction similar to that of linen and better than jute, hemp and sisal. It was created by Carmen Hiosa, who, after working for a Philippine company in the 1990s, discovered that the fibers of pineapple leaves, which are used in Philippine clothing, could be transformed into a material which would be a source of income for local farmers.

The company **Vegea** patented the Vegetextile technology for the production of fabrics derived from wine industry biomass: with this project, therefore, new added value is given to grape marc (grape skins, seeds and stalks derived from the winemaking process). Vegetextile is the key innovation of the company, a start-up established in 2014 and still expanding.

■ SECTION 8 ■

ART, TECHNOLOGY AND SCIENCE

Two works by **Tomás Saraceno** (San Miguel de Tucumán, 1973) are on display in the room.

The Argentinian artist creates complex works that are the result of long cross-disciplinary investigations. Artist and architect, Tomás Saraceno has long been working together with biologists, astrophysicists, engineers, and architects to create sculptures and installations in response to global ecological issues.

Aware that mankind cannot survive without developing renewable energy sources, researching new ways of living, and paying attention to other lifeforms (such as spiders, which hold valuable lessons), he pursues the idea of a “feasible utopia”, reviving and updating the visionary spirit of constructivism.

Starting from the common premise that today an all-round environmental approach is necessary and the Anthropocene—the age in which humans are the measure and masters of the universe—is no longer sustainable, Tomás Saraceno founded an open-source platform named *Aerocene* (the age of air) to promote a collective project aimed at achieving “an ethical collaboration with the atmosphere and the environment”.

Part of this initiative are the *Aerosolar* cycle, encompassing sculptures, installations, and objects, and the *Aerosolar Journeys*, flying projects that leverage exclusively natural thermal updrafts to lift lighter-than-air structures. Tomás Saraceno’s “travelers” hang on to them and move around thanks only to the heat of the sun and infrared radiation from the surface of Earth, as shown by the amazing images of *Aerocene, Launches at White Sands, New Mexico United States*, 2016 - ongoing, the single channel video on display, which also represents a hymn to equality and freedom. *Aerocene* testifies to the possibility of taking off from the ground in an environmentally friendly manner—as well as reminds us that the air belongs to everyone, and traveling around the world, free from borders and fossil fuels, is possible and necessary.

The same room where the video is played features also the *Aerocene Explorer Backpack AEI01*, 2016, a backpack with everything you need to float and start exploring the skies. The kit includes a reinforced solar balloon, a canvas backpack, a recycled plastic bottle, a remotely operated camera and a GPS repeater, a portable solar power bank, a long-range wi-fi module and antenna, a miniaturized computer interface, a sensing device with air-quality sensors as well as internal and external sensors to measure air pressure, humidity, and temperature, influenced by the sun and the wind.

It is intended to be “a tool for solar-power atmospheric exploration [...] and offering a new way to sense the environment”. Only by living in harmony with the environment we will be able to practice a sustainable lifestyle and a different way of living in the world, capable of re-connecting mankind, the environment, art, nature, technology, and science.

■ SECTION 9 ■ THE CULTURE OF DIVERSITY

A truly responsible and sustainable company, in considering its growth, must integrate, in company management, economic and environmental as well as social goals i.e. virtuous conduct and ethical actions undertaken in respect of workers' rights, developing their skills and promoting the characteristics and ability of each individual.

The cohabitation of heterogeneous groups is now a widespread phenomenon in contemporary societies and organizations find themselves facing issues such as religious, cultural and gender diversity, differences in sexual orientation, disabilities and the coexistence of young and less young workers in the same environment. Recent studies have shown how understanding and including others generate a positive impact also on business results, improving motivation and efficiency of the workforce, innovation and creativity.

Respecting diversity has always been a value for Salvatore Ferragamo, a company where women, for example, have for a long time held key positions.

In order to give access to the issue of diversity and make it visible in an exhibition, a profiler, **Ellie Uyttenbroek** (Rotterdam, 1965), and a photographer, **Ari Versluis** (Werkendam, 1961), gave their contribution. They have included in their twenty-year work *Exactitudes*, a special project undertaken with the employees of Salvatore Ferragamo.

The two Dutch artists started working together in 1994. Starting from their shared interest in the dress codes of various social groups, for over twenty-four years they have created series of photographic portraits working in so many different cities - Paris, Casablanca, Beijing, Rio de Janeiro. In 2002, they published the first book about their work - *Exactitudes* - which is now in the sixth edition. The most recent print of 2014 contains 154 series, which bring together 1.386 different people chosen from the street and photographed in studio.

Putting each subject within the same frame, with a specific pose and a carefully studied dress code, the artists provide a kind of anthropological record of the different attempts people make to stand out from others, albeit seeking a group identity. The apparent contradiction between individuality and uniformity, taken to the extreme by the endless analysis of style and the precision of the photograph, is elevated by the artistic work, which frees the final work from the risk of looking like a simple document.

Uyttenbroek's and Versluis' projects generally take three weeks, and this was the time dedicated to the photographic campaign at Salvatore Ferragamo company plant in Osmannoro, Sesto Fiorentino, and in the headquarters in Palazzo Spini Feroni, in the center of Florence. In both locations a photography set was prepared, while the two artists made their selections and casting in complete freedom.

It is worth noting that, at first, the two artists thought that their way of working would encounter difficulties within a corporate organization, above all in the fashion sector, where personalities tend to mix, and dress codes are not so clear-cut. But Ferragamo's people are not required to wear a uniform. They can freely express their personality: a unique and perfect condition for Ferragamo project to become part of *Exactitudes*. The result is a glimpse into a contemporary fashion company, represented by eight series, four male and four female, each consisting of twelve portraits. However, the number of people involved, both Italian and foreign,

was well over that needed to make up the series that then became part of the final work. Taking more photos was essential to highlight such a complex theme as diversity, from which the whole operation started. A wallpaper was created for the exhibition, on which the photographs of all the portraits were printed. It covers the entire room and includes the eight final series in their frames. In this way all the people working at Ferragamo are united in the name of diversity.

■ SECTION 10 ■ BACK TO NATURE

In this time of reflection on sustainability and on alternative sources to replace oil, the natural fibers are returning to the fore. Natural fibers derive from materials existing in nature and undergo mechanical processes which do not modify their structure. They can derive from animal or plant; the former includes wool, silk and leather, while among the latter are cotton, linen and hemp.

Also in this field, industry has tried to improve the production processes to meet the values of the contemporary consumer, who is increasingly attentive and sensitive to the issues of traceability, process transparency, ethics, as well as to the policies related to the use of water, energy and chemicals.

Today, the great relaunch of these fibers, which have been used for centuries and then temporarily abandoned due to the advent of smart and synthetic fibers, has also brought with it the recovery of ancient cultivation methods and craftsmanship processes that were considered lost.

This is the theme of this last room of the exhibition which started with a denunciation of environmental pollution and ends with the return to Nature and our Mother Earth.

This section shows the works of two artists, the clothes of five new-generation designers, and organic fabrics, which, descending from the top of the ceiling, create circular spaces where the visitor can enter and understand the fibers from which fabrics are made, the processes and the world which lies behind this production process. In some cases, it will be possible to wear minimal clothes prepared as Haute Couture canvas sewing patterns, to feel the fabric layer, its weight, and its texture (hemp, nettle, and yak).

ART

Piero Gilardi (Turin, 1942) is one of the artists chosen for the final part of the exhibition. Since the early 1960s, his artistic research has been characterized by a strong social awareness, by a special attention to the relationship between man and nature and by the extreme changes taking place in the landscape, in the environment and in the post-industrial world.

Around 1965, he started to create the *Tappeti-Natura*; five recent versions made in expanded polyurethane created in 2017 and 2018 and coming from the artists' atelier, can be admired in this exhibition: *Papaya e pitaya* and four smaller ones, hung on the walls: *Meloni*, *Ireos*, *Spiaggia di granito rosa*, *Pomodori bretoni*. These suggestive artworks quickly brought Piero Gilardi to the forefront of the international art scene. Although formally comparable to the contemporary Pop Art (and, specifically, to the "soft sculptures" of Claes Oldenburg), these works arise from a completely different consideration: the subjects – stones, rivers, plants, birds, vegetation... – hyper-realistically imitate nature and, at the same time, emphasize their artificial features. Although the Nature Carpets are conceived as part of a context that is increasingly counterfeited and tamed by man, they also show their "playful aspect": they are made available to the visitors, who are invited to use them without restriction thus creating an experiential space of relationships in a context of playful

and shared use.

Despite his success as a visual artist, by the end of the 1960s, Piero Gilardi decided to dedicate himself almost exclusively to theoretical production. Starting from the relationship between artistic practice and social commitment, he focused his attention on political-social or bio-political themes (to use a term recently acquired by the common language, but already long used by the artist) writing texts, participating in events and festivals with masks and installations, which were critical although always deeply ironic.

Without giving up his political and environmental commitment, in the early 1980s the artist created again remarkable artworks with particular attention to the so-called Media Art and to the exploration of the interactive creations, since he was interested in investigating the extent of the deep technological transformation underway. Over the years, his constant sense of responsibility towards the community in its various forms led him to develop a harsh criticism against the work of the institutions. Hence, as a reaction to the growing detachment between the art system and the pressing social needs, in the early 2000s, Piero Gilardi created the Padiglione Arte Vivente, an avant-garde structure dedicated to artistic projects aimed at exchanging experiences and expertise on the environment protection. The PAV, which was built in an abandoned industrial area of Turin and inaugurated in 2008 as research center and open-air “museum”, has quickly become an international point of reference confirming that art can be a driving force in the creation of spaces to exchange ideas that are able of combining creativity and ecological sustainability, and that art can play a role in the survival of our Planet.

Among the main protagonists of the Arte povera movement, **Michelangelo Pistoletto** (Biella, 1933) trained in the workshop of his father, a painter and restorer, soon developing a particular interest for the representation of the human figure. Still very young, he started to create a series of self-portraits in which his image undergoes a process of “detachment” thanks to a gradual synthesis of the background. This stage of synthesising the surrounding space led the artist to create increasingly lucid surfaces to achieve a dynamic and compelling aspect. With the *Quadri Specchianti*, after experimenting with various techniques on various types of surfaces, Pistoletto used a photographic print on tissue paper (since 1971 replaced by a screen-printing process) applied on a polished stainless-steel sheet, which replaces the canvas, thus enabling the reflection of the subject and of the surrounding context: the spectator, and the surrounding space, become an integral part of the work. Since then, participation and dialogue among different aspects, demands and timeframes have been distinctive elements of an artistic process aimed at gaining awareness of the world in which we live, where art can significantly contribute to reconciliation and change.

Thus, for example, in the famous *Venere degli stracci* (1967), Michelangelo Pistoletto counterposes a bright female sculpture, a reproduction of a classic Venus, to a multiform and multicoloured mountain of used clothes. Venus, a “timeless” beauty icon, faces the multiform and changeable rags, indicating the coexistence of different forms and timeframes, a clear reference to the consumer society, but also to the regenerative power of art. As from 1967 the artist’s work expanded to other types of expression such as theatre, set design and music, and his “openness to the world” takes the form of a new theatre group (Lo Zoo), happenings, performances, installations and collective projects.

In the two subsequent decades, Michelangelo Pistoletto acquired a protagonist role in shows, meetings, exhibitions and debates through which he increasingly developed an idea of art as a “center of a socially responsible transformation”. In 1994 the concept further expanded, with the launch of *Progetto Arte*, which involves artists from various disciplines and representatives of broad sectors of society, laying the bases for the opening in 1998 of the *Cittadellarte-Fondazione Pistoletto Onlus* in Biella.

In 2003 Michelangelo Pistoletto conceived *Terzo Paradiso*, a new project aimed at reconciling the artificial and natural world to increase responsibility of mankind.

“The symbol of Terzo Paradiso (*Third Paradise*), a reconfiguration of the mathematical sign for infinity, consists of three consecutive rings. The two external rings represent all the forms of diversity and opposition, including the natural and artificial world. That central element is the intertwining of opposing rings and represents the generative womb of a new mankind. (M. Pistoletto, *Terzo Paradiso*, 2003 published in www.pistoletto.it/it/testi/terzo_paradiso.pdf)

The symbol refers to art as the source of “mental and visual energy” and is used from time to time in different sizes, materials and means.

The work on display, covered by sustainable materials from companies included in the B.E.S.T. platform, is the symbol used for the *Manifesto for Sustainability* of Italian Fashion and the Guidelines on the ecotoxicological requirements of the CNMI (Italian acronym for the Italian Fashion Chamber), as well as the research project of the UNECE and the European Commission dedicated to establishing traceability and transparency standards for sustainable fashion.

FASHION DESIGNERS

Nathalie Ballout, a half-Swedish and half-Lebanese fashion designer, creates clothes which are wearable works of art using natural fabrics and recycled materials. For the exhibition, she designed an oversize coat, putting together scraps from used Levi’s jeans. For Nathalie Ballout, storytelling is important and her coat narrates the slow death of the coral reef, using as her words the embroidery stitches on an infinite denim patchwork similar to a blue sea. It has been included in this section for this open defence of nature.

Maria Cornejo is a Chilean stylist, but citizen of the world. Her company Zero+Maria Cornejo is based in New York since 1998.

The *Ero Fajmin Dress*, which was made for the exhibition at the Museo Salvatore Ferragamo, is in a fabric which the designer calls *Eco Drape*. She uses a viscose yarn manufactured from a mixture of Norway Spruce and Scots Pine wood pulp, sourced out of certified sustainable forests in Domsjö, Sweden.

Tiziano Guardini is one of the most successful and talented Italian designers in sustainable fashion.

Many of Tiziano Guardini’s clothes focus on high-quality craftsmanship which are more peculiar to the world of Haute Couture than to the Ready-to-Wear industry. The dress which he has designed exclusively for this exhibition is proof of that: a cascade of undulating strips of non-violent green silk, manufactured by Coccon and GOTS* certified. It is hand cut with great expertise and the typical techniques of Haute Couture, it is completed by a sweater in Q-NOVA® by Fulgar jersey (in nylon 6.6), manufactured by Iluna Group, which uses a recycled yarn through a mechanical, chemical-free regeneration system, which does not compromise the sustainability of the finished product.

The garment was created in collaboration with Barbara Mugnai.

Laura Strambi is a fashion designer creating Italian truly sustainable products in her atelier in Milan.

Earth/Hearth, the name which she gave to the garment, encompasses all the elements which the designer loves and which, through her work, contribute to raising the awareness of her audience as regards sustainability.

With the painting by the artist Franco Gervasio, she created a garment able to evoke the “feeling” of the sea waves continuous flow, the mysterious silence of the stones, the colours of the flowers living in her visionary world full of unexpected effects: this earth that always belongs to her and that inspires her collections. Made

of Newlife™ fabric, silk, organic cotton manufactured exclusively for her and dyed naturally by means of a spatula, and recycled printed fabrics; it is embroidered with materials present in her archive that preserves the samples collected worldwide by Laura Strambi over the years: stones, Swarovski rhinestones, seeds.

Wyhoys is an innovative Hungarian brand, which produces organic clothing. For this exhibition, a coat has been selected designed by Lilla Pápai for the Autumn/Winter 2016-2017 collection, *Wear Your Heart on Your Sleeve*. The drawing on the garment refers to the catastrophic effects on nature and wildlife caused by oil spills, in the attempt to raise public awareness about such a delicate issue as oil pollution. The fabric is Australian and New Zealand merino wool, GOTS* certified, processed in accordance with the ancient felting technique.

FIBERS AND NATURAL MATERIALS

Hemp is a natural textile fiber obtained from the plant of the same name that grows in areas with temperate climates. One of the main factors determining hemp's sustainability is that it can be continuously cultivated because it does not drain the land, but rather reclaims and softens it, in addition to not requiring pesticides, weed killers or fertilizers. It is a material with interesting performance characteristics, including great resistance, which can thus be used in various ways.

The fabric was provided by **Maeko Tessuti & Filati Naturali**, a company created in 1998 thanks to Mauro Vismara's passion for natural fibers. The yarns of hemp, nettle, soybean, crabyon, bamboo, linen, organic cotton, yak and certified wools are processed by experts in an historical weaving mill in the province of Turin. Since 2014, Mauro Vismara, driven by his endless passion, has been working to relaunch the historical sector of textile hemp production in Italy, and restart the agricultural/industrial sector for which, in the past century, Italy was at the second place after Russia.

For over 25 years, **Organic Cotton Colours** has been producing 100% organic **coloured cotton**; moreover, for seven years it has promoted its own project for Brazilian cotton, supporting local cultivation and involving over 150 farmers with the goal of total, absolute traceability.

Cotton does not need artificial irrigation, or insecticides, so yarns and fabrics are produced without any chemical process. It is a product characterized by another unique factor: OCC has chosen to use old and natural cotton seeds that possess the original colours of the plant, such as green, écru and brown.

Felt is a material traditionally made from animal fur. It is not a fabric, since it is produced by felting fibers. It is warm, light and waterproof. Wool felt, in particular, draws on the ability of wool fibers to compact without the use of any chemical additive. In addition, this type of felt is biodegradable. Today there are also versions in plant fibers, felted using humidity, heat and pressure, and through mechanical or chemical processes.

Filz Torino Feltri, the company manufacturing the felt used in the exhibition, has been selling both natural and synthetic felt for over fifty years.

Kapok by FLOCUS™ is a 100% plant and natural fiber obtained from the fruits of a tree from the Bombacaceae family, spread in Asia and Brazil, which grows spontaneously in uncontaminated forests, is cultivated without using pesticides or fertilizers, and does not need irrigation. A woolly fiber is obtained from the fruit; through an accurate process without any use of harmful chemicals, becomes soft, elastic and easy to model, while keeping its shape unchanged.

Native wool manufactured by Lanificio Fratelli Piacenza. For decades, in Italy, sheep have been bred for meat and milk, since the market no longer demanded their wool that, over the centuries, has been the basic raw material for the clothing fabrics. Today, much of the national wool production lies abandoned on the ground where shepherds and breeders shear their flocks as expected by the biological cycle and needed for survival of the animals. Although natural, the abandoned wool could be dangerous for the environment because it pollutes the aquifers. Today, the use of wool from native sheep breeds represents not only a valid support for the breeders, by converting shearing costs (with no margins) into an additional source of income, but it is furthermore a way to restore a traditional resource. The key value of native wool is the traceability of raw materials, of the supply chain and, therefore, of the finished product.

Starting from this principle, the long-established business of Lanificio Fratelli Piacenza identifies locations, breeders and farms to source the finest raw materials in the world. The detailed choice of the superfine wool from limited production and the best high-quality fibers is an integral part of the know-how that goes on throughout the whole production process, in order to enhance the natural features with unusual blends or special finishes.

The area created in this section with the Piacenza's wool hosts the artwork by **Michelangelo Pistoletto**, *Il Terzo Paradiso*, 2010. The artwork's creation was curated by Patrizia Maggia as part of a project to promote native wool and sponsored by the Piedmont Region in collaboration with the Biella Chamber of Commerce and Agenzia Lane d'Italia.

The artwork was woven on a handloom by the expert weavers Lidia Miotto and Marina Fornaro from Milan, using wool in the natural hues of the fleece, which was manufactured by Lanificio Fratelli Piacenza.

The organic linen shown in the exhibition was supplied by **TINTEX Textiles**. It is a fiber deriving from linen plants grown without the use of fertilizers and chemical pesticides. An elegant, light and fresh yarn is obtained from this material; linen has an inherent ability to absorb and regulate humidity, as well as to rapidly dry and not to felt. In addition, it is hypoallergenic and antibacterial and that makes it perfect for garments to be worn in direct contact with the skin.

Nettle is a perennial crop that grows quickly without the need for artificial irrigation, pesticides or weed killers on land that is often unsuitable for other crops. An excellent textile fiber is obtained from the nettle's stems, originating wonderful thin and flexible, strong and tough yarns. The nettle fiber is soft, resilient and breathable like linen, and as brilliant as silk. It is 100% natural and biodegradable and possesses anti-static properties.

After an interruption, in the years of autarchy, people restarted extracting the textile fiber from nettles in Italy. Once the extraction was achieved by macerating the stems in ammonia to then decorticate them, while currently other methods, both natural and chemical, are being tested, to then process the fiber into yarns.

Camira Fabrics, the company that produced the nettle fiber fabric for the exhibition, sources the raw material locally, thanks to the partnership with two farms located in Yorkshire and Lincolnshire, respectively. To produce its collection of nettle textiles, Camira blends this fiber with pure virgin wool with variable percentages.

Vegan silk/non-violent silk manufactured by Ereena. In the deep valleys of the Indian Himalaya, the silkworm "Samia Cynthia" lives and proliferates on the leaves of the castor-oil plants plentifully growing there. It eats these leaves and creates special cocoons characterized by a "naturally uncommon structure" that allows it to get out the cocoon without breaking it once created and to complete its life cycle outside in a natural way. The Ereena silk yarns produced thanks to these special silkworms create fabrics recalling the beauty and pre-

ciousness of silk but with a matt look and a very sophisticated light; its texture is similar to the finest wool of which they have also the comfort and the property to keep the body temperature constant regardless of external weather conditions. In short, they are fresh in the summer and warm in the winter.

Thanks to Jyothi Reddy, who is the designer, the producer and the coordinator of this initiative, this project has a great social value, too, because, now, over 12.000 silkworm breeders and around 2.000 spinners and weavers can rely on a secure source of income and improve their living standards.

Cork is a natural material obtained from cork oak and has been used for over two thousand years. It is mainly found in the Mediterranean; and in Italy, especially, in Sardinia and Sicily. It has excellent thermal and acoustic insulation properties, it is water- and fire-resistant, and is naturally biodegradable. Cork can be re-used several times through non-invasive processes. It is estimated that cork forests absorb 14 million tons of CO₂ per year and contribute to reduce the amount of greenhouse gases in the atmosphere and to slow down the global warming. Cork is able to retain approximately twice its weight of CO₂. An excellent example of circular economy.

The family-run Tuscan company **Villani Leonello** specializes in the production of cork fabrics for the footwear and leather industries. The manufacturing process implemented by the company consists of gluing very thin sheets of natural cork on textile supports.

Natural dyes by Casa Clementina of Sissi Castellano and Stefano Panconesi

Natural dyes are always used dye textile items made from organic fibers. These dyes are obtained from parts of plants, minerals and even insects: these are very ancient techniques, largely abandoned in the mid-19th century, with the advent of synthetic colours.

The dyeing process, which is not only chemical but also physical, is based on the fact that each type of natural fiber absorbs the dye differently, determining a different colour tone: animal fibers or protein fibers are more receptive, while plant or cellulose fibers result in clearer and less brilliant tones.

By using mordants, mineral salts and plant tannins, it is possible to obtain a considerable variety of tones from each plant.

The textile industry's approach to the use of natural dyes has changed a lot in recent years, even if it has still not reached particularly high production levels. The virtue of natural dyes is that they are made from natural, healthy raw materials, do not use fossil fuels and do not contain harmful waste. The difficult standardization of chromatic effects makes them suitable to semi-artisan production, undertaken by companies operating with lower quantities, but characterized by careful research and tailoring and uniqueness criteria.

In order to tell the tale of the world of natural dyes, the Florentine Stefano Panconesi was called on to participate in the *Sustainable Thinking* project. For over twenty years he has dealt with the industrialization of natural dyes and environmentally-friendly textiles. He has recently worked on a large-scale study on their uses, deployment, raw materials and ancient recipes, selecting and processing everything with a view to an application in industrial production. In 2011, together with Sissi Castellano, he established Associazione Casa Clementina with the aim of studying and preserving ancient textile techniques from around the world. Together they have designed a striking installation for the Museo Salvatore Ferragamo, which is integrated into the non-violent silk area.

The materials were provided by D'Orica, a gold company from Vicenza established in 1989 by the couple Giampietro Zonta and Daniela Raccanello, which started producing silk as from 2014.

The production of **mYak** yarns is a social project, created over 20 years' life and work by Paola Vanzo and

Andrea Dominici with nomadic herders of the Tibetan Plateau. These yarns derive from the finest and softest fiber from baby yaks, which can maintain its natural warmth with temperatures as low as 40 degrees below zero. The processing of these particular and very fine yarns requires great skill and exceptional care: that is why it is carried out in small workshops specialized in spinning, giving life to timeless and beautiful items of unmatched quality. Combining the energy and strength of the Tibetan Plateau and the precious Italian craftsmanship, mYak can offer much more than a business, it also builds the future of one of the most ancient ways of living in the world.

The baby yak fabric was made by **Lanificio Bisentino** in Prato with finishing by **Rifinitone Santo Stefano** in Prato.

Chiara Vigo, the master of byssus, “the silk coming from the sea”

In the section of the exhibition dedicated to natural fibers, a truly special material has been included, **byssus**, also known as “the silk coming from sea”. *Pinna nobilis*, the largest bivalve mollusk in the Mediterranean, which can even exceed a meter in length, is for the source of the filament, which shines like gold and has been known since ancient times for weaving the clothes of kings and priests. Collecting byssus is an ancient, almost sacred, art. It takes place between May and June, around the island of Sant’Antioco in Sardinia, and is done only on adult mollusks, using a system that does not compromise the animal’s health. One *Pinna nobilis* provides just 20 grams of raw material that, after twenty-five days’ desalination in running water, is freed from any waste and is then carded, spun and passed by hand in linen warp on large foot looms, or woven with fingernails on small wooden looms. Chiara Vigo is the great master of Sardinian byssus and she inherited the secrets of this esoteric process from her grandmother. Chiara also knows all the natural colours of this fiber, which are obtained from plants and flowers, or, as for the precious purple colour, from shells, without ever endangering the animal’s life.

Items made with byssus cannot be bought or sold, only donated or received.

It is the most sustainable existing material, but it does not follow any commercial rule. Owing to this peculiarity and to the magic its long and refined processing spreads, it was decided to give it a special space.



SUSTAINABLE THINKING: ISO 20121 CERTIFICATION

The *Sustainable Thinking* exhibition of the Museo Salvatore Ferragamo obtained the ISO 20121 certification, which defines the requirements of a Management System for the sustainable organization of events. The standard is aimed at organizations that intend to implement or improve their ability to arrange their corporate events in a sustainable way and require to define procedures and operating rules related to the design, planning, implementation, monitoring and reporting of one or more sustainable events, in the perspectives of continuous improvement.

The elements assessed in the ISO 20121 certification, to verify the actual socio-economic-environmental sustainability of the event, are: *location, accessibility, supply of products and services, choice of materials, transport and logistics, waste, compliance with labor standards, occupational health and safety, energy consumption, emission reduction, respect for local communities, indirect economic impacts.*



SUSTAINABLE THINKING ACCORDING TO YOUNG PEOPLE:
A PROJECT WITH FLORENCE'S LICEO CLASSICO MICHELANGIOLLO

As part of the work-based learning partnerships and training initiatives the Fondazione Ferragamo and Florence's Liceo Classico Michelangiolo (a high school specializing in classical studies) have been working on together for three years now, we developed a project under the coordination of Professor Stefano Fabbri Bertolotti, teacher of history and philosophy, to deal with themes on sustainability, environment defence, social responsibility. After participating in a short training course taught by Salvatore Ferragamo Head of CSR on the main topics associated with sustainability and corporate social responsibility, the students were asked to express their opinion about and interest in an issue concerning the future of the Planet. Their thoughts were then recorded in the form of interviews and included in the last section of the exhibition together with interviews to the project's curators, to the artists, to the fashion designers and to the manufactures of fabric who took place to the initiative. The goal is to show how the concept of sustainability is not limited to certain areas, but rather encompasses every aspect of our life and is not something alien to individual people. Just as important as the conduct of manufacturing companies is educating consumers, who must become aware of all the decisions made to reduce energy consumption, air pollution, and waste as well as foster sound work ethics. Their behavior will affect the economy, the environment, and society, as documented by the observations of these high school students.



REIMAGINE. RECRAFT. REPURPOSE
SUSTAINABLE THINKING: FERRAGAMO PEOPLE CONTEST

The principles of sustainability and social responsibility are widespread among Salvatore Ferragamo's staff, to the extent that, in 2014, an inter-departmental **Green Team** was formed exclusively to develop multiple initiatives linked to these issues, with the idea that the culture of sustainability requires widespread dissemination. The exhibition and the related side projects have involved many company departments and people, who all enthusiastically agreed to take part, understanding the value of the message and the whole operation, not only for the success of the brand they work for, but also for the future of new generations. With the aim of making the whole Ferragamo world feel like an active part of this philosophy, at the end of 2018, an in-house competition was launched to all employees, requesting to send, by the end of December, a motto of up to four words on environmental sustainability and social responsibility. The mottos were voted online by the employees themselves and by an inhouse jury consisting of Millennials.



YOUNG TALENTS FOR SUSTAINABLE THINKING
BY SALVATORE FERRAGAMO

As part of the activities related to the exhibition, Salvatore Ferragamo, in partnership with Fondazione Ferragamo, launched the *Young Talents for Sustainable Thinking* project, aimed at eight international fashion schools whose students were called on to produce prototypes on the theme of sustainability and recycling. The schools invited to take part are: **Aalto University**, Helsinki; **Accademia Costume & Moda**, Rome; **Cononogacco**, Tokyo; **IED**, Milan; **London College of Fashion**, London; **Parsons School of Fashion**, New York; **Polimoda**, Florence; **Donghua University**, Shanghai.

The participants were asked to design and make one of the following: a shoe, a bag or an item of women's clothing, following the criteria of the brief given by Paul Andrew – Salvatore Ferragamo creative director. "Patchwork is the technique requested for this project.

It was developed over the past centuries among American pioneers, who recycled the best parts of their clothes or recovered cuttings from home tailoring. It is an art rather than a technique, which allows to freely express creativity. In the contemporary world, it perfectly responds to sustainability criteria in fashion because gives new life to waste, leather and textiles, which would otherwise be destroyed.

It is then consistent with the central theme of the exhibition at the Museo Salvatore Ferragamo and also represents one of the style codes of Salvatore Ferragamo who, from the 1920s, created patchwork uppers, fascinated by the possibility of endlessly combining different colours and materials" (Paul Andrew).

In realizing the projects, the participants must use slow-moving materials (waste materials), otherwise destined to be destroyed, which Salvatore Ferragamo company donated to the individual participating schools. These materials may eventually be supplemented with recycled materials at the discretion of each participant, with a view to circular creativity.

Each school can present no more than 3 projects, in the form of final prototypes, made by 2 or 3 students who can work individually or in a group.

The final projects must be sent to the offices of the Fondazione Ferragamo by 31 May 2019 and will be part of an exhibition in Florence during the prestigious Pitti Filati event organized by Pitti Immagine, from 26 to

28 June 2019, when the presentation of international knitting yarn excellence attracts buyers from around the globe, designers from the top fashion business brands looking for creative ideas and international press representatives.

The initiative also represents a research laboratory and an observatory for new global lifestyle trends.

The models proposed will be assessed by a jury consisting of James Ferragamo – Deputy Chairman of Salvatore Ferragamo S.p.A., Paul Andrew – Salvatore Ferragamo creative director – and fashion journalists, influencers and experts in new trends.

The jury will announce the winner by 10 June 2019, who will receive the following prize: the opportunity to undertake a paid, 6-month internship in the creative divisions of Salvatore Ferragamo with travel and accommodation costs covered. The winner (or winners) will be invited to the prize-giving ceremony during the opening of the exhibition at the Pitti Filati event in Florence.



SUSTAINABLE SHOP WINDOWS: A SOCIAL PROJECT

To celebrate the opening of the *Sustainable Thinking* exhibition, for two weeks the eleven shop windows facing Lungarno Acciaiuoli, Via Tornabuoni, and Piazza Santa Trinita of the Salvatore Ferragamo store in Florence will be decorated with special displays. The project has been developed in partnership with the San Patrignano community, the world-famous drug rehabilitation center that seeks to train and promote disadvantaged individuals in order to reintegrate them into society, constantly upholding the principles of freedom and personal dignity.

A stand-out among the community's active laboratories is the one dedicated to handloom weaving, an ancient craft that offers young people the opportunity to reflect on important values such as know-how, manual labor, the discipline necessary to accomplish a goal, the quest for perfection. Barbara Guarducci, a textile designer who has long been involved in social issues, coordinates the textile unit's creative and research work. Under her supervision, the young girls in the textile department enthusiastically and passionately created eleven large tapestries of various textures, one for each window, using Salvatore Ferragamo's waste materials which would have otherwise be disposed of as warp and weft: several types of solid-colour fabrics, suede, calf-skin and goatskin, and grosgrain ribbons, either branded or unbranded, in the hues traditionally favored by the Italian fashion house—bright blue, dark red, yellow, bright green, black, white, gold, and silver. Eleven combinations that showcase craftsmanship, technical research, dedication, and a penchant for beauty, which helps young people discover their inner beauty and self-love.

During the past year, Salvatore Ferragamo doubled down on its commitment to the San Patrignano community, supporting thirteen employees who participated in the New York city marathon alongside the San Patrignano Running Team and allocating the money saved by not printing Christmas greeting cards to two work grants: these will help two girls continue their work experience in the community's leather unit after completing their rehabilitation program.



SUSTAINABLE THINKING IN FLORENCE MUSEUMS

SALA DELLE UDIENZE, MUSEO DI PALAZZO VECCHIO

LUCY + JORGE ORTA

Curated by Arabella S. Natalini, Stefania Ricci, Sergio Risaliti

12 April - 4 July 2019

Lucy + Jorge Orta's project for Museo di Palazzo Vecchio necessarily engages with the setting and decorations of the place, which is so full of history and political symbols, myths and allegories evoking the relationship between the world of art and culture, with the political and economic events of the city of Florence and of the Medici family. The selected works translate into modern language the themes of the cosmological and naturalist humanism of the time of Cosimo I and Francesco I de' Medici, representing a Renaissance-inspired culture that, in the making of Western society and at the beginning of globalization – which was dramatic sometimes – after Columbus' and Vespucci's geographical discoveries, was bringing about changes having an enormous impact on culture and humanistic consciousness. In the name of mercantile and scientific, commercial and military progress, such changes began to disrupt the balance between the various civilizations of the world and nature, with consequences that worsened with the industrial revolution and the consumerism of the twentieth century, determining the current climate and geopolitical emergencies.

In a combination of art and fashion, ecology and anthropology, education and creativity, the couple works on the common ground of attention to detail, research on materials and aesthetics intended as ethics and sustainability. In line with their philosophy, the artists displayed in the Sala delle Udienze one of the *Life Guards* sculptures, symbolizing the four elements - Air, Earth, Fire and Water - which are common to all cosmogonies, both Western and Eastern. The installation, particularly the one dedicated to water, evoke Leonardo da Vinci's research inspired by the investigation into the mysteries of nature and the dynamics of elements, as testified by his drawings and studies on flight and water. And it is specifically to Leonardo da Vinci and his studies, including those on nature, that Museo di Palazzo Vecchio has dedicated an exhibition curated by

Cristina Acidini, one of the greatest experts of Renaissance art. In addition, this exhibition has been set up in the adjoining room, known as Sala dei Gigli. Within the walls of Palazzo Vecchio, in an imaginary journey over time, exploring naturalistic and cosmological iconography, the avant-garde of the Renaissance, represented by Leonardo's love for earth and the study of elements, establishes a connection with that of our time, namely, the environmental emergency claimed by the Ortas.

MUSEO NOVECENTO
ROOM AND PERMANENT COLLECTION
LUCY + JORGE ORTA

Curated by Arabella S. Natalini, Stefania Ricci, Sergio Risaliti

12 April - 4 July 2019

The opening of **ROOM**, a new exhibition space on the ground floor of Museo Novecento, will be inaugurated with a series of exhibitions dedicated to contemporary artists who have made their art a manifesto of expression and rebellion. Experimentation and tradition, at a local and global level, are some of the themes addressed in this museum's section, which, in April 2019, in connection with the exhibition in Museo di Palazzo Vecchio, will host a great installation by **Lucy + Jorge Orta**, a couple that started working together in the early 1990s, exploring environmental and social issues. Tearing down the walls between art, design and architecture, the Ortas create works intended to stimulate public life and wish to become "active agents in a world that we are all dreaming of" as part of research activities constantly supported by a close dialogue between context, ethics and aesthetics, which often develop in cycles.

Inside the museum, *OrtaWater - Zillie Fluvial Intervention Unit* is displayed, an installation belonging to the OrtaWater cycle of works started in the early 2000s, which address the problem of water shortage and some issues connected with the privatization and control of its global distribution. The large installation displayed at the Museo Novecento proposes a structure in which a canoe, a small water network and some objects, tools linked to water, as a resource, and its equitable distribution.

In the permanent collection that includes Alberto della Ragione's Collection, the Ortas present two sculptures from the *Life Guards* cycle, symbolizing the four elements - Air, Earth, Fire and Water.

In this case one of two figures is *Life Guard Air*, which is very powerful and evocative for the exhibition project, which poetically recalls the idea of a flight. The other one is *Life Guard Amazonia* representing our luxuriant and generous Mother Earth, covered with flowers and plants. In a certain sense, the multi-coloured figure recalls a modern Botticelli Spring and successfully engages with the works of Italian artists of the early twentieth-century in the section dedicated to the "Italian pictorial landscape" and the "still life".

PARADIGMA. THE ARCHITECT'S DRAWING BOARD
BAUBOTANIK
A RENAISSANCE OF WHAT EXACTLY?

Curated by **Laura Andreini**

12 April - 4 July 2019

In the right wing of the covered loggia, on the ground floor of Museo Novecento, contemporary and twentieth-century architects are invited to share their vision and work through images, drawings and *maquettes*. The board represents the tool of architects' work *par excellence*, just as easels do for painters, and scores for musicians: they are the starting point of creation. In 2019, the **Paradigma** cycle will host events dedicated to some of the major players in international architecture, which have been organized in cooperation with their respective studios or foundations.

In April, the *Sustainable Thinking* exhibition at Museo Salvatore Ferragamo will host the German studio **Bureau Baubotanik**, engaged in the realization of projects that use living plants to support architectural structures. Bureau Baubotanik relies on the interdisciplinary research of architects, engineers, and biologists in order to combine architectural qualities, construction requirements and biological properties of living structures. Using trees and plants as building materials, the studio reduces the distance between man and nature, contributing to a better quality of life. With the aim of representing a sort of challenge for architecture, fostering greater attention to and awareness of the environment, their innovative techniques enable the creation of tree-centered residential buildings and living architectures that question the static and traditional design process. This requires an approach based on cognitive processes, on the acceptance of uncontrollable factors, and the willingness to regard them as aesthetic opportunities.

THE WALL
SOS SCHOOL OF SUSTAINABILITY

Curated by **Mario Cucinella Architects, SOS – School of Sustainability**

12 April - 4 July 2019

The plasterboard wall on the ground floor of Museo Novecento houses the layout of exhibitions that cannot be organized or that have remained a long-cherished dream. In 2019, thanks to graphic compositions and specific infographic projects, it will be possible to address universal and transversal themes involving different languages and disciplines, and focus on those artists and architects who made a decisive contribution to the history of the arts in the twentieth and twenty-first centuries. Among them is Mario Cucinella, who has always been promoting sustainable and ethical architecture. Sustainability has become the distinctive feature of his style, as demonstrated by some of his works: the headquarters of 3M in Milan, the Centre for Sustainable Energy Technologies in Ningbo, *Nido d'Infanzia* (Nursery School) in Guastalla, the University Complex of Aosta. Connection with the landscape, a low environmental impact, and energy sustainability are the added values of his architectural approach, which is constantly searching for ways to combine aesthetics and ethics. Mario Cucinella has established in 2015 the **SOS School of Sustainability**, a post-graduate academy in Bologna, where it is possible to study and train to become sustainability experts. The school aims to develop innovative professional skills in the social, economic and environmental fields, through interdisciplinary practice and research. Following the lecture *Metamorfosi: dalle radici all'albero. Il mestiere dell'architetto* (Metamorphosis: from roots to tree. The architect's work), organized in the Sala dei Gigli at Museo di Palazzo Vecchio in 2018, the Museum dedicates its **THE WALL** space to SOS.

CINEMA
IN BETWEEN ART FILM
BEFORE WE VANISH

Concept by Beatrice Bulgari, curated by Paola Ugolini

12 April - 4 July 2019

From 12 April to 4 July, the Cinema Hall of Museo Novecento will host the third event of the film festival in cooperation with In Between Art Film, a film production company founded by Beatrice Bulgari in 2012, which specializes in the production of films and documentaries based on an interdisciplinary approach of and exchange between the different artistic languages of our time. The third selection, curated by Paola Ugolini and entitled *Before We Vanish*, will feature a group of videos that analyze themes related to nature and climate change.



42 DEGREES: A YOUNG AND SUSTAINABLE CAPSULE COLLECTION BY SALVATORE FERRAGAMO

The *42 Degrees* capsule collection, consisting of a **men's sneaker**, a **women's sneaker**, a **backpack**, and a **shopping bag**, has been conceived by two young designers from Salvatore Ferragamo, Flavia Corridori and Luciano Dimotta. The capsule collection is the result of an internal competition joined by very young creative talents from Salvatore Ferragamo, according to the brief “creating accessories with sustainable materials and consistently with the iconic style of the brand.”

The result was judged by an international jury of experts, journalists and influencers.

The two designers have declared that “the main inspiration comes from Salvatore Ferragamo historical archive and from an iconic sandal, *Rainbow*, a model of 1938 with rainbow colours. Actually, our collection is named after the 42nd degree, the height of the sun that makes this extraordinary optical phenomenon visible.

We have chosen models involving a simple manufacturing process, but which are characterised by an innovative detail, a multi-coloured ribbon that constitutes the *leitmotif* of the collection, and by sustainable materials, as well as by Gancini metal accessories, which make Ferragamo's style distinctive.

This capsule collection is dedicated to fashion enthusiasts who care about the future of the planet”.

MATERIALS

All the components of *42 Degrees* collection are made of Italian materials and are realized by companies that operate in Italy and have been present on the market for years, combining tradition and innovation and ensuring a transparent and traceable supply chain.

The leathers used for bags and shoes have been developed exclusively for Salvatore Ferragamo with wet white chrome and metal free tanning. The sneaker base is made of calfskin, it is silky to the touch with uniform grain. Soles contain a high percentage of natural rubber, dyed with colours obtained from plants grown on

Italian soil. The filler of the cork sole is developed in Sardinia, it is lightweight and adaptable to any shape. The fustet insole is fully made of organic fibres such as corn, kenaf and wool, and it does not have chemical binders. Linings are water-based and not solvent-based.

The ribbon, the distinctive element of the collection, is made of woven textile, dyed with a system that allows lower levels of consumption of water, fossil fuel and chemicals. It is made with a yarn obtained from an exclusive high-tech polymer, which, thanks to a mechanical and non-chemical process, transforms 100% of plastic bottles, saving water and energy and ensuring lower carbon dioxide emissions compared to conventional polyester. The capsule backpack too has been made with this material.

Everything is 100% Made in Italy.



FERRAGAMO'S CREATIONS: SOME "AUTARCHIC" MODELS BY SALVATORE FERRAGAMO
ARE COMING BACK TO LIFE FOR THE SUSTAINABLE THINKING EXHIBITION

On the occasion of the *Sustainable Thinking* exhibition, Ferragamo's Creations is launching five models for women, which faithfully reproduce the originals created by Salvatore Ferragamo from the 1930s to the 1950s and which are now kept in the Salvatore Ferragamo archive. This line was created in 2006 to re-propose, with Ferragamo's historical brand designed by Futurist painter Lucio Venna in 1930, the most innovative and significant models realized by Salvatore Ferragamo during his artistic career, from the Twenties of the twentieth century until his death in 1960.

Jocker is a raw hemp sandal with a chain stitch, silk thread embroidered mask, with a pattern of red and black playing cards and with a layered cork heel. It was created in **1936** in a fully autarchic climate, when the limitations imposed by the League of Nations on Italy in the form of economic sanctions made it necessary to use alternative materials, especially those of Italian origin, in line with the obligations imposed by the Fascist regime.

Hemp grows in all temperate areas, but also in areas with colder climates. With a life cycle of three months only, hemp has the advantage that it can be grown repeatedly on the same land, as it does not impoverish it, indeed, it reclaims and softens its structure. Its long roots dig in the soil and oxygenate it, making it more fertile without requiring the use of fertilisers, and very limited amounts of water are necessary. Moreover, its essential oils are also natural anti-parasites.

In Italy, it was one of the most used fibres in the production of fabrics since the time of the Maritime Republics; it was used for ropes and sails as well as for domestic fabrics, and it was subject to processing in the nineteenth-century textile industry. The Linificio e Canapificio Nazionale, one of the oldest and most long-lived companies of the time, was listed on the stock exchange already in 1876. Hemp was largely used during the autarchic period for its above-mentioned qualities, and it almost became a symbol of the nation in the field of textile.

Fede is a high-heeled sabot created by Salvatore Ferragamo in **1938**, with a high upper on the instep in green felt decorated with multi-coloured cotton ribbons, sewn with visible cross à jour stitches using a black thread.

Felt is an ancient, 100% biodegradable low-impact material. It is the best natural insulating material and it has always been used in many fields, ranging from design to green building. In the world of fashion, it was particularly used for hats. It is obtained by felting wool fibres, often constituted by carded sheep wool, freed from impurities and untied to make textile fibres parallel, which is used as it is without resorting to spinning. Later, fibres are wetted with hot water and then soaked in soap and rubbed by hand or with a machine. This operation, called “fulling”, consists in compacting the tissue through shrinkage and felting.

Felt is one of the materials that Salvatore Ferragamo used during the autarchic period. For his uppers, he patented armed felt, a sort of reinforced felt suitable to the manufacture of shoe uppers.

Marcella is a sandal dating back to **1942** with a crocheted upper made up of polychrome stripes of cellophane and a cork wedge with layers covered by multi-coloured linen. The sole is made up of a rubber derivative and it is sewn with visible stitches.

The model was created by Ferragamo during World War II, when kidskin begun to be scarce. Ferragamo had the idea of cellophane on the day he gave his mother a box of chocolates as a present. In his autobiography *S Shoemaker of dreams*, published in English in 1957, he wrote the following: “I thought it could be the material I was looking for. [...] I used it to make some fine cords and I made some tests with them. They provided the upper part of the shoe with the necessary support and solidity. However, this material was only available in transparent form. Ferragamo thought of combining it with cotton, rayon and other materials and having it woven by the same women who made hat braids and crocheted cotton uppers.

The cork wedge that serves as the heel is one of Salvatore Ferragamo’s great inventions in 1937; it was created to replace that steel shank inserted between the insole and the sole that had been patented by Ferragamo in the Twenties of the last century to support the foot arch and make the shoe comfortable and stable.

Miami is a clog dating back to **1954**, with an upper made up of multi-coloured raffia matting-like braids, kept together by a white raffia sewing thread. The edge of the upper is formed by a fringe of straw. The heel is made up of plexiglass.

Throughout his career, Salvatore Ferragamo preferred the use of alternative materials, choosing both those of natural origin and the most innovative ones. This model combines simple materials traditionally used by Tuscan artisans, such as woven raffia, which Ferragamo bought in Florence at the straw market, between Piazza Signoria and Via Tornabuoni, where his company was headquartered, and plexiglass or polymethacrylate, a plastic element that was first realized between 1932 and 1934 and that started to be used in fashion and design from the very Thirties of the last century, with an extensive development soon after World War II.

Babilonia is a sandal made of multi-coloured silk ribbons, intertwined with each other, with a high heel in black satin. It was created by Salvatore Ferragamo in **1955**.

Just like the shoes with patchwork uppers, this model testifies to Ferragamo’s inventive ability to make use of manufacturing scraps, thus reducing waste as much as possible, whilst maintaining the same style and workmanship quality.

Refined packaging, inspired by the image of the *Sustainable Thinking* exhibition, completes the collection. Each model is numbered like a collector’s item, with a certificate of authenticity that tells the story of the shoe.



SUSTAINABLE
THINKING

OPEN TO THE PUBLIC

From 12 April 2019 to 8 March 2020

OPENING HOURS

10 am – 7:30 pm

CLOSED ON THE FOLLOWING DAYS

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SUSTAINABILITY FOR SALVATORE FERRAGAMO COMPANY

Sustainability is a positive challenge to be pursued earnestly, creatively and categorically. Bearing in mind this belief, for some years the Ferragamo Group has been pursuing a path of corporate social responsibility that involves the promotion of a sustainability culture in the long term view.

According to the Salvatore Ferragamo company, investing in the sustainable development means honoring the values transmitted by the founder and believing that the use of innovative materials, the attachment to the territory, the respect for the environment and for its own people are key elements for the success both of the company and of all its stakeholders.

In 2014, the Company set up an internal cross-functional *Green Team* dedicated exclusively to the development of sundry initiatives on these issues based on the idea that the culture of sustainability needs to be all-embracing. In 2016, the Company has also established a Committee to supervise the sustainability issues related to its conduct of the business activities and of its dynamics of interaction with each stakeholder.

Since 2014, the Company, which takes part in the International *Roundtable on Sustainability of the Camera Nazionale della Moda Italiana*, has prepared a *Corporate Sustainability Report* that was awarded of the prestigious Aretè Corporate Social Responsibility Report prize in the large companies category already in its first year of publication. In 2016 Salvatore Ferragamo drafted and certified its first *Group Sustainability Report*, which also became a Consolidated Non-Financial Declaration (DNF) in 2017 pursuant to Italian Legislative Decree no. 254/2016.

In 2017, the Company commitment was boosted by the implementation of a *Three-year Sustainability Plan* linked to specific objectives and by the formalization of a policy setting up the behavior guidelines to widespread the corporate culture on sustainability. Drawn up in compliance with the Sustainable Development Goals (SDGs) promoted by the United Nations to promote the sustainable development and minimize impacts on our planet, the Sustainability Plan of the Ferragamo Group settled 6 main targets linked to specific initiatives to be implemented over a three-year period.

Made in Italy for the Company is a responsible way of doing business, since it rewards the craftsmanship excellence of our country and, thanks to a supply chain of expert craftspeople, it helps to create a positive value and to protect the know-how and heritage that are unique in the world.

Salvatore Ferragamo used to say “there is always something more beautiful and more perfect to create”. With a view to celebrate the link between the tradition of Made in Italy and the brand commitment to the sustainable development, in 2018 Salvatore Ferragamo presented the *Rainbow Future* sandals, made with sustainable materials and techniques that obtained the certification ISO 14067 whereby it was possible to calculate the emissions due to its making and compensate them through reforestation programs thus making the project “carbon neutral”.

Attention to and passion for materials are marking out elements of the Salvatore Ferragamo’s heritage: many of the most famous creations of the founder are the creative fruit of his time and show a clear sensitivity to the economic and productive changes occurred in Italy over the 20th century. After the death of its founder, the Group has consolidated its tradition of experimenting with sustainable and alternative materials by setting up a dedicated function that aims at ensuring the ongoing update of the materials used with specific attention to eco-friendly materials.

The Group attaches a pivotal importance to its human capital and is committed to enhance the value of its people at every stage of the production chain investing in their professional development as well as attracting new talents and ensuring everyone the compliance with the health and safety standards in the workplace. In 2017, the Group obtained OHSAS 18001 (Occupational Health and Safety Assessment Series) certification for all its industrial sites and for the Italian stores, and in 2019, the company has started the process to obtain the social certification standards SA 8000.

Environmental protection is also a priority of Ferragamo in terms of targets. In 2018, the Group made investments to reduce the consumptions and to achieve important environmental certifications for its facilities with the aim at minimizing the environmental impacts related to the performance of its business activities as proven by the new Logistics Hub based in Osmannoro (Sesto Fiorentino, Florence) designed according to efficiency standards that will allow to obtain the LEED Platinum certification and the other certifications achieved for its premises. After achieving the ISO 14064 certification for the Museo Salvatore Ferragamo, for the historic headquarter of Palazzo Spini Feroni and for the Osmannoro site, in 2018 Salvatore Ferragamo obtained the ISO 50001:2011 certification for the energy management systems of the Osmannoro site and is engaged to achieve the ISO 14001 environmental management standards for the Osmannoro site, too.

The commitment to obtain the certifications has also involved the retail area: in October 2017, the historic Canton Road Store in Hong Kong obtained LEED Gold certification, in December 2017, the Troy Store in Michigan achieved the LEED Silver certification, and in 2018 the Copley Place Store in Boston got the LEED Gold certification.

Over the years, the Company commitment has also been set up by joining associations and networks able to strengthen the Group sustainability awareness to share experiences and best practices. In December 2018, Salvatore Ferragamo joined the United Nations Global Compact, the world’s largest initiative of strategic corporate citizenship, with the purpose of implementing the universal principles of sustainability and supporting the objectives of the UNO.

By the end of 2017, Salvatore Ferragamo joined *Alleanza per l’Economia Circolare*, an Italian association that

plays an international leading role and is strongly committed on this issue. In November 2018, Alleanza presented a Position Paper highlighting its commitment in bringing the Circular Economy at the forefront of the political agenda making proposals that could become the basis for the debate on the Italian approach to this issue. To spotlight the commitment of the Company towards a virtuous model of circular economy, in December 2018, the Salvatore Ferragamo Group joined *Make Fashion Circular* initiative of the Ellen MacArthur Foundation, which was established to stimulate the collaboration and innovation necessary to create a new fashion industry, in line with the principles of the circular economy that according to Ferragamo it is identified by the strength of innovation and in the design efficiency.

One of the Brand's sustainability priority objectives is the link with the territory. With the adoption of a *Charity Policy* in 2014, the Group decided to devote a large amount of its donations to charitable initiatives in favour of the Italian culture in the world and of the health of women and children. The company has made numerous donations allowing important actions on the territory: from the restoration of the Fontana del Nettuno in Piazza della Signoria in Florence, to the renovation of 8 rooms of the Uffizi Gallery, from the contribution to the fundraising campaign organized by the British Institute of Florence to restore the Harold Acton Library in Lungarno Guicciardini, to the donation for the restoration of the Torre-Casa Campatelli in San Gimignano.

The Group commitment favours the process of innovation of the business model increasing the competitive advantage and decreasing the risks of negative impacts on the stakeholders: thus just making Salvatore Ferragamo even more reliable and proud of its values in the future.



FONDAZIONE FERRAGAMO

The Fondazione Ferragamo was set up in Florence on 15 March 2013 at the initiative of Wanda Ferragamo and her children to educate new generations on the values of craftsmanship and Made in Italy, focusing on fashion, design, and creative and cultural processes in general, in keeping with the aesthetic and stylistic standards established by and expressed through the work of Salvatore Ferragamo.

The Fondazione works together with the Museo Salvatore Ferragamo to raise awareness and preserve the memory of Salvatore Ferragamo's work and the role he played in the history of international fashion during the 20th century. To achieve these goals, protecting and promoting the historical archive of the Museo Salvatore Ferragamo, which is overseen by the Fondazione, is key. The archive includes items as diverse as garments, accessories, documents, and photographs that recount the entire history of the brand from its origins to the present.

2019 will see the opening of the archive's new location, inside the Salvatore Ferragamo's plant in Osmannoro and next to the creative and production departments. Both employees and external visitors will be able to access and experience the archive, just as a real research center.

Besides supporting the exhibitions of the Museo Salvatore Ferragamo the Fondazione Ferragamo offers seminars, courses, and workshops as well as manages publishing projects. In 2013, in partnership with Lucca Comics and Games, Florence's International School of Comics, the Bologna-based studio Symmaceo Communications, and Vermont's Center for Cartoon Studies, the Fondazione held *Comics Jam* in Florence, an event dedicated to the creation of comic books and reserved for young students that participated in a creative competition presided over by an international jury. The participants with the best results were awarded scholarships to attend training courses on comic books. In 2013, the Fondazione also entered into a partnership, named *Musei da Favola (Fairy-tale Museums)*, with the School and Youth Department of the Uffizi Gallery to offer children and their families special tours of Florence's museums every year. This initiative is still going strong.

In 2014, together with Museimpresa, Florence's National Archive, the 'Anna Maria Enriques Agnoletti' School of Archival Studies, Paleography and Diplomacy, the Soprintendenza Archivistica per la Toscana, Associazione Nazionale Archivistici Italiani (ANAI), the Fondazione held a seminar reserved for fashion company archivists, named *La Moda in Archivio*. This resulted in a constant series of afternoon sessions dedicated to creating inventories of archives as part of the course in archival studies of the Archivio di Stato.

Since 2017, the Fondazione has launched several Alternanza Scuola-Lavoro (work-based learning projects) with a number of high schools in Florence, allowing new generations to undertake the challenge of exhibition storytelling and learn the fundamentals of cataloging products, documents, and graphic artworks that are part of company archives.

Chair: Giovanna Gentile Ferragamo

Vice President: Leonardo Ferragamo

Director: Stefania Ricci

www.fondazioneferragamo.it



MUSEO SALVATORE FERRAGAMO

The Museo Salvatore Ferragamo is a corporate museum devoted to the history of the Ferragamo Company, to the life of its founder and to his creations, the footwear: an extraordinary synthesis of aesthetic research and innovative craft techniques.

Inaugurated in May 1995, the Museum was set up by the Ferragamo family to exhibit the work of Salvatore Ferragamo and his significant contribution to the history of footwear and fashion.

Since mid-1990s, the museum has organised several exhibitions to portray the history of the founder and to show the opening and interest of a company through different artistic languages, ranging from design to fashion, as means to communication for the dissemination of a style of living and dressing.

The confirmation of the cultural vocation of Salvatore Ferragamo arrived in 1999, when it won the coveted Guggenheim Enterprise and Culture Award that is assigned to companies standing out for their annual significant investments in the cultural field.

In 2006, the exhibition seat was moved from the second floor of Palazzo Spini Feroni to the palace basement: an exhibition space of 700 square metres.

Since then, to make the life of the museum as dynamic as the life of the company, it was decided to modify its exhibition structure and to select every year a different research theme that, starting from the experience of Salvatore Ferragamo, the history of his life, his creations, the customers he served and his values, gives the opportunity to discover the world of Ferragamo in an indirect way combined with other cultural expressions such as art, architecture, design, economic and social history and philosophy. A museum in constant evolution.

Museo Salvatore Ferragamo is also a founding member of Museimpresa, the Italian association of museums and business archives promoted by Assolombarda and Confindustria, established with the purpose of disclosing the historical knowledge of the Italian companies that set the basis of Made in Italy.

In November 2015, the museum became the **first green corporate museum in Italy**.

The project set up by Museimpresa and Confindustria with the aim at creating the world's first network of sustainable corporate museums that quantify their CO2 emissions, led Museo Salvatore Ferragamo to achieve the international certification ISO 14064 dealing with the quantification and reporting of the greenhouse gas emissions.

Such certification was obtained by the whole Palazzo Spini Feroni in June 2017, thus highlighting the company attention to sustainability.

Since November 2016, the museum has officially joined ICOM (International Council of Museums), the most important and prestigious international organization of museums and museum professionals. Composed by over 35,000 members and by a forum that brings together experts from 136 countries and territories, it represents the museum community as a whole.

Director: Stefania Ricci

www.museo.ferragamo.com



BIOGRAPHIES:
CURATORS, ARCHITECTS, PHOTOGRAPHERS, VIDEO MAKERS

BETTONI, GIUSY

Giusy Bettoni is CEO and founder of C.L.A.S.S., a unique platform in the world created in 2007 serving as a global resource for responsible material innovation, education, marketing and communication. C.L.A.S.S. is aimed at integrating new generation values for fashion, products and businesses. Thanks to her thirty-year experience in the field of fashion and textile, Giusy Bettoni has advanced technical knowledge in the market of raw materials, and specific marketing and communication skills. Over the last ten years, she has been focusing on the communication and development of a clear message: promoting the competitive advantage of responsible innovation in the textile sector and in the market of fashion. Giusy Bettoni has always been adopting a synergistic approach with international designers, brands and organizations, in order

to provide insights into brands that include smart fabrics and technological innovations.

Giusy Bettoni is also a consultant for responsible innovation at *Première Vision*, the leading international fair organiser for the fashion industry, and she also works as a consultant for *Eco-Age* and the *Eco Chic Design Award*. Moreover, she has been the Ecological Advisor of the Arab Fashion Council since 2015.

GUICCIARDINI & MAGNI ARCHITETTI

Guicciardini & Magni Architetti is an architectural firm that deals mainly with cultural heritage in the fields of architecture, architectural restoration, museum arrangement and interior design. Since 1990, Guicciardini & Magni Architetti have realized over 40 museums and set up 60 temporary exhibitions in Italy and abroad, dealing with all types of exhibition, including archaeology, con-

temporary art, industrial design, classical art, ethnography, fashion, as well as numerous projects for medieval art and sculpture.

Among the many museums created by Guicciardini & Magni Architetti, there is the Museo dell'Opera del Duomo in Florence, with Adolfo Natalini, which was inaugurated at the end of 2015 and which was awarded the *Dedalo Minosse 2017* prize, and the *Galileo Museum* in Florence, which won three European prizes between 2010 and 2011, namely: *1st ICOM Italia 2010 Award*, *1st British Scientific Curators Award 2010*, and the *European Museum Academy Prize 2011*.

Other important achievements include the setting up of the Egyptian and epigraphical section of the *Museo Archeologico* in Naples, the renovation and setting up of the *Museo Diocesano di Arte Sacra* (Diocesan Museum of Sacred Art) in Volterra, the setting up of the *Sala Michelangiola* at the Bargello, the *Museo di Palazzo Pretorio* in

Prato, the *Musei di Palazzo dei Pio* in Carpi, and the *Museo del Tessuto* (Textile Museum) in Prato.

In 2016, Guicciardini & Magni won the design competition for the arrangement of the new *Nasjonal Museet for Kunst, Arkitektur og Design* in Oslo, the largest museum in Scandinavia, which is now being designed, whereas in 2018 they won the competition for the project aimed at turning the Bibliothèque National de France in Paris into a museum. Various projects for important architectural contexts are currently being developed, including the arrangement for the Topkapi Palace and the Imperial Palace of the Porphyrogenitus in Istanbul and, as regards Italy, the projects for the Bargello in Florence, for the Museo Guarnacci in Volterra and for the functional adaptation and arrangement of the Museo dell'Opera del Duomo in Pisa.

Over the last fifteen years, Guicciardini & Magni Architetti have set up important exhibitions, such as: *Giovinetza di Michelangelo* (Michelangelo's Youth) at Palazzo Vecchio, *Giotto* at the Galleria dell'Accademia in Florence (to date, the most visited exhibition in Italy with 632,000 visitors), *In Terrasanta* (In the Holy Land) at Palazzo Reale in Milan, *Islam. Specchio d'Oriente* (Islam. Mirror of the East) at the Sala Bianca of Palazzo Pitti, *Bernini* and *Desiderio da Settignano* at the Bargello, *Lo stile dello zar* (The Tzar's Style) at the *Museo del Tessuto* (Textile Museum) in Prato, *Il Tesoro di S. Gennaro* (S. Gennaro's Treasure) at Palazzo Sciarra Colonna in Rome, *Ambrogio Lorenzetti* at S. Maria della Scala in Siena.

Today, Guicciardini & Magni Architetti comprises five associate ar-

chitects and five senior architects, in addition to ten junior architects and experts in other design subjects.

GURRIERI, ROCCO

Rocco Gurrieri was born in 1993 and he grew up with a total and deep passion for artistic subjects. He attended the Cherubini Conservatory in Florence and continued to study until he graduated. He continued his artistic studies and first worked for two years as co-manager of Libreria Clichy in Florence, and then for a year in Bologna as casting assistant/set designer/assistant director for production houses Apapaja and Movimento Film. The movie *Dopo la guerra* (*After the war*), which is one of those realised in that period and which was directed by Annarita Zambrano, was selected in competition at the Cannes Film Festival 2017. After his experience in Bologna, he returned to Florence, where he met Irene Montini and started a cooperation with her, realising pictures and videos for such magazines as "Loom-est", "FGUK" and the collective Polarys. They also directed two fashion films, one of which was shown at the Museo Futurdome in Milan during the Design Week 2018, and two stop-motion animation shorts. He has been editor of the magazines "Lungarno" and "Reporter" since 2017. He also collaborates as a screenwriter with Mattia Papp, an artist and cartoonist, for the "Harry Blackhart" series, *noir* comics set in California in the 1940s. In 2018 he worked as a personal assistant to Alessandro Gaggio, a well-known designer for Maison Valentino. One of Gur-

rieri's latest works is "Guida tascabile per maniaci dei film" (Pocket guide for filmhaolics), an essay realised with the 88 fools collective and published by Clichy Editore, which has been in bookshops since last December.

MONTINI, IRENE

Irene Montini was born in 1994. She has been involved in the world of music and theatre since she was a child, demonstrating an extraordinary predisposition for studying the violin. She studied at the secondary art school and then at the LABA (Free Academy of Fine Arts) in Florence, where she graduated in photography in 2018. Still in 2018, she exhibited both the *L'estranea* project at the Critique Gallery of the Stephen F. Austin State University, Texas, and the *UFO* work at the Merlino Gallery in Florence. In the meantime, she worked as an assistant to Ruggero Mengoni, a professor at the Polimoda and Istituto Marangoni, and also for Pietro Savorelli of the Savorelli firm. She has been working with Rocco Gurrieri since 2017, making videos, fashion films and stop-motion animation shorts. One of the videos was shown at the Museo Futurdome in Milan on the occasion of the Design Week 2018. She also cooperates with the Polarys collective, and her pictures have been published on such magazines as "Loom-est", "FGUK" magazine, "Soma magazine" and "Photovogue".

NATALINI, ARABELLA S.

Arabella S. Natalini (London, 1968) is an art historian, a lecturer and a curator.

After having studied in Florence, Siena, Paris and London, she took an interest in the recent developments in public art, in the renewed role of contemporary art museum, as well as in the complex relationships between the private and public sphere.

She curated the Palazzo delle Papesse in Siena between 1998 and 2001, and *EX3. Centro per l'Arte Contemporanea* (Contemporary Art Centre) in Florence from 2009 to 2011.

She has been the art director of *Tusciaelecta. Arte contemporanea in Chianti* since 2001. This event, regarding contemporary art in the Chianti area, aims at promoting works of contemporary art in places strongly characterised by tradition (www.tusciaelecta.org).

Over the years, she has curated several exhibitions and catalogues regarding solo and group exhibitions, she has written texts for publications in the sector, and she has taken part in conferences in Italian and foreign institutes.

She has also taught Contemporary Art History at the Polimoda and at the Faculty of Architecture in Florence, Project Culture at the ISIA and Exhibition Planning at the IED in Florence.

SOZZANI MAINO, SARA

Sara Sozzani Maino first started working in the field of fashion in the early 1990s, at the new boutique in Corso Como 10 in Milan, and then she joined "Vogue Italia" as an intern in 1994.

She is currently Deputy Editor of "Vogue Italia" and she is responsible for Vogue Talents, a project created in 2009 to support emerging designers. Far from being a simple project with two editorial releases a year within "Vogue Italia", Vogue Talents is a network that explores and supports the best creative talents in the field of women's and men's fashion, fashion accessories and photography. Vogue Talents is a platform that creates connections between designers and the fashion industry, supporting the growth of opportunities and new collaborations.

Sara is a constant presence at international events dedicated to the selection of young talents, and on many occasions she has acted as judge in several fashion competitions, including the LVMH Award, ITS (International Talent Support), the Designer's Nest Award, the H&M Award, and Milan Fashion Film Festival.

She is a frequent flyer, she attends fashion weeks around the world, from Asia to America, from Africa to Australia, and she always finds a way to dedicate time and attention to every single emerging designer, wherever she goes.

The number of new initiatives dedicated to talents and signed by her is on the increase: The Next Talents, in cooperation with YOOX.com, which has been focusing on sustainability since 2018, Who is On Next? and Vogue Talents are just two of the scouting events organised by "Vogue Italia" in Milan. In September 2018 she became International Brand Ambassador for the Camera Nazionale della Moda Italiana.

In 2019 she was appointed as a

member of the Study Commission for the identification of public policies for the protection, conservation, enhancement and use of Italian fashion as cultural heritage.

SPADAFORA, MARINA

Marina Spadafora is known worldwide for her experimental and sophisticated knitwear brand, and she owns boutiques in Milan and Florence. She has worked with Prada, Miu Miu, Salvatore Ferragamo and Marni.

Marina's work has always been characterized by a strong interest in social and environmental issues. Marina thinks ethics and aesthetics can match. "Fashion with a mission" is her motto. She has been the creative director of Auteurs du Monde, the ethical fashion brand of Altromercato, entirely made by producers belonging to the World Fair Trade Organization in respect of people and the environment.

Marina also worked directly with the United Nations to drive development in emerging economies through fashion. In 2015, she was awarded the United Nations Women Together Award in New York for her work with female textile artisans around the world.

She coordinates the Fashion Revolution movement for Italy and she has made a TED Talk on the subject of *Consumer Power*.

Marina is a consultant for luxury fashion brands.

RICCI, STEFANIA

She graduated in Literature with a specialisation in Art History from the University of Florence; in 1984 she began to work with the Galleria del Costume of Palazzo Pitti and with Pitti Immagine, curating the realisation of some exhibitions and catalogues such as *La Sala Bianca: nascita della moda italiana* (Electa) in 1992 and, in 1996, on the occasion of the Biennale d'Arte e Moda in Florence, the catalogue of the *Emilio Pucci* exhibition (Skira). In 1985, she curated the first retrospective exhibition on Salvatore Ferragamo at Palazzo Strozzi in Florence and its various venues at the Victoria and Albert Museum in London (1987), at the Los Angeles County Museum (1992), at the Sogetsu Kai Foundation in Tokyo (1998) and at the Museo Palacio des Bellas Artes in Mexico City (2006), starting with the organization of the company's archive. Since 1995 she has been the director of the Museo Salvatore Ferragamo and she has also been responsible for cultural events around the world; since then, she has curated all the exhibitions organised by the museum and the related catalogues, including *Audrey Hepburn. Una donna, lo stile* (Audrey Hepburn. A woman, the style) (Leonardo Arte) in 1999, *Evolving Legend Salvatore Ferragamo 1928-2008* (Skira, 2009), *Greta Garbo. Il mistero dello stile* (The mystery of style) (Skira, 2010), *Marilyn* (Skira, 2012), *Il calzolaio prodigioso* (The Amazing Shoemaker) (Skira, 2013), *Equilibrium* (Skira, 2014), *Un Palazzo e la Città* (A Palace and the City) (Skira, 2015), *Tra Arte e Moda* (Across Art and Fashion) (Mandragora, 2016),

1927. *Il Ritorno in Italia* (The Return to Italy) (Skira, 2017), *L'Italia a Hollywood* (Italy in Hollywood) (Skira, 2018). In 2019, she was appointed as a member of the Study Commission for the identification of public policies for the protection, conservation, enhancement and use of Italian fashion as cultural heritage.

She has been director of the Ferragamo Foundation since 2013.

RISALITI, SERGIO

Sergio Risaliti (1962) is an art historian, creator and curator of exhibitions and interdisciplinary events, and he is also a writer and journalist. He founded and directed the Palazzo delle Papesse in Siena until 2002. He has been a member of the scientific committee of the Frac Rhône-Alpes and of the Gallery of Modern Art in Bologna. He is an honorary member of the Accademia delle Arti del Disegno (Arts of Drawing Academy). He dedicated himself to the study of Michelangelo's works, and as a result, he wrote four books with Francesco Vossilla, with an analysis of *Bacchus* (Maschietto editore), the *Battle of the Centaurs* (Electa), the *David* (*L'Altro David e Metamorfosi del David* by Cult Edizioni), and the *Vatican Pity* (Bompiani ed.). In 2014, he worked with Cristina Acidini and Elena Capretti to curate the *Michelangelo Buonarroti. Incontrare un artista universale* exhibition (Michelangelo Buonarroti, a universal artist) at the Musei Capitolini in Rome. Working in cooperation with Stefania Ricci, he curated four exhibitions for the Museo Salvatore Ferragamo: *Ispirazioni e Visioni* (Inspirations and

Visions), *Marilyn, Il calzolaio prodigioso* (The Amazing Shoemaker) and *Equilibrium*. In 2017, he designed and curated the *Italia Energia Pensiero Bellezza* exhibition (Italia Energy Thought Beauty) at Forte Belvedere and in other places in Florence (Gallerie degli Uffizi, Palazzo Pitti, Galleria Palatina and Galleria d'Arte Moderna, Giardino di Boboli, Palazzo Vecchio, Santa Croce, Museo Marino Marini, Museo Novecento). He curated *Chimera Relocated* at Palazzo Vecchio in Florence, on the occasion of the first G7 of culture in 2017. In 2018, he curated the retrospective *Gong* on Eliseo Mattiacci at Forte Belvedere. He has just published *Gustav Klimt* (Bompiani) with Giovanni Iovane. He is now the art director of the Museo Novecento in Florence.



FASHION DESIGNERS' BIOGRAPHIES

SECTION 3: TRANSFORMATION

Paul Andrew, British by birth but New Yorker by adoption, launched his first collection in spring/summer 2013. After graduating in Women's Fashion & Footwear Design from the Berkshire College of Art & Design (UK) in 1999, he worked as accessories director for various brands. After winning the Who is On Next? competition in the accessories category in 2013, he launched his eponymous line of women's shoes, followed by a line of men's shoes in 2016. He won the prestigious CFDA Award in New York in 2014. More recently, he was awarded the designer of the year honor at the Footwear News Achievement Awards.

In September 2016 he was appointed design director of women's footwear at Salvatore

Ferragamo, thus being the first creative talent ever to occupy this position since the death of the founder. In February 2019 he took on the role of creative director of the brand.

Paul Andrew's aesthetic is sensual and refined, not austere, and it uses the most precious materials. It adopts a handicraft approach in order to optimize product comfort and performance, without renouncing contemporaneity.

Over the last few years, he has developed an interest for new technologies and for the materials connected with sustainability, in line with the direction taken by Salvatore Ferragamo and with the company's commitment to social responsibility.

Bottletop is a Brazilian brand of luxury accessories, in particular handbags, which focuses

on material sustainability. Bottletop started business in 2002 with Cameron Saul and his father Roger and their cooperation with the British fashion house Mulberry. The goal was to create luxury accessories by using recycled and reused materials, whilst proactively involving communities around the world in the production of handicrafts.

Oliver Wayman, one of Cameron's friend and co-director of Bottletop, discovered the particular technique that would make the brand distinctive compared to other companies in the sector: recycling the aluminum tabs of cans and sewing them together with the crochet technique.

This resulted in the *Bellani* iconic bag (named after Wayman's mother), whose international success paved the way to

the brand, whose production is supporting artisans and their families in Brazil.

Bottletop's fashion house is located in Salvador and donates 20% of its profits to the **Bottletop Foundation**, which was founded in 2002 to finance projects that support handicraft, healthcare and education in Salvador, Brazil, Kenya, Ethiopia, Malawi, Mozambique, Rwanda and the United Kingdom.

In 2017, the brand opened the world's first 3D printed store in London, which allowed the recycling of 60,000 plastic bottles to furnish the space thanks to a robot technology with Reflow filaments. This avant-garde concept expresses the values of sustainability, ethical design and innovation the reasons of their philosophy.

CHAIN. CHAIN is a clothing brand based in Buenos Aires that was founded by Lucía Chain, an Argentinian designer. She has embraced the philosophy of sustainability since the beginning, creating collections with eco-sustainable fabrics, natural fibers derived from plants, and vegetable dyes.

Lucía Chain's studies testify to her passion for fashion and experimentation that have always marked her work. After completing her course in Fashion and Textile Design at the University of Buenos Aires, where she is currently a lecturer and has received three honorable mentions, she got a master's degree in Sport Fashion Design from the University of Buenos Aires and in Fashion Business

from the Marangoni Institute in Paris.

In 2014, she presented her first collection at the Buenos Aires Fashion Week and then she exhibited her work in London, winning numerous awards. In 2018 Vogue Talents presented her at The Next Green Talents in Milan.

For Chain, sustainability is a way of life and fashion plays a big role in this new scenario, because it is capable of making people feel who they really are, bringing out their beauty and encouraging them to use their influence to really change the world.

Ecoalf. Innovation and technology, sustainability and design are the fundamental aspects of this Spanish brand of clothing and accessories, founded in 2009 on the initiative of Javier Goyeneche.

After graduating in Business Administration from the European Business School, Goyeneche got a master's degree in International Marketing Strategies from the Northwestern University of Chicago. Then, after his son Alfredo (after whom the company was named) was born, he started to think about the excessive use of natural resources and the enormous quantity of waste produced in the world.

Ecoalf's mission and vision are based on the concept of circular economy: stopping using the planet's natural resources unwisely, in order to create the first generation of recycled products that have the same

quality and refined design as that of the best products.

This conviction has become the motto of the brand: "Because there is no planet B".

Fishing nets, plastic bottles, coffee grounds, used tires and recycled cotton: these materials are an integral part of the brand's collections, whose concern is not telling stories, but rather "making stories". With the long-term project called *Upcycling the Oceans*, Ecoalf has signed agreements with the main fishermen's associations on the Levante Spanish coast, that practice trawling, for the recovery of trash along the coasts of the Mediterranean.

This cooperation, which began in Alicante in 2015 and expanded since then, today involves over 3,000 people and 280 tons of plastic, already recycled and converted into a quality product. In light of this success, the project was replicated in Thailand in 2017 with the support of fishermen, divers and volunteers.

This revolutionary global project is helping remove trash from the bottom of the oceans and raise public awareness on the need to protect the planet.

"We believe in fashion that makes a difference" - argues Ecoalf.

"Fashion is not just about aesthetics. It's also about doing what is right while respecting people and the planet."

In March 2018 Ecoalf obtained the B Corporation® (or B Corp)* certification.

Maria Sole Ferragamo is Salvatore Ferragamo's granddaughter. The passion for craftsmanship distinguishes her. Born and raised in Florence and heir to one of the great families of Italian fashion, after graduating in Architecture from the Politecnico University of Milan, she moved to London to follow her true passion, jewelry design. She attended a master's degree at the prestigious Central Saint Martins College of Art and Design, where she learnt how to use the various types of leather in the creation of jewels for the luxury market, and she won the 4th International Design Craft the Leather Competition. In 2018 she was appointed Top-Next Generation at the Camden Wealth conference in Madrid. Her drawings have been exhibited at some of the most important contemporary art fairs, such as Design Miami Basel, Artissima and MiArt.

Thanks to short experiences in a few companies, including the family business, where she experimented leather and metal processing, she understood the direction she had to take: reusing waste leather discarded by the fashion and luxury industry, which would otherwise be destroyed, and transforming it into precious jewelry.

Eileen Fisher is an American designer. In 1984 she founded Eileen Fisher Inc. in Irvington, New York, a fashion corporation known for the creation of simple and timeless garments. In her thirty years of activity, she has opened over 65 stores in

the United States, Canada and the United Kingdom, and she devoted her career to challenge the fashion industry with an unusual and ethical approach. In 2016, Eileen Fisher Inc. became one of the most important brands in the women's fashion industry with the B Corporation® (or B Corp)* certification. The accurate selection of yarns and fabrics, combined with total control of the production chain, makes the brand stand out in the sector and demonstrates its interest in sustainability and traceability.

In 2009, Eileen Fisher launched an important recycling program: the designer would buy used clothes from her customers, and while the items in good condition were put back on the market, the others were reinvented and felted by Sigi Ahl, an artist who had been cooperating with Fisher for a long time. It was in this very context that the DesignWork project started in 2015. It is based on the recycling of used clothes to produce new fabrics thanks to the felting technique, and thus realize clothes, upholstery and furniture accessories fully in line with the principles of circular economy.

KUON, which means "eternity", "distant past or future" and "permanence" in the Japanese language, is a Japanese clothing brand that has embraced the **Boro Sashiko** art and realizes sustainable clothing. It was founded by Arata Fujiwara and Shinichiro Ishibashi in Tokyo in autumn 2015.

Boro Sashiko is a mending technique used by Japanese rural populations, who used to recover scraps of used linen fabric (known as *boro* in Japanese) and sew them together to create unique and unrepeatable items of clothing, the so-called Boro Boro, which are now on display in museums around the world. Sashiko is a very versatile decorative stitch that was first used in Japan between 1615 and 1868 and that became one of the most popular and well-known manual arts. It was first widespread among families in rural communities, as a technique to give luster to old clothes, handbags and accessories worn out by time, and later it became a refined needle-decoration technique.

The garments patched and embroidered with this technique were so precious that the families who owned many were considered wealthy, and for this reason such garments were jealously guarded and passed on from generation to generation. Boro Sashiko embodies the aesthetic and ethical principles of Japanese culture, namely sobriety, modesty, the beauty of imperfection, and simplicity. One of the aspects of this art's philosophy is the hatred for waste and the attention to resources, as well as the focus on work and reuse of everyday objects, in a word, "recycling". It is the very aspect of reuse that has brought this ancient technique, forgotten for years, back into vogue, combining it with sustainable fashion.

KUON revitalizes the Japanese

tradition, challenging the mass production and consumerism that dominate contemporary society, proposing items of clothing and lifestyles in which the concept of “elegance” co-exists with the concept of “socially good”. Actually, KUON products are considered to be a bridge connecting people to society, and the Japanese brand is, in fact, socially involved with several partners. KUON currently works to contribute to the Otsuchi Recovery Sashiko Project in the prefecture of Iwate, one of the areas most affected by the 2011 Tōhoku earthquake and tsunami, with a program intended to recover the Boro Sashiko technique to support local women. Shinichiro Ishibashi, who graduated from the Bunka Fashion College in Tokyo and won the Tokyo Fashion Award in 2018, has been one of its designers since 2016.

RÆBURN is an English fashion brand launched in 2008 and characterized by a unique and innovative approach in the creation of accessories and collections for both men and women. Graduated from the prestigious Royal College of Art in London and winner of numerous awards, **Christopher Raeburn** immediately stood out for the production of fashionable, functional and detailed garments through the recovery of military fabrics, such as the parachutes no longer used by air force pilots.

The term RÆMADE defines every aspect of the RÆBURN design and development process:

a product defined by unique aesthetics, accurate details, high performance and sustainability. Christopher’s pioneering work has spread the idea of responsible fashion among a wide public, bringing out a new definition of luxury and integrity.

Every decision made by the brand is based on this motto: RÆMADE, RÆDUCED, RÆCYCLED and RÆBURN (Reuse, Reduce, Recycle and Raeburn).

Bethany Williams is an English designer specializing in men’s clothing, who graduated from the London College of Fashion. She has always been driven by a sense of social commitment pushing her to work with people in trouble. In 2018 she created the Women of Change collection with the aim of rehabilitating female inmates kept in the HM Prison Downview in England, and those who fight against drug addiction at San Patrignano community in Italy.

The experience with very different social realities, which, however, share a strong focus on the improvement and inclusion in society of affected individuals, has led the designer to engage in another important project for the 2019 spring/summer collection No Address Needed to Join, in cooperation with the Quaker Mobile Library, the London library that lends books to homeless people, and the English publishing house Hachette UK.

Williams realizes the garments for the collection with the girls from the textile laboratory of

San Patrignano community, using waste materials from the publishing industry supplied by Hachette and by the long-standing English printing house Clays Ltd.

The designer donates 20% of the collection’s profits to the Mobile Library in London, which provide a service to people who cannot register to public library services.

SECTION 4: CRAFTSMANSHIP AND SOCIAL FASHION

Stella Jean was born and works in Rome. In July 2011, she stood out from the winners of the prestigious Who is On Next? competition organized by Altaroma and “Vogue Italia”, and two years later, in June 2013, at Pitti Uomo she presented her first menswear collection, thanks to which she definitely made a name for herself. Since then, she has often been invited to join events as a speaker in order to represent Italian fashion, thanks to her concrete commitment to sustainability and social responsibility, which permeates not only the production of her garments but also her lifestyle in fashion. The “leit-motif” of her collections is the theme of **migration**, addressed through a narrative path that starts from Italy, with its tailoring abilities, and includes South America, North America, Africa and Europe, constituting a geographical and cultural mix from which the designer fully draws.

Part of her work takes place be-

tween **Burkina Faso** and **Haiti** and involves cooperation with artisans from indigenous communities, with the dual purpose of preserving a heritage of ancient knowledge that would otherwise be lost and generating entrepreneurship and self-sustainability in local communities, in order to trigger an empowerment mechanism capable of filling the gap of failed welfare. “Every fabric handcrafted by these people - she has declared on many occasions - enshrines a story, hours of work, an achievement that is able to restore the prestige and charm of every piece. Young people buy many things compulsively, maybe at a low price. I want to bring these stories to the catwalk, involve young people and tell them something that still exists even if you can’t see it”. She hopes that sustainability will be more than just a passing fashion, possibly an indispensable lifestyle.

Katie Jones is a British knitwear designer. After completing her studies at the Central Saint Martins, she was launched by the British Fashion Councils Estethica. Her sustainable vision is based on a concept inherited from her grandmother: “doing something ethical out of nothing”. Jones realizes garments that reuse vintage pieces as well as recycled materials and scraps, based on the awareness that it is necessary to fight consumerism and the invasion of landfills, and that it is important to support emerging and less renowned brands. Production takes place

internally, at her fashion house, which guarantees a perfect control of the supply chain.

Rather than realizing wonderful garments, the designer wants to create pleasant and playful experiences that educate consumers in view of social and environmental change. To achieve these goals, she takes part in workshops and events that allow her to interact with the public and share skills and knowledge on textile handicraft.

Progetto Quid is a social fashion cooperative conceived by Anna Fiscale, a young woman from Veneto who graduated in Economics and Commerce from the University of Verona. She continued her studies and she also graduated in Management of International Relations from the Bocconi University of Milan, and she got a master’s degree in Political Sciences from the Sciences Po University in Paris. Her company currently employs 75 people and offers durable jobs to vulnerable people - especially women - who have fought against and overcome difficult situations for personal reasons or in a social context (victims of violence or trafficking, people with disabilities who have struggled with alcoholism or drug addiction, former prisoners and asylum-seekers or migrants looking for new opportunities in Italy). They are first required to have good manual skills so that they can learn to work with sewing machines, and they are later trained to manage the whole production phase,

including quality control, and finally become members in the cooperative. Progetto Quid uses materials consisting of the remnants of fabric that large companies have in stock: these remnants may have been produced in excessive quantities, but this does not mean that they are to be discarded. These fabrics are often of high quality and they are sold at very attractive prices or even donated. Clothes and accessories are designed internally. The company also handles important co-branding operations with major brands that “embrace” the ecological and social aspect, in an attempt to create a good synergy between profit and non-profit solutions. For its work, Quid received the Best Wworkers 2018 award at the Camera dei Deputati.

Studio 189 is a brand founded by Rosario Dawson and Abrima Erwiah in 2013, with headquarters in Accra (Ghana) and New York. It started as a platform that directly connects consumers and manufacturers through the product, with the aim of promoting African culture and supporting the development and economic independence of local communities. The goal is to create a bridge to connect traditional practices with future and technology. The enterprise promotes and works with communities of artisans, especially women, who specialize in various handicraft techniques, including natural dyes, batik printing, and Kente weaving, with which it is possible to create a type of silk or

cotton fabric made up of woven strips, original techniques of the Ashanti population in western Ghana. Studio 189 wishes to raise these people's awareness, create jobs, support education and vocational training, whilst keeping the richness and diversity of African cultures alive. Studio 189 also worked along with many brands and received numerous international awards for its social commitment.

Andrea Verdura states: "We all have a story. Mine is a walking story, which started in Australia when my sandals broke down and I made a new pair out of the tire of an old Fiat 500. It seemed a joke of fate ... it became my greatest passion."

What seems to be the beginning of a travel novel is actually the beginning of **Andrea Verdura's** story back in 1997 at the Ars Factory in Byron Bay, when the young designer began to look at feet and shoes with a different eye.

"I want everybody to feel what it means to walk 'soul to soil' in a stylish, unique and affordable way", says Verdura. His creations are an expression of style, sustainability, research and Made in Italy craftsmanship. For Verdura, sustainability has never been an added value: it is the basis without which work does not begin. His aim has always been to create revolutionary footwear that contributes to a cleaner environment. In his Fucecchio-based home-studio-laboratory, Verdura Shoes are realized out of tires, recycled leather straps, vegetable-tanned leather. Models that have by

now become iconic, like his *Peter Pan* shoes, obtained with the use of leather subject to natural processes, with the utmost respect for animals, as well as with the use of natural fabrics such as canvas, latex and hemp. His encounter with the net was just like his encounter with rubber: it happened by chance. Verdura was sunbathing on a desert beach in Piombino, when he saw a fishing net entangled on a rock. He took it and, when putting his foot among those meshes worn by time and impregnated with salt, he saw the shape of a sandal. This resulted in the first model made with recycled fishing nets.

SECTION 5: INTERWEAVINGS

Cangiari. The production chain is totally Made in Italy and it comprises the social cooperatives of Gruppo Cooperativo GOEL, which take care of the most vulnerable groups of the population and work to improve local conditions.

Calabria is a beautiful region, but it is also affected by serious social and economic problems. It is in this context that GOEL was created several years ago; it is a sort of empowerment community founded by a group of social cooperatives. The GOEL adventure started full of hope, with the aim of changing the region from several viewpoints and with different actions, managing activities within responsible tourism, organic farming, local development, multimedia, social and health

services.

Thanks to some young women from the Calabria region, GOEL started a wonderful journey in the world of fashion, taking on their challenge to save the ancient and prestigious tradition of hand weaving, a very common technique in Calabria's houses, exclusively mastered by the "*majistre*" (teachers), based on looms that count up to 1800 warp threads, passed through heddles in a precise order to produce a fabric design that is never the same. In order to remember the complex mathematical formulas, multiplied by each of the textures they kept in their professional archives, the "*majistre*" - who didn't know either how to read or how to write - had invented some lullabies or nursery rhymes, which were handed down from mother to daughter and which remained a secret oral tradition for centuries.

The young "*majistre*", who now create Cangiari's fabrics, have put these verses on paper, thus preserving a great heritage of fabrics of Greek and Byzantine origin. Weaving a linear meter of handmade fabric (not wider than 70/80 cm) takes three to six hours of passionate work. Therefore, the fabric realized in accordance with Calabria's tradition is a precious and expensive product, which could only be adequately remunerated in a high-end market. For the very purpose of safeguarding this local resource, GOEL has decided to launch Cangiari by implementing a fully ethical project that includes style and high

quality, exclusively organic and GOTS* certified materials, a cooperative production chain that directly involves workers, a social place offering employment opportunities also to disadvantaged people, a refined lifestyle based on environmental and social sustainability.

SECTION 7: INNOVATION

Luisa Cevese was born in Milan, where she lives and works. Interested in textile techniques and art, after completing classical studies and an apprenticeship in Paola Besana's studio in Milan, from 1978 to 1983 she travelled and lived in London, Mexico, Guatemala, the United States and studied textile techniques with Susan Sklarek and Beth Hochberg. She has been creating fabrics since 1984, selling them to fashion houses, textile companies, interior designers, furniture and accessories stores, including: De Padova, Gallia e Peter, J.W. Thompson, Diego Della Valle, Dolce&Gabbana, Romeo Gigli, Bonotto, Maharam, Hermès, Chanel, Comme des Garçons. She also works as a consultant for textile, furniture and clothing manufacturers, developing special projects. From 1988 to 1993 she directed the Centro Ricerche Mantero, the research center of the homonym company in Como, where she was in charge of special projects, such as internships and competitions organized with the most important art and design schools in the world.

In 1996, she founded **Luisa Cevese Riedizioni**, which is the name of a line of fabrics and products made with an original material that combines industrial waste (mainly textile waste) and polyurethane.

The Riedizioni collection is sold worldwide in fashion and design stores, in contemporary art museums and art galleries.

Luisa takes part in conferences in Italy and abroad and gives lectures at schools of art and design.

Nous Etudions by Romina Cardillo. The designer was born in Buenos Aires in a family of weavers, where she discovered her passion for fashion. She studied Fashion Design at the Universidad Argentina de la Empresa (UADE), where she received the first prize of the Arts and Object Award, given by one of the most important local companies, Alpargatas. In 2002 she started working with María Vazquez, with whom she launched the first Argentinian brand of men's vegan clothing under the name of Grupo 134, which established many partnerships with Greenpeace. Over the years, she has become a well-known representative of sustainability and a spokesperson for the ADA (Animal Right Association) and the CEIBO cooperative. For Romina, sustainability and veganism are a way of living and relating to others, of demonstrating the love and respect we have for ourselves, the only way to conceive a fashion industry.

In 2014 she created her own

brand, **Nous Etudions**, which, rather than being a fashion brand, is an expression of the new principles that are emerging in the world of fashion: sustainability, absence of gender, and veganism. Her garments are characterized by innovative fabrics, monochromy, and loose fit. Sara Maino Sozzani named her as New Talent in 2017, and in the same year YOOX recognized her as The Next Green Talent.

Salvatore Ferragamo is an Italian fashion brand known throughout the world, which was founded by Salvatore Ferragamo in Florence in 1927. In the 1920s he was already well known in the United States as "the shoemaker of dreams."

Founded as a luxury footwear business, after Ferragamo's death in 1960 the company was transformed into a fashion house by Salvatore's wife, Wanda, and their six children, and its lines of clothing and accessories are distributed worldwide. The quality of the materials used, the excellent workmanship, still partly handcrafted, creativity and innovation, are the founding principles of the brand, inherited from the founder. The passion for experimentation with materials has always been an hallmark of the Ferragamo brand, which in recent years has concretely embarked on sustainability, focusing its research on fibers, fabrics and types of leather that can meet the new criteria of circular economy and sustainable development.

Sylvia Heisel is an American designer who has been named one of the “25 Forward Thinkers defining the future of fashion”, “Top 100 Women in wearable and consumer tech” and “12 Amazing People you need to know in New York fashion tech”. Her design lab specializes in 3D printing and manufactures prototypes of clothes and accessories for many fashion brands and technology companies. She is currently developing a new system for the design and manufacturing of 3D printed garments, called Names Dress. This is the fourth series of cloths developed to avoid the production of waste and pollution, through the use of a compound, biodegradable and zero-waste resin.

“I have come to the conclusion - Heisel says - that technology can allow the creation of a new type of clothing. As a designer, I was inspired by the development of production and materials science. Technology allows you to design cloths that have never existed and find a solution to the problems raised by technology itself. What would be wrong with throwing away a dress that was used only twice, if this dress could fertilize a garden like vegetable waste?”

Flavia La Rocca, from Rome, is the founder and designer of the brand named after her.

After graduating in *Scienze della Moda e del Costume* (Fashion and Costume Sciences) from La Sapienza University in Rome, in 2007 she moved to Milan where she began working in the com-

munication of prestigious brands.

At the end of 2011 she launched her own brand, whose philosophy is based on the principles of sustainability and modular use of the dress. “I believe that cloths - Flavia says - lend themselves to the game of fashion, in a responsible, dynamic and contemporary way.” Her garments are made with interchangeable components. Through a system of hidden hinges, the various components can be separated and put back together, following the interpretation and inspiration of the moment, or the season. Flavia’s design is simple, minimal, and yet feminine. The entire production process of each collection cares about avoiding the waste of water and energy and carefully selecting raw materials. The supply chain and suppliers are directly controlled, so that they respect the environment and people when performing their work. Garments are made with recycled natural fabrics, but new technologies are used. The possibility of wearing the same garment in a different way and renewing it season after season extends its life cycle.

Hoh Pabissi is an independent and ethical British fashion brand. All garments are handmade in the London studio. They are wearable works of art, they are funny and full of imagination. They are realized through craftsmanship processes that require dedication and time. Fabrics are biodegradable and based on sustainability

principles.

Mats Rombaut is a Belgian designer who lives and works in Paris. After working in Lanvin’s men’s accessories sector and, later, with Croatian designer Dr. Amir Doma, he created his own footwear brand, committed to environmental sustainability without giving up the aesthetics of his models. The realization of his products requires craftsmanship to transform stone, tree bark, cotton cellulose, and coconut fibers into absolutely innovative solutions without using toxic substances or animal leather.

Matteo Thiela was born in Milan and he has been interested in the world of tailoring and fashion since he was very young. He worked for years with some important luxury brands such as Loro Piana, Carlo Tivoli, Krizia, Mattioli and he also designed costumes for William Forsythe and the Frankfurt Ballet.

In 2001 he launched his first women’s collection and, since then, he has been invited to take part in many events regarding the presentation of new trends, such as the TIP - Trend Ideas Project at Fondazione Sandretto Re Rebaudengo in Turin in 2003; the Eidos at the Triennale of Milan in 2004, and the Who is On Next? competition organized by Altaroma and “Vogue Italia”.

Over the last few years, he has increasingly focused on research and experimentation, designing collections that are contemporary and innovative with

regard to fabrics and tailoring techniques. In 2014 he patented *Bombyx*, a tailoring construction system producing cloths sold in the most important trendy stores around the world.

Angus Tsui is a fashion brand founded in Hong Kong in 2014 with the aim of promoting and defending sustainability in the world of fashion, through a contemporary style and original aesthetics. The studio is based in Wanchai. Angus Tsui, founder of the brand and designer, believes that sustainability should embrace the entire production chain, including design, production, retail sales, and communication. He worked in London with avant-garde designers such as Orsola de Castro and Ada Zanditon, from whom he learnt the techniques and principles of sustainable design. He also worked with H&M and Ford in the creation of accessories with recycled materials.

He received many local and international awards, including The Eco Chic Design Award in Hong Kong and the Young Design Award.

In addition to being a designer, he has also developed a project called *Ancares*, which coordinates seminars, workshops and exhibitions on the theme of sustainability.

His products are realized by using sustainable, recycled materials and end-of-roll fabrics.

Hellen van Rees is a Dutch fashion and textile designer. After completing her master's degree in women's clothing in

2012 at Central Saint Martins in London, she started working on her own.

Her innovative brand creates dresses and a wide range of accessories for women and, with a view to respecting the environment, it uses organic fabrics and waste material. Garments are realized on request with specifically created waste-free fabrics. They are cutting-edge products that combine traditional shapes with unique textiles, which are handcrafted with contrasting textures and innovative finishes. Hellen van Rees also engages in research projects in the field of sustainability and wearable technology.

WRÅD was founded by Matteo Ward, Victor Santiago and Silvia Giovanardi. **Matteo Ward** graduated in International Economics from the Bocconi University in Milan. He began his career in the world of fashion working for Abercrombie & Fitch in 2009, where he held the position of senior manager in Germany. From 2013, he was global co-chair of a unit of the internal CSR team. He resigned in 2015 to co-found WRÅD, of which he is now CEO and CMO. Matteo is also a permanent member of Fashion Revolution Italia. **Victor Santiago** is a graduate in Business Administration who, after having served as a manager at Abercrombie & Fitch in Milan for a short time - where, among other things, he was in charge of internal casting activities for the new campaigns of the brand - started as a photographer in

2012, and after a short time he managed to sign the covers of magazines such as "Vogue Korea", "L'Officiel Hommes" and "TOM". He has been in charge of content creation and artistic direction of WRÅD with Matteo since the first day. **Silvia Giovanardi**, who graduated in Fashion Design from the IED in Milan, began her career working at Etro, where she became senior designer of the men's clothing division. Silvia, an artist as well as an expert in natural fibers and dyes, joined WRÅD's founding team as creative director in 2015, in order to turn the brand's technologies and values into tangible products.

The company focuses on design capable of challenging the fashion industry *status quo* in order to catalyze positive change. The company's DNA is based on three pillars - education, innovation, and liberation through design - which are expressed in the brand's activities. In 2017, the company won the Red Dot Design Award for GRAPHI-TEE™, recognized as the Best of the Best Product Design of the Year. In 2018, on the occasion of the Green Carpet Fashion Awards at Teatro alla Scala of Milan, the community of Monterosso Calabro together with WRÅD received the Handprint Award 2018.

GRAPHI-TEE Endorsed is WRÅD's flagship product. Determined to challenge the fashion industry production standards, WRÅD's three founders, acting in synergy with Susanna Martucci of Perpetua, decided to revisit, from a contemporary

perspective, one of Monterosso Calabro's old recipes for dyeing fabrics, which has always been handed down orally, using graphite, a local precious mineral, without using water: this is an alternative to chemical dyes, capable of making fabrics softer and characterized by a vibrant shade of grey (WRÅD GREY). Nowadays, thanks to new technologies, graphite is recovered from the inevitable scraps of some industrial production processes and introduces circular economy dynamics into a radically linear system.

GRAPHI-TEE is a jacquard jersey fabric in 100% GOTS* certified organic cotton. Its production chain is fully traceable. The fabric, produced by the Pistoia-based entrepreneur Walter Corriga, is eco-organic and guarantees a 91% reduction in water consumption and a 62% reduction in energy consumption. The dye developed by Working Blue of Cavarzere (Varese) is obtained by using a non-toxic mineral, as a replacement for chemical dyes that are harmful to health, and minerals recovered from the inevitable waste of the production of electrodes, which would otherwise be discharged in a landfill with an impact on land quality (graphite has a detrimental effect on soil fertility).

From the next collection, all phases of GRAPHI-TEE's production - from the cultivation of cotton to the finished product - will be traced through the Blockchain Technology and the partnership with the Brescia-based company ITrueID. Thus,

every single product will be provided with an unequivocal digital DNA, a sort of unique and non-reproducible identity, defined by the time, space and place of production of the garment and by the people who made it. The content of this unequivocal digital DNA is communicated to end customers in the ways and forms chosen by the brand, through NFC tags inserted in the product and/or simple QR codes. This fully satisfies the market's growing desire to know who makes our cloths and in what conditions.

SECTION 10: BACK TO NATURE

Nathalie Ballout, a Swedish-Lebanese fashion designer, was born and raised in Dubai, then she moved to London to follow her passion for art. She graduated from the London College of Fashion in 2015 and the following year she launched her first collection of clothes.

"The fashion industry - Nathalie says - influences every individual, more or less directly. I believe that promoting diversity and independence in my work is important and that it also reflects a choice to challenge the market of mass production. It frees me from current fashion trends and allows to continue to create new and original garments. We live in a world where we wear uniforms, a world that penalizes creative inspiration and where inequality and insecurity dominate. I don't want to adapt to such a world, I think it doesn't represent the lifestyle of

new generations. We are all responsible. Fashion has responsibilities and a duty to enhance the beauty of every person".

Maria Cornejo is a well-known designer whose company Zero+Maria Cornejo has been based in New York since 1998. She won the 2006 Fashion Prize at the National Design Awards, and over time she has become a point of reference for some female icons of style such as Michelle Obama. Her collections, designed for women with a charismatic personality, with busy lives and committed to social projects, are characterized by easy wearability, simple lines, minimalist taste and high-quality fabrics, which are mostly ecological and sustainable. The brand is strongly committed to promoting the values of an ethical company, which controls both the social and environmental impact of its activities. Due to the fact that it was created by women, the brand has always tried to develop cooperation relationships with female artisans all over the world. Maria Cornejo is a member of the Council of Fashion Designers of America (CFDA) and, with the fabrics manufactured by the Swiss company Schoeller Textil, works along with Première Vision on Smart Creation. This platform, launched in September 2015, aims to promote a responsible approach to products and focuses on the new values that must coexist with production and profit-making, namely innovation and sustainability, issues on which the

designer has been working for years.

Tiziano Guardini is one of the most successful and talented Italian sustainable fashion designers. Right from the outset, when he was a student at the Accademia Internazionale D'Alta Moda e D'Arte del Costume Koefia in Rome, he showed great interest in sustainable projects, and also later, during his first working experiences in Roman fashion houses. With his work he proved that taking the direction of sustainability does not mean that you have to give up the richness, creativity and charm of fashion. For Guardini, sustainability is a value that should be added to innovation and experimentation, which are essential features of the fashion industry.

As a young designer, he took part in the most important events dedicated to the new frontiers of fashion and to the promotion of talents, and he received several awards. In 2017, for example, he received the Franca Sozzani Best Emerging Designer prize at the Green Carpet Fashion Awards at the Teatro alla Scala in Milan and, in the same year, he also received, from the non-profit animal rights organization, the PETA Couture Awards for avant-garde creativity in the world of sustainable fashion.

His collections are designed to be in perfect harmony with Mother Earth and the sacredness of life. Aware that the survival of man necessarily depends on the restoration of our relationship with nature, which

has been mistreated and damaged, and which instead has accompanied and favoured the evolutionary development of the human species, Guardini transforms this thought into an absolutely contemporary vision. Many of Tiziano Guardini's garments are the expression of high-quality craftsmanship that has more to do with haute couture tailoring than with ready-to-wear.

Laura Strambi is a designer who works in her Milan-based fashion house to create a truly sustainable, fully Italian product. Laura has an eclectic and eccentric personality, she is passionate about art, design and theatre, and she has fully embraced the principles of the "green" philosophy. Her feminine and minimalist style complies with the highest standards of water and energy saving, it involves a painstaking research for mainly organic materials, dyed with natural colours, and it is the result of careful controls on the production chain and on the protection of workers' human rights.

Wyhoys is an innovative Hungarian brand based in Budapest, which makes organic clothing with fabrics and organic fibers. Its goal is to offer new eco-friendly and sustainable solutions for its customers and it is fully committed to social responsibility. It works with many designers and every collection is inspired by the various global problems regarding the environment.



BONAVERI MANNEQUINS

The **mannequins** used to display the cloths in this exhibition were generously supplied by **Bonaveri**, a leading company based in the Emilia region of Italy which specializes in the manufacture of high-end mannequins, and represent their latest model, the first **biodegradable mannequin made from BPlast and BPaint**, patented in 2016.

After four years of research, a PLA (polylactic acid) biopolymer has been selected and registered as the most suitable material for the manufacture of mannequins.

BPlast is a bio-based polymer 72% made from a sugar cane derivative. The production of BPlast mannequins reduces CO₂ emissions compared to commonly used petrochemical plastics. This biopolymer has been subjected to stringent verification tests by the Belgian certification entity Vinçotte (now TUV Austria), which has issued the OK BIOBASED 3 stars* certification. The remaining portion of 28% is made of non-BIO-BASED monomers.

BPlast mannequins are finished with BPaint paints: a range of colours created exclusively for Bonaveri with 100% natural resins and oils, phosphorus-free surfactants, 100% colours vegetable solvent obtained from orange peels, cobalt and naphtha-free desiccant.

These new mannequins have a reduced environmental impact compared to the mannequins manufactured with petrochemical-derived materials: they reduce emissions of CO₂, which is considered to be the greenhouse gas responsible for global warming. Moreover, sugar cane, unlike fossil materials, is a renewable material whose use does not deplete environmental resources. The biodegradability of materials makes the use of these mannequins sustainable.



SUSTAINABLE
THINKING

FIBERS AND FABRICS

SECTION 3: TRANSFORMATION

ECOTEC® by Marchi & Fildi. ECOTEC® is the smart cotton yarn that saves up to 77.9% of water and allows a reduction of up to 56.3% in CO2 emissions and up to 56.6% in energy consumption, as evidenced by the LCA* survey by ICEA. Ecotec® is made with an entirely Made in Italy process, which transforms 100% cotton pre-consumer fabric pieces. One of ECOTEC® strengths is the very wide range of colours in which it is available, even if the yarn is not dyed. Its colour comes from the mixture of already coloured fibers obtained from the fabric pieces collected. This is an ecological high-tech process developed by **Marchi & Fildi**, which produces this yarn, with the possibility of having a colour on demand.

The entire process that results in ECOTEC® is transparent, traceable and certified, and therefore it is in line with the principles of circular economy.

ECOTEC® yarns can contain up to 80% of processed pre-consumer cotton, whilst guaranteeing a wide range of quality proposals for clothing, underwear, hosiery and furniture. Furthermore, ECOTEC® provides contemporary consumers with important safety and health certifications, such as OEKO-TEX®* and Tessile e Salute (Textile and Health)*.

EVO® by Fulgar. It is a new-generation, high-tech biopolymer that comes from bio-based materials. It is made from castor seeds, a plant that grows in arid areas not used for agriculture.

The main characteristics of this multifunctional fiber known as EVO® are: ultralight weight, comfort, odour-control, thermal insulation and bright colours. The elasticity module of EVO® by Fulgar is much higher than that of any other polyamide 6.6. This mechanical property allows to create fabrics and garments with excellent elasticity and good compression, which is a perfect solution for underwear, legwear, ready-to-wear, sportswear, swimwear and denim. EVO® by Fulgar is DIN CERTCO* certified according to ASTM D 6866:2012-01 R.N° 8C096.

As a product, EVO® by Fulgar is accredited according to the international study LCA - ISO 14040* and

ISO 14044*, and it is also certified according to OEKO-TEX® CLASS I*.

The fabric is manufactured by **Clerici Tessuto**, one of the world's most important textile companies for the luxury sector, founded in 1922, with its lines of womenswear and menswear, accessories and furniture. The company's production is fully traceable and there is a constant focus on sustainability and innovation, as evidenced by the product certifications obtained, which include OEKO-TEX®, GOTS*, FSC* and GRS* and, in addition, Seri.co* with regard to business certifications.

Re.VerSo™ is the brand of a new zero-waste circular-economy, Made-in-Italy production system for wool and cashmere, created by qualified Italian partners and with a fully-integrated, transparent, and traceable supply chain. Re.VerSo™ collects, selects, and transforms exclusive pre-consumer wool and cashmere cut-outs in order to create innovative, refined yarns and fabrics for the fashion industry. Greatly important are the energy savings associated with the production of Re.VerSo™: -92% of water consumption, -82% of energy consumption and -97% of carbon dioxide emissions.

The yarns and fabrics made with the Re.VerSo™ system are not dyed, since they are realized on the basis of garments already dyed at the beginning. The supply chain of Re.VerSo™ excellence is based on the cooperation of five Italian premium textile manufacturers, which are the only ambassadors of the brand: Green Line, Nuova Fratelli Boretti for the raw material, A. Stelloni Collection by Mapel for fashion textile, Filpucci for high-end knitwear yarns and Filatura C4 for yarns for design contract textiles and shuttle-woven fabrics in general.

Re.VerSo™ raw materials are GRS* certified by Textile Exchange.

Newlife™ by Sinterama. It is a new generation yarn resulting from the High Tech Model that transforms 100% of post-consumption plastic bottles, whose origin is totally traceable, into a high-tech polymer of unparalleled quality, through a Made in Italy mechanical process.

When compared with the production of 1 kg of conventional polyester, the savings generated for the production of 1kg of Newlife™ are considerable: -94% of water consumption, -60% of energy consumption, -32% of CO2 emissions, as stated in the LCA* study carried out by ICEA.

As a demonstration of the purity and healthiness of the Newlife™ polymer, it is worth emphasizing that it is used for the manufacturing of food packaging as well as for lingerie, casual wear, sportswear, accessories, furniture and automotive. Newlife™ also has Textile Exchange GRS* certifications and the STANDARD 100 by OEKO-TEX® certification.

The fabric is produced by **Gruppocinque**. Founded in 1996 and now led by Lorella Paulotto, Gruppocinque is a textile company from the Como area, which has established itself as a leading manufacturer of shuttle-woven, yarn-dyed, plain and jacquard fabrics of the highest quality, 100% Made in Italy and fashion oriented. An continuous commitment to research and product development and a constant attention to market needs have led Gruppocinque to reach increasingly higher levels of excellence in terms of quality and creativity through the exploration and application of new-generation, eco-innovative materials, as well as by experimenting, with technical know-how and creativity, new proposals that mix and match materials, manufacturing processes and unique, non-standard processing techniques.

Pizzi Smart by Iluna Group. Iluna's collection of refined Made-in-Italy laces is now GRS* certified, which testifies to the excellence of its ingredients, 100% based on responsible innovation. These are the ingredients: Q-NOVA® by Fulgar, a polyamide 6.6 fiber obtained exclusively from post-industrial waste raw materials, E ROICA™ EF from the ROICA eco Smart family by Asahi Kasei, the world's first range

of responsibly-manufactured premium stretch fibers, capable of offering sustainable and high-performance solutions, recognized by important certifications. The ROICA™ EF yarn has a percentage of transformed pre-consumer content that is greater than 50%, thanks to which it has obtained the GRS* certification by Textile Exchange. In addition, all Iluna products come with the STANDARD 100 by OEKO-TEX®* certification.

Iluna Group is an Italian company founded in 1969. It offers an alchemy of design and sustainable innovation, the only eco-fashion line that realizes laces and socks capable of combining ethics and high-quality standards with a fashionable image, with bright and rich colours.

Q-NOVA® by Fulgar. It is a polyamide fiber made exclusively from scraps coming from Fulgar Italia's spinning mills: through a mechanical process, such materials - that otherwise would have been nothing more than unusable waste material to be disposed of - give rise to the innovative polyamide 6.6 fiber. With Q-NOVA® it is possible to create lightweight fabrics with excellent moisture control and maximum colour brightness. Q-NOVA® is the perfect element for clothing, underwear, legwear and workwear.

The product has the following certifications: GRS*, EU Ecolabel* and STANDARD 100 by OEKO-TEX®*. The knitted fabric has been manufactured by **Maglificio Ripa**, a company that constantly engages in the search for innovative and responsible materials and that has been on the market since 1952. At present, Maglificio Ripa is considered to be one of the most important European manufacturers of wholly Made in Italy fabrics for various sectors: seawear, underwear, sportswear and outdoor wear.

Bonded leather by Prodotti Alfa. It is a material created from the mechanical or chemical processing of leather fiber scraps and cut-outs.

Prodotti Alfa is a company that recovers over 3000 tons of chrome-tanned cowhide scraps, known as wet blue, reusing and transforming them into a raw material suitable for different applications (leather goods, footwear, packaging, bookbinding and furniture), which is also a possible alternative to leather. Through processing or recycling and with full respect for the environment, waste material that would otherwise have to be disposed of is offered to consumers as a sustainable and high-quality material.

Green Fibers Recycled Silk by Felice De Palma (thread) and by Tessitura Serica A.M. Taborelli (fabric). It is a new silk yarn obtained from the transformation of the very precious scraps of the best manufacturing companies in the textile district of Biella, realized by Felice De Palma, a textile company that has been operating in the sector for fifty years now. An ongoing commitment on the part of the company has allowed, through the recovery of secondary raw materials, the development of precious, sustainable yarns made with locally available resources.

These are the bases for the creation of the "Green Fibers" product line, which is characterized by an original, fully natural approach and which boasts characteristics certified and labelled EU Ecolabel*.

The fabric is manufactured by the Italian company Tessitura Serica A.M. Taborelli.

Founded in 1895, Tessitura Serica A.M. Taborelli operates with more than four hundred latest-generation looms, including both jacquard and dobby looms, and it is currently a leading company in the production of raw and yarn-dyed fabrics for womenswear, scarves, ties and furniture. The company has always given great importance to social and environmental responsibility issues and, thanks to a far-sighted and marked propensity for innovation, has been a pioneer in the use of sustainable yarns such as, for example, Ingeo™, organic cotton, Newlife™, Orange Fiber, and organic silk. In 2008, the company obtained the ICEA-GOTS* certification for organic products, mainly cotton and silk. Conversely, viscose fabrics are

FSC* certified, recycled fabrics are GRS* certified, and a considerable part of production is OEKO-TEX®* certified. At company level, Taborelli has obtained the following certifications: ISO 9001* and Seri.co*.

SECTION 7: INNOVATION

Amni Soul Eco® by Solvay. It is the world's first polyamide yarn to degrade in just five years, after which it is disposed of under controlled conditions, as demonstrated by laboratory biodegradation tests in compliance with ASTM D5511.

Actually, it is a polyamide with a formulation of additives that ensure a higher degree of biodegradability. These additives facilitate the access of bacteria to the microscopic structure of the fiber, in the sense that they “swell” the fiber when exposed to high levels of humidity and trigger the biofilm formation process. Once the biodegradation process has started, polyamide, with its carbon- and hydrogen-based chemical structure, is intrinsically food for bacteria. The product is OEKO-TEX®* certified. Amni Soul Eco® is produced by using sustainable processes that involve, in particular, the recycling of process water and the treatment of greenhouse gases before they are released into the environment. In addition to degrading about ten times faster than conventional polyamides, Amni Soul Eco® is also 100% recyclable and convertible into a new product.

The fabric is manufactured by **Mectex**, the textile division of Manifatture Italiana Scudieri, a textile company based in Erba (Como), which is part of Paolo Scudieri's Adler Group, a leader in technical fabrics since 1956. Mectex has become the global point of reference for the launch of fashion trends and new developments in textile technologies.

Appleskin by Frumat. Frumat is a company that was founded with the intention to solve problems relating to pollution and industrial bio-waste disposal. As a rule, part of that waste is used as biomass, whereas the rest, classified as special waste, is discharged into landfills or, in some cases, burnt. Frumat recovers this part and converts it into a new raw material, used for the production of new products including paper, cardboard and vegetable leatherette. The transformation of waste into a raw material takes place through a totally mechanical process with a low environmental impact and without using water or chemicals. The first product marketed by Frumat was Applepaper, which is used to make books, shoppers, packaging, labels and any other product made of paper. A life cycle assessment - LCA* has confirmed that using agro-industrial by-products and green energy results in a 20/25% reduction in greenhouse gas emissions.

The company is based in Bolzano, the homeland of apples, and it has been marketing Appleskin since 2015. Appleskin is a 100% vegan product with a high biological content that is used for bookbinding, furniture, footwear, and accessories.

Frumat presented its project in Geneva, at the Salon International des Innovations, in 2010 and later it was awarded a golden medal by the international jury of innovations, together with the award given by the Italian Patent and Trademark Office.

Moreover, it also received an award in 2015 during BioEnergy Italy, in the Green Chemistry and Food Waste Management Conference held at the Cremona Fair.

In 2018 Frumat received the *NON SPRECARE AWARD* from the LUISS University of Rome and, furthermore, it received the *AWARD* in the Innovation & Technology category during the Green Carpet Fashion Awards at Teatro alla Scala in Milan, an event organized by the Camera Nazionale della Moda Italiana and Eco Age.

Bemberg™ by Asahi Kasei. This is a new-generation material produced since 1931, with a unique and precious texture, derived from the smart-tech transformation of cotton linters, a material that meets all requirements to fall within the concept of circular economy.

The result is an antistatic product with high moisture control.

Innovhub, an external laboratory, proves that Bemberg™ is fully biodegradable at the end of its life cycle and also certifies its ecotoxicity. In addition, Bemberg™ has received the GRS* (Global Recycled Standard) and STANDARD 100 by OEKO-TEX®* certifications, which add to the recent and comprehensive LCA* study carried out by ICEA, a guarantee of high-quality standards.

Bemberg™ fabric is manufactured by Brunello.

It is since 1927 that Brunello has been combining experience, quality and passion to create fabrics that satisfy customers thanks to their versatility and creativity. The company was founded in Brunello, in the province of Varese, and, thanks to a great attention for the materials used, to the most modern technological innovations, and to constantly trained specialized staff, it is now cooperating with the most prestigious Italian and foreign fashion houses.

Crabyon by Pozzi Electa. Crabyon was created in Japan by Omikenshi, a company that managed to develop an industrial process that involves the crushing of crustacean shells from the food industry and the subsequent mixing with other natural fibers without the use of solvents. Actually, most of the raw material used for the production of chitin/chitosan contained in Crabyon comes from the recycling of crustacean shells. It is estimated that around 150,000 tons of chitin are available for commercial use each year, but only few thousand tons are actually used worldwide.

Chitin and chitosan are substances with many hygienic and health properties (antibacterial, antimicrobial, hemostatic, hypo-allergenic actions), whose biocompatibility has been scientifically proved, so much so that they are also used in the medical and pharmacological field. It is important to emphasize that the aforementioned properties of Crabyon remain unchanged and durable over time, even after washing or use, or if affected by external agents.

This recently-invented industrial process makes it possible to obtain a latest generation textile fiber characterized by a high moisture-absorption power. When it is in contact with the skin, it can prevent dehydration. Moreover, its moisture retaining property, greater than any other fiber, ensures freshness and prevents unpleasant odours.

Crabyon is the ideal fiber for creating textile products to be used in contact with the skin, for underwear, sportswear, household and medical linen and so on.

The company that manufactures the yarn is Pozzi Electa. More than 100 years after its establishment, the company is now led by the fifth generation of the family and it is a cotton-system spinning mill, renowned for the high quality of yarns used for furniture, upholstery and curtains, as well as for outwear, underwear, fashion and technical clothing.

The production, which has changed over the years but which is still fully and strictly Made in Italy, today mainly consists of yarns obtained from natural raw materials, such as cotton, linen, wool, angora, cashmere and silk, which are mixed with artificial and/or synthetic fibers in order to realize fabrics and garments that are extremely soft in winter and pleasantly cool in summer.

The fabric is manufactured by **Tessitura Serica A.M. Taborelli.**

Ingeo™ by Natureworks. Polylactic acid (PLA) by Natureworks, sold under the Ingeo™ biopolymer brand name, is a biopolymer made with 100% renewable resources. It is obtained from the polymerization of lactic acid, produced through the fermentation of sugars derived from plants.

Nowadays, Natureworks uses the best technologies to transform greenhouse gases into a portfolio of high-performance Ingeo™ materials. The company uses plants such as corn, manioc, sugar cane or beets to “capture” carbon dioxide and transform it into long-chain sugar molecules.

The plants, after being subjected to a milling process that extracts the starch (glucose), undergo several phases that transform lactic acid molecules into rings of lactide.

In the process of polymerization, every lactide ring is opened and linked to the others to form the long chain of polylactide polymer we call Ingeo™.

Ingeo™ applications include food containers such as yoghurt cups, baby wipes and household appliances. Natureworks’s research and development team is currently evaluating the use of new technologies to replace plants and use micro-organisms to allow a direct conversion of greenhouse gases into lactic acid.

Ingeo™ certifications include the Cradle to Cradle Certified CM Silver* by the Cradle to Cradle Products Innovation Institute, the No Genetic Material* in Ingeo™ Certification by Genescan (which certifies that Ingeo™ is now produced from vegetable sugars and does not require genetically-modified materials), the Biobased Carbon Content Certification* (which certifies that 100% of the carbon in Ingeo™ originates from renewable agriculture and not from oil), the ISCC* (International Sustainability & Carbon Certification) Plus Certification, which certifies a sustainable production of new renewable raw materials).

Ingeo™ fabrics are manufactured by Tessitura Serica A.M. Tadorelli for the orthogonal/woven fabric and by TINTEX Textiles for the jersey fabric. The orthogonal/woven fabric utilizes Ingeo™ yarn produced by Trevira GmbH and processed by Lei-Tsu.

TINTEX Textiles is a company founded in the region of Porto in 1998 that has become a leader in the innovative production of naturally advanced, smart jersey fabrics, realized in a responsible and innovative way using natural fibers and advanced dyeing and finishing processes, which are intended for active-wear and underwear. The company realizes dynamic products - made unique by advanced know-how in dyeing and finishing - from certified and natural organic materials, of an advanced-hybrid, hi-tech and smart nature with a strong creative appeal, also thanks to thorough research and design aimed at offering new and contemporary solutions. The company is ISO 14001*, ISO 9001* and Sustainable Textile Production* (STeP) certified by OEKO-TEX®*; TINTEX Textiles is also a bluesign® system partner.

Furthermore, since April 2018, TINTEX Textiles has also been part of the *Make Fashion Circular* initiative by the Ellen MacArthur Foundation, which promotes cooperation and innovation aimed at creating a new “textiles economy”, based on the principles of circular economy.

Trevira GmbH is a long-standing German manufacturer of spinning flock and continuous yarn with more than sixty years’ experience and expertise in high-performance and quality polyester, suitable for every textile application, including residential and contract furniture, automotive, clothing, hygiene and technical products. The company is headquartered in Bobingen, near Augsburg, in Germany. Trevira GmbH is owned by Indorama Venture PCL - Indonesia. Trevira offers a wide range of special fibers and yarns with the STANDARD 100 by OEKO-TEX®* certification. A novelty in this range of products is represented by PLA (polylactide) fibers and continuous yarns. PLA is mainly derived from cereals (corn). PLA fibers and yarns offer a sustainable alternative to oil-based fibers and yarns and are the basis for intelligent textile applications with additional functions, new uses and niche products. They are as cheap as they are efficient. Possible applications range from clothing and home textiles to technical applications. Trevira’s energy management is ISO 50001* certified, whereas the environmental management system is

ISO 14001* certified and the quality management system is ISO 9001* certified. Sustainable development is an important aspect of this company's goals, both in production and in the subsequent phases involving the processing of the spinning flock and continuous thread.

Lei-Tsu is a company founded in 1954 that specializes in the processing of continuous threads in its two factories in Lombardy, Bellusco and Tirano. The company, which started as a mere yarn twisting mill, has become over the years a reality that carries out various processes (all on continuous yarns), such as air texturing, fancy yarns with single and double binding, and flamed items with natural effects. The company also partners with Asahi Kasei for the processing of Bemberg™ yarn (cupro fiber) and was the first company in Europe to process Ingeo™ PLA more than 10 years ago.

In its two facilities, Lei Tsu manufactures about 250,000 kg of yarns per month, which are sold in the European Union, Turkey and North Africa. Most of Lei Tsu's production is today distributed by ILCAT, based in Prato.

Orange Fiber. This is the Italian company that has patented and creates sustainable fabrics from citrus by-products. The patent developed by Orange Fiber allows the transformation of orange processing residues into a highly technologically innovative quality fabric, without subtracting raw material from the food industry and using by-products that would otherwise have to be disposed of.

For the above reasons, Orange Fiber has received the first Global Change Award, an international competition organized by the H&M Foundation.

Piñatex by Ananas Anam. It is an innovative, natural and sustainable material based on pineapple leaf fibers. It is breathable, flexible and has a tensile strength comparable to linen's and better than jute's, hemp's and sisal's. It was created by Carmen Hijosa, who, after working as a consultant for a Philippine company in the 1990s, discovered how pineapple leaf fibers used in traditional Philippine clothing could be transformed into an easily reproducible material, constituting an additional source of income for local farmers. Carmen realized that the fiber was potentially capable of giving rise to solutions combining innovation and social responsibility. The vision of Carmen Hijosa and Ananas Anam, the company that manufactures piñatex, is to connect people, ecology and economy to create a scalable, socially and environmentally responsible industrial production.

SECTION 10: BACK TO NATURE

Hemp. Hemp is a natural textile fiber extracted from the hemp plant which grows in areas with temperate climates. One of the main factors that determines hemp sustainability is represented by the fact that it does not require pesticides, herbicides and fertilizers and that it can be grown uninterruptedly, because it does not deplete the land; indeed, it reclaims and softens it. Hemp is a material that lends itself to many uses and has many properties, including its great resistance.

Maeko Tessuti & Filati Naturali was created as a result of Mauro Vismara's passion for hemp fiber. In 1998, Mauro decided to finally leave his activity as an osteopath, and took his first steps in the world of the production of natural fabrics. Determined to offer interesting novelties in a sector that was eagerly looking for alternatives, he started to study, know and interpret yarns of a natural origin in order to realize peculiar and interesting weaves, using modern finishing processes to make yarns increasingly softer and charmer, without, however, sacrificing their naturalness.

A few years later, Maeko, in cooperation with Colorsystem, developed a business dedicated to dyes, including in particular GOTS* certified colours. A technical dyeing department thus started operating in the province of Como, to supply not only its own production, but also the production of the companies operating in the fashion/furniture sectors that require this service.

Maeko currently makes high-quality natural fabrics with a controlled supply chain and it is involved in the development of environmentally friendly sustainable economy that also respects individuals. Hemp, nettle, soya, Crabyon, bamboo, linen, organic cotton, yak yarns and certified wool are processed by expert technicians in a long-standing weaving mill in the province of Turin, and sold in the international market of clothing and furniture.

Since 2014 Vismara, driven by his inexhaustible passion, has been working to renovate the long-standing sector of hemp production for textile use in Italy, and to restart the agricultural/industrial sector that had made Italy the world's second largest manufacturer after Russia last century.

Coloured cotton by Organic Cotton Colours. OCC has been manufacturing 100% organic cotton for more than 25 years now, and it has been developing its own project for Brazilian cotton for seven years, supporting local farming and involving over 150 growers with the aim of total traceability.

Cotton does not require either artificial irrigation or insecticides, and cotton yarns and fabrics are realized without any chemical process. There is also another characteristic that makes this product particularly unique: OCC has opted for the cultivation of ancient and natural cotton seeds that give the plant their original colours such as green, ecru and brown.

Felt by Filz Torino Feltri. Felt is a material traditionally made of animal hair. It is not a fabric, but it is realized by felting fibers. It is also warm, light and waterproof. Wool felt, in particular, benefits from the fact that wool fibers can compact with each other without the use of any chemical additives. In addition, this type of felt is biodegradable. Other versions are now available, which are made of vegetable fibers felted with the help of moisture, heat and pressure and through mechanical or chemical processes. Filz Torino Feltri has been marketing both natural and synthetic felt for over fifty years. Its production offers felts in natural colours (white and grey mélangé) and a wide range of customized colours.

Kapok by FLOCUS™. It is a 100% vegetable and natural fiber that is obtained from the fruits of a tree of the Bombacaceae family, which is particularly widespread in Asia and Brazil.

This tree grows wild in unpolluted forests; it is cultivated without using pesticides or fertilizers and it does not require irrigation. A woolly fiber is obtained from the fruit of this tree, which is then subjected to accurate processing to make it soft, elastic and easily moldable, without changing its shape. Processing takes place without the use of any harmful chemicals. The resulting material is breathable, hypoallergenic, lightweight, anti-microbial, water-repellent and biodegradable. The most important feature of kapok, also known as “vegetable wool”, is its density of 0.35 g/cm. This lightness made the spinning process complex, but spinning is now possible thanks to technological advances. As proof of the company's commitment to environmental issues, we know that the inclusion of a 30% portion of kapok by FLOCUS™ in a kilogram of cotton contributes to save 3,000 liters of water.

Native wool by Lanificio Fratelli Piacenza. In Italy, sheep have been reared for decades for meat and milk, and the market is no longer demanding those wools that had been, for centuries, the fundamental raw material for the production of clothing fabrics. Today, a large part of this domestic production is

abandoned on the lands where shepherds and breeders necessarily have to shear their flocks because of their biological cycle and survival needs. Although the wool abandoned on the soil is a natural material, it is waste that in some cases can be harmful for the environment. At this time, the use of wool from native sheep breeds can represent a valid support for farmers, because it replaces the cost of shearing - which results in no margins for them - with a source of income; moreover, it also allows the recovery of a traditional resource. The key value of native wool is the traceability of the raw material, of the production chain and, therefore, of the finished product.

Fiber quality perfectly reflects the animal life, in the sense that the animals' fleece reveals the quality of their habitat and nourishment. Based on this principle, Lanificio Fratelli Piacenza's wool mill carefully selects locations, breeders, and farms capable of finding the world's best raw materials. The meticulous choice of superfine, limited-production wools and of the best noble fibers is an integral part of the know-how that also continues during the production process, which aims to emphasize natural characteristics with precious mixtures or special finishes. Lanificio Fratelli Piacenza manages all processing phases, including finding raw materials, weaving, and finishing.

Organic linen by TINTEX Textiles. Organic linen is a fiber obtained from the flax plant grown without the use of chemical fertilizers and pesticides. The resulting fibers are very resistant and have different lengths: long fibers allow the processing of higher quality fabrics, while shorter fibers are used to make more basic materials.

The organic linen fiber, processed without the use of chemical dyes or heavy metals, allows the realization of an elegant, light and fresh yarn, as this fiber has an inherent capacity to absorb and regulate moisture, dry quickly and it does not felt. Linen is also hypo-allergenic and antibacterial, and these characteristics make it perfect for those garments to be worn in direct contact with the skin.

The Global Organic Textile Standard* certification adds value to organic linen. Actually, the GOTS* is globally recognized as the most important standard for the sustainable production of garments and textiles made from natural fibers from organic farming. GOTS* parameters include technical and environmental quality, as well as toxicity and social protection, which are guaranteed throughout the supply chain by the certification itself.

Nettle by Camira Fabrics. Nettle is a perennial crop that grows rapidly without the need for pesticides or herbicides, on soils that are often unsuitable for other crops. From nettle stalks it is possible to obtain an excellent textile fiber, which results in excellent, thin and flexible, strong and tough yarns. Nettle fiber is as soft, resistant and breathable as linen and as shiny as silk. It is a 100% biodegradable natural fiber that also has antistatic properties. The hollow stalk ensures thermo-regulating properties.

Interestingly, the fiber may have different functions depending on how it is twisted. If it is twisted several times, thus completely obstructing the hollow part that holds air, then the fiber's characteristics become similar to cotton's. Conversely, if the fiber is not much twisted, air remains inside it and the resulting fabric protects you against cold, like wool.

The practice of extracting textile fibers from nettle ceased for some time, then it was restarted during the autarchy period in Italy. At that time, the extraction process was carried out by making stems macerate in ammonia, with subsequent decortication; nowadays other natural and chemical extraction methods are being experimented in order to turn fabrics into yarns.

Camira finds nettle locally, thanks to the cooperation with two farms located respectively in Yorkshire and Lincolnshire in UK. Nettle is harvested at the end of summer and left to dry.

Nettle stems are then delivered to the company for mechanical decortication, through which the fiber is extracted from the outside of the stem. For the production of its collection of nettle fabrics, Camira uses nettle mixed with pure virgin wool in varying percentages.

Vegan silk/non-violent silk by Ereena. In the deep valleys of the Himalaya, castor trees are very abundant and the silkworm *Samia Cynthia* lives and proliferates on their leaves; silkworms feed on these leaves creating special cocoons characterized by a “naturally special structure” that allows silkworms to leave the cocoons after creating them, without breaking them down and thus completing their life cycle externally in a natural way.

Ereena silk yarns, made thanks to these special silkworms, create fabrics that, while reminiscent of the beauty and preciousness of silk, with a matt appearance and a very sophisticated light, are comparable to the finest wools to the touch, of which they share the same qualities in terms of comfort and ability to keep body temperature constant, regardless of external weather conditions. Basically, they are cool in summer and warm in winter.

The project also has a great social value because, thanks to Jyothi Reddy, who is the designer, promoter and coordinator of this initiative, it involves more than twelve thousand silkworm breeders and about two thousand spinners and weavers, who can now rely on a secure source of income and improve their living standards.

Cork by Villani Leonello. Cork is a natural material obtained from Cork oaks, which has been used for over two millennia now. It is mainly found in the Mediterranean area and particularly in Italy, in Sardinia and Sicily. Characterized by excellent thermal and sound insulation, waterproof and fire resistance properties as well as natural biodegradability, cork can be recycled several times through non-invasive processes. About 36,000 km² of cork forests are currently present in the Mediterranean area, of which 20,000 km² are economically exploited. About three hundred thousand tons of cork are extracted every year, fifteen thousand of which in Italy (twelve thousand in Sardinia).

It is estimated that cork forests absorb fourteen million tons of carbon dioxide per year and contribute to a decrease in the amount of greenhouse gases in the atmosphere and to a slowdown of global warming. Cork is capable of retaining approximately twice as much CO₂ as its weight: an excellent example of circular economy.

The Tuscan family-run business Villani Leonello specializes in the manufacture of cork fabrics for the footwear and leather goods sectors. The process implemented by the company consists of gluing very thin sheets of natural cork on textile supports.

Cork fabrics are REACH* certified, formaldehyde-free and do not contain either azo dyes or, more generally, any substances that may cause damage to the environment or human health.

Natural dyes by Casa Clementina of Sissi Castellano and Stefano Panconesi

Natural dyes only, derived from parts of plants, minerals, and even insects, are used to colour textile products derived from organic fibers. These are very ancient practices, which were largely abandoned in the mid-nineteenth century with the advent of synthetic colours.

The dyeing process, which is not only chemical but also physical, is based on the fact that each type of natural fiber absorbs the dye in a different way, which results in a different colour tone: animal fibers, also known as protein fibers, are more receptive, whereas vegetable fibers, i.e., cellulose-based fibers, have lighter, less bright tones of colours.

Unlike synthetic colours (in which only the main molecule of colourant is isolated), natural colours, most of which are of vegetable origin, are made up of a combination of several different colouring molecules that make the colour very vibrant. Marketed in the form of herbal tea, powder and now also in the form of certified extracts, they have a strong ecological connotation as they are obtained from renewable crops.

Through the use of mordants, mineral salts and vegetable tannins, it is possible to obtain a considerable number of different shades of colour from each plant.

The approach of the textile industry to the use of natural dyes has changed enormously over the last few years, but production levels are not particularly high yet. The high value of natural colourants is determined by the fact that they are made with natural and healthy raw materials, which do not consume fossil resources and do not contain residues that are harmful to health. The difficulty in standardizing their chromatic effects makes them suitable for a semi-artisanal production by enterprises that prefer to work with smaller quantities and focus on accurate research, customization, and uniqueness.

Stefano Panconesi, born in Florence, graduated in Economics and Commerce with a dissertation on the marketing of dyeing plants. He has always been passionate about natural dyeing, just as his father. For over twenty years he has been involved in the industrialization of natural dyeing as well as ecological textiles. He has recently engaged in a large-scale study of uses, opportunities, raw materials and historical recipes, selecting and processing his findings with a view to the application in industrial production. In 2011, together with Sissi Castellano, he founded Associazione Casa Clementina, an association aimed at researching and preserving ancient textile techniques from all over the world.

He is also an expert of eco-sustainable materials and products that are suitable for industrial use without polluting the environment. He is a GOTS* inspector and therefore he is familiar with all matters relating to legislation in the field of sustainability.

The materials for the exhibition were supplied by **D'Orica**, a Vicenza-based goldsmith business founded by Giampietro Zonta and his spouse, Daniela Raccanello, in 1989, which also started to manufacture silk in 2014. Right from the start, they have run the business according to their own vision of the world, based on deep respect for the environment and on an authentic commitment to the development of social well-being for all. That's why D'Orica is also a benefit company and a certified B Corporation® (or B Corp)*.

Daniela Raccanello has also created *Treasure*, a jewelry collection resulting from a blend of goldsmith's art and 100% Italian silk.

Yak by mYak: born in Tibet, processed in Italy. Yak by mYak comes from Paola Vanzo's and Andrea Dominici's twenty-year experience living and working with the nomadic groups of the Tibetan plateau. Actually, these yarns derive from the baby yak finest and thinner fiber, which is capable of maintaining natural heat up to temperatures that reach 40 degrees below zero. Processing these special and very fine yarns requires a great deal of care and skill: this is why processing operations are carried out in small spinning mills in the Biella area, giving rise to products of timeless beauty and unparalleled quality. Combining the energy and strength of the Tibetan plateau with the precious Italian craftsmanship, mYak is able to offer much more than just a business, it also builds up the future for one of the oldest ways of living in the world.

The baby yak fabric has been supplied by **Lanificio Bisentino** of Prato, with finishing carried out by **Rifinitone Santo Stefano**, another Prato-based company. Lanificio Bisentino was founded in Prato in 1944 by the brothers Mario and Guglielmo Gramigni. They started as manufacturers of blankets and

plaids, then, in the Sixties, they specialized in the creation of fabrics for the fashion industry and, in particular, in the use of natural fibers, which are purchased and selected in the countries of origin and entirely processed in Tuscany.

More recently, the third generation took over the business choosing to focus on sustainability and on the traceability of its production chain.



CERTIFICATION DICTIONARY

DIN CERTCO according to ASTM D 6866:2012-01 test method Reg. No. 8C096

DIN CERTCO is the body of the Deutsches Institut für Normung that certifies product compostability. The certification therefore allows for the identification of compostable products with an unequivocal mark, which guarantees their traceability and facilitates their correct disposal. This mark provides the operators of composting facilities and consumers with important information. The certification is issued in accordance with current international standards: ASTM D 6400 “Standard Specification for Compostable Bio-based Materials”

www.dincertco.de/de/dincertco/home.jsp

EU Ecolabel

The EU Ecolabel is the European Union’s label of environmental quality awarded to those products and services that, while guaranteeing high performance standards, have a low environmental impact throughout their entire life cycle. The EU Ecolabel is a voluntary ecological label based on a scheme of selective, science-based criteria, which takes into account the environmental impacts of products or services throughout their life cycle and is subject to certification by an independent body (competent body)

www.isprambiente.gov.it/it/certificazioni/ecolabel-ue

FSC

The FSC is an independent, third-party, international certification specifically intended for the forest sector and for timbered and non-timbered forest-derived products. There are two types of FSC certification: Forest Management certification, for forest owners and managers, and Chain of Custody certification, for companies processing and/or trading forest products.

www.ic.fsc.org/en

GOTS

The Global Organic Textile Standard (GOTS), a certification recognized by all major markets, guarantees that organic textile products are made in compliance with stringent environmental and social criteria throughout the supply chain, from the harvesting of natural fibers to the subsequent manufacturing stages, up to the labelling of the finished product. This certification attests to the sustainable production of garments and textiles made from natural fibers from organic farming. GOTS parameters include technical and environmental quality, as well as toxicity and social protection, which are guaranteed throughout the supply chain by the certification itself.

www.global-standard.org/certification.html

GRS

The Global Recycled Standard (GRS), promoted by Textile Exchange, is one of the most important non-profit organizations promoting responsible and sustainable development in the textile industry worldwide. The GRS provides tests and parameters for the following areas: product composition and recycled materials content; traceability maintenance throughout the production process; restrictions on the use of chemical agents; compliance with relevant environmental parameters such as supply, discharge of water resources and energy recovery; compliance with social parameters relating to workers' rights.

www.textileexchange.org/wp-content/uploads/2017/06/Global-Recycled-Standard-v4.0.pdf

ISCC Plus Certification

The International Sustainability & Carbon Certification is a sustainability certification system for all raw materials and markets. It is a global leader and it covers the entire supply chain and all types of bio-based raw materials and renewable sources. With the ISCC certification, companies can demonstrate their commitment to environmentally and socially responsible production and the supply of sustainable and deforestation free raw materials.

www.iscc-system.org

ISO 9001

The acronym ISO 9001 identifies a series of standards and guidelines developed by the International Organization for Standardization, which define the requirements for the implementation, within an organization, of a quality management system, in order to manage business processes, improve effectiveness and efficiency in product development and service provision, achieve and increase customer satisfaction.

www.services.accredia.it/context.jsp?ID_LINK=1230&%3Barea=6

ISO 14001

ISO 14001 identifies the standard that sets out the requirements for the environmental management systems (EMS) of any organization. It is part of the ISO 14000 family of standards developed by ISO/TC 207. The standard can be used for certification, for self-declaration or simply as guidance to establish, implement, and improve an environmental management system.

www.services.accredia.it/context.jsp?ID_LINK=1231&area=6

ISO 50001

The ISO 50001 international standard specifies the requirements for creating, starting up, maintaining and improving an energy management system. The objective of this system is to allow an organization to pursue, with a systematic approach, the continuous improvement of its energy performance, including energy efficiency as well as the consumption and use of energy.

www.csqa.it/CSQA/Norme/Energia-e-Gas-Serra/ISO-50001

LCA

LCA stands for Life Cycle Assessment: it is a tool used to analyze the environmental impact of a product, activity or process throughout all phases of the life cycle, by quantifying the use of resources (energy, raw materials, water) and the emissions discharged into the environment (air, water and soil) associated with the system being assessed. When it is decided that an LCA should be carried out on a given product, it is first necessary to identify the processes involved in the life cycle of each component of the product and its packaging. Generally, the analysis takes into account: extraction and supply of raw materials; production; packaging; transport from the production site to the point of sale; use; disposal of the product and packaging.

www.etichettaambientale.it/lca.html

No Genetic Material in Ingeo™ Certification by Genescan

Given that Ingeo™ is a biopolymer made from plant-based sugars, Genescan certifies that no genetically modified materials are used in its production.

www.eurofins.com/our-services

REACH

It is a European Union regulation adopted to improve human health and environment protection against the risks of chemicals, while encouraging the competitiveness of the European chemical industry. The regulation also promotes alternative methods for assessing the hazards caused by certain substances in order to reduce the number of tests carried out on animals.

echa.europa.eu/it/regulations/reach/understanding-reach

Seri.co

Seri.co is a product and process certification system based on Specifications whose application by companies aims to provide maximum guarantees: on the production process, in compliance with the principles of quality, environment, health and safety, sustainability, social responsibility and chemical risk management; on the textile product, with respect to both its technological and performance characteristics and its eco-toxicological properties; on the chemical/formulation/dye used, with respect to its eco-toxicological properties. It is a certification that ensures the quality and compliance with the health and safety requirements of the textile product and of the system from which it originates.

www.textilecomo.com/en/About-Seri.co

STANDARD 100 by OEKO-TEX®

The STANDARD 100 by OEKO-TEX® is a worldwide consistent, independent testing and certification system for raw, semi-finished, and finished textile products at all processing levels, as well as accessory materials used. Since its introduction in 1992, the central focus of the STANDARD 100 by OEKO-TEX®

has been the development of test criteria, limit values and scientific test methods. On the basis of its comprehensive and strict list of requirements, comprising several hundreds of regulated individual substances, the STANDARD 100 by OEKO-TEX® takes account of:

- important legal regulations regarding azo colourants, formaldehyde, pentachlorophenol, cadmium, nickel, etc;

- numerous harmful chemicals, dangerous for health, even if they are not yet regulated by law;

- the requirements of Annexes XVII and XIV of the European Chemicals Regulation REACH as well as of the ECHA SVHC Candidate List insofar as they are assessed by the OEKO-TEX® Expert Group to be relevant for fabrics, textiles, garments or accessories. Following discussions and developments that are considered relevant, the STANDARD 100 by OEKO-TEX® requirements are updated as quickly and effectively as possible;

- requirements of the US Consumer Product Safety Improvement Act (CPSIA) for lead;

- numerous classes of substances that are also relevant for the environment.

www.oeko-tex.com/it/business/certifications_and_services/ots_100/ots_100_start.xhtml

STeP

Standard STeP (Sustainable Textile Production) by OEKO-TEX® is an independent certification system for brands, retailers and manufacturers in the textile industry who wish to inform the public, in a transparent and credible way, of the steps they are taking towards more sustainable production conditions. The STeP certification allows for a comprehensive analysis and assessment of all relevant company areas with respect to the use of environmentally friendly technologies and products, to an efficient use of resources and to the adoption of socially adequate working conditions.

www.oeko-tex.com/it/business/certifications_and_services/step_by_oeko_tex/step_start.xhtml

Tessile e Salute

Associazione Tessile e Salute (Textile and Health Association) has developed a voluntary certification system that assesses the production process and confirms the absence of hazardous substances, with objective criteria and transparency. The twofold goal is to give importance to companies that operate in compliance with mandatory regulations and provide consumers with guarantees as to the origin, traceability and safety of their clothing and footwear. Founded in 2001, Associazione Tessile e Salute sides with consumers and protects the Made in Italy. It deals with eco-toxicology in the Textile and Fashion sectors, combining the skills of the public system with those of the textile, leather and chemical production chains.

www.tessileesalute.it/en