#### Wonderful Vinylno 17 SUSTAINABILITY

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# **PVC: from Venice, with style**

PVC finds a new life, in line with the recommendations of the EU strategy for a circular economy!

It is a genuine, original and colourful Venice that is reproduced on bags and accessories of the SANMARCO4070 line, recently launched by Mauro Scarpa and Andrea Baessato, two Venetians. Bags and accessories (purses, wallets, key cases, cases, etc.) are made by printing processes on PVC, mainly from manufacturing waste.

This creative idea was born with the talent of Mauro Scarpa, born 1962, pharmaceutical representative for homeopathic and herbal medicines, artist and illustrator. And the figurative representation of the city of Venice is the fulcrum of the artists' work, and its maximum personal and emotional expression. Venice with its "calli", its "campi", its "fondamenta", is reproduced on bags and accessories, each one marked by the place names in Venetian dialect.

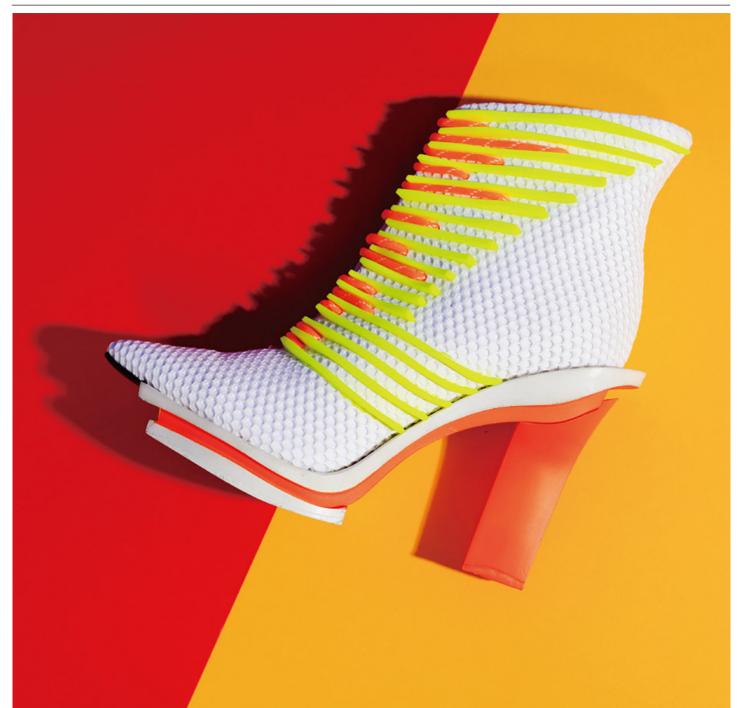
In recent years Mauro has taken possession of a hitherto unexpressed artistic talent, both as an illustrator seeking original painting techniques, (spatula on canvas with double-drawing on the same layer) that is in the representation of his native Venice - his maximum personal expression, and now with the new line of bags and accessories. The paintings of Venice are colourful and reflect the intense energy as well as the magical atmosphere of Venice.

All SANMARCO4070 goods are strictly 'Made in Venice': the whole process of designing, printing, cutting, sewing and assembly takes place in Venice. The material used is polyester, coated with PVC, chosen for its characteristics of strength, workability and printability.

Once again, it returns to the Venice-PVC pairing: a historical, cultural, and in this case, artistic affinity, that continues in the name of creativity and innovation.

Designer | Mauro Scarpa, Venice, Italy Producer | SanMarco4070, Venice, Italy Technical info | PVC, leather, fabric Picture credits | SanMarco4070

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## **Layering Movement**

Chinese designer Chengxu Tian's Layering Movement collection of footwear features textured, stripy patterns created by injection moulding.

Tian designed the collection during his Masters course at London College of Fashion, after becoming interested in how 3D layering could be used in footwear design.

To create the range, the designer poured liquid PVC into a mould, before using an oven to heat it to a solid state. Fabric was then layered on top, and a pressing machine used to combine the two materials together.

The process can be used to create unusual surface textures that vary from shoe to shoe, as well as individual elements that can be placed as raised 3D patterns on the surface of the footwear.

The collection features a range of striped and semi-woven patterns, with different layers accentuated in bright contrasting colours. Designs range from high heels, to trainer-style footwear and slingbacks.

The designer worked with seven different factories to test and produce the shoes, designing a different mould for each piece of footwear.

Designer | Chengxu Tian, Chengdou, China Material | Moulded PVC Picture credits | Chengxu Tian

## **DaGuan Theater**

Located in the PuDong District of Shanghai, the DaGuan Theatre is part of the Himalayas Centre, designed by Arata Isozaki & Associates.

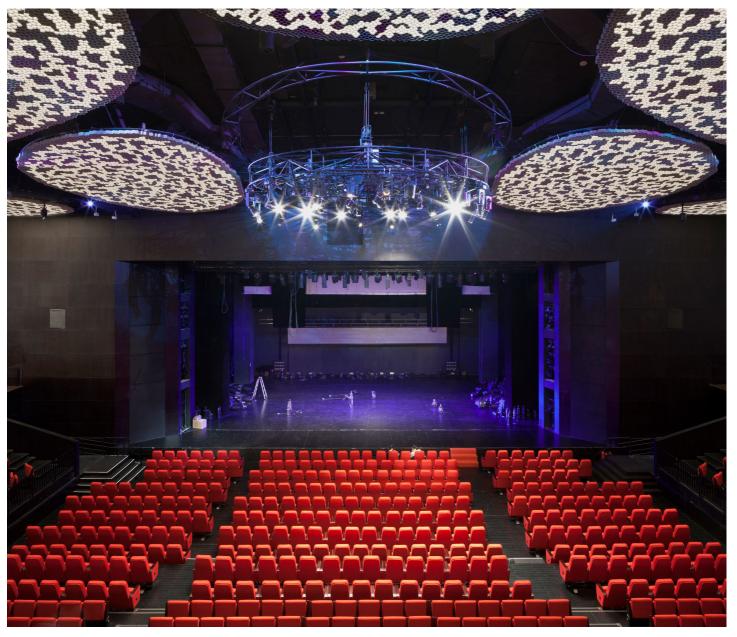
This project includes a lobby, a boutique, a bar/cafe and a multipurpose space for 1200 spectators. This multipurpose facility consists of ten lifting platforms, modulating the spatial configuration according to several programs: theatre, conferences, exhibitions, fashion shows, banquets and boxing matches. It attempts to both magnify the surrounding structure and create an interaction between this existing organic architecture and the new intervention.

The design strategy is based on two different directions. Firstly, the rough organic cave is domesticated with a light structure wrapped with PVC fabric. This articulates a duality between high-tech and low-tech, to create a tension between the existing cave's harshness and the textile's softness. This arrangement creates a specific interstitial condition between both the existing and the new project, where visitors can freely explore and stroll around.

Secondly, both, scenic treatment and furniture, are designed as a flexible system allowing easy modifications and multiple configurations. On one side, light devices are concentrated into modular hanging "clouds" made of honeycomb mesh. On the other side, furniture consists of smooth modular shapes delicately disposed on the floor, creating an abstract composition having a dialogue with the existing.

Architects | AS Architecture Studio, Paris, France Location | Daguan Theatre, Himalayas Centre, PuDong, China

Technical info | PVC fabric Picture credits | AS Architecture Studio



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### **Tree Lantern**

Intended as an object that can be easily constructed, the conical object designed by Polish designer and architect Hugon Kowalski, uses common materials and processes to aid its creation.

A PVC fabric which easily absorbs water is sewn into a cylinder, then soaked and hung by clothes pins from the top while, at the same time, a hoop of PVC piping is attached to the bottom.

Due to gravity and the below-zero temperatures, the material adopts a form that resembles a tree. The structure then sits over the top of a light, which illuminates it in the night. To preserve the structure you can spray it with water forming a thin layer of ice that glistens in the light.

Designer | Hugon Kowalski, Warsaw, Poland Producer | Hugo, Architecture + Design, Warsaw, Poland Technical info | PVC tube and fabric Picture credits | Hugo Architecture

+ Design



## **The Blue Planet**

The Blue Planet, designed by Danish 3XN Architects, is Europe's largest and most significant aquarium with an outstanding location on the shores of Øresund, near Copenhagen.

The Blue Planet is one of Denmark's five most prominent tourist attractions. At the tourism conference "A New Way to Grow" 2012, the Blue Planet was chosen as Denmark's best lighthouse project within experience economy, because of its potential for growth, influence on regional development, innovation, realisation as well as its uniqueness and 'reason to go'.

The circular foyer is the central point of navigation in the aquarium. Here visitors choose which river, lake or ocean to explore. By enabling multiple routes, the risk of queues in front of individual aquariums is reduced. Each exhibition has its own theme and entrance from the foyer, where sound and images are used to introduce the atmosphere of the different exhibition areas. The restaurant enjoys a magnificent view of the sea, which begins just a few metres away. The ceiling is developed through a flexible PVC membrane which reflects lights with a warm look.

Jesper Horsted, curator of Denmark's Aquarium, had in the mid-90s, already outlined the first ideas on how a

totally new and modern aquarium should be designed. The old building needed a total renovation which would be costly without even providing guests with a significantly better experience. A much-needed enlargement was neither possible at the site nor economically feasible with regard to the overall improvement of the attraction of the aquarium.

What was needed was a new location and new framings to give coming generations of visitors new and outstanding adventures. Inspired by visits to the world's most exciting aquariums and spiced up with ideas of his own, Jesper Horsted formulated his wishes for the design of a totally new Danish Aquarium. Principles, which were later to become fundamental for the international competition of The Blue Planet.

Now, Denmark's Aquarium is again at the international forefront, with world class architecture, thousands of creatures from all over the world and advanced presentation technologies.

Architects | 3XN Architects, Copenhagen, Denmark Location | Kastrup, Denmark Technical info | PVC Barrisol membrane Picture credits | Adam Mõrk



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#### Wonderful Vinylno 17 A R C HITE C T U R E



## **Quiksilver Showroom**

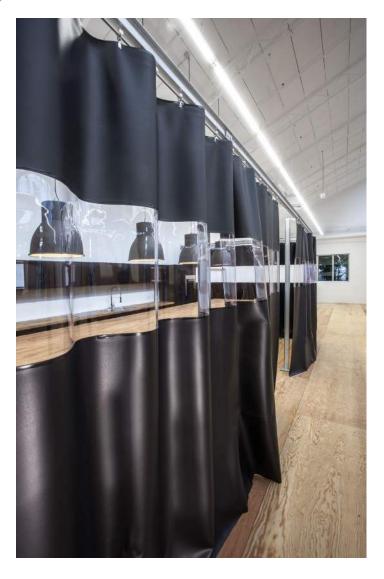
The starting point for this design concept, designed by the German office of Clemens Bachmann Architekten, draws inspiration from the industrial heritage of the building, with its rich history of former occupancies.

The project preserves the authentic and rough character of the space, revealing the unique textures and stories expressed in the structure and materials such as the exposed steel trusses and worn concrete floor.

Within this industrial framework, Elements like racks, shelves and boxes are introduced for displaying clothes and shoes. The palette of materials is kept neutral and desaturated, to allow the colours of the clothes themselves to be the main focus in the space. Plywood elements create warmth and the white walls accentuate the quality of light from the saw-tooth clerestory windows.

The heritage of the warehouse-like space remains, with its high ceilings, exposed trusses and original clerestory windows. Black and white walls combine with bold graphics to add character to the space, with its personality further enhanced when you spot the black PVC curtains that wrap around one section. This quirky aspect gives the space a laboratory-like feel, which is what the concept showroom aims to offer: a space to dissect new collections.

Architects | Clemens Bachmann Architekten, Munich, Germany Location | Munich, Germany Technical info | PVC curtains Picture credits | Bernd Ducke



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## Coni Lamp

In our daily life, there are many unique table lamps. Recently, young Japanese industrial designer Megumi Wada designed a handmade table lamp named Coni, which looks like a mushroom.

Megumi Wada's Coni table lamp is about as minimal as you can get: It's just two circular sheets of vulcanised fibre or PVC, and an LED.







The circles each have a deliberate slit cut into them. Roll each into a cone, pin it fixed, stack one on the other, and you've got the lamp.

Designer: Megumi Wada, Kobe, Japan Material: PVC Sheet Picture credits: Megumi Wada

#### Wonderful Vinylno 17 ARCHITECTURE

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## **ICD-ITKE Research Pavilion**

The Institute for Computational Design (ICD) and the Institute of Building Structures and Structural Design (ITKE) of the University of Stuttgart have completed a new research pavilion demonstrating robotic textile fabrication techniques for segmented timber shells.

The pavilion is the first of its kind to employ industrial sewing of wood elements on an architectural scale. It is part of a successful series of research pavilions which showcase the potential of computational design, simulation and fabrication processes in architecture. The project was designed and realised by students and researchers within a multi-disciplinary team of architects, engineers, biologists, and palaeontologists.

Based on both biological principles as well as material characteristics, the material system was developed as a double-layered structure similar to the secondary growth in sand dollars. The building elements consist of extremely thin wood strips connected with PVC coated polyester membranes. Instrumentalising the anisotropy of wood, these strips are custom-laminated so that the grain direction and thickness corresponds with the differentiated stiffness required to form parts with varying radii. Thus, the initially planar strips can be elastically bent to find the specific shape pre-programmed into their laminate. In this deformed state, the elements are locked in shape by robotic sewing. In this way, 151 geometrically different elements could be produced, which result in a stiff doubly curved shell structure when assembled.

This project explores robotic sewing to not only join the individually bent plywood strips that form a segment, but also to prevent potential delamination. An industrial robot is employed for both assisting during the assembly and bending of the strips that make up the elements, and then locking the pre-assembled segment into shape by sewing them with a stationary industrial sewing machine.

During fabrication the robot first moves the segment through the sewing machine so that the strips are connected. Then it guides the segment trough along its edge to secure the laminate and to attach the PVC covered polyester membrane that forms the lace connection between segments. The robot and the sewing machine are integrated and controlled through custom software. This ensures that there is no lateral movement during needle penetration.

**Architects** | Institute for Computational Design, Institute of Building Structures and Structural Design, Stuttgart, Germany

Location | Stuttgart, Germany Technical info | PVC coated polyester membrane Picture credits | ICD/ITKE University of Stuttgart

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# **Skyspace Bounce House**

Mungo Thomson is a contemporary visual artist based in Los Angeles. Thomson is an artist who explores existing assumptions, context, reversal and background: what is happening behind the action. He has been called an archivist of the in-between.

Thomson's own aesthetic and intellectual background includes California "light and space" and conceptual art influences, which he has carried forward into the mediasaturated world of today, adapting and transforming these ideas with a dry and disciplined wit.

Skyspace took the form of a bounce house.

Mungo Thomson's Skyspace Bouncehouse is bulbous and luminous PVC pavilion, and the title refers, in part, to those brightly coloured, inflatable structures one might see in an urban front yard, waiting for kids to climb inside and jump until they lose their birthday cake. It's a chamber of rubbery wobbliness, and it helps to have two or more people in it at a time to help maximise its "bounce".

Thomson's pavilion has a meeting room presence, its sole interior bench seamlessly designed in the round, but the buoyancy of the material defeats the purpose of sitting solemnly.

Artist | Mungo Thomson, Los Angeles, USA Location | Margo Leavin Gallery, Los Angeles, USA Technical info | Inflatable PVC Picture credits | Margo Leavin Gallery







## **Itinerant Home**

During the Decours Design exhibition in New Orleans, artist and designer Mary Hale presented her Itinerant Home on the rooftop of the DH Holmes Building in the city's French quarter.

The project was to remember the efforts of rebuilding the area after hurricane Katrina ravaged the region years ago. Now, Katrina's destruction still endures, but not by lack of effort on the parts of local and international groups led by citizens and celebrities alike, doing their part to rebuild the city and provide homes for those displaced by the floods.

Referencing Lucy Orta's earlier work, 'Refugee Wear', Itinerant Home provides a point of discussion of the different housing possibilities.

The installation takes the form of a wearable, inflatable house which shelters multiple wearers working together to navigate through historic neighbourhoods and water bodies of New Orleans. It expands on the definition of bodywear, going beyond the gallery to be seen and worn by the public of New Orleans in the context of their historical building stock. It symbolises and stimulates ways of thinking about architecture of the home and the future of the city.

To produce the wearable abode, Hale made digital models and laid out patterns in AutoCAD. The overall 'superstructure' of the house is made from 53-gram breathable ripstop nylon and 8.2 metres of black 14 mil PVC for the floor and windows. The fabric of the home will stay inflated as long as there is a constant source of air maintained within the space.

Itinerant Home was commissioned by the New Orleans chapter of the American Institute of Architects.

Designer | Mary Hale, New Orleans, USA Location | Decours Design, New Orleans, USA Technical info | Inflatable PVC Picture credits | Mary Hale



## Toga Chair

Reut Rosenberg is an Israeli industrial designer and graphic artist, who recently graduated from the Holon Institute of Technology in Holon, Israel.

Rosemberg recently designed a new chair, inspired by the aesthetic of draped cloth. It consists of a simple European oak frame and a white PVC sheet, formed in a mould. The PVC not only acts as a visual expression of cloth, but also a practical, constructive component to replace the frame's back link and seat, providing minimalist comfort.

This is a quiet chair that invites you to sit upon itgently, and think calm and graceful thoughts.

Designer | Reut Rosenberg, Holon, Israel

Technical info | PVC sheet Picture credits | Reut Rosenberg Studio



