# Vinyl: Enabling Excellence!

Some games are great spectacles and some even more than others. Football has been in the news lately with the European Cup having just concluded at various venues across France.

Football is popular across the world but greater than the game itself are the stadia which host these shows - with prestigious tournaments like the European Cup viewed by hundreds of millions of people all over the world. A stadium is then not just a venue but adds to the entire "brand-value" package of the city where it is located. It is little wonder then that hundreds of millions are spent on stadia as they are a visible part of the game itself. The Allianz Riviera Stadium, also known as Grand Stade de Nice, was one of the venues of the European Cup. The stadium, designed by Wilmotte & Associés, cost an estimated •245 million and used recycled PVC extensively. One important aspect of stadia are the spectacular roofs, the construction of which creates memorable, emotional connections between the building and its visitors. Roofs that seem to float above the action or that allow looking far into the distance are the crowning achievement of every sports facility.

cled PVC. For example, the petal-shaped roof of the Arena das Dunas in Natal was completely coated with PVC on one side. The Arena Pantanal, which replaced the Stadium Governador José Fragelli in Cuiabá, used a fire-resistant PVC membrane on the inside as well as a waterproof PVC membrane on the outside of its roof. PVC membranes were chosen as part of an airy architecture making use of natural light and cross ventilation to save energy.

The Olympic Games always require extensive construction work for the host city. A little known aspect is the extent of recycled PVC in stadium construction now. Recognising the great potential of PVC, the Commission for Sustainable London 2012 even established a dedicated policy for its use - a major contrast to the Sydney 2000 Games, where policies were set to avoid the use of PVC.

The London Olympics stared the trend where using recycled materials during and recycling them after the games to reflect sustainability was of prime importance. Material used in constructing various temporary sports and games facilities were eventually recycled and found their way even into primary schools as flooring systems! The recycling of vinyl roofs starts with the removal of the



Plastics, and PVC in particular, have become one of the most widely used materials in building stadia. Flexible PVC is particularly important and can be found in many different applications. Its cost efficiency, durability and light weight make it ideal for roofs and flooring in permanent and temporary sports venues but also in a large variety of sporting goods. PVC membranes add to the modern look of the stadium while protecting the spectators from harsh sunlight and rain. And when it's time for replacement, PVC can be re-used and recycled into new applications.

The FIFA World Cup 2014 was hosted in 12 different Brazilian cities where seven stadiums were newly built and five were renovated, most of them using virgin and recyold membrane from the facility. The membrane is then packaged and consolidated and shipped to a facility where it is processed into a form that can be reintroduced into the new product manufacturing stream. Vinyl is an excellent candidate for recycling because the old roofing material is easily introduced into the raw material base for the manufacturing of new roofing membranes and accessories.

Clearly, the preference for PVC and the sheer amounts currently in use for stadium construction affirms the successful path to sustainable development the PVC industry has taken. And is a testament to the inherent qualities and robustness of the material.



## **Elephant Vases**

Argentinian designer Cristián Mohaded materialises the complexities of elephant's skin in a series of morphological vessels.

Elephant is a collection of very unique pieces, defined by a soft and textured language. They result from the material exploration and investigation that characterise Cristián Mohaded's work. Those jars are the first objects from the limited edition of the Elephant project, where each piece is created and shaped from the intuition and the manipulation of the material, making colour and texture the protagonists in each one of the pieces.



Its random and asymmetrical shape results from the joining of PVC edge bands rolls, which come in different widths, colours and textures; giving birth to this collection of vases that seem to be in constant movement and transformation.

Irregular and random joining forms overlapping textures which characterise an elephant's skin, colour contrasts are achieved from the material's existing colouration. The limited editions series features a broad range of shapes and heights.

Designer | **Cristián Mohaded, Cordoba, Argentina** Producer | **Autoproducción, Buenos Aires, Argentina** Technical info |**PVC rolls** Picture credits | **Cristián Mohaded** 



## **Big Will And Friends**

Architecture Office is an agile design office that uses analogy to explore both the ordinary and novel in the environment around us. By finding joy in architectural substrate and material matter that may not have yet reached its full potential, they exploit common assembly methods to construct architectural forms that promote interaction and pique curiosity. to embrace the temporal qualities of domestic decor that value appearance over substance, and the ephemeral over the secure and lasting. Linking art, architecture, and pop culture the works suggests that the novel assembly of art and domestic décor perceptually structures space through the surfaces around us.



The studio, led by Nicole Macintosh and Jonathan Louie, investigates the social aspects of wallpaper in Big Will And Friends. The spatial intervention consists of an uncomfortably large structure consisting of three 7' x 7' foot rooms. Besides the slim PVC framing, Big Will And Friends is defined entirely by the repetition of an abstracted variant of Morris & Co.'s 'Thistle' wallpaper.

Big Will invited chereographer Stephanie White to construct a dance that alters our spatial perceptions. Driven by architectures' participation in an expanded field, the chereography and construction work in concert to flatten and extend the visual environment while producing a range of moods and effects. Proposing a shift from the modernist conception of spatial definition to the ephemeral qualities of atmosphere and territory through decor. The complex decorative effect created, along with an accompanying performance, is intended to explore the relationships between art, architecture, and mass consumption. In a contemporary culture of excess and shifting values, Big Will and Friends calls for architects and artists

Architects | Architecture Office, Syracuse, USA Location | Rodger Mack Gallery, Syracuse, USA Technical info | PVC frame Picture credits | Ioana Turcan, Architecture Office





## Fabric

Fabric is an outdoor seating collection, designed by Spanish product designer Miriam Estévez, that marries concrete and canvas. Each seat is made of a synthetic layer composed of a specific, dry concrete and PVC sheet formula.

The 5mm material is flexible, allowing each seat to be moulded while dry. When hydrated, the composite quickly hardens, forming a thin, tough layer that is long lasting, waterproof, and fire-resistant.

The collection is based on the results of structural re-

search. In addition to the material itself, the project focuses on pattern design techniques and geometry in order to create stable, volumetric shapes that can stand on their own without supplementary support.

Fabric is a unique series of seats that merge textile warmth with concrete coldness.

Designer | **Miriam Estevéz, Barcelona, Spain** Producer | **Miriam Estevéz, Barcelona, Spain** Technical info | **PVC and concrete** Picture credits | **Miriam Estevéz** 



#### W on der ful Vin ylno 18 A R C H I T E C T U R E



### Xixi Artist Clubhouse

Located in Xixi Wetlands in west of central Hangzhou, the Xixi Artist Clubhouse designed by Nanjing-based AZL Architects, is organized as a village structure with five building units, 800 m2 each as studios for artists & designers in Hangzhou.

Each cluster relies on three Y-shaped volumes, one in six by six and two in three by three metres square frameless openings, creating panoramic views of surrounding wetland landscape in different directions.

Contrast to cubic outside geometric volume of building, twisting fiberglass installation redefines internal spaces. Walls, floors, and ceilings are integrated in continues surface, refers to different program.

The six meter tall structure is in concrete, while two smaller sections in steel structure introduce translucent white PVC panels as cladding to diffuse direct sunlight. During dark night, one could see a group of beautiful lanterns floating on the water of wild wetland horizon.



Architects | AZL Architects, Nanjing, China Location | Hangzhou, Zhejiang, China Technical info | PVC fabric Picture credits | Yao Li



#### Wonderful Vinylno 18 DESIGN

# Wonderful Vinyl creating possibilities together



### **Squaring the Sphere**

Dutch architect and designer Ronald van der Meijs was selected, as one of 20, to participate in the recent Sculpture Space Residency, which takes place over two months in Utica, New York.

Slowly, the identity of the piece transforms from a form almost bursting from its seams, to a shrunken, dead, hunk of material. The shape, when fully erect, resembles an oldfashioned glass TV screen; an intentional move that inextri-

The north eastern city is one of many rust-belt cities that suffered severe economic decline from the mid-20th century onwards. As industry disappeared, so did the town's population, leaving countless warehouses and residences to rot over time.

Van der Meijs' concept, titled Squaring the Sphere, is based on the never-ending growth

and decay sequence of consumerism. The installation is composed of specially connected plastic bags that inflate and deflate every nine minutes: all the while making a crackling sound associated with their physicality.

cably links television to notions of consumerism and modern advertising.

The plastic shopping bags used were sealed and connected by hand in order to create the final form. Integrated into each is a PVC connector, which connects to a flexible 5mm air hose. All PVC components were designed and produced by Van der Meijs himself.

This project is supported by the Mondriaan Fund

and SculptureSpace.

Designer | Ronald van der Meijs, Amsterdam, Netherlands Location | Utica, New York, USA Technical info | **PVC tubes** Picture credits | Ronald van der Meijs

## **HKSH MRI Centre**

The design of the new MRI centre intends to evoke a futuristic, clean and dynamic feeling to house the state-of-

the-art equipment. The challenge for this project was to develop a planning and design concept that would be functional from a medical standpoint and a pleasant and positive experience for the patients.

The 670 square metre department is inserted into an existing irregular building envelope and structural layout, each specialised space including two MRI rooms, four ultrasound rooms, three mammogram and biopsy rooms, one Fluoroscopy room, one Lithotripsy room, supporting and control rooms and general waiting area.

The curvilinear lines of the ceiling became a key feature of the design as an elegant and effective way to link up the multiple irregular public spaces and add fluidity to the space.

Fibreglass and vinyl modules were developed to house a

variety of functions such as seating, computer terminals, storage and equipment to created identifiable objects and spaces within the department. The modules were prefabricated off-site.

The color palette for PVC flooring and ceiling is an array of white accented with pale oak and celadon green. The use of seraphic glass panels is used to add depth to the space. Enlargements of human MRI scans were used abstractly as educational and decorative features throughout the department.

Architects | Liz Leung, Hong Kong Location | Hong Kong Technical info | PVC flooring and ceiling Picture credits | Liz Leung





## Oiwa Island 2

Inside a former soy-sauce warehouse, on the Japanese island of Shodoshima, artist Oscar Oiwa has installed Oiwa Island 2 as part of the Japanese 2016 Setouchi Triennale.

The large-scale work has been realised inside the spherical chamber of a 6-metre diameter inflatable PVC dome.

The Brazilian-born, and Japanese-resident, artist has intricately illustrated the interior walls of an all-white bubble, surrounding visitors in a labyrinth of monochromatic graphics and motifs drawn in black permanent marker.

Unfolding in a 360 degree panorama, the interior depicts the picturesque Setouchi landscape, recognised by lush vegetation, water and a mountainous backdrop. A drawing of a humble house is placed in the setting, the door of which becomes the portal through which visitors can enter the dome.

Originally realised for the 2013 edition of the Triennale, Oiwa Island 2 now includes a new section of drawings made specifically for this installation, which depict sky, forest and a small cottage on the sea shore. A painting of a door on the side of the dome turns out to be the actual door through which visitors can enter the dome.

Designer | Oscar Oiwa, Tokyo, Japan Location | 2016 Setouchi Triennale, Setouchi, Japan Technical info | **Inflatable PVC** Picture credits | **Oscar Oiwa** 



## **Roca Gallery**

Roca Gallery is the meeting point for various social, cultural and exhibition activities related to the company's values: sustainability, design and innovation; and Roca tries to be a hallmark of design in all cities where it is present.

Once more, the innovative space Roca Madrid Gallery has relied on the Spanish creative studio CuldeSac, for the concept of its new display cases. On this occasion, "The Roca Formula" presents to the public, the genuine composition of each Roca product, the true molecular essence of each piece, through an analogy with organic chemistry and are enclosed in PVC pipes that make the links.

The set has been developed such that it can be disassembled in its entirety, so that the project can be moved around.

Architects | CuldeSac, Madrid, Spain Location | Madrid, Spain Technical info | PVC PIPES Picture credits | CuldeSac



its formulas, a language that speaks to us of precision and exactness, and, at the same time, alchemy and innovation.

The installation created by CuldeSac brings together concepts such as creativity, sustainability, and design, formulated as long chains that condense the best parts of these principles, giving rise to unique and more elaborate concepts, praising all of the qualities of the product.

Regarding the technical features, the set of atomic formulas are built from polyethylene spheres reinforced internally with fibreglass in order to achieve the necessary stiffness. The connection between each of these spheres is made through some shells also made of polyethylene that are first attached to the surface of the spheres, and then

