Most of Europe is blessed with plenty of water from rivers that run full, almost the whole year, from the melting snows. And of course, the “rainy” weather that is prevalent in the Northern hemisphere.

Unfortunately, that is not the case in tropical and equatorial zones – these regions have plenty of sunshine all year-round but, having no snow to depend on and rains that are seasonal and intermittent, they’re also cursed with shortages of water and recurring droughts.

Having little or no access to efficient water transport or storage facilities, these regions lose most of their water due to poor water-storage. A significant amount of water is also lost to evaporation. This, in turn, has another follow-on effect with the inadequate water flow being insufficient for the hydro-electric power stations to generate electricity.

This Catch-22 situation needs innovative ideas to mitigate the ill-effects of both water loss as well as electricity shortages: PVC comes to the rescue! For example, in countries that require fresh water storage in large-scale reservoirs, an ultra-durable surface cover featuring integrated solar energy generating technology is a winning solution that delivers preservation, conservation, and value generation.

The Dynactiv™ Power series of surface materials ensures the year-round availability of water and power in arid regions. With their integral solar modules, they are doubly sustainable and are landmark products for countries with long periods of drought.

The light-impermeable film completely covers large water surfaces and reliably protects the reservoirs against dirt and evaporation. Up to 40 percent more water is retained as a result, which can then be used, for example, to irrigate arable land. In addition, photovoltaic modules laminated to the film make solar power available to surrounding households or to operate pumping stations.

Benecke-Kaliko’s Dynactiv™ Power energy-generating surface cover for water reservoirs received a special prize in the Sustainability category of the INOVYN Award, presented to incentivise innovation in order to achieve and promote important advances in the PVC industry, at the K international trade show for plastics and rubber in Düsseldorf, Germany. “Our innovative technology is enabling us to make an important contribution to environmental protection,” emphasises Dr. Dirk Leiß, Benecke-Kaliko’s CEO. “We are proud that it has been recognised in this way.”

“Sustainability is absolutely crucial to the continued success of the PVC industry,”
- Chris Tane CEO, INOVYN
An important contribution to environmental protection
Sam Jacob Studio has recently completed the exhibition design for the inaugural show at the new Design Museum in London. The exhibition, titled ‘Fear and Love: Reactions to a Complex World’ features 11 original installations by designers encompassing a diverse range of disciplines and subject matter including OMA/AMO, Hussein Chalayan, Andrés Jaque and Metahaven.

The exhibition asserts that design is deeply connected not just to commerce and culture but to urgent underlying issues – issues that inspire fear and love. This is a bold, multidisciplinary and global exhibition that aims to capture the mood of the present and establish the Design Museum as the home of design debate.

The whole design plays on the ambiguity at the heart of the exhibition, creating a curving ‘soft baroque’ plan. A single 190-metre long PVC curtain winds its way through the gallery to create a variety of opposing spatial sensations with a controlled consistency.

Materially, the design uses a simple palette of curtains to create a visual language that is not easily placed. Dark grey translucent PVC gives a futuristic and industrial feel, while its sharp and sinuous folds suggest a sense of luxury. This is contrasted with a Kvadrat felt curtain that gives sensations of both warmth and texture. The combination of these materials creates rich and varying effects of translucency and enclosure.

Signage and communication was developed with graphic designers OK-RM. Information is displayed on freestanding custom-designed bent-steel frames that recall street furniture, while a passivated finish gives an unusual iridescent effect.
Design is changing. Once focused on objects, it is now exploring complex issues with context. This is the human side of technological change for the environment and how we interact with it. The exhibition "Fear and Love" at the Design Museum in London presents a way of understanding the world as a way of changing it.

Fear and Love brings together eleven artists who design products that use new technologies. The exhibition explores the ways in which these technologies can be used to address environmental and social problems and how they can be used to change the way we perceive and interact with the world.

The exhibition presents a spectrum of attitudes to design and how it affects our lives. Fear and Love goes beyond the traditional narratives of design in which there is a clear cause and effect. Instead, it questions whether there are no simple answers and that design is both part of the problem and part of the solution.

The exhibition "Fear and Love" at the Design Museum in London presents a way of understanding the world as a way of changing it. It explores the ways in which new technologies can be used to address environmental and social problems and how they can be used to change the way we perceive and interact with the world.

Architects | Sam Jacob Studio, London, UK
Location | Design Museum, London, UK
Technical info | Translucent PVC
Picture credits | Max Creasy
Bad Cafe
Architects | Nudes, Mumbai, India
Location | Mumbai, India
Technical info | Recycled PVC electrical conduits
Picture credits | Sameer Chawda
Mumbai-based architecture studio, Nudes, has designed the façade of the Bad Café developing a flexible, undulating and thoroughly modern exterior for the multi-purpose location.

Remotely located from traffic snarls and insulated from typically high levels of air and sound pollution, the project is sheathed in tranquility and peace.

The dynamic skin, all of 25,992 black PVC cylindrical conduits grafted into CNCd aluminium composite box panels with acupuncture-like precision, shares a peaceful co-existence with its neighbours, its presence gradually unveiled as one meanders through the narrow by-lanes of the historical urban fabric.

The bristling surface of the building is inspired by the anatomical make-up of human skin, and its function as a connector between human bodies. The human skin is an anatomical barrier in bodily defence from
pathogens and damage between the internal and external environment. It also contains nerve endings that react to touch, pressure, vibration, tissue injury, heat and cold. Furthermore, the PVC pipes are recycled and are therefore environment-friendly.

Designed as a tactile, sensory experience the project harbours a range of hybrid activities. Light travels down each individual tube with surprising ease, creating a bright, calming interior space.

The striking black and white aesthetic of the bad café continues inside, where Nudes focuses on rough, tactile, ‘true-to-material’ textures, generating a sparse and simple design. The architectural component was designed to facilitate yoga, gastronomical experiences, and cultural event-spaces for music, art, performances, intellectual discourse and fashion. These activities are stacked vertically over three levels, including an open-to-sky terrace courtyard.
Located in Perth, Western Australia, Mount Lawley Senior High School is known for its vibrant student body and community. For the school’s renovation, local architecture firm, Sandover Pinder kept this in mind by selecting a PVC product in playful arrangements covering 398 square metres on the floor, perfectly complimenting the modern furnishings of the school.

The buildings’ form, references the existing campuses’ aesthetics: red face-brickwork, fully glazed entry facades and shaped, brightly coloured parapet walls. The design varies with the introduction of shaped, folded metal roof forms that merge into walls, returning inside as a physical and visual link to the outside. Additionally, WA artist Anne Neil, with young Aboriginal artist, Noelene Hamlett, developed an artwork scheme to celebrate the Aboriginal and Chinese partnerships the school has fostered. The artwork integrates with the building fabric through the use of coloured glazed bricks in symbolic and representational cultural images as a permanent and lasting tribute.

The new building design responds to a more senior student population, and it is located to act as a transition from middle school to senior school. The buildings’ planning is a derivative of standard classroom block designs, with a central circulation spine servicing perimeter classrooms. The new central area was enhanced to be an extension of the classroom adding flexibility and making efficient use of the space. Large sliding doors open the classrooms into this zone which allows private study, group work and additional teaching areas.

The main entry to the building is through a southern facing, open and expansive forecourt area, paved to connect with the existing campus. Softly landscaped with raised, limestone-retained, planting beds doubling as seating, this multi-use, flexible space is utilised by students and teachers for outside learning, lunch and recess; and for functions and performances.

The new facility includes a number of sustainability initiatives including a 5000L rainwater storage tank for toilet flushing, a 10KW photovoltaic array, solar hot water, high R-value insulated wall construction to reduce heat load, Greensense energy monitoring system and low maintenance landscape solutions.
Mount Lawley Senior High School
Kapkar Pavilion is designed and built for a temporary Building Lab (BOUWLAB), organised by Stichting Fabriek, based in the city of Nijmegen, in the east of the Netherlands, is specialised in organising temporary place-making projects.

The request was to design a low budget pavilion meant to programme discussions, forums, meetings, small scale exhibitions, lectures and other cultural events during the period of BOUWLAB. Specific wishes were that the pavilion should have a striking appearance, be dismountable and transportable to their future location, that it would provide space for 50 people, and that enough natural light would enter the building.

The first clue for the design of the pavilion is a classic truss frame construction that held up the typical broad gable roofs formerly used in old farmhouses and sheds. In this design architect Frank Havermans re-introduces this kind of construction in contemporary design. With the difference that the supporting structure is not only visible inside the building, but that it is also visible from the outside to create more awareness.

The main construction consists of seven equal truss pillars, positioned parallelly, in three pairs. The seventh is turned 90 degrees and functions as a constructive ending. This system is not covered on the sides to emphasise the beauty of this engineered construction method.

The whole construction is built in segments and can easily be taken apart and replaced. The roof and siding of the spaces between the trusses are made of corrugated PVC sheets.

By charging this construction with several elements from classic farmhouse typology in combination with simple low budget materials, Frank Havermans created an experimental hybrid construction that emphasises the importance of farmhouses and sheds in our cultural landscape and that these buildings can be a constant inspiration to design contemporary architecture. This pavilion at the same time refers to the architectural heritage and also has a futuristic appearance in the landscape.

Architects | Studio Frank Havermans, Heeswijk, Netherlands
Location | Nijmegen, Netherlands
Technical info | PVC corrugated roof

Architects | Sandover Pinder, Perth, Australia
Location | Perth, Australia
Technical info | PVC Bolon flooring
Picture credits | Ron Tan
Bregenz Cloud Lounge

Architects | Christoph Ganslmeier, Wien, Austria
Location | Bregenz, Austria
Technical info | PVC Ferrari 702 roof
Picture credits | Marcel Mayer
The Casino’s new roofing, for the summer terrace Cloud Lounge in Bregenz, is a perfect scenery for all sorts of events with its illuminated ceiling hovering above the restaurant.

Cloud-like, the membrane structure seems to float above the terrace. The semi-transparent PVC fabric offers shade on sunny days. In the night, accentuated with light, the roofing transforms into the new stage of Bregenz’s nightlife.

Clear lines and edges are provided by round steel profiles. The mesh fabric is redirected over them and fixed at the backside of the upper roof border.

The upper side of the roof is closed with a circumferential PVC stripe of about one metre width which drains to the inside on a flat roof and can be removed for inspection purposes.

As the roof has 14 supports, some of the welded seams could only be closed on-site. The holes for the supports are stabilised with multi-part aluminium clamps, to which the funnel-shaped mosquito protection is fixed as well.
Rome and Shanghai-based design studio 3Gatti created an abstract forest-like room for the interiors of the Asa concept store in Shanghai.

The main idea was to create dense areas of vertical steel bars to define the space but also the aesthetics. To increase the contrast of the vertical lines and make its perception more powerful, Italian architect Francesco Gatti, founder of the studio, used translucent PVC light walls all around the shop also creating a surreal erosion of the shadows. This type of lighting not only uniformly diffuses the light, but gives an impression of the bars emerging from the floor and reaching the ceiling thanks to the shadows. The luminescent wall creates a uniform diffusion of the light.

Thanks to the vertical elements it was possible to fix disc-shaped elements all around the shop creating surfaces to display bags and shoes or places to sit on the larger discs and to hang the clothes on the craned discs. The result is the perfect combination of only two design elements irremediably interlaced with each other.

As for the dresses, elongated pieces of the same material were placed horizontally so that they could be hung from there.

The simplicity and minimalism of the design can be perceived through the limited amount of materials, colours and elements that sum up a pleasurable shopping experience.

Designer | 3gatti, Rome, Italy Shanghai, China
Location | Shanghai, China
Technical info | PVC Barrisol membrane
Picture credits | Daniele Mattioli
Japanese architect Kengo Kuma has designed a show-room and production facility for a Japanese furniture manufacturer, which features both translucent undulating walls and a simple rectangular roof. Named Sogokagu Design Lab, the building is located in Mie Prefecture, and contains both a showroom and manufacturing spaces across its two levels. Its plan is broken into two parts, providing an access route through the centre of the site, but both sides are connected by the large corrugated steel roof.

The space was designed as a workshop for a furniture manufacturer who aims to propose a new lifestyle integrated with state-of-the-art technology. The company is strong in the moulding of urethane. In order to respect their merits, they put up a soft structure in which urethane was at the centre. First, the steel structure was wrapped with urethane foam and covered on both sides with two membranes, which came from an idea of forming a soft...
Germany-based manufacturer Wibit Sports marks another milestone in its 20-year company history, designing and installing the so-called DubaiTAG, the first of its kind in the world. It has been installed at the famous Jumeirah Beach in Dubai last September.

The innovative structure is both a floating playground and a powerful means of advertising at the same time.

Almost 100 modular PVC components have been arranged into letters which spell “D-U-B-A-I”, and creating a giant water park of 77 m length by 35 m width. This floating island of fun is designed to hold 200 people at the same time. To top it off, the custom-designed structure in turquoise and purple colours is shaped like the new Dubai tourism logo.

With an aerial view, the word “DUBAI” can be read in both the English (left to right) and Arabic (right to left) languages. Since September 2016, the floating sign has been extremely popular for locals and tourists of all ages.
Treeplets

The Macau Architecture Promenade (MAP) pavilion is the result of a worldwide open-call for artists, launched by the Babel Cultural Organisation for an architectural event. From more than 50 proposals from all over the globe, Babel selected the large-scale architectural pavilion by Chinese architecture studio Impromptu Projects. The choice was based on the concept that an artwork, to be contemporary, must contain in itself a certain part of the future, rather than being only from its own time.

This temporary bamboo structure, entitled Treeplets, attempts to mimic the splendour and rarity of identical triplets in the form of three random trees, hence the word play of the title. The trees are joined together through their canopies, enabling the creation of natural archways and provide the structural solidity of the whole installation. Given its sheer size, it is a public space intervention which aims at activating the outdoor activities of the local community at various levels: by giving shade, by creating favourable conditions for anyone who passes by the temporary structure, by promoting the local bamboo craftsmanship, and by serving as a meeting point and an unexpected mark in the urban arena.

Architects | Impromptu Projects, Sughin, China
Location | Macau University Campus, Hengqin Island, China
Technical info | Recycled PVC banners
Picture credits | Zizu

Designer | Wibit Sport, Bocholt, Germany
Location | Dubai
Technical info | Inflatable PVC
Picture credits | Wibit Sports
ing the first stage that Matsubara ever worked on, she naturally ignored many constraints that stages normally require. Abstract, minimal, yet extreme—vibrant in responding to lights programmed by Fujimoto, her stage set only focuses on the series of phenomena it creates.

The scenography consists of installations of self-standing triangular prisms made of mirrors, as well as translucent screens; one screen being a noise control curtain used for building sites, another being a special PVC, specifically developed for professional projection use. The stage is divided into two layers by those two screens, upon each of which moving images are projected. Responding to the effect of light and projection, spaces behind the screens emerge and disappear, creating eclectic...
Dosis, a Spanish laboratory of creative processes, founded by Isabel Collado and Ignacio Peydro, is committed to pushing the boundaries of the built environment with innovative architectural solutions. In each of their projects, the design strategies and solutions are a reflection of design research, using practice as an experimentation platform in which architecture navigates a wide scope of design interests that transcend basic pragmatic requirements.

Second Dome is a pneumatic living structure for creative workspace provider Second Home. In October 2016, Second Dome was inflated in London Fields in East London to host free community events for local families and children. The events were organised by the not-for-profit organisation Shuffle, and included animation workshops, film screenings, pinata-designing and science experiments. This free day of activities in London Fields is part of Second Home’s commitment to supporting local communities and civic spaces.

Second Dome is a reconfigurable space that can transform, within minutes, from a single 65 m² bubble to a multi-room structure of over 400 m² and eight metres in height. No other type of structure can be assembled so quickly and also have the capacity to span large areas with a thickness of less than a millimetre. It is a technologic artefact that automatically responds to wind and pressure and which needs extremely low amounts of energy for fabrication and assembly.

Second Dome was commissioned for Founders Forum 2016, Europe’s leading business and technology event to house a series of high-profile events including an exclusive talk on design and innovation by iPod co-creator and Nest founder Tony Fadell.

The inflated pavilion is all about making the city more creative, innovative and entrepreneurial.
Architects | Ignacio Peydro & Isabel Collado, Dosis, Madrid, Spain
Place | London, UK
Technical info | Coloured membrane: PVC Ferrari Precontrait 402 clear
PVC | PVC Expafol Cristal Flexible 800
Picture credits | Iwan Baan, Atlas Drones, Dosis, John Porral
GENERATE YOUR...

OPTION 01

OPTION 02

OPTION 03

OPTION 07

OPTION 08

OPTION 09

OPTION 12

OPTION 13

OPTION 14
Caged Beauty for Moroso
Designer | Frederik Vaes, SAQ, Brussels, Belgium
Location | Interieur Kortrijk, Belgium
Technical info | Vinyl cables
Picture credits | SAQ
SAQ is a conceptual and interdisciplinary design agency specialised in developing spatial sceneries and concepts.

The practice relies on a broad range of competencies where architects, interior designers, urbanists, video-artists and graphic designers, team up according to the specific orientation or necessities of each project. SAQ believes strongly in co-operation and regularly invites professionals, experts or companies to participate in the materialisation or the elaboration of an idea.

For SAQ, scale is no parameter. Intensive research, sketching, simulation and dialogue are the fundamentals of an intensive creative process leading to proposals for both small-scaled designs and macro-planning. A superb example of this design approach is Caged Beauty for Moroso, an installation designed for the fair Interieur Kortrijk.

The stand presents an intricate network of webbed boxes, stacked both horizontally and vertically in a precariously balanced configuration. Lights caught in the airy boxes made of white vinyl cables underline the stand’s raw aesthetic while spotlighting Moroso products entangled in the ethereal mesh.

The overall scenery overwhelms without undermining the exposed pieces. On the contrary, contemplating the cluster of Ron Arad’s Ripple Chairs rising like a swarm of elegant butterflies, these seem to take advantage of the proposed mise en scene.