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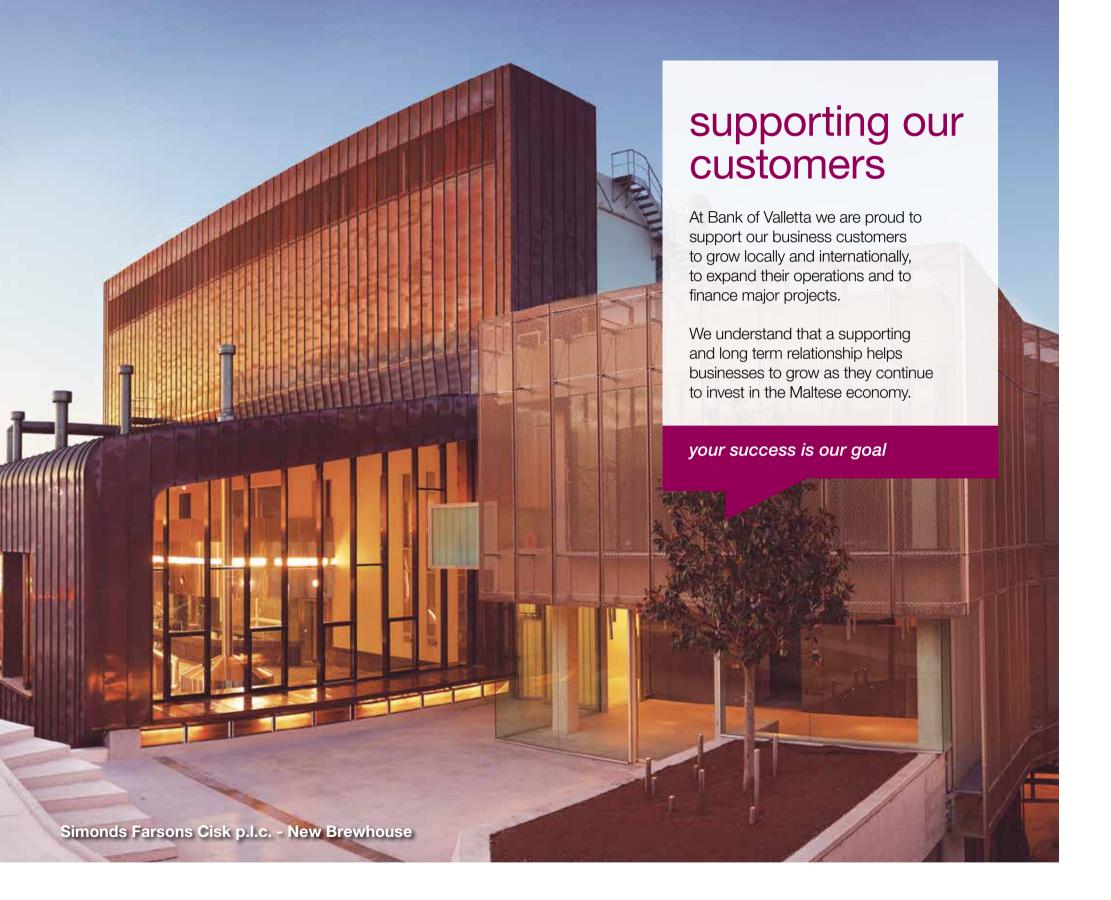


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12-15 TOKYO 16-17 JAPANESE PAVILION 18-19 CONTEMPORARY ARCHITECTURE

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## **Architect**

"Evidently, the appreciation of our architectural heritage from this period is sorely lacking..."

- Kamra tal-Periti (see page 5)

**NOVEMBER 2016** THE ARCHITECT 3

# Have you been naughty or nice?

I was torn between dedicating this editorial to the highly criticised draft Paceville Development Framework, or to the near-incredulous assertions by the legal advisor of the Planning Authority (PA) that the Environment and Resources Authority (ERA), the Sliema Local Council and several eNGOs had no right to appeal against the approval of the Town Square project, and that they were abusing of the law in this regard. The latter is of grave concern, particularly because it was one of the primary selling points in the MEPA demerger proposal by Government, which assured us all that the split would give more strength to the ERA and eNGOs by giving them the right to appeal. That the PA itself chose to challenge this right in front of the Tribunal is nothing short of an admission that it is intent on adopting an adversarial and confrontational approach towards environmental issues, bringing into serious doubt the Government's assertions that the demerger would enhance collaboration between the two Authorities. If the PA had these concerns on these entities' right to appeal, it should have raised them at the legislation drafting stage and in the appropriate forum. But this is a developing story, so I will focus on the former matter this time round.

Independently of whether one agrees with its content or approach, it is a positive step that a development framework for Paceville has been proposed. The plan includes a number of interesting and commendable proposals such as the improvements to the public urban realm, the extension of pedestrianised areas, the provision of open landscaped public spaces and the concept of preserving and valorising the heritage assets in the area.

However, the document falls short of what one would have expected of such a widely advertised and glossy plan, and appears to have degenerated into a justification of previously-determined development volumes, in previously determined locations. It is clearly motivated by individual interests rather than sustainable development principles such as social cohesion and economic equity.

Christmas has come early for some, with the promise of significant economic gains in the form of glitzy towers. But others woke up to find massive lumps of smouldering coal on their doorsteps in the form of the apparent intent by the authorities to bulldoze

over their property for the sake of the success of this plan. Apparently naughty is the new nice!

The complete lack of public participation in the drafting process is highly disconcerting. I use the word "participation" with purpose. It is high time that our legislators understand the difference between public participation and public consultation. The latter envisages the presentation of a proposal to the public for its reactions, while the former takes a more inclusive approach with the public and specific stakeholders being involved at the early stages of a proposal, even prior to its drafting.

As a result of this shortcoming, various groups are up in arms over the plan and are calling for it to be taken back to the drawing board. Many are motivated in their objections by specific proposals such as the concentration of tall buildings, the land reclamation project or the taking over of parts of the foreshore. The majority, however, appear to be primarily irritated over the lack of public participation in the process, the disregard for their ambitions and desires for the area, and also the fact that the Development Framework was presented as a fait accompli.

There seems to be an indication that Government will be reviewing the draft. One can only hope that this will not just be an exercise in lip service; rather it must be one that really seeks to adopt a more inclusive approach to planning and regeneration. Both Government and the PA would do well to heed the advice of Jeff Nottage of Broadway Malyan, one of the consultants assigned the task of drawing up the Framework, who states, on his web profile, that "good masterplans involve a collaborative process that brings together the views of all the key players to create strong visions and design principles".

Meanwhile, I leave you to enjoy this issue of 'the Architect' which includes two unexpectedly related main articles, one about the travels of a young perit in Japan which turned into an architectural pilgrimage, and the other about an interesting design workshop by a group of young aspiring architects which was inspired by Japanese traditional design and building techniques.

Simone Vella Lenicker Editor



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TAL-PERITI

To support members of the profession in achieving excellence in their practice of architecture and engineering in the interest of the community

The Council of the Kamra tal-Periti for the year 2016 consists of Perit Chris Mintoff, President; Perit Alex Torpiano, Vice-President; Perit Amber Wismayer, Honorary Secretary; Perit Stephen Farrugia, Past President; Periti Toni Bezzina, Sandro Cini, David Felice, Anthony Fenech Vella, Chris Grech, Andre Pizzuto and Simone Vella Lenicker.

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#### COVER:

National Art Centre, Kisho Kurokawa, 2006This beautiful sinuous glazed building was designed to host temporary exhibitions. It holds no artwork of its own, but provides the space for art exhibitions to take place.

(see pages 12-15)

### **KTP News**

### MILK PLANT IN XEWKIJA, GOZO

At the end of October, the Planning Parliamentary Standing Committee for Environment and Development met to discuss proposed changes to the Gozo and Comino Local Plan, specifically with respect to the Xewkija Industrial Area in Gozo. The proposal concerned a large site which the Planning Authority was proposing to rezone from its current use for "Agricultural Products Processing and Market" to general industrial purposes as part of the Xewkija Enterprise Hub. While seemingly a run of the mill proposal, the Kamra tal-Periti's attention was drawn to the fact that the site in guestion housed the old Gozo MMU Milk Plant, which was designed by renowned architect Joseph Huntingford, and which includes a number of unique architectural elements inspired by the Modernist Movement. The Committee discussed the possibility of inclusion of a safeguard within the policy to ensure the protection of those architectural features that merit retention and preservation.

The Kamra tal-Periti expressed its agreement with the introduction of such a safeguard, particularly in view of the recent destruction of the administration block of the ex-Dowty factory in Mrieħel, which building was also designed in the Modernist Style and which was demolished following an application to the Planning Authority, Evidently, the appreciation of our architectural heritage from this period is sorely lacking, and therefore the Kamra tal-Periti exhorts the Minister to consent to the introduction of a safeguard in the policy for the Xewkija Enterprise Hub, such that those elements of the building that merit protection may be integrated within any new development proposal for the site.



Gozo Milk Plant in Xewkija, designed by Joseph Huntingford. Photos by Perit George Farrugia





### DESIGN COMPETITION EUROPEAN MOBILITY ACTIONS 2016

Transport Malta has released the results of the Design Competition organised by the Authority and the *Kamra tal-Periti,* as part of the European Mobility Actions 2016. The competition was launched for interested professionals and students, who were invited to submit designs featuring innovative, sustainable urban

spaces and future sustainable mobility solutions for a given locality. The submitted designs had to address at least one of the following themes: (1) Sustainable Mobility including shared mobility, green infrastructure, alternative transport, and low carbon transport; and (2) Green Urban Centres including shared public space, green areas, and renewable energy. The criteria for evaluations included the ability of the project to be implemented.

In the students' category, first place was awarded to Ryan Grech and Keith Zammit for their Burmarrad Regeneration Project. The proposal for traffic re-arrangement in Fgura by Rebecca Grech was placed second. In the professionals' category, Architecture Project were awarded first place for their Urban Design and Mobility Strategy for the Village of Lija, carried out together with Prof Maria Attard from the Institute for Climate Change and

Sustainable Development (University of Malta). Chris Briffa Architects placed second with their proposal to resuscitate a garden and one of Valletta's Maritime Gates by Chris Briffa Architects. Whilst congratulating the winners, the organisers thanked all of the entrants for their creative submissions to this competition and the high level of work and detail submitted, including the submissions made in the Students Category.

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#### **WORLD ARCHITECTURE DAY 2016**

World Architecture Day 2016 was celebrated on the 3 October 2016, in line with the theme chosen by the International Union of Architects (UIA): "Design a Better World." As the range of global challenges grows and intensifies, the role of architecture, planning and design are becoming ever more critical to ensuring a better future for all people. The UIA called upon all architecture organisations everywhere to highlight the essential role of design in alleviating human suffering, reducing planetary burdens, and enhancing the quality of life. It invited its members and partners to promote the enormous power of architecture to cope with climate change, and to foster communities that are strong, safe, equitable, productive and affordable.

On the occasion of World Architecture Day, the Commonwealth Association of Architects issued a message by its current president, Perit Vincent Cassar, who urged members of the Association to "take a few moments to appreciate the architectural accomplishments that you usually take for granted during your everyday life and conclude whether these have achieved something for the better, or for the worse, for people around you."

The *Kamra tal-Periti* is a member of both the UIA and the CAA.

#### **AGA KHAN AWARD 2016**

The Aga Khan Award for Architecture is given every three years to projects that set new standards of excellence in architecture, planning practices, historic preservation and landscape architecture. Through its efforts, the Award seeks to identify and encourage building concepts that successfully address the needs and aspirations of

societies across the world, in which Muslims have a significant presence. Six finalists for the 2014 – 2016 Cycle of the Aga Khan Award were selected among 348 nominated projects from 69 countries. These were:

- **Bait Ur Rouf Mosque** in Bangladesh, designed by Marina Tabassum, selected for the way in which ventilation and the play of light make this neighbourhood mosque a refuge for spirituality;
- Friendship Centre, also in Bangladesh, a rural training centre inspired by one of the country's oldest urban archaeological sites, and designed by Kashef Mahboob Chowdhury/Urbana;
- Hutong Children's Library & Art Centre in Beijing, a small-scale project that enriches bonds amongst communities and revives Hutong life, designed by ZAO/standardarchitecture / Zhang Ke;
- •Issam Fares Institute for Public Policy and International Affairs in Beirut, designed by Zaha Hadid Architects, and consisting of a new building which is radical in composition but respectful of its traditional context, "floating" above an exterior courtyard;
- **Superkilen**, in Copenhagen, a public space promoting integration across lines of ethnicity, religion and culture, designed by Big-Bjarke Ingels Group, Superflex, Topotek 1:
- **Tabiat Pedestrian Bridge**, an infrastructure designed by Diba Tensile Architecture / Leila Araghian, Alireza Behzadi, that connects two parks in Tehran, and which has become a popular urban space.

The Superkilen project in Copenhagen, Denmark, has been announced as the overall winner of the Aga Khan Award for Architecture 2016. A half mile long urban



Located in Nørrebro area, Superkilen is a place for all ages, kids, youths, families and the elderly alike, an outdoor space helping to activate the people of Copenhagen.



The parallel, yet diverging, white stripes are meant to curate movement of people on site around and towards objects.



Moroccan fountain in the Black Market, while most of the objects and vegetation in the park have been imported from other cultural contexts and places. The park allows visitors to encounter and use these alien and exotic objects as an everyday life experience

space wedging through one of the most ethnically diverse and socially challenged neighbourhoods in Denmark, this project has also been awarded the Gold Medal in the IOC/IAKS Award 2013. It has one overarching idea that it is conceived as a giant exhibition of urban best practice – a sort of collection of global found objects that come from 60 different nationalities of the people inhabiting the area surrounding it.

In the spring of 2006 the street outside the architects' Copenhagen office erupted in vandalism and violence. Having just been through the design of a Danish mosque in downtown Copenhagen, BIG chose to focus on those initiatives and activities in urban spaces that work as promoters for integration across ethnicity, religion, culture and languages.

Taking their point of departure as Superkilen's location in the heart of the outer Nørrebro district, the architects decided they would approach the project as an exercise in extreme public participation. Rather than a public outreach process geared towards the lowest common denominator or a politically correct post rationalisation of preconceived ideas navigated around any potential public resistance, BIG proposed public participation as the driving force of the design. An extensive public consultation process garnered suggestions for objects representing the over 60 nationalities present locally to be placed in the area. The 750-metre-long scheme comprises three main zones: a red square for sports; a green park as a grassy children's playground; and a black market as a food market and picnic area.

### FRIENDLY AND INCLUSIVE SPACES AWARD

The International Union of Architects (UIA) has launched the second edition of the 'Friendly and Inclusive Spaces' Awards. The Awards recognise and promote inclusive

uia



Museu Brasileiro da Escultura - (c) Nelson Kon

design, from buildings and public spaces to research, and are open to all architect members of UIA member sections. Entries can be submitted online until 20 December 2016, at https://uiafriendlyspaces.award-splatform.com/.

The UIA Friendly and Inclusive Spaces Awards are being administrated by the Royal Institute of the Architects of Ireland (RIAI), based in Dublin. An international expert jury will short-list projects from around the world and the category winners will be announced the UIA World Congress in Seoul, South Korea, in September 2017. Launching the Awards on behalf of the UIA, Irish architect Fionnuala Rogerson, Co-Director of the UIA's Architecture for All work programme, said, "We are delighted to launch the second edition of the 'Friendly and Inclusive Spaces' Awards. The awards promote the idea that quality in architectural design is for everyone and that it is essential that well-designed buildings and spaces are suitable for all users regardless of their age, ability or cultural background. Friendly spaces benefit from good design that is sensitive to people's needs with clear circulation and orientation. Our driving vision is the creation of 'enabling' environments through good architecture."

RIAI President Carole Pollard added that the RIAI was delighted to support this pres-

AND INCLUSIVE

SPACES AWARDS

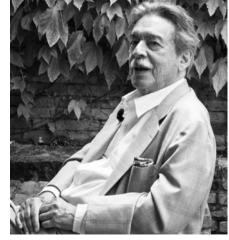
FRIENDLY



Ginasio Paulistano Athletic Club- (c) PMDR archive

tigious international award and the important work of the UIA's Architecture for All work programme. "The RIAI champions quality design and believes that a quality built environment benefits all our lives. The development of 'Friendly and Inclusive Spaces' should not be seen as an aspiration but understood as a principle for relevant and sustainable buildings and public spaces. Demographic projections show that the percentage of the world's population for people over 65 will increase from 8% in 2015 to 16% in 2050. This creates serious challenges for architects and policy makers and we believe that these Awards will contribute to the debates by highlighting best practice from around the world. We look forward to seeing many exciting and innovative entries for these awards from around the globe and from Irish architects."

#### **RIBA ROYAL GOLD MEDAL 2017**



Paulo Mendes Da Rocha

The Royal Institute of British Architects (RIBA) recently announced that Paulo Mendes da Rocha, Brazil's most celebrated living architect, will receive the 2017 Royal Gold Medal. Given in recognition of a lifetime's work, the Royal Gold Medal is approved personally by Her Majesty The Queen and is given to a person or group of people who have had a significant influence 'either directly or indirectly on the advancement of architecture'.

Awarded since 1848, past Royal Gold Medallists include Zaha Hadid (2016), Frank Gehry (2000), Norman Foster (1983), Frank Lloyd Wright (1941) and Sir George Gilbert Scott (1859). Oscar Niemeyer (1998) is the only other Brazilian architect to have received the honour.

Born in Vitória, Brazil in 1928, Paulo Mendes da Rocha has received international acclaim for his significant contribution to architecture. Mendes da Rocha's numerous notable cultural buildings, built in his particular Brazilian Brutalist style with exposed concrete structures and rough finishes, are widely credited with transforming the city of São Paulo. In 1957 he completed his first celebrated building, the Athletic Club of São Paulo, followed by a large number of further public buildings in the city including Saint Peter Chapel (1987), the Brazilian Sculpture Museum MuBE (1988), Patriach Plaza (1992-2002), the Pinacoteca do Estado gallery (1993) and the FIESP Cultural Center (1997). Outside São Paulo, notable buildings include the Serra Dourada football stadium in Goiás (1973), Lady of the Conception Chapel in Recife (2006) and Cais das Artes

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Newport Street Gallery, winner of the 2016 RIBA Stirling Prize for the UK's best new building.

arts centre in Vitória (2008)

Despite Mendes da Rocha's international reputation, there have been just a few examples to experience his work outside his home country, with the significant exception of Brazil's pavilion at Expo '70 (Osaka, Japan) and Portugal's National Coach Museum (Lisbon, 2015).

Speaking about the award, RIBA President and chair of the selection committee Jane Duncan said: 'Paulo Mendes da Rocha's work is highly unusual in comparison to the majority of the world's most celebrated architects. He is an architect with an incredible international reputation, yet almost all his masterpieces are built exclusively in his home country. Revolutionary and transformative, Mendes da Rocha's work typifies the architecture of 1950s Brazil - raw, chunky and beautifully 'brutal' concrete. Paulo Mendes da Rocha is a world-class architect and a true living legend; I am delighted he will be presented with the Royal Gold Medal, one of the world's most important honours for architecture.

Paulo Mendes da Rocha said, 'After so many years of work, it is a great joy to receive this recognition from the Royal Institute of British Architects for the contribution my lifetime of work and experiments have given to the progress of architecture and society. I would like to send my warmest wishes to all those who share my passion, in particular British architects, and share this moment with all the architects and engineers that have collaborated on my projects.'

Paulo Mendes da Rocha has previously been honoured with the Mies van der Rohe Prize (2000), Pritzker Prize (2006), the Venice

Biennale Golden Lion for lifetime achievement (2016) and the Praemium Imperiale International Arts Award (2016). The Royal Gold Medal will be presented to Paulo Mendes da Rocha in early 2017.

#### **RIBA STIRLING PRIZE 2016**

Newport Street Gallery has won the coveted 2016 RIBA Stirling Prize for the UK's best new building. Now in its 21st year, the RIBA Stirling Prize sponsored by Almacantar, is the UK's most prestigious architecture prize. This is the first time Caruso St John architects have won the RIBA Stirling Prize; they were shortlisted for the award for Brick House, west London in 2006 and New Art Gallery Walsall in 2000.

Newport Street Gallery involved the conversion and transformation of a street facing a railway line in Vauxhall, south London, into a free public gallery for artist Damien Hirst's private art collection. Three listed Victorian industrial buildings, formerly carpentry and scenery painting workshops for West End theatres, have been remodelled and flanked at either end by entirely new buildings; one with a striking, spiky saw-tooth roof.

The new additions have a specially-created hard pale red brick finish to closely reference the original buildings, while a huge LED panel on the railway facade encourages passing train commuters to visit. The ground and upper floors within the interconnected five buildings are continuous, with new spiral staircases on their side, to create flexible spaces able to accommodate everything from individual works to larger

The judges commented that "this highly accomplished and expertly detailed art gallery is a bold and confident contribution to the best of UK architecture. Caruso St John's approach to conservation is irreverent vet sensitive and achieves a clever solution that expresses a poetic juxtaposition of old and new. The collection of buildings is beautifully curated, pulled together by the use of brick yet still expressive of their individuality. The playful use of LED technology gives a contemporary addition to the facade. Internally, the five buildings are connected as a continuous and coherent sequence of light filled gallery spaces. The simple and logical circulation is enlivened by exquisitely detailed and sensuous staircases. The gallery, which is free of charge, is a generous asset to an evolving community."

RIBA President Jane Duncan said, 'With Newport Street Gallery, Damien Hirst has made an exceptional contribution to the UK's strong history of private patronage of architecture. Not only has Damien opened up his enviable private art collection to the world, but he has commissioned a real work of art to house it in. Caruso St John have created a stunningly versatile space from a number of linked buildings, with beautifully crafted staircases and superb details including tactile brick facades that blend the street externally and create a succession of wonderful gallery spaces. This project exemplifies the best of UK architecture – a ture, and urban planning projects from 43 highly considered and creative project that brings to life a previously-unloved pocket of the city. I am delighted to present architects Caruso St John with the 2016 RIBA Stirling Awards Program from architecture firms

Peter St John, Partner at Caruso St John Architects, commented that 'It's rare for architects to be given the opportunity to realise a personal vision of the quality of the Newport Street Gallery, and for that vision to have a generous public dimension. We see the building as a palace for direct, intimate and luxurious encounters with contemporary art, and we are very pleased that this award will bring more people to see this extraordinary collection.

#### **NEW ECCE BOARD**

Massimo Mariani is the new President of the European Council of Civil Engineers. of which the Kamra tal-Periti is a member. He took over Presidency of ECCE on 22nd October 2016, during the 64th ECCE General Meeting, and will serve a two year term for up till 2018. Massimo Mariani had been appointed ECCE Vice President/ President Elect on 18th October 2014, during the 60th ECCE General Meeting in Warsaw, Poland.



He was the ECCE National Delegate of the Consiglio Nazionale degli Ingegneri (CNI),

The Board will also include Wlodzimierz Szymczak (Poland) as Immediate Past President, Aris Chatzidakis (Greece) as Vice President / President Elect, Dimitar Natchev (Bulgaria) as Vice President / Treasurer, and Andres Piirsalu (Estonia), Jose Francisco Saez Rubio (Spain) and Iuri Svanidze (Georgia) as Executive Board Members.

### INTERNATIONAL ARCHITECTURE **AWARDS 2016**

The Chicago Athenaeum Museum of Architecture and Design and The European Centre for Architecture Art Design and Urban Studies have awarded over 132 new buildings, commercial and institutional developments, landscape architecnations for The International Architecture Awards for 2016. Hundreds of submissions were received for this year's annual Global from across Europe, Asia, the Middle East, Australia, and the Americas. A final shortlist of 370 projects was presented to a Jury of Italian architects and critics.



This year's selected buildings are from 43 nations including: Angola, Argentina, Australia, Austria, Canada, China, Columbia, Czech Republic, Denmark, Finland, France, Germany, Hong Kong, India, Iran, Ireland, Israel, Italy, Japan, Jordan, Kingdom of Saudi Arabia, Latvia, Lebanon, Malta, Malaysia, México, Morocco, The Netherlands, New Zealand, Norway, Republic of Singapore, Russia, Serbia, Slovenia, Spain, South Korea, Sweden, Switzerland, Thailand, Turkey, Vietnam, United Kingdom, and the United States.

"The selected new buildings and urban planning projects in this year's edition of the International Architecture Awards demonstrate a new and growing sensitivity to true human-based design and a sympathetic approach to sustainability and the environment," states Christian

Narkiewicz-Laine, Museum President, The Chicago Athenaeum, "Like Aleiandro Aravena's theme of the 15th Venice Architecture Biennale, 'Reporting from the Front, this year's awarded projects address critical architecture and planning concerns for advanced post-industrial cities and Third World communities alike, in a way to imagine the possibilities for the future restoration and renovation of deteriorating downtown cores, depressed neighbourhoods, and humanistic alternatives for derelict neighbourhoods. Unlike the previous decades of modernism, this is a new, sensitive humanistic approach to present and future urban development, from mega projects to the design for public housing and community services

The 2016 Jury was held in Milan during

the Venice Architecture Biennale. Amongst the projects that received recognition is the Dar II-Hanin Samaritan Conference Centre and Meditation Garden in Santa Venera, designed by Richard England. The main focus of the design process was to create a series of arenas of solace, enchantment and magic, where the individual elements and their in-between spaces combine in a once-upon-a-time world evoking ancient lost arcadias. In this age of collision and confrontation and overriding short attention syndromes, the garden is conceived as a locus in which one can linger and enjoy a theatre to eliminate anxiety. The stereometric array of free-standing elements is rationalised by an overlaid Apollonian order. At night, the garden, with its guarding sentinels, transforms itself into a nocturnal dream-

scape emanating a language of myth and poetry. England's ultimate aim was to produce a series of silent spaces where one can pursue quiescent dreams in borrowed time; a theatre for the soul rather than a stage for the body; a locus designed to transcend and enchant. For more information on the selected proj-

https://chi-athenaeum.org/the-2016-ia-awards/

#### **Letters to the Editor**

Letters from our readers to be considered for publication are most welcome. Letters for inclusion in Issue 74 are to reach us by the 8 January 2017, Please write to: The Editor, "the Architect", Kamra tal-Periti, The Professional Centre, Sliema Road, Gzira GZR 1633, or send an email to kamratalperiti@go.net.mt. All contributions will be acknowledged.

### **SUSTAINABILITY SNAPS**

### KEEPING IN TOUCH WITH THE JARGON AND WHAT'S GOING ON



The Council also adopted conclusions on sustainable water management. They are part of

a wider debate on the EU's future water policy. The text addresses challenges related to land use and to climate change. It also takes into account the new international context, including the Paris Agreement and the 2030 Agenda for Sustainable Development

Ministers also agreed on Council conclusions on biodiversity, ahead of the meeting of the parties of the Convention on Biological Diversity and its protocols (Cancun, Mexico, 4-17 December 2016). These conclusions will be the basis for the EU negotiating position at the meeting.

"The last weeks were ground-breaking for climate policies with the EU ratification of the Paris Agreement or the just adopted amendment to the Montreal Protocol on international scene. Now, we need to get our acts together in the EU and implement our international commitments. Therefore, I welcome the first debate among ministers on effort-sharing that gave us important insights to quide our future work on these crucial initiatives."

László Sólymos, Slovak Minister for the Environment and President of the Council.



## **ACE UPDATES**



### ARCHITECTS' COUNCIL OF EUROPE CONSEIL DES ARCHITECTES D'EUROPE

### ACE response to the EU Commission's consultation on indicators for the assessment of environmental performance of buildings

Last October, the Architects' Council of Europe (ACE) submitted a response to the public consultation of the EU Commission's Joint Research Centre (JRC) on draft indicators for the assessment of the environmental performance of buildings. While welcoming this initiative, ACE called for greater recognition of architecture in the project development.

InitsCommunication of July 2014 on Resource Efficiency Opportunities in the Building Sector, the EU Commission announced the development of an EU framework of indicators to assess the environmental performance of buildings. These indicators shall help building professionals and their clients to prioritise their focus for making environmental improvements, as well as facilitate greater comparability of data and results from assessment and certification schemes.

ACE welcomed this initiative: transparent and harmonised metrics are needed to transform our built environment to require significantly less natural resources, to be healthy, comfortable and productive. Furthermore, these indicators may help to establish a new consensus on the definition of building quality.

In its response to the JRC consultation, ACE contended that all three pillars of building performance should be assessed: indoor environmental quality, occupant satisfaction, and the resources required to achieve these, in order to ensure that none takes preference at the price of the others.

A set of clearly defined and measurable indicators would allow professionals to compare building performance predicted in the design phase with the achieved and maintained operational performance. The

would be greatly enhanced by mechanisms allowing the data collected to be shared in the public domain, thus facilitating feedback loops for continuous improvement

ACE believes that Life Cycle Assessment (LCA) should be at the core of the indicators - it would greatly support architectural design and result in more resilient buildings, if coupled with validation of achieved performance. On the other hand, life cycle cost and climate change resilience are essential to support a greater emphasis on occupant needs and better architectural quality.

ACE recommended a clearer distinction between indicators and ratings, with this initiative focusing on indicators and metrics for harmonised communication only. Moreover, references to a potential Building Passport and efforts to take advantage of BIM

As a participant in the Steering Committee set up by the Directorate-General for Environment (DG ENVI), ACE is actively engaged in the development of this initiative and looks forward to pursuing the discussion with the other stakeholders.

### ACE response to the public consultation on the proposal to introduce a Services

In furtherance of the Single Market Strategy published in October 2015, the Directorate-General for Internal Market (DG GROW) launched, in May 2016, a public consultation on a proposal to introduce a Services Passport and addressing regulatory barriers in the construction and business services sectors. Last August, the ACE submitted a response to express its position on these issues.

ACE is critical of the structure of the guestionnaire, which leads respondents to acknowledge that a Services Passport would

benefits of such a framework of indicators make it possible to overcome allegedly unjustified regulatory barriers to trade in services and thus, help the cross-border mobility of service providers. It believes that DG GROW has a simplistic understanding of national rules that it sees as barriers to cross-border trade and overlooks the reasons that led to the creation of those rules. Their purpose is not to provide protection from outside traders, but rather to enable domestic market to operate efficiently. For example, this is the case with Professional Indemnity Insurance (PII) systems, which respond to local legal systems, contract laws and liability

> On the other hand, the Commission overestimates the hindrance that those national rules are supposed to cause. There is little evidence of architects being prevented from trading their services across the EU because of requirements relating to shareholding structures, legal forms, management and multidisciplinary activities. ACE recalls that 96% of cross-border registration requests from Architects are satisfied, thanks to the system of automatic recognition provided for by the Professional Oualifications Directive. As a result, ACE is not entirely convinced about the added value that a Services Passport might bring to the

> From a practical point of view, ACE estimates that an electronic procedure supported by the IMI system, along with the use of multi-lingual standardised forms, could be useful to facilitate communication between responsible authorities in home and host jurisdictions. However, ACE fears that the work involved for a business to obtain a Services Passport, provide the evidence and keep it up-to-date could be disproportionate to any benefit derived. In particular, ACE is concerned about the validity of the Passport

- some information that it might contain (such as insurance, liability, financial/funding requirements, employment requirements) is constantly changing during any business cycle, making it necessary to frequently update the Passport. Even if updates may be done electronically, ACE fears that this might be tedious and time-consuming for professionals.

Regarding insurance, ACE recognises that the absence of mutual recognition of insurance cover (due to differences in professional indemnity laws) is problematic. It therefore recommended that work be undertaken to develop a methodology for assessing insurance cover to determine whether there is any shortfall and the extent to which "top up" cover may be required.

### ACE Commentary on the consultation on the regulation of professions: Member States' National Action Plans and proportionality in regulation

Architecture was one of the professions addressed in the European Commission's 'Mutual Evaluation' exercise arising from Article 59 of the POD (2005/36/EC). The ACE has previously taken strenuous issue with elements of the process. Architects were one of the professions addressed directly in the mutual evaluation exercise carried out under Article 59(3) of Directive 2005/36/EC in 2014. Member States have been required to respond to the Mutual Evaluation process with the production of National Action Plans (NAPS). The NAPS are intended to address how Member States will improve their regulatory systems. The Commission has opened a consultation on the NAPS which includes a suite of questions on how to assess the proportionality of regulation. Proportionality is defined by the Commission as making sure that that "requirements are iustified by overriding reasons of general interest and are suitable for securing the attainment of the objective pursued without going beyond what is necessary to attain

### **SACES Year in Review**

### BY SAMUEL CIANTAR

As SACES are gearing up for their most awaited event of the year, the Design Workshop, here's a look back at what we have been up to over the past year.

SACES strives to unite students through educational and leisure activities, and has achieved guite a name for its unique calendar of events. Starting off the year with 'Shooters with the Tutors' and 'Każinata' helps break the ice and tension of a new year over a couple of drinks where students from different years can get to know each other. This helps to create a comfortable environment within the faculty that doesn't leave students isolated within the system but enables better ways to progress through



one's studies with the help of others. A fundamental aim of the student organisation is to provide the hands on experience that future architects and engineers do not get at university. This is achieved

through two main workshops which give students the opportunity to work together on artistic installations and real life projects guided by architects in practice. The Easter workshop entitled 'UPROOTED' was a design based competition for a rehabilitation proposal of the Cospicua gardens. The aim of the competition was to showcase the students' capabilities in the public realm, hence creating a better public awareness of quality design and creativity. Adding to this experience SACES take care of organising visits to construction sites for students to get the feel of how things work out there, this year we got the opportunity to visit the T14 Project by MIDI and Pendergardens. Whilst holistic education is of utmost importance, SACES does not forget to make time for great parties, marked off before workshops and other events, to after all make university life more enjoyable.

The organisation also collaborates with its sponsors and other student organisations on a variety of events, from a photography competition with DEX Workspaces and Vitra page.



to the yearly 'archibabble', this time organised with HOASA, tackling the notion of creativity in the architectural world. Another collaboration was that with Fablab Valletta for the Sunscape Festival in Ramla Bay. Gozo. Architecture students had a fun weekend at the beach whilst building a structure that was utilised during the festival. SACES kept meeting up in summer for jamming nights and barbeques keeping a lively spirit amongst the students.

With another win in the famous water fight between SACES and ELSA, it's back to university and preparations are in full swing for the acclaimed November workshop. This event is widely popular with architecture students because of the distinctive historical locations and creative, playful installations that students come up with over a weekend. Such activities give the opportunity to students to not only design and build structures by themselves but enhance their creativity, skills and perspective on the built environment. This work is then exhibited for the public in a closing ceremony at the end of the workshop. More details on this will be published and available on our Facebook







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## TOKYO

### An architectural pilgrimage

MANY OF US TRAVEL TO NEAR AND FURTHER LANDS, BUT FEW OF US GET THE OPPORTUNITY TO SPEND ENOUGH TIME IN ONE PLACE TO ALLOW ITS ARCHITECTURAL ETHOS TO SINK IN AND TO LEAVE A LASTING IMPRESSION ON OUR LIVES. PERIT DANIELA VALENTINO WAS PRIVILEGED ENOUGH TO EXPERIENCE THIS AS SHE SPENT A NUMBER OF MONTHS IN JAPAN, MAINLY IN TOKYO, DURING HER STAY, SHE CHRONICLED HER EXPERIENCES IN AN ONLINE BLOG, KEEPING HER FRIENDS AND FAMILY UP TO DATE WITH HER TRAVELS AND THE WONDERFUL ARCHITECTURAL GEMS SHE CAME ACROSS WHILE EXPLORING THE CITY. DANIELA STILL KEEPS UP TO DATE WITH WHAT IS GOING ON IN THE ARCHITECTURAL SCENE IN JAPAN, AND SHARES THIS WITH HER FRIENDS THROUGH HER BLOG WHICH IS STILL UP AND RUNNING AND WHICH OUR READERS CAN ENJOY AT HTTPS://WWW.FACEBOOK.COM/TOKYO.ARCHITECTURAL.PILGRIMAGE.

THE EDITORIAL TEAM OF 'THE ARCHITECT' WAS INTRIGUED BY HER WRITINGS AND PARTICULARLY BY HER PHOTOGRAPHY, AND ASKED DANIELA TO SHARE HER THOUGHTS WITH OUR READERS. HERE IS WHAT SHE WROTE:

In the summer of 2015, the circumstances of my life took me to distant Japan where I spent some months. Based in Tokyo, I used my days to immerse myself in my surroundings in order to absorb all I could of this time. I understood at an early stage that this architectural experience was unlike that to be had in any other city. This was something completely different. I understood that one could not simply admire Japanese architecture for its outward beauty. My pilgrimage through Tokyo required of me to delve deeper into an awareness of the Japanese aesthetic notion in order for my experience to be more meaningful. Coupled with this, I discovered that there was much to be learnt about the societal changes that Japan went through following World War II and the Western influence that resulted. So, it began.

The first thing I understood about Tokyo and Japan in general was, simply put, that it is very Japanese. Strangers to the country might have expectations for a more international influence. I was pleased to discover that this was not so. Therefore, all my experiences as a foreigner exploring Tokyo were had in a context of complete solitude. I do not say this with negative connotations. The fact that I did not understand the language and that English was not spoken anywhere was in a way, an advantage. On my 'architectural pilgrimage', I drifted through the streets, travelled on trains, and discovered one building after another, hardly ever speaking. This sounds very strange, how-



Hotel Okura, 1962: A modernist building most deserving of the label 'iconic', the Hotel Okura is sadly awaiting emolition, threatening the architectural history of the city.

ever, it was this silence which helped me connect with places and get the most out of

Looking back, I can clearly identify when I first came face to face with the idea that, as the New York Times so accurately worded it, "in Japan, history has no place". One day, I turned up at The Hotel Okura, a Japanese icon of modernism from 1962 and found it barred shut. Built to accommodate distinguished guests arriving for the 1964 Olympics, the hotel has hosted

everyone that counts from presidents to royalty to Hollywood royalty. It was the sort of place where, in the fictional world, one would expect to encounter James Bond being served in the lobby by a receptionist dressed in kimono, or Don Draper from the cult series Mad Men sipping on an Old Fashioned whisky in the famous Orchid Bar. Sadly, I had to leave all this to my imagination, as I discovered with great sadness, that the hotel had closed its doors for the last time, the day before I got there. I later read

it was set to be demolished, and replaced by two glass towers, ahead of the 2020 Tokyo Olympics.

It all sounded very familiar, considering the site's origins back in 1964. Another period, another cycle, another building. I took my time exploring the hotel from the outside, and left feeling rather disturbed. As a European architect, I come from a background of preservation. We would never consider demolishing our historic buildings. To us, it would be sacrilegious. I discovered as I journeyed on, that the Japanese have a completely different relationship with modernist architecture than we do. While it may seem unsentimental, it is in fact a very Japanese form of aesthetic appreciation with its roots in Zen Buddhism. Central to Japanese cultural tradition is the expression 'Mono no Aware', which refers to the awareness of impermanence. The Japanese view situations in general with "a transient gentle sadness, or wistfulness at their passing as well as a longer, deeper gentle sadness about this state being the reality of life".

This concept of beauty is best exemplified by the sakura or cherry blossom. The Japanese spend their year in gentle anticipation for the cherry blossom season in April, when the sakura trees will be in full bloom. White petals tinged with a delicate pink hue, these flowers bloom and fall within a week. Their beauty is enjoyed temporarily, however, in the Japanese mind set, the expectation for this season is almost

more important within the whole experience of beauty, than the season itself. It is precisely this cycle of impermanence which allows the Japanese to appreciate the present moment rather than lament the past. In order to prepare for the future, where art and architecture are concerned, it is sometimes acceptable to destroy the past, according to this philosophy. It is by being aware of this reasoning that I was able to understand the thinking behind the demolition of the Hotel Okura, in the hope that, for this to be somewhat justified, the new building would be in its own way as impressive as the one it was replacing. Naturally, not being yet familiar with this form of thinking, my nostalgia for a building which I only knew through pictures was stronger, and I found the idea that this beautiful modernist icon would be com-

pletely erased a hard pill to swallow. Being aware of this form of thinking, I was able to understand why in general, Tokyo appeared very 'new'. It came as no surprise though, as to why it felt this way. Given the constant whirl of demolition and reconstruction that takes place, driven by the confidence that something better will come along, generally most buildings are not planned to have a very long lifespan. Out with the old, in with the new, seems to be the reasoning. Outwardly, Tokyo is a place which changes its clothes often. Its soul however, remains unchanged. I noticed for example the way the Japanese used buildings in urban cores. I noticed that buildings were used like commodities, used for their purpose, designed to function like machines and finished to very high standards. I felt that the Japanese expected this out of buildings. It's as though it was taken for granted. This became apparent as I would stop in front of a building that interested me to take photographs, as I did thousands of times, and a Japanese passerby would look at me, baffled, wondering what I was photographing.

Which brings me to another major point. All this 'newness', living side by side with traditional temples and shrines. Contradiction? Perhaps. Contrast? Certainly. In a city which is one of the most populated in the world and public spaces are somewhat lacking, these sacred spaces provide a calm refuge from the busy streets outside. I discovered there were shrines wherever I went. Several. Visiting them was a unique experience,

which gave me a sense of inner peace. Once I entered, I was truly in the moment, every time. I experienced Zen. The traffic and people traffic outside did not matter anymore. I observed the worshippers and felt their respect for the shrine and the deity there. Many of the shrines were approached by steps, and the procedure begins with rinsing one's hands and mouth in water from a stone basin outside the shrine area. Ascending to the main shrine building, one may throw an offering of coins and proceed, as I found in one particular shrine, to pay respects by bowing twice, clapping hands twice and bowing

A recurrent theme in these shrines was their integration in nature. There were no hard lines between inside and outside spaces. Divisions were made with light screens or wooden lattices. I found my visits to be a multi-sensory experience. Visual pleasure was accompanied by the sound of koi fish swimming in the water, the sound of the rain and the smell of nature. Most of the traditional shrine buildings were characterised by clean lines, natural materials and simple details. This pure aesthetic reminded me very much of Western modernism, though having its origins several centuries earlier. I noticed, as I progressed on my pilgrimage, that the characteristics which made up these simple buildings could be described as 'modernist'. Traditional Japanese rooms in houses for example are modular, composed of multiples of tatami mats having a ratio of 2:1. The tatami is a floor covering made of woven soft straw. Rooms are even measured according to the number of tatami, for example a 6-tatami room. An aesthetic of modular rooms, coupled with slender timber framed shoji screens made of translucent paper and sliding doors, looked very modernist to me. I experienced this daily, as the simple little flat we were living in was made this way. Could traditional Japanese architecture have influenced the aesthetics that developed in the 20th Century in the West? Could modernism have been, in a way, 'Made-in-Japan'?

The subject of the West and its relation to Japan brings me to mention another exciting part of my pilgrimage. My encounter with Le Corbusier, and with pre-modernist Frank Lloyd Wright. With their Japanese

I was not aware that Frank Lloyd Wright



Meiii Jingu Shrine: The Meiji Era (1868 - 1912) is considered as the time when the foundations of modern Japan were laid, thus, this Imperial couple are considered as deities and their memory is enshrined within



Tennoji Temple: The oldest in the area, this temple has as its focal point a centuries old, bronze Buddha. It is

the seat of the deva Bishamonten, a god of resources and bravery

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National Museum of Western Art, le Corbusier, 1959: Designed by Le Corbusier according to his prototype for a 'museum of unlimited growth', this building is the architect's only Far Eastern Work. This year, Unesco added it to a list of heritage buildings, together with 16 others designed by the great master.



Frank Lloyd Wright's 'House of Tomorrow', 1921: Built as a girls' school, this building is still very much in use today providing rooms for lectures and meetig facilities.



of a piece of cloth, this building folds down towards the ground - very much like origami.



21 21 Design Sight, Tadao Ando, 2007: 'A building to represent Japan'. Reminiscent Kengo Kuma Culture and Tourism Centre, 2012: As an allusion to typical Japanese architecture, Kengo Kuma stacks up eight one-storey houses having a variety of sloping roofs.

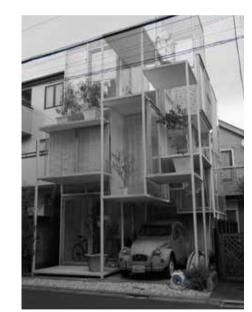
had a presence in Japan - it turns out he was commissioned in 1916 to design the second Imperial Hotel, as the first was always filled to capacity and there was a great need to accommodate the ever increasing number of foreign visitors to Tokyo. Though the building survived the 1923 earthquake as well as the American bombing of the city during World War II, it was demolished, in the spirit of transience in 1967, to be replaced by a more efficient tower hotel.

History was kinder to Wright's only other Japanese building. Whilst in Tokyo, Wright was introduced to Yoshikazu and Motoko Hani by his friend, Japanese architect Arata Endo. The Hanis were planning a girls' school, and Wright was the man for the job. Assisted by Endo, Wright designed Jiyu Gakuen Myonichikan, "the House of Tomorrow". Construction started in 1921. with additions made in 1927.

It came as a great surprise to me to discover that Tokyo is also home to a building designed by le Corbusier, the only representative of his work in the Far East. Completed in 1959, the National Museum of Western Art was built to house a collection of works gathered by a Japanese industrialist - a collection which has grown every year since the museum's establishment. The building is symbolic of the resumption of diplomatic ties between Japan and France after World War II - and to this end a French architect was selected for the job. A large, square, concrete volume which houses the galleries



Nakagin Capsule Tower, Kisho Kurokawa, 1972: The world's first example of capsule architecture, it is considered to be one of the few remaining examples of Japanese Metabolism.



Sou Fujimoto House NA, 2010: A 'unity of seperation and coherence' was the architect's way of describing this radical house in an otherwise ordinary Tokyo neighbourhood.

floats elegantly on pilotis. It is clad in prefabpebbles embedded within.

My architectural visits were varied, however my interest had long been sparked by

the buildings from Japan's Metabolist years. Metabolism was a post-war Japanese architectural movement that fused ideas about architectural megastructures with those of organic biological growth, at a time when Japan began to question its cultural identity. My adventures around Tokyo led me to explore many fine examples of the radical, utopian ideals which emerged in post-war Japan, as a response to critical urban issues which so desperately needed to be addressed. Amongst these are buildings designed by Kisho Kurokawa, Kiyonori Kikutake, Yoji Watanabe and Kenzo Tange.

Fast forwarding to twenty first century Japan was no less exciting. On a guest to regain the Japanese aesthetics of the past and to put the pursuit of beauty before economic efficiency, some contemporary architects have succeeded in creating an architecture which is clearly Japanese however designed in the spirit of the present. My days were enriched with these discoveries. Tucked away in unassuming streets, I came across buildings ricated concrete panels which have stone by Sou Fujimoto and Kengo Kuma. A common denominator throughout the history of Japanese architecture seems to have been the crossover with nature. This is not only limited



National Gymnasium, Kenzo Tange, 1964: Built for the summer Olympic Games held in Tokyo, it is a symbol of modernity - with its roots in the classic forms of Japanese design.



St. Mary's Cathedral, Kenzo Tange, 1964: The darkness inside, formed by curved concrete walls iluminated by glazed slits, encourage a state of

to the architecture of the past. In Fujimoto's House NA, the architect has taken inspiration from a tree to create this transparent house which comprises internally of 21 individual floor plates at various levels, interconnected by stairs, ladders, and movable steps.

In the more prominent Roppongi, a lively and more cosmopolitan part of Tokyo, I discovered Tadao Ando's 21\_21 Design Sight and close by Ando's Omotesando Hills, all of which I found to be unmistakably Japanese.

My Japanese architectural experience was an enriching one and gave me most satisfaction because I felt that it was a discovery which unravelled organically with each passing day. In addition to this, I was fortunate enough to spend some time working in the



National Art Centre, Kisho Kurokawa, 2006: This beautiful sinuous glazed building was designed to host temporary exhibitions. It holds no artwork of its own, but provides the space for art exhibitions

office of Japanese architect Nobuaki Furuya, a friend of my former boss Ray DeMicoli. Although many of my colleagues spoke in Japanese and their English was sparse, we spoke a common language which brought the divide between us closer – the language of architecture.

Though a world away, Japan is now very close to my heart and hardly a day goes by when it doesn't enter my thoughts for one reason or another. My journey was something I documented daily in an online blog which I aptly titled: T O K Y O: an architectural pilgrimage.

Until we meet again, Japan, I will say, sayonara.

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## A Japanese pavilion replica

'LEARNING THROUGH MAKING' WAS THE ETHOS OF THE 'SELF-BUILD' MASTERS COURSE AT LONDON'S KINGSTON UNIVERSITY. IT WAS THIS OUTLOOK TOWARDS EXPERIMENTAL ARCHITECTURAL DESIGN THAT CAUGHT THE EYE OF THE YOUNG AND RECENTLY GRADUATED ARCHITECT, **SAMUEL CASSAR**. THIS WOULD EVENTUALLY RESULT IN A 1:1 LIVE PROJECT, BUILT BY THE STUDENTS THEMSELVES ON THE GROUNDS OF DORICH HOUSE MUSEUM, LONDON, BASED ON THE MATERIAL STUDIES THE STUDENT BODY CONDUCTED THROUGHOUT THE YEAR. 'THE ARCHITECT' INVITED HIM TO SHARE HIS EXPERIENCE WITH OUR READERS.

As part of a team of 15 students, led by tutors Takeshi Hayatsu and Simon Jones, a study trip to Nagano and Tokyo, Japan, was organised in order to allow the students to observe and witness first hand the works of renowned architect Professor Terunobu Fujimori, whose works would act as the main inspiration for the group. During the trip, the team met up with numerous Japanese architects, amongst them Fujimori, who walked them through his various projects, explaining his built works and construction approach, along with several other precedents set by other Japanese avant-garde architects referred to by Fujimori as the Red School. In contrast to other contemporary Japanese Architects such as SANAA, Fujimoto, or Maki - whom he considers to be of the 'White School' - their work is raw, tactile, sometimes improvised; sometimes self built, invariably using elemental, natural materials, and very often comes across as somewhat 'odd' to western eyes. The family tree of the 'Red School' can be traced back to the Takamasa Yoshizaka's Inter University Seminar House Project in 1965, which became the starting point for the live project, and whose upturned pyramid form has inspired to the

cantilevering layers of the structure.

Upon returning to London, the team set out on a journey of experimenting with different designs in which they were to embody or exemplify the sense of space found in the various tea houses visited, whilst also drawing inspiration from the upturned pyramid form of the University Seminar House Project. The objective was to create a three tiered elevated tea house (with a with a traditional Japanese table re-interpreted to suit British requirements, as it was realised that Europeans are not quite as flexible as the Japanese tend to be at table) which would

seat the entire unit (17 persons), whilst also serving as a viewing platform overlooking the renowned Richmond Park.

After closing discussions on several designs with Price&Myers structural engineers, a design was established and fabrication began within the university's professionally equipped workshop. Throughout the process a series of practical material workshops were carried out to help with the fabrication of the material cladding. Amongst them was a shingle making workshop, led by 81-yearold-Peter Harknett (the UK's oldest working steeplejack), who showed us how to split and shape shingles from sweet chestnut logs, as well as a zinc and lead workshop carried out by the Lead Sheet Association. Fujimori also paid a visit to the London workshop in order to share the secret of making 'Yakisugi', a traditional charred preservative treatment for timber from the southwest region of Japan, through a hands-on demonstration.

The substrate structure employed a contemporary approach to timber construction using sandwich panel techniques, formed of oriented strand board and wooden joists. This was then clad in zinc, sweet chestnut shingles, and charred timber. Lead flashings were used to prevent moisture entering from base columns and window joints, whilst corrugated metal sheets were used to drain water from the top deck of the pavilion. The individual components were prepared in the workshop and brought on site to be assembled within the span of four working days.

Upon completion a grand opening of the space took place, hosting several renowned London based architects, along with the local press and other journalists from a few architectural publications, such as Dezeen



Takasugi-an tea house self-built by Professor Fujimori using two trees from his land (Japan field trip)



Flying Mud boat tea house - self-built by Professor Fujimori and friends. Built out of timber with cement plaster and copper finish (Japan field trip)











Arimasutonbiru – by Oka Keisuke. Self-build concrete home which he has been constructing block by block by hand for the last 10years (Japan field trip)









Peter Harknett teaching the art of shingle making from sweet chestnut logs (Material Workshop)



Inner core showing OSB substrate. Table to cover the core allowing users to sit along the edge and dangle their feet (Pavilion construction)



Zinc cladding taking place once the substrate structure was complete (Pavilion construction)



Access from one level to the next by means of hatch doors and ladders (Pavilion completed)



The completed pavilior

All images by Samuel Cassar

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## **Contemporary Architecture in Malta**

A celebration of local contemporary architecture could be perceived as a utopia in a local context wherein development is usually associated with controversy and bad press. Much of the recent media coverage is in fact a sad commentary of the unbridled development that has compromised our urban fabric. Bland concrete apartment blocks are many-a-times the order of the day. To equate contemporary architecture in Malta exclusively with soulless, speculative development, is however deceptive, and also renders a disservice to a number of talented and dedicated architects who have striven. against all odds, to infuse a dose of architectural excellence within the local environment. Truth be told, during the past decade, there have been quite a few projects which bear testimony to their designers' efforts to actively seek to improve the quality of the built environment.

The recently published book 'Contemporary Architecture in Malta' is a celebration of some of Malta's recent architectural endeavors, projects which in the eyes of the author, architect Prof Conrad Thake, have contributed significantly towards the improvement of our urban environment. This volume, published by Kite Group, is the latest in a series of high-quality publications which have become synonymous with this publishing

The main objective of this publication is to showcase those architectural projects which are of high quality and representative of the contemporary Maltese architectural scene. It is, by no means, intended to be an exhaustive survey. In all, fourteen projects undertaken by local architects and architectural firms were selected, together with a special section dedicated to Renzo Piano's Valletta scheme which incorporates the new entrance to Valletta, the former Opera House site, and the new Parliament building.

The book was launched in October in the distinguished setting of the Chamber which hosts Malta's Parliamentary plenary sessions under the auspices of the Dr Anglu Farrugia, Speaker of the House of Representatives. In his address during the launch, Mr Speaker commended the work undertaken by Prof



Ggantija Interpretation Centre, Xaghra; DTR. Photo by Therese Debono



BOV Chairman's Office, House of Four Winds, Valletta; DeMicoli & Associates. Photo by Alex Attard

of the immensely rich Maltese cultural and historical heritage. He described the book as a benchmark in the critical appreciation of

Prof Joe Friggieri, who delivered the keynote speech at the book launch, praised the role of the architect and honoured the artistry of some of Malta's leading architects, which is showcased in Thake's publication. He dealt extensively with the characteristics of good architecture, which in his view happens when the design and functionality are and highlighting those recent architectural both dealt with professionally.

One of Italy's leading architectural historians and critics, Prof. Mario Pisani of the Facolta' Thake, which he said is a timely reminder di architettura Luigi Vanvitelli – Seconda

Universita' degli Studi di Napoli, states in the book's foreword that, "Throughout these pages one experiences a sort of rite of passage – the testament of the finest examples of Maltese architecture, those that have resisted and valiantly battled against the rampant and, at times, overwhelming wave of crude buildings and the worst forms of speculative housing that have contaminated, like leprosy, even this corner of paradise. The author was well capable of identifying works that stand out and exude excellence. I would advise all those persons with artistic sensitivity to visit and personally experience



Barrakka Lift, Valletta; Architecture Project. Photo by Luis Rodriguez Lopez

A number of considerations have dictated the contents and format of this book. The featured projects were all built and completed during the five years prior to its publication. Although some of the architectural firms have an extensive portfolio of projects, it was decided to feature only one project from every architect or firm, so as to present as wide a perspective as possible. The emphasis is to celebrate excellence in architectural design, and is not the equivalent of a league amongst architects. The fifteen projects featured in this book are representative of a wide spectrum of different building typologies - from a single family residential unit to a medium-rise housing, civil engineering and transportation projects, offices and commercial buildings, a landscaped garden with a meditation chapel, the rehabilitation of a Second World War bomb-blast aircraft pen-cum-hangar, the re-design of an open courtyard to a mega-scale urban project relating to the remodeling of the entrance approach of our capital city and the building of a new Parliament.

All the architects invited to participate in this project graciously accepted the author's invitation and they were supportive in forwarding extensive documentation of their projects, ranging from initial conceptual sketches to architectural drawings and photographs of the completed project.



Dar il-Hanin Samaritan landscaped gardens and meditation chapel, Santa Venera; Richard England. Photo by Peter Bartolo Parnis





Life Sciences Park, San Gwann: TBA Periti, Photo by Sean Mallia



Dar tal-Providenza courtyard, Siggiewi; Monica Audrey Galea, Galea & Galea Architects. Photo by Monica Audrey Galea





Helena's Villa, Tal-Ibragg: Grech & Vinci Architecture & Design. **Photo by Christian Sant Fournier** 



Orange Grove residential complex, Balzan; Godwin Vella Photo by Kurt Arrigo



Rapprochement, Zebbug; MJMDA - Matthew James Mercieca Design Architects. Photo by Peter Mercieca



Floating White, San Pawl tat-Targa; Daniel Scerri Periti. Malta Enterprise offices, Pieta'; Pace Lautier Photo by David Pisani



Architecture Workshop. Photo by Kurt Arrigo



Valletta City Gate and Parliament project; Renzo Piano. Photo by Daniel Cilia This publication is mainly addressed to architects and

designers, architectural students and all those with a

following specifications and can be ordered online from

www.kitegroup.com.mt or can be bought from Malta's

eading bookstores. Hardbound & Dust Cover

270x270

368 pages

Full Colour



RS2 offices, Mosta: Joe Cassar, CGE Periti, Photo by JP Advertising Ltd



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## **Declaration of ownership**

BY DRIAN J STAFRACE

An important declaration contained in a full development application filed with the Planning Authority relates to the role of the applicant.

The type of declaration signed by the applicant has changed over the years. Initially, based on the view that such a declaration has no material bearing in the determination of a planning application, the applicant would either declare that to be the owner of the property subject of the application, or that the applicant is not the owner of property but has notified the owner of the submission of the application. There was also the possibility for the applicant to declare not being the owner of the property and not to have knowledge of who the rightful owner is.

A major change occurred through the enactment of Chapter 504 of the Laws of Malta in 2010, which obliged the applicant to either declare to be the owner of the property, or that not being the owner thereof, the rightful owners have been notified and granted their consent to the said application. The applicant could also declare to be authorised under some other law to submit such an application, or that to have an agreement with the owner of the property to do so. Some exceptions were allowed in order to cater for applications submitted by Government, or those filed by registered farmers. Following this, a standard condition was introduced in each and every permit whereby the Authority made it clear that a Court of Law may deem the permit null and void should it result that any such declaration made by the applicant was wrong. Hence, the Authority avoided entering into the disputes between applicants and third parties claiming property rights – a matter which is intrinsically difficult to determine, especially when claims are contradictory or based on factual circumstances.

Through the enactment of Chapter 552 in 2016, the principles contained in the previous Law were retained (1).

As such, as a general rule, the Authority would not give any material bearing in its decision to conflicting claims on ownership

I am the sole owner of the entire site indicated on the site plan. I am not the sole\* owner of the entire site (or part thereof) indicated on the site plan. However, I have notified (by registered letter a copy of which is attached) the owner/s of my intention to apply and the owner/s has/have granted consent to such a proposal I am not the sole" owner of the entire site (or part thereof) indicated on the site plan. However, I hold the site under an agricultural lease title or under a title of lease and I have notified (by registered letter, a copy of which is attached) the owner/s of my intention to apply to carry out works under a scheme of a Government in my capacity as the authorised public officer, the applicant is the Government of Malta, or any department, agency, authority or other body corporate wholly owned by the Government, and I have notified (by registered letter, a copy of which is attached, and/or through the notification procedure set out in Article 34(1)(e)) the owner/s of my intention to apply.

rights made by the applicant and a third party. The same would apply in those cases where the applicant identifies a third party as the rightful owner, and someone else makes conflicting claims on the ownership

Nonetheless, there may be situations which are quite clear cut and straight forward. Such as when an applicant declares not to be the owner but has notified the owner who has granted consent to the application, but it results that such an owner (as identified by the applicant) submits a representation that no consent was given. Or when the applicant declares to own the property, but when challenged fails to substantiate such claim or to produce some other title agreement (such as a lease or a promise of sale).

The Court of Appeal and the Environment and Planning Review Tribunal have delved into this matter. In Mifsud vs. Awtorita' (2) the Tribunal was faced with a situation where the applicant initially declared to be the owner of the site. Faced with an objection challenging this claim, the applicant changed the declaration, and declared to have notified the owner of the site and that the owner had consented to the application. The person so notified was the objector

to the application and re-confirmed that consent to the application had not been granted. The Authority refused the application on planning grounds and the applicant appealed. The Tribunal held that the application was manifestly wrong in that the applicant clearly made a wrong declaration of title on the site in question, and hence refused the appeal on the basis of

In Debono vs. Awtorita' et (3) the Court Court held that it was quite clear that the of Appeal held that the Tribunal, and the Authority, should not ignore claims of wrong declarations of ownership when such a declaration is manifestly wrong. In this case, the appellant had objected to the application submitted by a neighbour who had claimed that not to be the sole owner of the property. The appellant and the applicant were joint owners of part of the site, and hence the Court held that the applicant could not declare to have the consent of the owners

In a recent decree (4) delivered by the First Hall of the Civil Court, the Court upheld a warrant stopping the Authority from taking a decision on a pending development application. In this case the applicant first declared to be the owner of the site. When

faced with a contestation by the objector (who claimed ownership), the applicant changed the declaration and claimed to not be the owner, but has the consent of the owner (who was also the objector). The Planning Directorate recommended the refusal of this application on planning grounds but retained that the ownership and consent aspect was not a matter which could have a bearing in its decision. The applicant had made a false and misleading declaration since it was obvious that the owner had not granted any such consent. Noting that the Authority did not consider this aspect as a material element in its decision, it stopped the Authority from taking a decision on the application.

- 1. Even though the Bill originally presented had proposed the elimination of the principles introduced in 2010
- EPRT 45/15, 28th April 2016
- 1401/2016, 27th October 2016

Court of Appeal, 5th November 2015

### www.artsandarchitecture.com

Well-known for its Case Study House program, Arts & Architecture (A&A) magazine highlighted the development of singlefamily dwellings during the Post-war period, with specific focus on the work of Southern California architects like Richard Neutra, Rudolf Schindler, Charles Eames, Frank Lloyd Wright, and John Lautner among others. Published from 1929 until 1967, the website now dedicated to cataloquing Arts & Architecture offers digitised versions of selected articles from 1945 onwards, as well as full issues from the magazine's last 11 years. The internet publication of A&A is made possible by Benedikt Taschen who reprinted 10 years of the magazine, complete issues from 1945 to 1954, perhaps someday to be followed by issues from 1955 to 1967, the final 12 years.

This website is owned and operated by David Travers, who writes: "My first thought when approached about the project was that it was impossibly retro. Taschen had already done a physically immense reproduction of Arts & Architecture's Case Study House program (taschen.com). That seemed to me to be sufficient. After all, the magazine was best known, almost exclusively so, for this 20-year-long program sponsoring new ideas in residential design. But A&A was more than that. Even the present is



and it is more difficult, maybe impossible, to understand a time that is not our own, to feel the excitement of the 40s, 50s and 60s if you were not a part of them. The World War II years and the post-war period were an energetic mix of culture and politics, and A&A was at the leading edge in architecture, art, music - even in the larger issues of segregation in housing, in education and other manifestations of racial bias before they became codified as civil rights. The magazine was hopeful about life; it had a sense of mission."

He continues to explain that "it was the policy of A&A to present projects without any accompanying critical analysis. The buildings were allowed to speak for

themselves and any explanatory text was limited to a brief statement, usually based on a description of the program and the structure, supplied by the architect. The reasons behind the policy were simple enough and did not include fear of offending an advertiser or architect, as has been suggested from time to time. To be selected for presentation, a project had to be one of exceptional merit and interest. Not free beyond comprehension for most of us, of faults but the good qualities had to heavily outweigh the bad. Where the reverse was true, we did not publish the building. It was dismissed rather than criticized. When I took over from John Entenza in 1962, the maga-

zine had a paid circulation

of some 8,500, fewer than 3,000 of them professional designers, fewer still registered architects. When I removed A&A from life support in September 1967, we had 12,500 paid subscribers (including 300 in the Soviet Union). This compared to between 40-50,000 registered architects each for P/A, Architectural Record, Architectural Forum and the AIA Journal.'



wThe material on the site can be browsed in one of two ways. One can simply click on the image of the cover of a particular edition of A&A to view a pdf version of that magazine. Alternatively, if one is looking for a specific project or work by a specific architect, the site includes a listing of these, which then point the user to the specific relevant issue.



### Can you identify the church under construction in these photographs, and the architect who designed it?

The winner of this competition will be entitled to a copy of the book "Modernist Malta: The Architectural Legacy". Send your entries to: The Editor. The Architect Competition, Kamra tal-Periti, The Professional Centre, Sliema Road, Gzira, or by email on kamratalperiti@go.net.mt. The first correct answer drawn on the 31 December 2016 will win. Only residents of the Maltese Islands are eligible to participate. Members of the Editorial Board and their families are not eligible to participate.

The portrait published in the previous issue was that of Giuseppe Bonnici, architect and military engineer, who was active in the 18th century and was responsible for the building of the old Customs House, Valletta and the design of the parish church of St Publius, Floriana which was badly damaged during the war. No correct answers were received by the closing date.



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NOW TO 27 NOVEMBER, 2016: GIARDINI AND ARSENALE, VENICE, ITALY

### REPORTING FROM THE FRONT - BIENNALE DI VENEZIA

The 15th International Architecture Exhibition, titled REPORTING FROM THE FRONT, is curated by Aleiandro Aravena and organised by La Biennale di Venezia chaired by Paolo Baratta. www.labiennale.org

NOW TO 31 DECEMBER 2016; ACROSS SCOTLAND

#### **FESTIVAL OF ARCHITECTURE 2016**

The Festival is a major, vear-long Scotland-wide celebration led by RIAS which brings Scottish architecture to life and is a key part of the 2016



Year of Innovation, Architecture and Design. Scots and visitors to Scotland are joining in the most ambitious ever nationwide celebration of the built environment of a single country. Curated by the Royal Incorporation of Architects in Scotland (RIAS), the Festival of Architecture 2016 will deliver a packed programme of events and activities, which will highlight and celebrate Scotland's world-class architecture. As one of the cornerstones of the Year of Innovation, Architecture and Design, the Festival of Architecture will showcase Scotland's fantastic buildings, old and new, with hundreds of exhibitions, workshops, film screenings. musical celebrations and lots of other special events. www.foa2016.com

NOW TO 31 DECEMBER 2016: HET NIFUWE INSTITUUT, ROTTERDAM. NETHERLANDS

#### THE NEW GARDEN

The New Garden has now passed through its first full cycle of four seasons. What was once a place to let the dog out has gradually developed into a public space with an ecological system of herbs, shrubs, birds and animals Artist and designer Frank Bruggeman and ecological

landscaper Hans



Engelbrecht laid out the garden in the spring of 2015 in the grounds of Het Nieuwe Instituut. Their design is a plea for an urban green space managed on an ecological basis with space for nature to take over. http://hetnieuweinstituut.nl/en

NOW TO 5 FEBRUARY 2017; THE ARCHITECTURE GALLERY, RIBA, LONDON, UK

#### WE LIVE IN THE OFFICE: A COM-MISSION BY GILES ROUND

'Factories have been abandoned, offices have been emptied: schools and university campuses have been created in industrial areas: historic buildings have been transformed into banks and information technology centres: artisan sheds have become ateliers for design and fashion; industrial deposits have been recycled to create shopping malls; warehouses have become homes or theatres, offices have become art galleries or hotels; garages have become recording studios; basements have become research laboratories. One works at home and lives in the office.' - Andrea Branzi. The multidisciplinary artist Giles Round focuses our attention on one of the most familiar and unavoidable architectural features of the city: the façade. By turning the gallery into a production studio and shop, this exhibition questions the ways in which we collect, preserve and purchase facades today. Inspired by the work of a wide range of architects in RIBA's Collections, it explores the increasing tension between the changing interior and static exterior of the architecture around us and our subsequently unreliable understanding of cities and spaces. www.architecture.com



NOW TO 23 APRIL 2017: MOMA, NEW YORK, USA

### HOW SHOULD WE LIVE? PROPOSITIONS FOR THE **MODERN INTERIOR**

Since the Department of Architecture and Design was first established in the early 1930s, the Museum's curators, guided by a belief in the power of design to shape everyday experiences and perceptions, have focused on the question "How



should we live?" as one of the most vital issues in contemporary design. This exhibition explores the complex collaborations, materials. and processes that have shaped the modernist interior. with a focus on specific environments - domestic interiors, re-created exhibition displays, and retail spaces - from the 1920s to the 1950s. The exhibition brings together over 200 works, drawn from MoMA's Architecture and Design collection as well as the Library. Drawings and Prints. Painting and Sculpture, Film, and Photography, Rather than concentrating on isolated masterworks, attention is given to the synthesis of design elements within each environment, and to the connection of external factors and attitudes - aesthetic, social, technological, and political -that these environments reflect. The exhibition looks at several designers' own living spaces, and at frequently neglected areas in

the field of design, including textile furnishings, wallpapers, kitchens, temporary exhibitions, and promotional displays. www.moma.org

19 NOVEMBER 2016 TO 5 MARCH 2017; DESIGN MUSEUM, GENT, BELGIUM

#### HANDS ON DESIGN

The chemistry between the maker, the designer and the company 'Hands on Design' showcases design that is inspired and produced thanks to the innovative power of traditional methods and craftsmanship. 'Hands on Design' will show a superb selection of contemporary and historic design products which are perfect examples of outstanding craftsmanship and



the master's touch. As a user, you can feel the difference between a store-bought kitchen knife or chair and a handmade knife or chair, but sometimes it is difficult to pinpoint that difference. 'Hands on Design' reveals this invisible added value, the influence of the master's touch and craftsmanship. Stroll through the maker's house, his workshop and design studio. Take a closer look at his drawings and computer models. Learn about prototypes, materials and tools. Discover the human touch in familiar and brand-new utensils. Learn how designers, makers and companies push back boundaries and find new applications for centuries-old techniques. By processing familiar materials such as stone, wood, glass, leather, bronze in new and different ways. Curator Johan Valcke spent two years searching for brandnew utensils by emerging young designers, established design studios and local businesses. He also brought together designers and companies, which led to some novel design products that will be shown for the first time during 'Hands on Design'. Design museum Gent has juxtaposed these designs with surprising masterpieces from its own collection. MaisonCaro designed the exhibition's scenography. www.designmuseumgent.be

PERMANENT EXHIBITION, DESIGN MUSEUM, COPENHAGEN, DENMARK

### DESIGN AND CRAFTS FROM THE 20TH CENTURY

The point of departure for the permanent exhibition comprises several of the dominant



ideas and thoughts, which have been significant for mankind and society in the 20th century and are recognisable in design. This is the approach of the exhibition as regards such aspects as the early 20th century avant-garde design dream of a new and better world; functionalism's FDB furniture seen as a social tool, and the 1990s globalisation and visions of ecology and recycling. Represented in one large room is the story of speed and slowness and the aesthetics of what is made by hand and by machine in design throughout the entire 20th century. Other rooms are dedicated to great Danish designers such as Kaare Klint, Poul Henningsen. Arne Jacobsen and Verner Panton. www.designmuseum.dk

### Ultra High Strength Steel composite systems for strengthening and seismic upgrade reinforced concrete and masonry structures

BEAMS AND STRUCTURAL SECTIONS

**ENG. PH.D. PAOLO CASADEI** 

Recent seismic events in Italy, starting from the earthquake of l'Aquila in 2009, then the Emilia earthquake in 2012 and the most recent ones which happened this summer and recently in central Italy, have shown the vulnerability of masonry as well as of reinforced concrete structures. Most of the existing building inventory in Europe was designed according to building codes and guidelines that did not take into account seismic loads and when eventually they did, the knowledge of seismic loads showed how existing codes were still too conservative. If in addition to such considerations, we take into account that most of existing structures have not undertaken any major refurbishment since they were built, we immediately realise the danger in which we live every day when we happen to go to a hospital, take our children to school or simply at home where we spend time with our loved ones. It is difficult to raise awareness on this important issue, but when one considers that every year we take our vehicle in for a road-worthiness test to ensure our safety, it feels inappropriate that the main investment we have, which is our house and for a government its strategic buildings such as hospitals, schools, military structures and infrastructures such as bridges connecting most important sites along the country, have not experienced any sort of major work in order to improve and update their structural performance.

Till 20 years ago and in many cases still today, engineers and architects, when intervening on existing structures, were forced to interrupt the use of a structure because available technologies were very invasive and most important among all, were resulting in long construction times connected to the diffused use of reinforced concrete, heavy steel plate bonding and section enlargement, the only technologies available to improve the structural performance of any type of

tyres, they have been first proposed for civil engineering applications in 2002 to strengthen RC beams in bending. Like FRPs, steel textiles can be externally bonded to the substrate via wet lay-up, by using either epoxy resin, obtaining a composite known as Steel Reinforced Polymer (SRP). Alternatively, they can be impregnated with an inorganic matrix to yield SRG (Steel Reinforced Grout) offering several advantages such as higher vapour permeability and resistance to high temperatures as well as, when bonded to masonry structures with hydraulic lime based mortars, a much higher compatibility without compromising bond with the

witnessed by the adoption of specific design guidelines in Europe, USA and The growing interest towards the development of new effective and cost efficient solutions has recently led to the introduction of innovative techniques that make use of other materials in lieu of carbon or glass. Among them, the composites with steel textiles have emerged as one of the

Composite materials, made of very

strong fibres immersed in an epoxy matrix,

known as Fibre Reinforced Polymer (FRP),

entered the construction industry in the

late 80's, and showed rapidly their great

performance thanks to their excellent

strength to weight ratio and relatively

easy and rapid installation times com-

pared to the older well-established tech-

Over the years FRP has met an increas-

ing consensus at both the academic and

industrial levels. In civil engineering, the

application of these composites, main-

ly employing carbon or glass fibres, has

emerged as a competitive alternative to

traditional techniques, and its success is

most promising ones. These systems consist of Ultra-High Tensile Strength Steel (UHTSS) galvanised micro wires twisted in cords or ropes, assembled parallel to each other to form unidirectional fabrics. Originally developed for the reinforcement of automobile substrate and overall performance.

If epoxy based composites, even if adopting a new family of high strength fibres, are generally very similar in terms of performance and behaviour, the true innovation of this new family of composite materials is the great performance of these fibres when impregnated and bonded with inorganic matrices based on either cement or hydraulic lime based binders without any use of organic compounds. The even greater result is that such matrices can be also used for general purpose applications on reinforced concrete or masonry elements respectively, so making this new technology even more appealing thanks to the great reduction in material costs as well as ease of application, thus avoiding the need of specialty contractors to do the job.

Several research studies have been carried out on SRP and SRG systems in the last fifteen years. Fundamental mechanical properties (tensile behaviour), durability and shear bond performance on both concrete and masonry substrates have been investigated through tests on small-scale specimens. Medium/large-scale tests have been performed on structural members to study the effectiveness of SRP and SRG for strengthening RC beams and masonry panels in bending and shear, confining of RC columns, beam column joints and brickwork pillars, and retrofitting masonry

In the past 10 years this new family of composite materials has shown to be effective, durable and most cost efficient with respect to the most known FRPs, making it the best available solution not only to strengthen and repair existing structures but also to improve their seismic performance and making structures able to better withstand any sort of dynamic loads, rather simplifying the job site and transforming a technology so far available only for experienced and special workers, to be used also by traditional contractors.

Email: paolo.casadei@kerakoll.com Product Manager Strengthening Division Kerakoll Spa Via dell'artigianato 9, 41049 Sassuolo (MO),

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### WHY ARE DATASHEETS SO IMPORTANT ANYWAY; WHAT OTHER INFORMATION CAN I EXPECT TO FIND IN THEM?

Generic, long dry documents which manufacturers publish may seem to be large amounts of information not worth reading, especially so to people who have experience and know how things are done. But these all too common attitudes, justifications and assumptions so often lead to product failures; months or years down the track; and sometimes even after a very short time following project completion.

### IS IT REALLY WORTH READING THE **ENTIRE THING?**

It is always advisable to read the entire data sheet. Special attention should be given to information related to:

- Preparation
- Application
- Theoretical Yields.

We often buy a product and are eager to get the job done and miss on good preparation. This is the most important phase since it serves as the foundation of any applied system. More often than not, the preparation should take as long as, if not longer than, the application.

Nama & Curnama



Other important information that one should look for is about the application of the product. Is it possible to dilute? If so, what should it be diluted with? Some chemicals and even water can damage the properties of certain products. Never assume that thinners are across-the-board diluters. Which tools should one apply the system with? A little extra time reading could save you a lot of time during application by answering these questions.

Information that is very often missed is that on the 'Yield'. How many kilos or litres per metre squared is required to achieve the best results? The yield is a very important factor in achieving a system that reflects its specifications and works to optimum expec- sales@flockimage.com

tation. Some suppliers may at times take advantage of customers' lack of product yield knowledge in order to present to them a cost advantage over the competition. The customer would simply compare price per volume of competitive products and thus fail to understand that - should the product be applied as per yield specification, the cheaper product is similar in price if not

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# Thermal Insulation: why the fuss? What is the return on investment?



### BY HECTOR CAMILLERI DIRECTOR & GENERAL MANAGER

In the not so distant past, spending money on thermal insulation for a building was met with an attitude of "Why bother?" Well, thankfully this attitude has changed drastically over the past few years, and it comes as no surprise considering the saving one can achieve in energy costs to maintain a building at a comfortable temperature, especially in the summer months here in Malta.

### A WORD ON INSULATION MATERIALS

Several insulation materials are available, such as rock-wool, cork and wood. However, Expanded Polystyrene (EPS) and or Extruded Polystyrene (XPS) are by far the most cost effective and efficient insulation. This is no surprise since they are made up of a closed cell structure consisting of approximately 96% air. This particular structure gives a very low conductivity value (K Value) typically around 0.035 W/ mK depending on the density chosen. To give an idea, one can compare this figure to that of wood (0.140 W/mK), torba (crushed rock - 0.800 W/mK), limestone (1.10 W/mK), reinforced concrete (2.30 W/ mK); and on the other end of the scale to properties (200.00 W/mK).

We are referring to materials which resist the transfer of heat, however the measure of thermal insulation is not expressed by the thermal resistance (R value). The measure is how much energy the material conducts (C conductance W/m2K), often referred to as the U value. The U value is actually the conductance of a structure made up of different materials. This reasoning is correct, because it is the energy that passes through the building structure that directly affects us, and against which we need to calculate the requirements for our heating and cooling equipment to retain a comfortable temperature level.

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### WHERE AND HOW SHOULD INSULATION BE USED?

One should distinguish between planning a new building and retrofitting.

Walls: In new buildings one has a unique choice to place the insulation between the stone or brick leaf. Alternatively, one may opt to insulate on the external side of the building using a system often referred to as 'Cappotto'. This system involves the fixing of the EPS sheets to the wall, and coating the EPS with a resin plaster reinforced with a PVC net. One could also place the insulation on the internal side of the wall by using an insulated gypsum board, which is a gypsum/EPS panel.

**Under-floor:** this is normally only available for new buildings, with the added benefits of reducing humidity.

value (K Value) typically around 0.035 W/ mK depending on the density chosen. To give an idea, one can compare this figure to that of wood (0.140 W/mK), torba (crushed rock - 0.800 W/mK), limestone (1.10 W/mK), reinforced concrete (2.30 W/mK); and on the other end of the scale to copper, which is known for its conductive properties (200.00 W/mK).

We are referring to materials which resist the transfer of heat, however the measure of thermal insulation is not expressed by the thermal resistance (R value). The mea-

#### CONCLUSION

As one can clearly see from the above workings, insulation is imperative if one wishes to live at a pleasant temperature without having to pay an abhorrently high price for it. One can safely conclude that thermally insulating a building is definitely one of the best investment decisions one must take during the construction and upgrading phases of any property.

#### Conductance = K value divided by the thickness (m)

Material	C Value required	Thickness of insulation
EPS 15Kg/cu.m.	0.493 W/m2K	0.037/0.075 = 7.5cm
EPS 20Kg/cu.m.	0. 493 W/m2K	0.035/0.071 = 7.1cm
XPS 36Kg/cu.m.	0. 493 W/m2K	0.035/0.071 = 7.1cm
EPS 30Kg/cu.m.	0. 493 W/m2K	0.033/0.067 = 6.7cm
Silver EPS 15Kg/cu.m.	0. 493 W/m2K	0.032/0.065 = 6.5cm

#### **COMPARING SOME INSULATION MATERIALS**

We are here directly comparing the U values and the practical Q values using five materials, namely, EPS with three different densities 15, 20 and 30Kg/cu.m., silver EPS 15Kg/cu.m. (which is a development in EPS) and XPS 36Kg/cu.m., to determine the equivalent thicknesses required whilst retaining the same level of insulation.

Taking an example for a roof, to obtain the desired U value through the roof structure it is calculated that a material with a conductance of 0.493 W/m2K is needed.

Let us now use the above information to find the energy that can be saved by calculating the heat flow (Q value) through a typical roof in the three summer months and compare it to the same roof with the insulation mentioned above, assuming an internal temperature 25 deg C.

Heat flow through standard Roof build-up:

15 cm reinforced concrete + average 75 mm torba + 75 mm concrete screed: 115.43 W/sq.m.

Assuming roof area 100 sq.m., heat flow through all the roof is 11.543Kw

Heat flow through INSULATED roof using any of the above insulation (0.493 W/ m2K); 15cm reinforced concrete + average 50mm torba + insulation + 75mm concrete screed: 15.22W/sq.m.

Assuming same roof area 100sq.m., heat flow through INSULATED roof is 1.522Kw:

Assuming a modest six hours of peak sunshine per day for the three summer months, the difference in heat flow between the insulated roof and the standard roof throughout the summer shall be:

5,411 Kwh saved throughout the three summer months.

The above mentioned insulation in a new roof will cost around €800.

Compared to the energy saved, the investment is returned within the first summer!

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### **ALGORITMO** design CARLOTTA DE BEVILACOUA PAOLA DI ARIANELLO THE LIGHT IN SPACE AS MODULAR SYSTEM Algoritmo marks a new dimension in lighting. With Algoritmo, the light becomes integral part of the architecture. The minimalist design and the wide range of technical options (LED, LED RGB and Fluorescent) available create almost unlimited design alternatives. The Algoritmo family is suitable in a variety of different contexts, including home, office, hospitality, retail, and museums: it has different installation's option: surface recessed, surface mounted, and suspended

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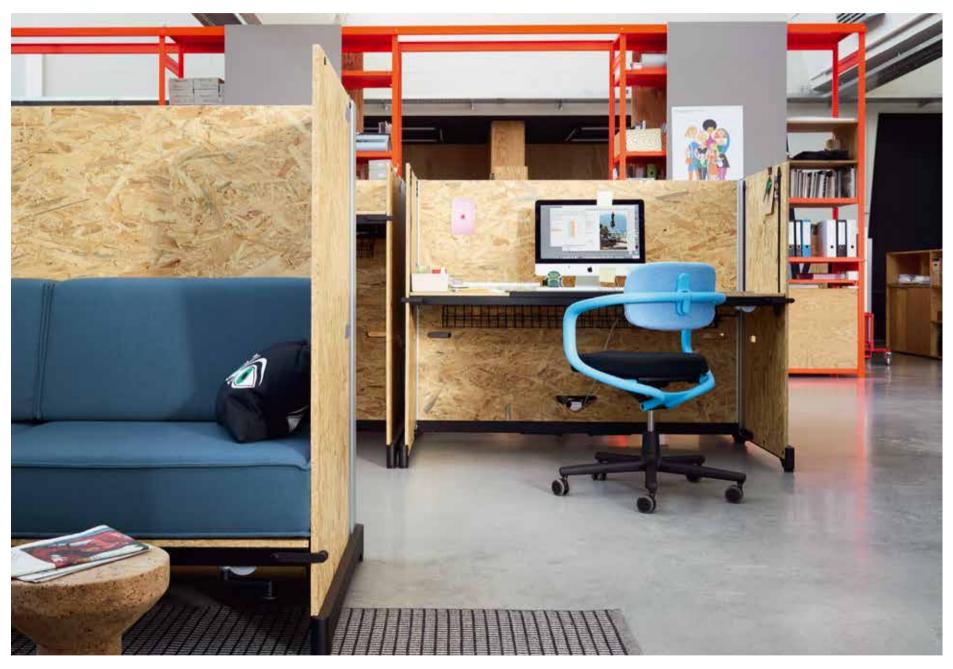


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