

the Architect

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THE OFFICIAL JOURNAL OF THE KAMRA TAL-PERITI





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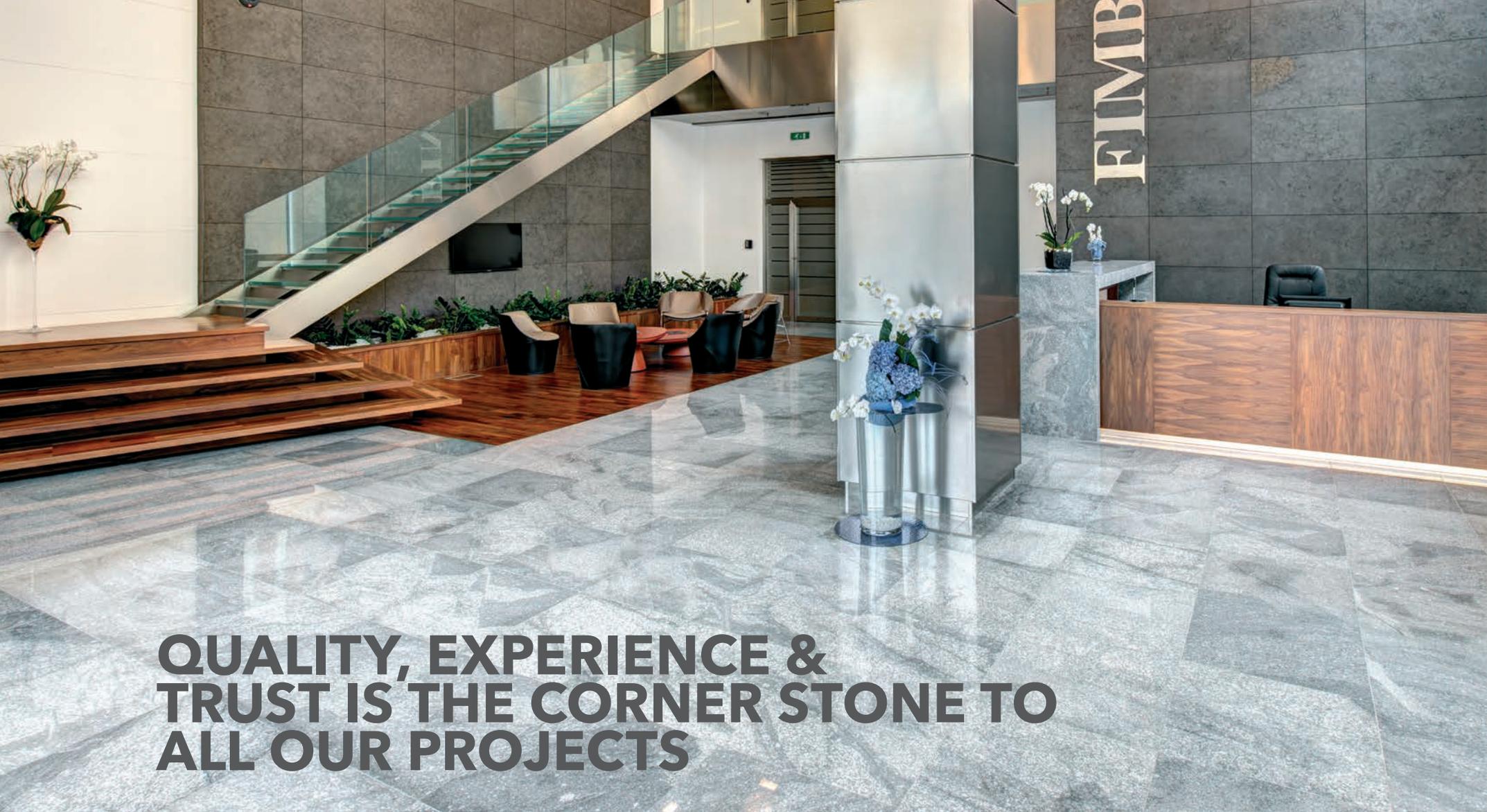
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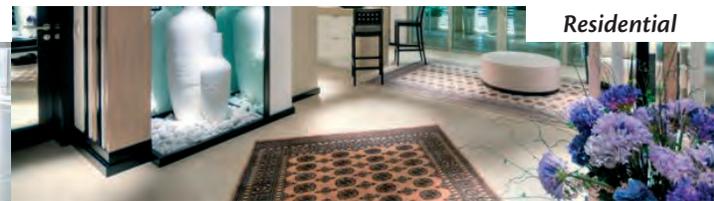
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the Architect

"A number of our graduates have found important job positions in international consultancy offices. Some also achieved prominent academic positions in UK Universities."

Prof Alex Torpiano (see pages 16-17)

In this issue ...

The State of the Profession

The profession of the *perit* (architect and civil engineer) in Malta has to respond to a continually changing set of economic and social factors which in large measure determine the volume and nature of the tasks we as *periti* are engaged to resolve. We know all too well that whenever there is a downturn in the local economy and in times of deep recession, construction activity dips. Building booms now seem to be a thing of the past and we have all come to the realisation that these booms are, in the long run, environmentally unsustainable given the severe physical limitations of our island.

Administering and operating a medium to a large scale office in the current economic scenario, and keeping it financially afloat, is no mean feat, particularly at a time when large scale infrastructural or civil projects are scarce. It is estimated that there are no more than ten medium to large architectural and civil engineering firms operating locally. Within the local context, medium to large scale firms would include those having ten to fifteen employees, or more. Sufficient work may not always be available locally to sustain such firms. The challenge for these practices is to look beyond our national frontiers and to actively seek work opportunities overseas. However, this is not an easy task considering that the nearby North African region, particularly Libya, is still politically unstable and the nearby Mediterranean countries such as Spain, Italy and Greece are only now emerging from one of the deepest economic recessions marked with very high unemployment rates particularly amongst youths, and one can assume that this would also include quite a number of architects too.

Locally, about forty to fifty graduates enter the market on an annual basis, and it is widely recognised that for these new graduates finding employment with no or limited work experience is becoming ever more difficult. There are certainly safer and more financially remunerative careers in financial services, accountancy and IT, where employability is virtually guaranteed immediately upon graduation. An added factor is that the recent abrogation of the Tariff K and the total deregulation of the *periti* scale of professional fees have led to a free-for-all with at times severe undercutting of fees to ridiculous levels. However, the bottom line is that

in order to provide a proper professional service to the highest standards and also considering the onerous liability of our work, one has to charge professional fees commensurate with the undertaking and responsibilities that such a project entails. Regarding this aspect, we as *periti* have many a time not demonstrated sufficient unity and adequate collegiality between ourselves. The objective of seeking short-term personal gain many a time has led to permanent long term losses in terms of the standing of our profession within society at large.

We live in a fast-changing world and it is impossible to predict the future, however as *periti* we have to be fast to respond to the changing needs of our society and to safeguard professional standards. We have no alternative, if we are to continue to provide service of quality to society and if we are to continue to ensure the creation of a built environment which reflects high quality standards.

Among a number of interesting articles, this issue of "the Architect" includes some relevant facts which emerge from a recent survey carried out by the Architects' Council of Europe regarding the state of the profession in Europe. Many of the concerns expressed above are also echoed in this survey, titled "The Architectural Profession in Europe 2012". This publication also includes an extensive overview by Prof Alex Torpiano regarding recent changes in the Faculty for the Built Environment, many of which are intended to address the changing scenarios within which *periti* operate. The changes at the Faculty will, in not too distant future, translate into changes in the way the profession is practiced, and also in the way it is perceived. It is therefore important that this period of transition happens as smoothly as possible in order to safeguard the future of the profession.

Other interesting features in this issue of "the Architect" include an overview of the latest edition of the *Din l-Art Helwa* Awards, an article on energy efficiency in traditional and heritage buildings, as well as a study of the similarities between the Addolorata Cemetery and the City of London Cemetery. I hope you enjoy your read!

Perit Dr Conrad Thake
Acting Editor



THE PROFESSIONAL CENTRE
SLIEMA ROAD
GZIRA GZR 06 - MALTA
TEL./FAX. (+356) 2131 4265
EMAIL: info@ktpmalta.com
WEBSITE: www.ktpmalta.com

KAMRA 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 2014 consists of Perit Stephen Farrugia, President; Perit Christopher Mintoff, Vice President; Perit Amber Wismayer, Honorary Secretary; Periti Sarah Anastasi, Ian Camilleri Cassar, Sandro Cini, Etienne Fenech, Anthony Fenech Vella, and Malcolm Gingell. The Architect is the official journal of the Kamra Tal-Periti. It is published on a quarterly basis and distributed with the MaltaToday newspaper. The Architect is not to be sold separately. The contents of this journal are copyright. Reproduction in part or in full is forbidden without the permission of the editor.

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Acting Editor: **Conrad Thake**
Design: **Kevin Grech - MediaToday**
Sales: **Adriana Farrugia** Tel: **21 382 741** ext. **126**
Chris Sacco Tel: **21 382 741** ext. **123**
Printed at: **Print It Printing Services**
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Vjal ir-Rihan, San Gwann SGN 4016, Malta
Tel: +356 21 382 741, Fax: +356 21 381 992
Email: admin@mediatoday.com.mt



COVER:

Ggantija Heritage Park in Gozo – Winner of the Din l-Art Helwa Awards Prix d'Honneur and Silver Medal 2013
(read more on pages 12-14)

Periti Act

The *Kamra tal-Periti* is participating in frequent and ongoing discussions regarding proposed amendments to the Periti Act (Chapter 390 of the Laws of Malta), Subsidiary Legislation and Tariff K. These sessions target the introduction of appropriate and necessary changes to the legislation designed to address the needs of a developing profession. Aspects which demand reconsideration had already been identified in "Towards a Renewed Profession", a position paper which was approved during a previous AGM. The Council is further developing these principles in order to cater to the changing nature of the profession. It is currently in the process of formulating a draft proposal which will shortly be submitted to *periti* for feedback. The intention of this position paper is not to delineate or restrain the limits of discussion, but rather to stimulate a debate amongst *periti* which will culminate in the official submission of revised proposals for changes to the Act. The *Kamra* encourages its members to take this opportunity to express their concerns, comments and recommendations, and to engage in the process towards this renewal.

Tariffs

The *Kamra tal-Periti* seeks to achieve synergy between the free market economy championed by the European Union and the rates associated with a quality of service deemed satisfactory by both client and *perit*. To this end, the Council is in the process of restructuring Tariff K. A working group, spearheaded by Perit Ian Camilleri Cassar, is in the process of formulating a guidance document for billing calculations of professional fees. This reference document shall seek to adjust tariffs such that these reflect the volume and nature of works carried out, and will be designed for the use of the *perit* as well as the client. Once the draft is finalised and approved by Council, it shall be circulated to members for comments and feedback. The *Kamra* invites those willing to participate in the tariffs working group to submit their interest.

MEPA Policies Working Group

One of the primary objectives of the *Kamra tal-Periti* is to ensure that all policy

and legislation presently undergoing review and revision results in the creation of an improved built environment and public realm. In October of last year, the *Kamra* released a call of interest for *periti* willing to consult with the Council on upcoming draft policies issued by the MEPA for public consultation. A healthy reaction was received and a working group, spearheaded by Perit Amber Wismayer and Perit Anthony Fenech Vella, was subsequently constituted by Council. Much ground has been covered to date, with a number of position papers drafted by members of the team, approved by the Council and submitted to the MEPA. Perit Hector Zammit formulated a reaction to the Firework Factory Complexes Policy and also represented the *Kamra* during the corresponding public meeting organised by the MEPA. Perit Simone Vella Lenicker addressed both the Cemeteries Policy and the Policy Framework for Tall Buildings in Malta, compiling a position paper for the *Kamra* on both topics. Moreover, dialogue was established with the MEPA to clarify and discuss the recommendations put forward with regards to the latter submission. Once finalised, all documents will be circulated to *periti* such that the profession is aware of the position taken by the *Kamra*. Moreover, the interest of *periti* in participating in this working group to collectively address upcoming policy reviews, such as the DC2014, is welcomed.

KTP Website

The *Kamra* is pleased to announce that it is currently in the process of revamping its website. Perit Chris Mintoff and Perit Etienne Fenech compiled a working brief, which reflected an initial design concept and outlined a full list of requirements. This document was subsequently published, along with a request for proposals. The new website will offer a more interactive experience for users and will feature, amongst numerous dynamic improvements, the availability of a file depository



www.ktpmalta.com

as well as a comprehensive events calendar. Moreover, it will be accessible from all devices, including mobiles, tablets and computers. Tenderers were encouraged to submit their own ideas with regards to the *Kamra's* online presence. A significant number of local companies, specifically 24, put forward their interest in undertaking the project and are presently being reviewed and considered. The *Kamra* hopes to launch the newly designed website later this year.

Board of Professional Conduct

Over the last months, the new Board

of Professional Conduct has attributed priority to the drawing-up of a formalised framework for the disciplinary procedure adopted by the BPC. Having been engaged by the *Kamra*, Dr. Ian Stafrace submitted his professional recommendations to the Board for assessment and consideration. Once exhaustively discussed, a final and holistic proposal shall be tabled at council in the near future for subsequent endorsement.

Design Review Panels

The *Kamra tal-Periti* is pleased to relay that, during recent dialogue with Government, support was shown for the introduction of the Design Review Panels as a means of promoting quality in the design of the built environment. An invitation was subsequently extended to the Council, and the Design Review Panels Committee, to give a presentation to the Building Industry Consultative Council (BICC), where the proposal was very well received. It is the firm belief of the *Kamra* that, once constituted, the design review panels will offer an instrument for the betterment of urban and architectural undertakings.



RIBA GOLD MEDAL 2014

© Pawel Mazur/ ICCKrakow

The winner of the RIBA Royal Gold Medal 2014 is the celebrated architect, critic, historian and writer Joseph Rykwert. He will be presented with the medal by RIBA President Stephen Hodder at the RIBA in London on the 25 February.

Given in recognition of a lifetime's work, the Royal Gold Medal is approved personally by Her Majesty Queen Elizabeth II 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.

Joseph Rykwert has written numerous influential works of architectural criticism and history, published over a sixty-year period and translated into several languages. The most significant of these are *On Adam's House in Paradise* (1972), *The First Moderns* (1980),

The Necessity of Artifice (1982), *The Dancing Column: On Order in Architecture* (1996), and *The Seduction of Place* (2002); all have changed the way modern architects and planners think about cities and buildings, and how historians view the architectural roots of the modern era.

STEPHEN LAWRENCE PRIZE 2013

The RIBA has announced Montpellier Community Nursery by AY Architects as the 2013 Stephen Lawrence Prize winner. The school takes the form of a pavilion opening onto a part-sheltered play area with a park beyond. The selection of materials is a key part of the scheme's success. The black stained Siberian larch sits inconspicuously in the tree-escape and contrasts with the white-washed internal woodwork allowing the playful objects to come to life. All the details were well controlled, from exposed conduits to the selection of nursery furniture and material finishes. Simple decisions made for an all-encompassing education experience: thoughtful pram stores and recessed entrances took some of the madness out of drop-off and pick-up times; the door on to the park allowed quiet surveillance; and there was a seamless link to the outer play area and garden.

The judges for this year's prize were Marco Goldschmied, Baroness Doreen Lawrence, Mary Duggan and Phil Coffey. The RIBA Stephen Lawrence Prize is funded by the Marco Goldschmied Foundation, and was set up in memory of the teenager who was set-

ting out on the road to becoming an architect when he was murdered in 1993. The prize, which rewards the best examples of projects that have a construction budget of less than £1 million, is intended to encourage fresh talent working with smaller budgets.

10TH PHILIPPE ROTTHIER EUROPEAN PRIZE FOR ARCHITECTURE

Established in 1982 by the architect Philippe Rotthier, this triennial prize rewards works of collective and cultural value with regional roots and using natural and sustainable materials that draw on the genius of the European town and a dialogue with the past and with history. The prize-winning works are selected by juries composed of leading European figures and have included the writers Adrien Goetz and Françoise Lalande, the journalists Sergio Frau and Katia Pecnik, the designer Matali Crasset, the historians Bruno Foucart, Charles Jencks and David Watkin, the artist Bernard Métais, and the architects Anna Heringer, Christian Biecher, Ben Bolgar, André Jacquemain, Léon Krier, Michael Lycoudis, Dimitri Porphyrios, Paolo Portoghesi, Rudy Ricciotti and Oscar Tusquets.

After "Urban renewal and the new neighbourhoods" in 2008 and "The renovation of existing sites and buildings" in 2011, the theme chosen for the tenth session is the relationship of architecture to natural and urban landscapes. From the sublime to the mimetic, all works that fall within the major art of landscape, whether in terms of integration or reappropriation, may be submitted to the international jury for consideration: seaside, climatic or agro-foodstuffs constructions, engineering works, wine cellars, covered markets, water towers, windmills, cultural buildings, ruins and factories, and more.

Entries close on 30 April 2014. For further information visit www.rotthierprize.be.

JEAN-MARIE FAUCONNIER

November 2013 saw the passing away of Jean-Marie Fauconnier, who was President of the Architect's Council of Europe (ACE) in 1995. He was also Honorary President of the National Council of the Belgian Order and Former President of the Walloon Union of Architects. On behalf of the Council of the *Kamra tal-Periti*, the Editorial Team extends its condolence to Fauconnier's family and to the ACE.



Montpellier Community Nursery. Architect: AY Architects Client: Camden Community Nurseries
Photographer: Nick Kane





.archi

The International Union of Architects (UIA) recently announced the creation of .archi, an internet extension for architects and for their organisations. The UIA has supported the internet extension project, .archi, which will be available in the spring of 2014. While committing itself to the project, the UIA has decided to limit the usage of this extension to architects and to its member sections. They could henceforth be represented on the Internet as members of an identifiable community of professionals.

In keeping with its core values, the UIA supports the project in order to protect its members, to defend the interests of architects and to promote the architectural field. The .archi ensures increased clarity and transparency for architects, greater visibility for professional organizations and for their members and a guarantee for clients. Each architect, organisation or firm wishing to make itself visible on the internet can add the extension ".archi" to its name, as, for example, john-smith.archi.



Jean-Marie Fauconnier, former President of ACE

The introduction of .archi is part of a program put forward by ICANN, (which manages global internet domain name system) allowing the appearance of thousands new extensions.

For further information visit www.uia-architectes.org.

INTRODUCING THE EUROCODES TO MALTA

The Structural Eurocodes are a set of harmonised European standards for the structural design of buildings and civil engineering structures, which have been adopted across the European Union in order to:

- provide common design criteria and methods of meeting necessary requirements for mechanical resistance, stability and resistance to fire, including aspects of durability and economy;
- provide a common understanding regarding the design of structures between owners, operators and users, designers, contractors and manufacturers of construction products;
- facilitate the marketing and use of structural components and kits in EU Member States;
- facilitate the marketing and use of materials and constituent products, the properties of which enter into design calculations;
- be a common basis for research and development in the construction industry;
- allow the preparation of common design aids and software;
- increase the competitiveness of the European civil engineering firms, contractors, designers and product manufacturers in their global activities.



EUROCODES
BUILDING THE FUTURE



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

ENERGY PRICES AND COSTS IN EUROPE COM (2014) 21- COMMISSION COMMUNICATION

Energy price rises are a major political concern. They create additional cost burdens on hard-pressed households and industry and affect Europe's global competitiveness. The European Commission, in response to a European Council request, has prepared an in-depth analysis of energy prices and costs in Europe, to help policy makers understand the background context, the impact of recent price rises on consumers and the political implications.

The report provides extensive and detailed data drawn from a wide range of sources. It assesses trends in energy prices and energy costs and explores their possible causes, as well as drawing conclusions to help inform decisions on the policy measures needed to address this issue. The focus of the report is electricity and gas prices.

In the EU on average, household electricity prices have risen 4% a year for the last five years (2008-2012). In most Member States, this is an increase above inflation. In the global markets for oil and coal, energy consumers across the globe pay broadly the same price. So, price differentials, which can raise costs to consumers and generate competitive advantages or disadvantages, are less of a concern. That is why these two fuels and the transport sector are not covered extensively in the report.

Europe must confront the energy cost challenges of the energy transformation through the tripartite efforts of the EU, Member States and European households and industry. With flexible energy systems, responsive consumers, competitive markets and cost effective government instruments, Europe will be better equipped to contain price rises, pay for investments and minimise cost increases. It can thus set a practical example of how a competitive economy can be built on a sustainable and affordable energy system.

Source: MEUSAC

There are currently ten Eurocodes, made up of 58 parts, that will be adopted in all EU Member states, (originally, by March 2010), as the basis of all European public-sector procurement processes. The Structural Eurocodes are seen as leading the way in structural codes worldwide. Their flexibility enables adoption and use not only within Europe, but internationally. This feature has been recognised by several countries outside Europe and they are already committed to adopting Eurocodes. The Eurocodes are also, finally, coming to

Malta. The Eurocodes are intended to become the national structural design standards for Malta.

The set of National Annexes for Malta, which are meant to accompany the use of the Eurocodes, has been more or less completed, and is being prepared for circulation for comment. The process was launched on the 31st January 2014, during a national seminar.

Although the use of the Eurocodes will not be mandatory, those professionals who base their structural design work on British Standards, (or other European standards), will soon find that these will be withdrawn by the respective country, and that therefore they will, at some stage, need to engage with the Eurocodes. In order to assist professionals with the transition into the Eurocodes, in conjunction with BICC, the Faculty for the Built Environment will be organising a series of CPD courses, aimed at warranted professionals, who wish to make this transition, from the structural design codes they currently use, (which, it is presumed, are based on British Standards), to the Eurocode suite of structural design standards. The first study-unit, CVE5691, will introduce the basis of design and the assessment of actions, in accordance with EN 1990 and EN 1991. The subsequent study-units will offer an overview of the relative Eurocode. The delivery of the study-units will assume that participants are familiar with the tenets of structural behaviour and of structural design in the relative structural material. The study-units will focus on the basic differences between previous codes and the Eurocodes. Successful participation in the study-units will be certified by the University of Malta, and each course will carry 5 ECTS credits. The following study-units are envisaged:

CVE5691 - Introduction to the Eurocodes

CVE5692 - Design of Structural Concrete to EN 1992

CVE5693 - Design of Structural Steelwork to EN 1993

CVE5696 - Design of Structural Masonry to EN 1996

It is envisaged that CVE5691 will commence in February 2014, whilst the other study-units will start in July 2014. The study-units will be repeated in the following academic year, depending on demand. The study-units will consist of fifteen two-hour lecture and tutorial sessions. Lectures will take place once/twice a week, after 17.30. Additional information, including application forms, can be

obtained from the Faculty web-site, <http://www.um.edu.mt/ben>.

IAN MACLENNAN



Flight Lieutenant Ian MacLennan

One of the last surviving Malta fighter aces of the Second World War, Flight Lieutenant Ian MacLennan, died aged 94 on 6 November 2013. MacLennan was a sergeant pilot who flew Spitfires with No 401 (RCAF) Squadron in Britain when he crashed an aircraft. At the subsequent reprimand, his flight commander, rather pointedly, commented that "they are looking for volunteers for Malta". A few weeks later MacLennan was in Malta.

Before arriving in Malta, MacLennan had not fired his guns in anger – but he had figured out the grim business of shooting down the enemy: "I'd shot at ducks when I was a boy – I knew about deflection." By the time he left Malta six months later he had become an "ace", having destroyed seven enemy aircraft and damaging at least another eight.

After returning from Malta and a period of rest in Canada, MacLennan joined No 443 (RCAF) Squadron as a flight commander. On 7 June 1944, whilst covering the D-Day landings, he was on his third sortie of the day strafing enemy positions when his Spitfire was hit by ground fire and he was forced to crash land on the beach behind enemy lines. MacLennan was sent to Stalag Luft III. In January 1945 the camp was evacuated as the Soviet army approached. He was in the camp hospital at the time and was put on a train, which headed southwards. Nearing the Austrian border, he and a colleague escaped and hid in farms until they were able to reach the American lines.

By now, most of you are wondering what relevance this story has to an architectural journal. Well, after the war, MacLennan spent the rest of his life as an architect, designing buildings in the United States, Venezuela and Canada. In 1945, he enrolled in Architecture

at the University of Toronto. Mentored there by the distinguished Dean of Architecture, Eric Arthur, he shared with Eric a belief in the importance of low cost housing in Canada. Ian first worked with an international architectural firm, first in New York, and then Caracas, before returning to Canada to become Chief Architect at the fledgling Central and Mortgage Housing Corporation. In his book *Beyond Habitat by 20 Years*, Moshe Safdie, designer of the award winning Habitat complex, built as part of the Expo 67 exhibition, says of Ian, "Ian MacLennan is one of those men who make Canada tick. Without him there would never have been a Habitat. He charges into meetings with the fervour of a college debating champion... he is aggressive, frank, and unlike many civil servants, very outspoken."

In 1961, Ian was made a Fellow of the Royal Architectural Institute of Canada, one the youngest architects ever to be nominated. Carl Cannon, then Chair of the Canadian Housing Design Council, described him as "a distinguished architect who has done much to improve the quality of housing design in Canada." Subsequent to retiring as Senior Vice President at CMHC in 1977, Ian and his wife Nina, moved to White Rock, BC where he was appointed by the Canadian Government as a Trustee on the development of Granville Island, then a derelict industrial area in False Creek, Vancouver. Ian was a strong voice in the Trust to keep some industrial use for the island that has since become a world-renowned site. In addition to this work, he served as juror on the Massey Medal Awards for Architecture,

and sat as a Board member on other housing projects for special needs adults.

Source: Times of Malta; Ottawa Citizen

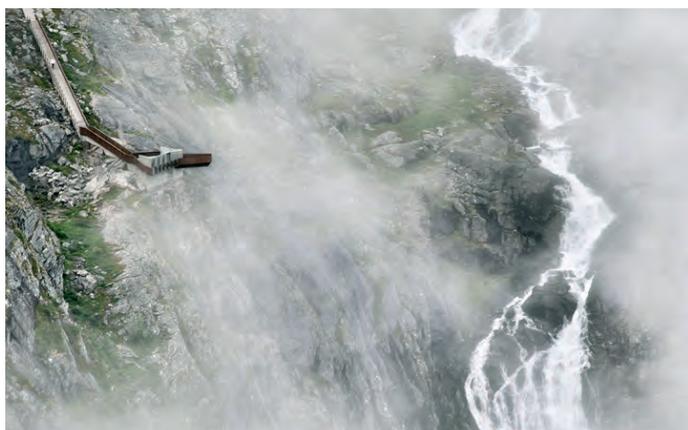
FRIENDLY SPACES ACCESSIBLE TO ALL

The UIA (International Union of Architects) recently announced the launch of its international award "Friendly Spaces Accessible to All". This award celebrates excellence in architecture that is accessible to all and respects the principles of universal design. The award will be presented to completed projects that have created attractive, inclusive and sustainable environments where the recognition of human diversity through friendly architectural expression has been central to the design process. A special award will be given to an architect(s) for evidence based design research that makes a significant contribution to improved quality of life through facilitating a better understanding of user-centered design and its application to the design of the built environment.

Built works by architect members of UIA bodies that demonstrably meet the above criteria and which have been completed since the 1st January 2009 are eligible to participate. Works may include new buildings and spaces as well as rehabilitation or adaptive reuse of existing or historic buildings and places. Research undertaken by an architect or architects which advances the theory and practice of universal design is also eligible for participation. Topics may include, but are not limited to, user participation in design, design for ageing, anthropometric studies leading to built environment standards, post occupancy evaluation based



Extension of Music Academy in Katowice, Poland - 2008 laureate of the UIA accessibility award



Architecture Photography Awards Winner: Trollstigen by Reiulf Ramstad Arkitekter - photographed by Ken Schluchtmann

on human interaction, sensorial perception of the built environment, and also the development of universal design education for architects. The research should have been completed since 1st January 2012.

Submissions close on the 31 March 2014, and further details are available from www.uia-architectes.org.

ARCHITECTURE PHOTOGRAPHY AWARDS

Views of Peter Zumthor's Bruder Klaus Field Chapel and a rippled timber reindeer observation pavilion by Snøhetta are among the 16 shortlisted photographs for the 2013 Arcaid Images Architectural Photography Awards, a selection of which go on show in London between 28 February and 25 April 2014. Organised by architectural stock photography website Arcaid Images, the awards were divided into four categories - exterior, interior, sense of place and buildings in use - and the winning images were selected by a panel of

judges including architects Zaha Hadid, Eva Jiřičná, and Graham Stirk and Ivan Harbour of Rogers Stirk Harbour + Partners.

The overall winner was a shot of the viewing platform perched high above a fjord at the Trollstigen Tourist Route in Norway by Berlin photographer Ken Schluchtmann, who has a total of four images shortlisted. Italian photographer Duccio Malagamba was named runner-up for his image depicting the contorted steel form of Coop Himmelb(l)au's Dalian International Conference Center in China, and was also shortlisted with an internal view of the same building and a shot of Herzog & de Meuron's Olympic Stadium in Beijing. A view of the Shangri-La tent at Glastonbury Festival by UK-based Jim Stephenson made the list, as did a view by Belgian photographer Tim Van de Velde of a market hall in Ghent with a zigzagging roof.

FOOTBALL FOR INSPIRE

A football tournament was held on the 26



Architecture Photography Awards Runner-up: Dalian International Conference Center by Coop Himmelb(l)au - photographed by Duccio Malagamba

October 2013 in order to raise funds for Inspire. Kick off was at 9am at St Martin's School in Swatar. Twelve teams of *periti*, lawyers, and financial consultants took part, namely Periti Architects Studio, Avukati La Vallette, Periti IAS, Deloitte, Periti AP, Price Waterhouse Coopers, Fenech Farrugia Fiott, Camilleri Preziosi, Periti Kurt & Co., two teams from Ernst & Young and one Inspire team. The Deloitte team won the tournament, with Periti Kurt & Co. and Camilleri Preziosi in runners up position. Perit Patrick Calleja co-ordinated the *periti* teams. Well done to all, and particularly for helping to collect €2,686 for Inspire.

AESTHETICALLY SPEAKING

In its regular column "Fifty years ago", the Sunday Times of Malta reproduced the following news item from its edition of 16 February, 1964:

Aesthetically speaking: The Malta Chamber of Architects and Civil Engineers has gained a distinguished honorary member no less than the world renowned Professor Luigi Nervi. The Chamber is endeavouring to bring home to the public and government the need for a reappraisal of architecture in these islands. The importation of foreign modern architecture, not always suitable to the Maltese environment, has contributed to the general conglomeration which binds little rhyme and less reason. There is need for more care to ensure that a house or other building fits with the environment. In most cases, the owner, who holds the purse strings, is motivated more by

space and economy than any aesthetic value.

ERRATA CORRIGE

Issue 63 of "the Architect" carried an article titled "Impressions", which consisted of an interview with Perit Godwin Cassar about his watercolour paintings. The last few words of the last question were erroneously not printed. Any inconvenience is regretted. The last question and answer should have read as follows:

What is next in the pipeline? Do you plan to continue to focus on your paintings?

Whilst working up to this exhibition, I felt a bit constrained in experimenting further with the medium since I wanted to achieve results which could be exhibited. Now I hope to build up again the momentum since while the exhibition is running I spent long hours at the Hilton meeting people and managing the exhibition, so I had to slow down in my painting activity. I have already been approached by another hotel to put up another exhibition next year but I have not decided about that yet. I leave the options open.

2014 AIA YOUNG ARCHITECTS AWARD

The American Institute of Architects (AIA) has selected 18 recipients for the 2014 AIA Young Architects Award. Defined as professionals who have been licensed ten years or fewer, regardless of their age, the "young architects" will be honored for making significant contributions to the profession and providing exceptional leadership early in their careers. All recipients will be presented the award at the AIA 2014 National Convention and Design Exposition in Chicago. The recipients are: Illya Azaroff; Thomas Bradley Benjamin; Joshua Flowers; Wyatt Frantom; Nathan Kalaher; Evelyn M. Lee; Timothy W. Maddox; Daniel Overbey; Mark Pasnik; Michael P. Pfeffer; Jason Dale Pierce; Mark A. Schwamel; Matt Slagle; Christian B. Sottile; Lorena Toffer; Brian Vitale; Karen E. Williams; and Jeffrey M. Yrazabal. Profiles of each of the recipients can be found at www.aia.org/practicing/awards/2014/young-architects



Periti Kurt & Co, runners up in the Inspire Football Tournament: Standing (left to right): Malcolm Gingell, Mark Montebello, Matthew Agius, Jurgen Gatt

Letters to the Editor

Letters from our readers to be considered for publication are most welcome. Letters for inclusion in Issue 65 are to reach us by the 15 April 2014. Please write to: The Editor, "the Architect", Kamra tal-Periti, The Professional Centre, Sliema Road, Gzira GZR 1633, or send an email to thearchitect@ktpmalta.com. All contributions will be acknowledged.



The Architectural Profession in Europe 2012

The Architects' Council of Europe (ACE) recently published the results of its third biennial survey of architecture in Europe. The data series is establishing itself, and year-on-year shows a consistent response profile from participants. This suggests that the data quality is good and can be viewed with increasing confidence. All large countries now participated in the survey including, for the first time, Spain. The survey now covers 95% of the profession in Europe, substantially up from the 53% in 2008 and 84% in 2010.

The survey report is split into four main sections. "the Architect" reviewed the first two parts of the report titled "Architects in Europe" and "Architecture – the Market" in previous issues. Here, we review the third section of the report, entitled "Architecture – the Practice."

The number of private architectural practices in Europe-25 is estimated to be 156,000. Grossing-up this figure to reflect all 33 European countries produces an estimate of 164,000 private architectural practices in Europe, 6% higher than the 2010 estimate of 155,000 practices. The practice profile shows a very significant skew towards small businesses. A clear majority, 63%, are one person practices. 18% have two members of staff, while 15% have between 3 and 5 staff. This means that just 4% of architectural practices across Europe have more than 5 architectural staff. Out of the 146 responses from Malta, 56 claim to be one person practices, 47 have two members of staff, 35 have between 3 and 5 staff, and 9 have more than 11 architectural staff.

Specific questions in the survey were

Participating Countries:

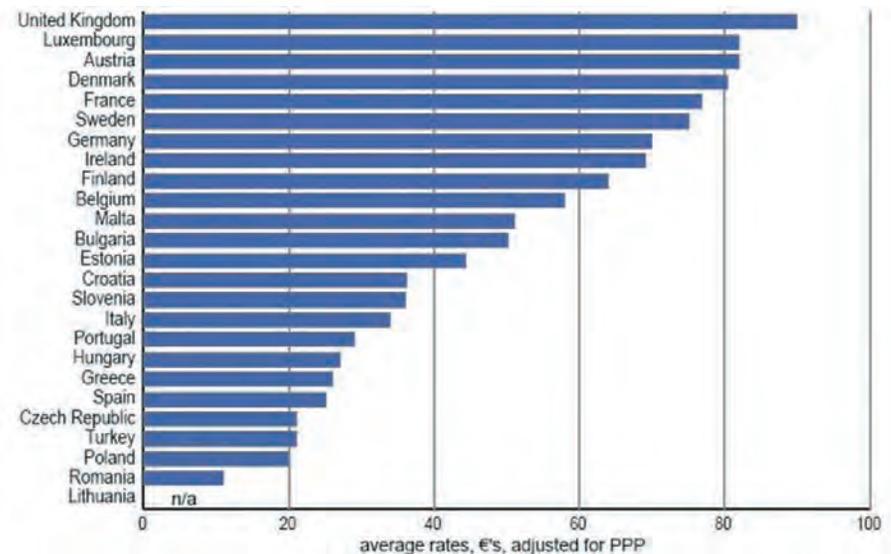
Austria, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, FYROM, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom.

addressed to Principals, which include Sole Principals, Freelancers, and Partners and Directors in Private Practice. Two thirds of all Principals consider their business formation to be an 'independent architect'. This may include Sole Principals and Freelancers. 21% of businesses are limited companies, another 2% are PLCs. Compared with 2008 and 2010, the proportion of independent architects has increased markedly, from 51% in 2010 to 67% in 2012. This is partly accounted for by the inclusion of different countries in the latest survey.

The average revenue of architectural practices in Europe rises in line with practice size. A practice with between 3 and 5 staff reports average revenue of four times that of a one person practice; while a practice with between 6 and 10 staff has an average revenue more than ten times that of a one person practice. Less data is available for the largest practice sizes due to small sample sizes in individual countries. Average practice revenues have fallen in each of the survey years for small and medium sized practices. For example, the average revenue recorded by a practice with between 3 and 5 architectural staff fell by 4% between 2008 and 2010 and by a further 14% between 2010 and 2012.

43% of current jobs are charged as a percentage of the contract value. But nearly as many, 36%, are charged as a lump sum. The gap between these two methods of charging has been narrowing since the first survey in 2008, when 56% of jobs were charged on a percentage basis. Charging as a percent of the contract value is still the method used for at least half of jobs in 11 of the 25 countries surveyed. 12% of jobs are charged by the hour but this rises to 60% in Sweden and 41% in Finland, well above levels recorded elsewhere.

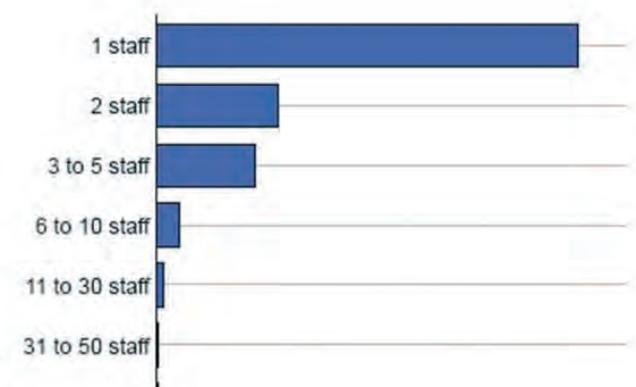
The variation in hourly rates between countries is wide. Data has been adjusted to take account of different price levels between the countries, using a Purchasing Power Parity (PPP) index. But even adjust-



ing the data reveals an eight-fold difference between the average rate for Principals in the country with the highest rate and that with the lowest. The Europe-25 average hourly charge-out rate for Principals, adjusted for PPP, is €54 per hour; for Architects it is €44 while Technologists average €29 per hour.

These figures are the averages charged to clients for an hour of their work, before tax. The PPP hourly charge-out rates are highest for Principals in the United Kingdom, Luxembourg, Austria and Denmark. Lowest hourly rates are recorded in Romania. The pattern is very similar for architects and for technical staff.

About 6% of practice revenues are generated by work undertaken outside the country in which the architectural practice is based. This proportion is estimated to be highest in the United Kingdom, Luxembourg, Belgium, Denmark, Portugal and Malta but is far less



significant in other countries (although it is to be noted that these figure are an approximation because a significant number of responses to this question were incomplete). The proportion of revenue earned from outside the practice's country is very similar to the figure recorded in 2008 although lower than the 8% recorded in 2010. A similar set of countries reported highest turnover from outside their country in 2012 as in previous surveys.

Further results from the survey will be reviewed in future issues of "the Architect".

SACES 2013/14

New scholastic year, new courses, new objectives! Following last year's November Workshop 'Bulk Refuse', the SACES elections were held and a new team was elected to continue on what the previous SACES team left behind. After a handover from the old team, the new members got to grip with their new tasks! The new team has set out its goals for the academic year, not just looking forward to the summer vacation and a well deserved break, but to continue to build on its knowledge, opportunities and new approaches!

The SACES team for 2013/14 is composed as follows:

President: Lucia Calleja

Vice-President: Izaak Mifsud

Secretary: Susannah Mifsud

Treasurer: Martina Abela

PROs: Jean Ebejer/ Zak Pulis

Events coordinators: Michaela Borg / Isaac Buttigieg

International Officer: Katrina Galea

Our first event was "Shooters with the tutors", which has now become one of our staple events - a Christmas gathering, where we share, discuss and socialise with our tutors over a bottle of wine (or two). This event was a great success, with a good attendance of students and tutors alike. As of February, SACES will continue with "Archibabbles", a series of debates which will deal with a number of topics relevant to our future careers. Get Hard Hat ready, as of March we will continue with the "Archivists", construction site visits which were launched last year, where students get the opportunity to visit construction sites and take a look at the initial processes.



BULK REFUSE

The most anticipated event of the year for an architecture student has to be the November SACES Workshop. It is a weekend packed with activities that are sure to make the avid architecture student leave with plenty of memories and experiences gained. Every year the workshop is held in a remote location, where the students are free to collaborate in teams to design and create a project related with the Workshop's particular theme. The theme for the last workshop was Bulk Refuse which was held at the Majjistral Park, also referred to as Manikata Barracks. The Park is managed by a Federation made up of three NGOs – *Din*



I-Art Helwa, Nature Trust (Malta) and the Gaia Foundation.

Manikata Barracks were established in 1902 when the Admiralty started to take land from local farmers to establish a Royal Marines Training Centre. During World War I the camp was covered in tents and used as a military hospital, and in the late 1970s the lower camp was converted into the Hal-Ferħ tourism accommodation complex. The SACES team, together with the help of students from the Faculty for the Built Environment, volunteered to clean these barracks to be used as Installation Spaces during the 2013 November Workshop. In the workshop, architecture students as well as graduates who still hold this event close at heart, come together as individual teams each with the task of building or developing an idea related to the theme. Each team was assigned a recycled material and a site, with each team bringing out its ideas into a physical structure. After a day of creative work and toiling about with tools and materials, it was time to start preparing for the party, which was most certainly one for the books. Over five hundred people attended the party, and it was one of the most successful organised by University Student Organisations.

The subsequent morning, after a slow but



steadily awakening, the students and mentors got back to work finishing their projects, which were presented on Sunday afternoon, to each other as well as other honorary guests. All the work in the end is always worth the effort, as all of the participants leave satisfied that they have savoured the experience and already look forward to the next one. The Workshop is undoubtedly an experience not to be missed!



DIN L-ART HELWA AWARDS FOR A

The winners of the ninth edition of the prestigious Architectural Heritage Awards scheme organised by *Din l-Art Helwa* were announced last December. This edition attracted a record number of eleven projects submitted in three different categories. The establishment of this annual competition for architectural heritage was conceived in 2004 by Mr Martin Scicluna, a former president of *Din l-Art Helwa* who, with the support of the *Kamra tal-Periti*, saw the need to give public recognition to the valuable work conducted by local architects in the realm of historic buildings and urban contexts. Over the years, there has been an increased awareness and sensitivity towards the need to not only safeguard our historic built heritage but also to endeavor to restore and rehabilitate it and make it socially and economically relevant within our community.

The jury for this year's edition was chaired by Ms Maria Grazia Cassar, with the other assessors being Prof. Lucio Mule-Stagno, Vice-President of *Din l-Art Helwa*, Perit Joanna Spiteri Staines, council member, and Dr. Conrad Thake representing the *Kamra tal-Periti*. The judging criteria established for all the categories were based on the quality of the project as executed, its historical, cultural, educational and social relevance, the research conducted and the aesthetic and visual merit of the project. The over-riding consideration has always been the significance of the project within the local context and its contribution to safeguarding Maltese architectural heritage.

In the first category relating to major regeneration projects there were three submissions. The magnitude and scale of these projects entailed considerable challenges and difficulties to be resolved. They also contribute significantly to enhancing the quality of our urban environments and the improvement of public life.

The Prix d'Honneur for this category was awarded to Design & Technical Resources for their project relating to the 'Enhancement of the Visitor Experience at the Ġgantija Heritage Park' in Xagħra, Gozo. The difficult parameters imposed by this delicate project, proved to be the catalyst for a creative solution based on careful thought and study. The jury was particularly impressed with the innovative design and use of materials and the distinctive 'portals' that were created along the new pathway, in the process being conducive to a new visual appreciation of the timeless Ġgantija Temples.

There were two diplomas awarded in this category. The first diploma was awarded to Architecture Project for their internationally acclaimed Barrakka Lift project. The structure, whilst creating a necessary and vital link to Valletta from the Grand Harbour waterfront area, was in the own words of the architects, an 'intrusion' within a sensitive historical setting and visible from every approach to the city. However, the intervention in the form of the contemporary structure displayed due reverence and respect to the collective memory of the city of Valletta, a World Heritage Site. The second diploma was



Photography by Luis Rodriguez Lopez



Il-Foss ta' l-Imdina. Photography by Restoration Directorate

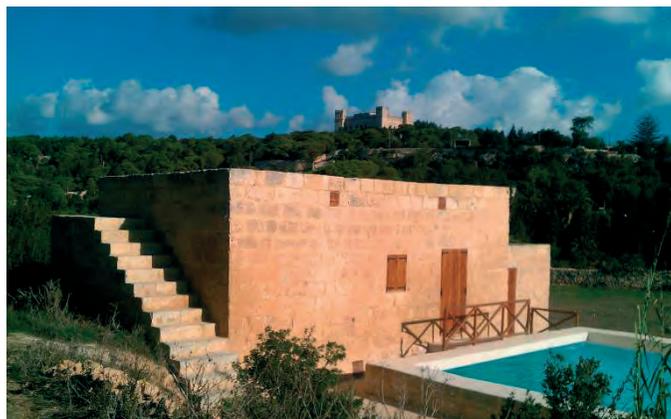
awarded to the Restoration Directorate within the Ministry for Tourism and the Parliamentary Secretariat for Culture and Local Government. Perit Norbert Gatt spearheaded a team of architects and tech-

nical officials in the major engineering and landscape project for the land-front ditch of Mdina (or *il-Foss tal-Mdina*). This extensive project was technically challenging as it entailed solving major structural problems caused by subsidence along parts of the Mdina bastions behind the Magisterial Palace, the reclamation of the open space of the ditch for the use and enjoyment of the public, as well as presenting the onlooker with a better understanding and visual presentation of the fortified town.

The second category relating to the rehabilitation and re-use of buildings attracted four projects. The Prix d'Honneur for this category was awarded for the restoration and rehabilitation of the Wignacourt College Museum in Rabat. This joint venture between the private sector and the



Ir-Razzett tal-Baghal. Photography by Perit Jean Frendo



Ir-Razzett tal-Ispirtu

ARCHITECTURAL HERITAGE 2013



Ggantija Visitors' Centre - Portals & Pathways. Photography by DTR

ecclesiastical authorities entailed the entire re-organisation of the museum with the restoration of the architectural fabric of the building to the highest professional standards. There were also two diplomas of merit awarded in this category. The first recipient of the diploma was Perit Patrick Calleja for the rehabilitation and re-use of one of the last surviving examples of Art Nouveau architecture along the Sliema front. The building, originally a private residence, was converted into the Lombard Bank branch for Sliema. The project entailed the construction of an additional floor and extensive restoration of the original edifice which was executed with remarkable diligence and respect for its authenticity. The second diploma was

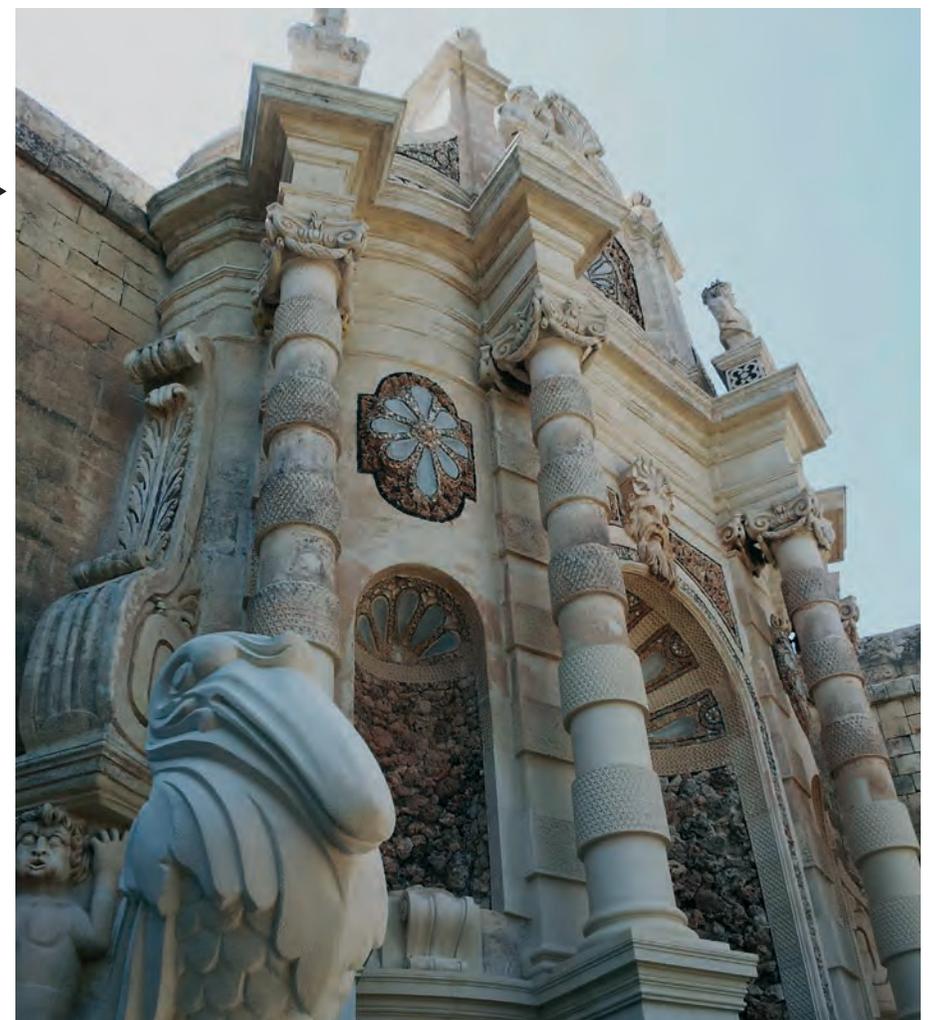
awarded to the conservation and restoration of the former MTV headquarters in Guardamangia. The building is one of the finest examples of International Style Modernism on the island, the work of the late architect Carmel Falzon, and was even at one time threatened with demolition. After a public campaign masterminded by *Kamra tal-Periti*, the building was saved from demolition and was eventually scheduled. The project entailed the conversion of the building into the new PBS Creativity Hub and the iconic modernist building has been transformed into a state-of-the-art recording, digital broadcasting centre. The judges were particularly impressed by the way the original architectural fabric and finishes were used to enhance the new



PBS premises in Guardamangia



Lombard Bank, Sliema. Photography by Photocity



Villa Bologna. Photography by Maria Mifsud (Architecture Project)

DIN L-ART HELWA AWARDS FOR ARCHITECTURAL HERITAGE 2013

spaces using modern techniques and materials. The recipient of the award was QP Management.

The third and last category relates to restoration and conservation projects. The Prix d'Honneur was awarded to Architecture Project for the restoration and conservation of the Nymphaea and gate at Villa Bologna, Attard. The technical mastery as well as the judicious decisions undertaken during the delicate restoration works were highly commended by the jury. The project highlights the efforts of the private owners in the restoration of the salient architectural elements within one of the most splendid Baroque-era, gardens on the island.

The other diploma award went to Perit Chris Briffa for a very original and innovative prototype of a Maltese timber balcony aptly entitled 'Gallarija Miftuħa'. The traditional closed timber balcony was re-interpreted into an identical version where the various parts could be folded and packed to the side so as to permit unobstructed panoramic views and vistas when such views were highly-prized and sought after. The architect's prototype overcomes the limitations of a fixed timber balcony into one which, whilst



Wignacourt College Museum

safeguarding its historical legacy, offers flexibility and reversibility at one's will.

The jury were unanimous in their decision to award the overall *Din L-Art Helwa* Silver Medal for 2013, as the most deserving of all the projects submitted in all categories, to the architectural firm 'Design & Technical Resources' for the project 'The Enhancement of Visitor Experience at the Ġgantija Heritage Park.'

The winning projects were announced during the special awards ceremony held at the *Din L-Art Helwa* premises and presided over by the Hon. Parliamentary Secretary Dr Jose Herrera and the Executive President of *Din L-Art Helwa*, Simone Mizzi.



Gallarija Miftuħa. Photography by Chris Briffa Architects



Energy Efficiency

BY PERIT AMBER WISMAYER

The location of the Maltese archipelago in the heart of the Mediterranean basin - the nexus of one of the world's oldest and most lucrative trading routes - ignited the cosmopolitan flavour of Malta's identity. Occupied since 5,000BC, its magnificent and deep harbours attracted a succession of conquering dynasties. Its strategic position also conferred upon it the ambivalent role of what was arguably Europe's most important defence post, imparting a robust military architecture and defining Malta as a fortified Island.

Malta's history is reflected by, and interwoven with, the local architectural fabric. Today, there is considerable awareness and a more proactive attitude towards the conservation of our built heritage. However, although planning legislation encourages the adaptive reuse of village cores, local policy relevant to Urban Conservation Areas (UCAs) focuses primarily on aesthetic considerations with little regard attributed to a reduction in the carbon emissions of historic buildings. We are surrounded by the rich and stimulating architecture bestowed upon us by our ancestors, however the passive features inherent in their design are often negated. A balance must be struck between the necessity to improve energy efficiency (EE) and the protection of heritage value.

Malta is heavily developed and urbanised: a place called home to over 400,000 people. This, compounded by the size of the Islands, results in the highest population density in the EU (1), rendering issues of urban sprawl, and thus spatial planning, a major priority. Restricted space availability augments the difficulty of achieving complete reliance on renewable energy sources (2). Therefore, in order to reach EU energy objectives, improving the EE of existing structures should be heavily targeted.

In developed countries, the built environment comprises the largest sector in energy use and a worldwide increase in demand is anticipated (3). Energy issues have gained prominence in recent years and are now pertinent topics in Maltese society, assuming a

major role in last year's electoral agenda. This attitude should be welcomed in view of the fact that Malta was flagged by the European Commission in 2011 for failing to achieve tangible progress in reaching interim targets (4).

Studies have revealed that an estimated 70% of buildings shall still be present in 2050 (5). Strategising to make the current stock more efficient may, therefore, be determined as the most appropriate course of action. In this light, eco-refurbishment has become a focal point on the European agenda and should be highlighted as a key area for energy use reductions in Malta.

Eco-refurbishment is defined as a progression of procedures carried out with the intention of recuperating EE within an existing building (6). It comprises a hierarchical process the scope of which is to outline a practical approach to zero-carbon refurbishment (3). The initial goal is the retrofitting of building fabrics - for example, by incorporating insulation - thus improving EE and reducing energy demand. Subsequently, energy-efficient equipment, such as lighting solutions and ventilation mechanisms, should be considered. The on-site installation of low/zero carbon energy technologies with smart grid connections constitutes the final stage of the process.

There are several socio-economic benefits to eco-refurbishment such as prevention of sprawl and the retention of community infrastructure which in turn encourages local economic development and reduced transport expenses (5). Moreover, when considering housing needs and fuel poverty, the advantages of eco-refurbishment as compared to demolition also extend to a reduction in cost and environmental distress. Notwithstanding this, the approach has not yet been established as a requisite locally. Current reports regarding EE considerations in the Maltese building context focus specifically on new construction despite the abundance of existing structures, particularly those of heritage value. Although national strategy is aimed at promoting the rehabilitation and reuse of existing buildings, EE in UCAs is not given sufficient consideration.

Energy and the Built Heritage

In order to incorporate suitable climate-specific strategies into Maltese architecture, a thorough knowledge of the local context and an appreciation of the masonry language is essential. A still-used example of vernacular building is the farmhouse. Located within historic village cores, this typology provides a clear understanding of traditional construction principles. Originally influenced by Sicilian and Arabic dwellings, its design has been configured to address the local context. An analysis of the farmhouse confirmed unequivocally that it features several passive design elements which improve the EE of the property:

- High ceilings in habitable rooms promote ventilation and natural cooling;
- Unpacked torba within the roof structure provides good insulation;
- The deffun roofing system prevents water penetration and cools upper floors;
- Minimal well-sited fenestration maximises cross-ventilation and minimises heat gain;
- Thick masonry walls provide high thermal mass and the soil/rubble-packed cavity offers additional insulation and exemplifies an adopted means of resource conservation;
- Externally-ventilated underground spaces provide an insulating buffer, counteracting damp at the ground floor;
- Large bell-shaped wells offer water storage and reuse mechanisms;
- The internal courtyard and south-facing loggia provide natural light and cross-ventilation;
- Insular rooms facilitate heating/cooling;
- Features such as a spiral staircase provide effective air-exchange mechanisms;
- Whitewashed internal walls increase natural light;
- Indigenous trees and vegetation offer shading.

Whether these buildings were designed with the scope of improving EE is a matter of debate. However, the farmhouse certainly responds to environmental awareness and, collectively, its features contribute to the



UCA streetscape

provision of a comfortable indoor space for occupants. By measuring their EE against current expectations, it may be concluded that passive design features inherent to UCA buildings must be rediscovered, better understood, enhanced using modern resources and technologies, and adapted to work in tandem with today's lifestyle.

There exists a healthy public interest in restoring/reusing UCA properties. However, this is not generally related to their inherent passive features. Enhancing the EE of these buildings does not usually form part of the clients' brief and alterations to such dwellings often result in the disruption of their sensitive microclimate.

In those instances when EE is flagged by the client, the incentive is often a reduction in running costs. The architect should present the different aspects involved in aesthetics, costs (of conserving or enhancing EE) and benefits (derived from conserving or enhancing EE), and guide the client to making a final balanced decision.

For the most part, architects presently rely on their professional experience and opinion to mitigate the issues in addressing EE in UCA buildings. There is an urgent need to better understand how UCA typologies functioned and how inherent passive design principles gelled together



View of loggia from courtyard

synthesising building performance as a result. With this knowledge, the EE of the building may be quantified and a means of enhancing these features, and adapting them to modern lifestyles, may be explored.

Addressing the critical dearth of knowledge and evidence-based data regarding issues which are specific to the Maltese context would go a long way towards supporting the adoption of a national strategy. A consistent policy framework should address buildings within UCAs holistically and promote and incentivise their sustainable re-use in order to conserve both their heritage and energy value. The positive attributes of these properties should be integrated to produce comfortable homes which give life to village and town cores and contribute to a national movement towards sustainable development. Considering the current environmental issues and economic climate, this approach offers considerable potential in the path to reaching targets, reducing running costs, and revitalising UCAs.

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Re-Shaping the (Faculty for the) Built Environment

BY PROF. ALEX TORPIANO, DEAN

In 2008, the University of Malta accepted a proposal to change the name of the Faculty of Architecture and Civil Engineering to the Faculty for the Built Environment. This marked the first step of a radical re-structuring of the Faculty, the departments within it, and the teaching and research activities the Faculty is focused on. This paper explains the rationale behind these changes, the status of these developments, and what the Faculty is looking forward to.

Context

When the 2007-2013 ERDF programme was launched, a number of national strategy documents were prepared, including the National Strategic Reference Document 2007-2013 (NSRD), the Sustainable Development Strategy for the Maltese Islands 2007-2016, and the National Strategic Plan for Research & Innovation 2007-2010. In practically all of these documents, investment in the environment sector was recognised as a major strategic priority. The link between environmental "attractiveness" and economic progress was repeatedly acknowledged. The SWOT analysis in the ERDF Operational Programme 1 document showed that out of 26 topics identified as weaknesses, 11 were related to the Built Environment, whilst one of the important threats was identified as environmental degradation. Eight out of ten topics reviewed in the chapter "Analysis of Malta's Socio-Economy" were related, directly or indirectly, to the Built Environment. Deficiencies in Malta's physical infrastructure – environment, energy, and transport – were identified as requiring urgent attention, so as to improve Malta's attractiveness and quality of life; (transport infrastructure, the environment, energy and urban regeneration were four out of a total of six themes in the NSRD). The importance of protecting the environment, and of prudent use of natural resources, was emphasised. At the same time, it was also acknowledged that the construction industry was one of the "most significant drivers of Maltese economic activity", with significant multiplier factors.

Within this context, the Faculty undertook a thorough review of its teaching programmes.



Faculty for the Built Environment at the University of Malta. Source: www.blog-jess.com

Serious questions were raised on the relevance of some teaching programmes, as well as on the absence of other very important topics, and the apparent lack of impact of the Faculty on serious national issues. Not everything was negative. The quality of our better graduates is very high, by any standard. This was regularly the opinion of the External Examiners for the Engineering Stream, who insisted that our graduates were comparable to Masters graduates in the United Kingdom. A number of our graduates have found important job positions in international consultancy offices. Some also achieved prominent academic positions in UK Universities.

Departmental Structure

The Faculty for the Built Environment today comprises seven Departments, reflecting a more holistic approach to built environment concerns. The creation of Departments is not simply an administrative procedure; it is the definition of foci of study and research which are considered relevant to the issues of today and tomorrow, and is therefore also a declaration of intent.

Each of these Departments has been given specific remits. Each will contribute to undergraduate teaching, but especially to post-graduate teaching and research. Each is expected to act as a channel to other entities, with related interests, within the University, and elsewhere, so as to ensure that the Faculty is properly inserted into as wide a context as possible. The new departments include the

original two:

- Department of Architecture and Urban Design, focusing on architectural and urban design, history and theory of architecture, and interior and landscape architecture, and
- Department of Civil and Structural Engineering focusing on building structures, structural masonry, concrete, steel, and glass, geo-technical engineering, and marine and other civil engineering structures; and the new ones:
- Department of the Built Heritage, focusing on the conservation of the built heritage, deterioration of, and repair interventions on, heritage buildings, management and preservation of archaeological sites and historic landscapes, and environmental issues in degradation mechanisms, but also with a responsibility for training professionals in conservation and restoration;
- Department of Spatial Planning and Infrastructure, focusing on sustainable spatial planning and on infrastructural issues of relevance to Malta, including urban development, transport planning, water and mineral resources, solid and liquid waste management and landscape planning;
- Department of Environmental Design, focusing on the environmental response of buildings, including environmental performance, building engineering physics, energy efficiency, climate and building comfort, natural and artificial lighting and acoustic performance, and building services systems;

tems;

- Department of Construction and Property Management, focusing on a wide range of issues, hitherto neglected, including sustainable and resilient construction processes and their management, strategic asset management, project and construction management, procurement strategies, contract legislation and quantity surveying, building information management, value and risk management, and geodetics; and
- Department of Visual Arts focusing especially on visual literacy, and fine and applied arts, but also, eventually, product design, graphic design and printing.

Teaching Programmes

The courses leading to professional status in Malta have, obviously, been informed by the professional warrant requirements of Malta. Since Malta joined the EU, they also had to reflect the requirements of professional recognition at EU level. The relationship between the academic preparation of architects and that of engineers has conditioned developments in University courses, at least since 1970. Our traditional architect-engineer professional, very common in Central Europe, but also in Belgium, Italy, and Greece, is in contrast with the conventional separate preparation of architects and civil engineers in the UK, at least since the 19th century; as well as with the assumptions underlying the EU Directive for the Recognition of Professional Qualifications. The realities of industry, even locally, have also changed. New materials and new forms have, to a certain extent, precipitated this change.

At the same time, the Faculty was also cognisant of recommendations made by the Committee of Ministers of the Council of Europe in 1981, that the specialised training, of architects, town planners, civil engineers and landscape designers could be built around a common core, so as to emphasise the common objectives of these professions, and to foster the adoption of a common language, and a logic of inter-disciplinarity.

The new course structure, gradually being introduced, is informed by all these realities. The single five-year course, B.E.&A.(Hons), is being phased out (we are now running the last

Built Environment

final year). Instead, a multi-tier course structure, which aligns the Faculty with the Bologna Process, is being introduced. It also addresses an anomaly, unfair to our students, that a five-year degree course leads to a Bachelor's degree, albeit rated at Level 7, whilst for other professions it often leads to the title of "Doctor". The Bologna Process, and the University of Malta, envisages that a programme of five-year duration should correspond to academic qualifications at Masters level.

The proposed structure, which has now reached the fourth year, envisages a first year, the successful completion of which leads to the award of the Diploma of Design Foundation Studies. During this year, students, who normally come from a mathematics and physics stream at pre-tertiary level, are offered a wide range of visual literacy and communication courses - the tools of design - and an exposure to fine arts disciplines, and to 20th century cultural movements. The Diploma is not only key to entering the Faculty, but can be used for other design-related careers, including mechanical engineering, printed and digital media, computer games, and even fine arts. In the second step, a three-year Bachelors degree course, students are offered a range of mandatory common courses (such as in construction, environmental science, structural systems, as well as studio-based design workshop sessions), and a range of elective lecture- and studio-based courses, from which students choose, depending on the professional career that they intend to follow.

Subsequently, students are offered a range of post-graduate choices, a range which will continue to develop. The two main professional routes to the title of "Perit" are obviously the M.Arch and M.Eng programmes. The Faculty wants to make sure that its M.Arch graduates are recognised as qualifying for the title of Architect at EU level, in accordance with the EU Directive; and that its M.Eng graduates are also recognised as European Engineers. The BSc. (Hons) programme is designed to allow students to select study-units which qualify them to entry in the respective masters programme, so that the whole 3+2 year programme clearly satisfies the respective recognition criteria. The Faculty is also offering a third route, which is

currently, and unfortunately, absent in local legislation, of a professional spatial planner, via the degree of M.Planning. In order to encourage our best brains into the vital area of planning, the state must legislate to recognise this discipline as a separate profession.

In addition, the Faculty has also introduced a number of masters specialization programmes. The full list of courses, in addition to the under-graduate Diploma and BSc.(Hons) in Built Environment Studies, (and offered either on an annual or a biennial basis), currently includes: at professional level,

- M.Arch (Architecture, Architecture/Urban Design, and Architecture/Conservation Studies);
- M.Eng (Structural Engineering, Civil Engineering, and Engineering/Management);
- M.Planning;
- M.Sc. Conservation of Architectural Decorative Surfaces (for professional conservators-restorers);
- and at specialisation level (generally part-time)
- MA in Cultural Heritage Management;
- MSc in Conservation Technology of Masonry Structures;
- MSc in Environmental Design;
- MSc in Project Management;
- MSc in Sustainable Infrastructure;

These developments clearly imply that the Faculty is no longer constrained to focus on the traditional profession of "Perit".

Research

For a long time, the Faculty has neglected to develop this aspect of its work, except, perhaps in the area of Masonry, and History of Architecture, and is working to create a research infrastructure to address this lack. The Faculty offers research-based MSc and MPhil/PhD degrees, depending on the funding obtained. It currently has three students who are reading for a PhD and five staff members, who are reading for a PhD, with supervision shared between the Faculty and a foreign University. This is no mean achievement.

The Faculty pursues collaboration proposals for research funding, for example, with BICC, for work on the thermal performance of

building materials, and for building-up construction industry skills, with the Ministry for Resources and Rural Affairs, on energy efficient retro-fitting of 19th century heritage public buildings, with the Ministry for the Family and Social Solidarity, on retro-fitting of energy-poor social housing. It is working with industry, on a project funded by MCST, to study the use of infiltration boreholes for flood mitigation and groundwater recharge. It is also working with the Institute of Earth Systems, and Mgarr Local Council, with funding from the HSBC Foundation, to develop an Observatory and Interpretation Centre at Tal-Kuncizzjoni, Mgarr. The Department of the Built Heritage, in particular, has been active in EU-funded projects, such as ELAICH, in partnership with four foreign institutions, to promote a better understanding of historic buildings and sites with young people; in projects with Din l-Art Helwa on, for example, the Chapel at Bir Miftuh, and the Roman Villa in Zejtun, and with the Heritage Parks Foundation, on the restoration of heritage structures in the Majjistral Nature and History Park.

Another research project, this time with the Department of Physics and Italian partners, is SIMIT, which explores the evaluation of seismic hazard, in our construction typologies, and the effect of the site in the evaluation of seismic and geological risks, as part of the formulation of a national civil protection strategy. An important milestone was the funding won from the EU Life + Programme, a project coordinated by the Faculty, in collaboration with Italian partners, for the construction of two demonstration green roofs to illustrate the potential of meeting environment and energy targets, referred to as the LifeMed GreenRoof project. As a result of these funds, the Faculty has engaged three project research officers, which is a modest start, but a start.

An important Faculty initiative has been the setting up of a small design office which is working on the preliminary design of some new buildings for the University, including a project for a prototype Sustainable Living Complex, (which will also house the Faculty), intended to study various resource-efficient building technologies, ranging from quarrying to water husbandry technologies, from

phase-change insulation to efficient power networks, from green roofs to sustainable urban drainage techniques, but, most importantly, to monitor the efficacy of such techniques, and teach people how to live with such technologies.

Research is not some esoteric activity intended to produce papers for dusty libraries. It is the application of academic study to resolve real problems. In this context, the Faculty will strive to find opportunities of collaboration with state agencies who address important national issues, such as Transport Malta, MEPA, the Housing Authority, and BICC, as well as with the construction industry in general.

Conclusion

A recent newspaper editorial pointed out that the University needs to "create synergy with the real economy". The changes on-going within the Faculty for the Built Environment have this objective precisely in mind. There is a limit to how much can be achieved, however, without the parallel investment in the educational and research infrastructure, which can bring the institutional changes to fruition. We have not waited for the investments to occur, before embarking on the process to re-shape the Faculty to better suit the national issues of today and the future. However, without this investment, these developments will wilt and die before any fruit is collected.

It is also important that the professional legislative measures that have been discussed over the last years come to fruition within the short-term. The Faculty for the Built Environment is not a small faculty; the number of students who register with its courses every year exceeds those who register with, for example, the faculties of Science and of Engineering. It is important that the students in the Faculty are guided along the many different, albeit related, strands of professional activity in the Built Environment. The changes taking place in the Faculty are intended to address this. The profession, for its part, must recognise that the profession of *perit* is not a static one, defined in accordance with out-dated parameters, but one that needs to evolve and diversify.

City of London and Addolorata Cemetery

BY PERIT EDWARD SAID

One of my most memorable research field trips I have been on was a visit to the City of London Cemetery, one chilly Autumn morning in 2011. Knowing that there were strong similarities between this necropolis and our cherished Addolorata, my curiosity and what I found compelled me to write an assignment about this significant connection, an edited version of which is presented here in this season's tA.

Haywood in London

In 1856, after years of socio-religious deliberation and land acquisition negotiations, the City of London Corporation, through the Commissioners of Sewers, opened its public burial grounds in the suburban district of Little Ilford. Surveyor and Engineer William Haywood (1821-94) was commissioned with designing the new cemetery. The overwhelming demand for plots by that time was unsurprising given the desperate demographic situation in London which resulted in serious public health issues when it came to burial facilities. Haywood himself had described the city's churchyards as 'over-gorged' and 'disgusting'.⁽¹⁾ These were subsequently closed, having most of their human remains exhumed and reinterred in the new metropolitan cemetery.

The layout was indeed revolutionary with its organic yet orderly planning made up of 'rond-points, vistas, and winding avenues'.⁽²⁾ Particular emphasis was given to planting, with trees, largely conifers, strategically selected and positioned to augment the Gothic style chosen for the Episcopal and Dissenting Chapels (known respectively as the Church and Chapel) together with other ancillary structures. The main buildings were positioned in such a way that enabled them to be visible from the main entrance gates where on approaching one, the visitor lost view of the other.

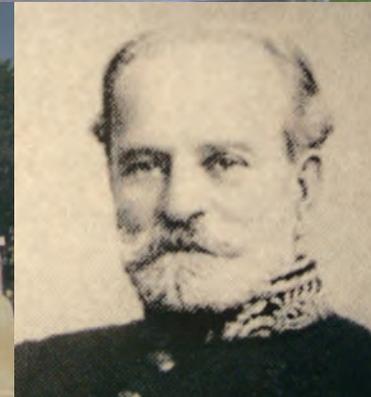
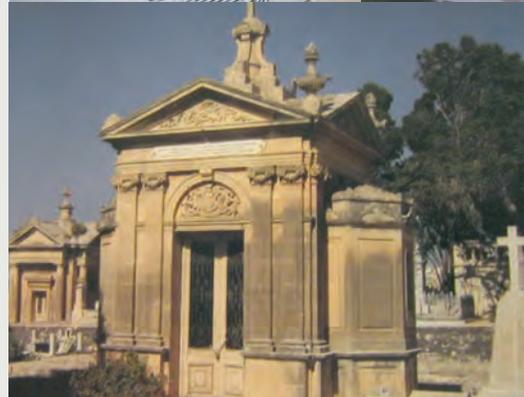
Perhaps the most ingenious and innova-

tive device was the Catacomb Valley, now somewhat obstructed by a modern crematorium. The construction of this sunken feature completed Haywood's design for his 90 acre scheme (a hinterland of another 110 acres was purchased and left for future use). This almost theatrical setting epitomises the Victorian vision of encouraging the use of new public cemeteries as places for socialising and relaxation as had been advocated by the great landscape designer John C. Loudon and author of the seminal book *On the Laying out of Cemeteries*, published in 1843.⁽³⁾

So successful was the City of London Cemetery that it is regarded as 'probably the finest of the first public cemeteries in Britain'.⁽⁴⁾ Haywood remained involved in the development of the cemetery until his death. He opted for cremation, then still considered by many as 'eccentric' and 'unnatural'. His remains rest in a fitting Gothic mausoleum placed prominently close to the entrance along the central avenue.

Galizia at Malta

At the same time as the City of London Cemetery was preparing to open its doors, the British authorities in the Mediterranean colony of Malta were similarly attempting to deal with the problems of public burial practices. In 1855, the first planned extra-mural cemetery named Ta' Braxia was opened. Until then the population, most of which resided within the walls of Valletta and other ancient fortified cities, carried out burials beneath the churches. The rapidly swelling number of citizens led to inevitable public health issues. After much controversy between the Bishop of Gibraltar, under whose Protestant diocese the Maltese Islands fell, and the locals, this new internment ground was intended for the burial of "all religions without distinction", although ultimately used for mostly Church of England burials.⁽⁵⁾ The works were supervised by the young but already distinguished local architect Emanuele L.



Top left: William Haywood (1821-94)

Top right: Haywood's mausoleum at the City of London Cemetery (Lambert, D., op.cit., 12 & 29.)

Bottom left: Galizia's family funerary chapel at the Santa Marija Addolorata Cemetery, Malta (Thake, C., op.cit., 79 & 248)

Bottom right: Emmanuele L. Galizia (1830-1906)

Galizia (1830-1906). Following this, however, he was given a far grander commission.

After much pressure from the Catholic Bishop of Malta, the British authorities decided to build an extensive municipal cemetery at a site in the centre of the island. This totally new concept demanded an equally new architectural style for which the then fashionable Neo-Gothic was selected. Some say that the adoption of the 'pointed' architecture for the new cemetery had politico-religious undertones in that 'The Addolorata Cemetery was to crown British aspirations: the ideal style of English Christianity in the Maltese Landscape'.⁽⁶⁾ Despite this, it soon became very popular with the local Catholic Church and also used in secular

schemes.⁽⁷⁾

Galizia's site was a pronounced hill visible from many parts of the Island's centre. This he exploited by introducing a symmetrical system of gently inclined pathways and staircases. A central axis connects the main entrance at the bottom of the hill near the thoroughfare with the majestically spired chapel at the crown and with the back entrance. The different sections or compartments were carefully planted with trees, mainly pines and other conifer species associated with funerary environments. Buildings on either side of the main gate were designed to provide staff accommodation as well as an office for the registration of burials.⁽⁸⁾ A hemicyclical arcade embraced the visitor upon entering the necropolis. Although Galizia

eries: their similarities

fully mastered the design grammar and detailing of the Neo-Gothic, it is recorded that there were problems with materials and labour skills. All of the ironwork and glazed joinery of the buildings were imported from specialised contractors based in London. The new burial grounds were consecrated on May 9, 1869 with the local press hailing it as 'one of the finest burying places in Europe'.⁽⁹⁾ Galizia went on to design many of the cemetery's mausolea and tombs. His own is a Neo-classical funerary chapel located close to the central grand staircase.

A note on Galizia's career

After travelling through England, France and Italy in his formative years, Emanuele L. Galizia went on to become Malta's most sought after architect during the second half of the 19th century. He was engaged in designing numerous religious, civic and private buildings, many of which are landmarks today. His experimentation with Neo-Classicism, Neo-Gothic, hybrid Orientalism and Eclecticism is locally unprecedented. Galizia was also involved in a number of civil engineering works carried out by the Office of Public Works. He particularly excelled in funerary architecture having supervised or designed three of the cemeteries, with his most famous being the Addolorata Cemetery. Indeed 'his achievements on the realm of funerary architecture are to this day unequalled...'⁽¹⁰⁾

Comparisons between London and Malta

The general layouts of the London and Malta cemeteries under study are clearly very different. Each of the sites had particular topographical characteristics: one lying on a riverside and the other posed on a steep hill, both therefore necessitating particular types of infrastructures. Despite this however, there are certain strong similarities. The following characteristics clearly show how Galizia borrowed and adapted some of



The Church at the City of London Cemetery (left) and Our Lady of Sorrows Chapel at the Addolorata Cemetery in Malta.

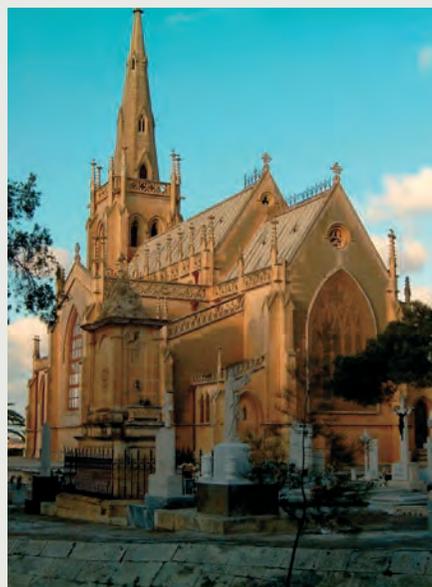
the Haywood's ideas.

i) Main entrances

It was indeed upon entering the City of London Cemetery that the resemblance with its Malta counterpart was first noticed. The Gothic main entrances both have a larger central archway through which horse-drawn hearses passed, with smaller openings on either side for the passage of visitors. Once inside either gateway, on each side stand buildings designed to serve as offices, maintenance rooms and accommodation for the superintendent and porter in London, priest and guardian in Malta. In both cemeteries these buildings have asymmetric 'Pointed Style' designs perhaps with more elaborate crenellations and crocketing in Malta. Lofty trees further dramatise the experience of entering both burial grounds.

ii) Axiality and obscurity

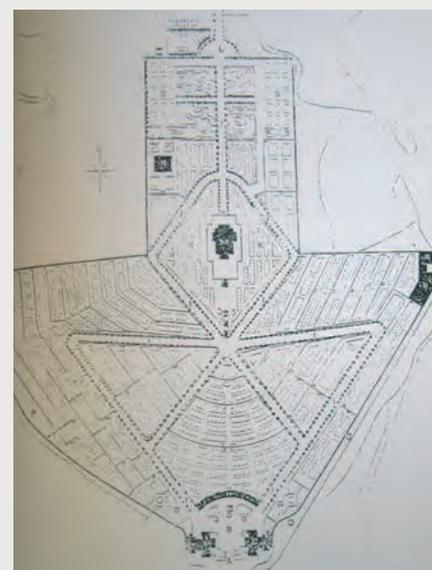
At Malta, Galizia's approach of strict geometry and particularly axiality stems from Haywood's placing of the church buildings at the end of wide avenues. In time the mature tree planting would provide the necessary formation of viewing channels and obscurity, turning the



buildings and other structures into eye-catchers. The Victorian philosophy of the garden-cemetery adopting Brownian ideas is perceptible.

iii) Embankments

Some of the more curious features of the Addolorata Cemetery are the masonry embankments and retaining walls which



An 1863-68 survey of the new Addolorata Cemetery in Malta. (Borg, p.89)

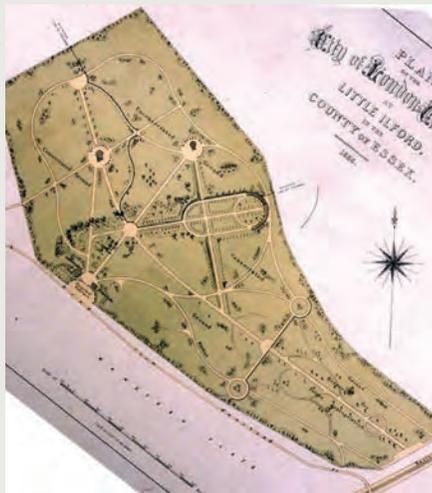
surround the different changes in level. These are very prominent along the grand staircase and demonstrate the architect's skill in civil engineering which he previously attained on other works such as wharves and moles.⁽¹¹⁾ Haywood had previously introduced such devices along parts of the main avenues in order to treat the undulating topography and create a sense of distinction amongst the plots.

iv) The Catacomb and the Arcade

In the few architectural descriptions available on the Addolorata Cemetery, there is very little reference to the hemicyclical arcade stretching out within the main entrance. With its position, form and design, this is a completely innovative feature in the Maltese Islands and one of Galizia's most interesting creations. It is clear that in his travels around Britain, he stopped at Ilford to see the newly opened metropolitan cemetery. As described above, he borrowed a number of designs and techniques from here, yet it was from Haywood's Catacomb Valley that he drew most inspiration for his Malta project.

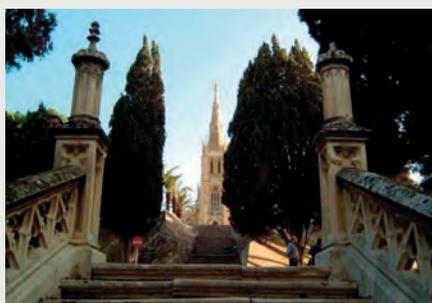
It was for topographical reasons that Haywood created this depression with the catacombs on one side. He incorporated in them a pair of gentle staircases to allow visitors to circulate, stroll and admire the view from atop the catacombs across the open countryside.⁽¹²⁾ Haywood also intended to use the columbarium within the catacombs for burial of funerary ashes, hence the name, however this did not prove too successful.

In Malta, the exedra Galizia devised was intended as a light-weight screen between the entrance and grand staircase leading up to the chapel, a sort of mustering ground prior to the sublime ascent to the chapel. Inside the arcade were erected several memorial tablets, serving also as a meditative cloister. A large timber cross stands at the centre of the circular space in front of it. Although Haywood employed a simplified Gothic, whilst Galizia's version remained with the same



The final masterplan by William Haywood dated 1856; note how the distinction between consecrated and unconsecrated grounds is made through the discreet use of pathways and tree planting rather than walls (Courtesy of the City of London Corporation)

crispness he used for other structures, the resemblance is there. However whilst aesthetically being successful, the function of the Maltese exedra is somewhat limited when compared to Haywood's innovative device. The former's roof is inaccessible to the visitor and the rear of the structure, although partially covered due to a change in level, is still quite awkward, with disproportionate windows pierced in the back.



The upper image shows the avenue leading to the Chapel in the City of London whilst the lower one shows the grand staircase connecting the main entrance with the Chapel at Malta. Also note the embankments on either side of the walkways in each of the designs.



View of Haywood's Catacomb Valley (left) and the exedra at the Addolorata



Conclusion

Architectural historian Malcolm Borg in one of the definitive books on British architecture in Malta states that 'The City of London Cemetery of 1856 by Architect William Haywood contains all the elements present at the Addolorata' (13). Perhaps this is an overgenerous attribute however it is clear that Galizia was impressed by Haywood's creation and one even wonders if the two men may have met and possibly even discussed ideas. Certainly, the relationship between these two major cemeteries requires a detailed investigation, one which would surely reveal interesting discoveries.

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The main entrances into the City of London Cemetery (top) and the Addolorata.. Note the similarities of the layout and design of the structures here. (Malta photo courtesy of Mr Ron Golloway)

- 150 Years of the City of London Cemetery and Crematorium, City of London, London 2006, 13.
 (2) Curl, J. S., *A Celebration of Death*, Batsford, London 1993, 293.
 (3) Lambert, D., *op. cit.*, 11.
 (4) *Ibid.*
 (5) Borg, M., *British Colonial Architecture – Malta 1800-1900, P.E.G., Malta 2001*, 86-87.
 (6) *Ibid.*, 90.

- (7) Thake, C. & Q. Hughes, *Malta War & Peace – an Architectural Chronicle 1800-2000*, Midsea Books, Malta 2008, 78.
 (8) *Ibid.*, 74.
 (9) *Ibid.*
 (10) *Ibid.*, 248.
 (11) Borg, M., *op. cit.*, 90.
 (12) Lambert, D., *op.cit.*, 24.
 (13) Borg, *op.cit.*, 92.

www.dinlarthelwa.org - Din I-Art Helwa Blogs

Towards the end of 2013, *Din I-Art Helwa* added a new Blogs section to its website. There are currently three regular contributors, namely: Alan Deidun, a marine biologist, committed environmentalist and newspaper columnist

for the past 12 years, whose blog is an informed, outspoken take on the environmental sphere in the Maltese Islands, both above and below the waves; Petra Caruana Dingli, whose blog follows events and news on the rural and urban

environment, and on cultural heritage - mostly in Malta; and Conrad Thake, is an architect, urban planner and architectural historian whose blog reflects on issues related to Maltese architecture and the state of our built environment.

Followers of the blogs are able to send in their comments and to enter into discussion with the authors and other readers on the various topics. The response to date appears to have been good, with various blogs also being picked up in various fora on Facebook where the debate continues to rage.

Latest Blogs

Our blogs are an open discussion forum and may not always reflect the views of *Din I-Art Helwa*. Your comments are welcome.



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Of mutants, nuns and lap-dancers on the Sliema seafront

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Putting the cart before the horse

Posted on February 7, 2014 by Alan Deidun



With the raging debate on the IIP scheme monopolizing headlines and coffee shop discussions, few might have realized that the MEPA Board recently approved through the slew of proposed ODZ policy amendments, despite the wealth of legitimate objections to the same amendments on the grounds that they will lead to a proliferation of unjustified developments within ODZ areas. There were only three dissenting voices within the MEPA Board to the ushering in of such madness.

The Delimara gas tanker

Posted on January 27, 2014 by Petra Caruana Dingli



This morning in the article 'Safety concerns mean further energy studies', the *Times of Malta* focuses on risk and safety concerns about the proposed location of the gas storage vessel at the new Delimara power station.

According to the *Times*, Enemalta agrees that further risk assessment is needed, but will do it after the development permit - which determines location - is granted.

This sounds like they intend to finalise their assessment of the safety risks related to location, after a final decision on location is taken. Can this be true?

Of mutants, nuns and lap-dancers on the Sliema seafront

Posted on January 14, 2014 by Conrad Thake



One of the last surviving townhouses on the Sliema seafront has recently mutated into an undefinable combo - the carcass of the surviving two-storey facade with its once quaint bay-windows forcefully fused to, and in the process very much overpowered, by a modern apartment block of over seven floors with jagged zig-zag open balconies and slender concrete columns. The end product is certainly not an edifying spectacle to behold. All sense of picturesque human scale has been irretrievably lost and one would even question whether it was worthwhile in the first place to make such an effort to preserve the original facade whilst belting out that totally incongruous concrete 'hulk' that arises from within.



Can you identify the name of this building and its location?

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 thearchitect@ktpmalta.com. The first correct entry drawn on the 30 March 2014 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 image published in the previous issue showed the parish church of Mqabba. There were no correct answers.

AGM 2013

The Annual General Meeting of the *Kamra tal-Periti* was held on the 10 December 2013 at the Royal Opera House Green Area. In his first address to the AGM as President of the *Kamra*, Perit Stephen Farrugia noted his pleasant surprise at the amount of work faced by the Council during the past year. One of the priorities of the Council was “to be more active, more present with our members through organised events such as Architecture Nights, product launches and other initiatives such as Time for Architecture.” He also referred to the recently organised property valuation course which attracted a record of more than two hundred participants.

Perit Farrugia also referred to talks with the newly elected Government regarding changes



es to the Periti Act. These talks followed on from similar discussions with the previous administration and it is hoped that consensus will be reached on the way forward in



Photography by Sean Mallia

this regard. He noted further that “The *Kamra* is also trying to forge renewed relationships with BICC and MDA in a bid to increase its relevance in the real world.”

In conclusion, Perit Farrugia augured all members a fruitful year ahead and encouraged those present to contribute to the future of the profession.

Empty spaces

ARTICLE BY PERIT WENDY JO
ATTARD AND PERIT SARAH
ANASTASI

Empty spaces were the focus of an evening dedicated to a discussion on vacancy in the Maltese built environment. The evening was organised by the *Kamra tal-Periti* to close off Time for Architecture - a week of activities that commemorated World Architecture Day 2013. The impetus behind the chosen topic for the discussion was the need to better understand the relationship between vacant buildings and local policy, society, economy and indeed the quality of our urban environment. During his initial address, the Building Industry Consultative Committee (BICC) Chairman Perit Charles Buhagiar stressed the importance of comprehensive planning in the built environment, bringing together all stakeholders in policy making.

A preliminary session by National Statistics Office (NSO) Director General Michael Pace Ross started off the discussion by clarifying possible misconceptions. It was clearly stated that there are indeed 72,150 vacant properties identified in the 2011 national census – these being properties where the owner



does not spend the ‘daily period of rest’ within a particular property. 38,961 of these are however vacant all year round, and therefore not being used for secondary or seasonal use – amounting to more than half of the vacant properties. These are most prevalent in St Paul’s Bay, Sliema, Birkirkara, Valletta and Zabbar, with the most common typologies being flats, apartments or penthouses.

It was felt that the topic warranted more in depth discussion on certain points and to this end Dr Yana Bland, Dr Gordon Cordina, Mr Joseph Gauci and Dr Antoine Zammit were invited to lead individual workshops. These focussed on social housing, property rights in economics, spatial planning policy and the quality of the built environment respectively. Round table discussions ensued, during which participants had the chance to ask specific questions to these experts and discuss issues with a particular insight into the matter.

Having followed the topics arising during the workshops, moderator Perit David Xuereb asked the reassembled audience a key question – Do we really have a problem? Considering that only 8,658 vacant properties are in a dilapidated or shell form, one may ask whether efforts towards urban regeneration should indeed be focussed on this issue. It was mentioned that one must keep in mind, however, that the scarcity of developable land in Malta raises questions of whether vacancy is indeed ethical.

The discussion which ensued showed that the audience did feel that vacancy should be addressed by policies which

promote high density, mixed use places, financial disincentives for speculative property development, and the affordability of high quality properties to members of society. Also, vacancy must be addressed on a regional and national level to ensure that proper studies are carried out to devise location-specific policies specifically targeted towards urban regeneration. It is the intention of the *Kamra tal-Periti* to tackle the issue in depth and thoroughly study the specific reasons for vacancy, in partnership with other stakeholders.

Overall, it can be shown that vacancy is not a question of numbers, but a qualitative issue arising from a lack of integrated management. To ensure that properties do not become obsolete soon after their development, policies must address the adequacy of building typologies, their environmental credentials and their overall contribution to prospective owners’ quality of life – issues that have been crucial to the continued liveability of our historic properties over the centuries.




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Thermal Insulation, why the fuss, what is the return on investment?

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; rock-wool, cork, 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 to say wood 0.140 W/mK, torba (crushed rock) 0.800W/mK, limestone 1.10 W/mK, reinforced concrete 2.30 W/mK, on the other end of the scale one can compare to copper which is known for its conductive properties and has a conductivity value 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.

Some important definitions to note

K value: conductivity W/mK



C value: conductance W/m²K:
To calculate the C value, divide the K value by the thickness of the material;
K/ thickness

R value: resistance m²K/W:
The resistance is the inverse of the conductance; 1/C

U value: W/m²K:
The U value is the overall conductance of a structure; 1/R total

Q value: heat flow through a structure W/m²:
The Q value is the U value of a structure multiplied by the area and the difference in temp between surfaces; U x area x temp diff.

Therefore the starting point of a thermal calculation is always the K value of the particular material which can be obtained from a recognised body such as an institution for building services eg. The CIBSE. In brief to arrive at the practical Q value (heat flow) you need to know the correct K value of the particular materials as well as the thicknesses to be used for each different material and of course the area and temperature difference between the internal and external surfaces.

Where and how should insulation be used in buildings? One should distinguish between planning a new building and retrofitting, that is improving the thermal insulation of an existing building.

Walls: In new buildings one has a unique choice to place the insulation between the stone or brick leaf. Or one may choose 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. Alternatively, on the internal side of a wall, by using an insu-

Conductance = K value divided by the thickness (m)

Material	C Value required	Thickness of insulation
EPS 15Kg/cu.m.	0.467 W/m ² K	0.037/0.079 = 7.9cm
EPS 20Kg/cu.m.	0.467 W/m ² K	0.035/0.075 = 7.5cm
XPS 36Kg/cu.m.	0.467 W/m ² K	0.035/0.075 = 7.5cm
EPS 30Kg/cu.m.	0.467 W/m ² K	0.033/0.071 = 7.1cm
Silver EPS 15Kg/cu.m.	0.467 W/m ² K	0.032/0.069 = 6.9cm

lated 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.

Roofs, this area is definitely the most important part of the building to insulate, as it is the area which absorbs the most heat in summer, and in winter loses the most heat since hot air rises. In new buildings the insulation is placed between what we locally call the 'Kontra bejt'. That is between the torba which is placed over the reinforced concrete to obtain the necessary gradient, and the final concrete screed. In existing buildings one may use an insulated tile which is EPS or XPS glued to a tile, these are simply placed over the existing roof.

Comparing some Insulation materials

We shall directly compare 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.

Let us take an example for a roof, it is calculated that to obtain the minimum legal U value (0.41 W/m²K) through a standard roof structure, a material with a conductance of 0.467 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 (at peak sunshine);

15cm reinforced concrete + average 75mm torba + 75mm concrete screed: 107.58 W/sq.m.

Assuming roof area 100 sq.m., heat flow through all the roof is 10.76 Kw

Heat flow through INSULATED roof using any of the above insulation (0.467 W/m²K); 15cm reinforced concrete + average 50mm torba + insulation + 75mm concrete screed: 14.36 W/sq.m.

Assuming same roof area 100sq.m., heat flow through INSULATED roof is 1.44 Kw :

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 :-

4,995 Kwh saved throughout the three summer months.

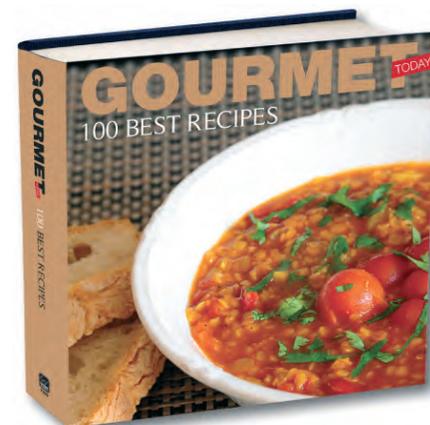
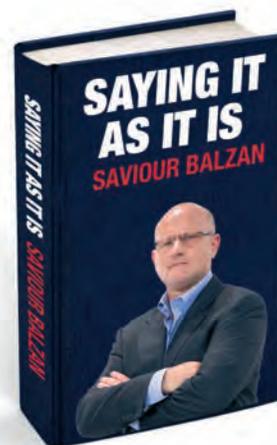
The above mentioned insulation in a new roof will cost around €900, compared to the energy saved, the investment is returned within the first summer!

As one can clearly see from the above workings, insulation is imperative if one wishes to live in a pleasant temperature and not pay an abhorrently high price. One can safely conclude that thermally insulating a building is probably the best investment

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Component Type	EPS Thickness	Total Thickness
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Slab	100	210

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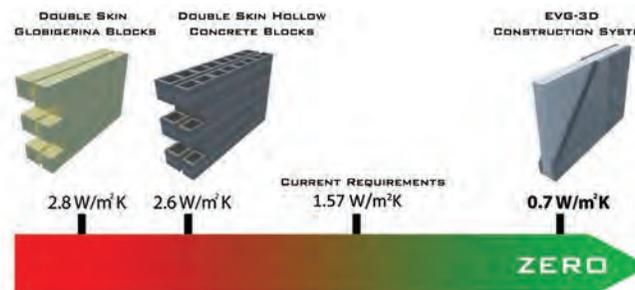
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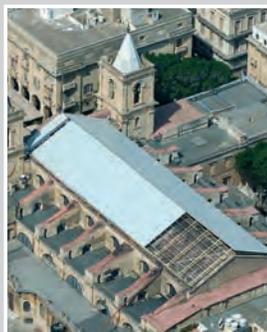
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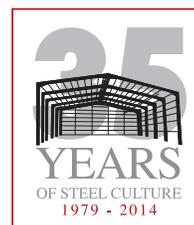


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