

**Features**

Big Buildings, Big Landscapes, and Big Ideas – EASA Student Conference 2008  
Time To Get Informed About  
Passive Houses  
Architecture and Project Management

**Buildings**

*Sleeping Giant, Residence in Killiney, Co Dublin, O'Donnell + Tuomey Architects*  
*The Long House, London, Keith Williams Architect*  
*Hilton Hotel Kilmainham, Dublin, Anthony Reddy & Associates*  
*Georges Court, Dublin, KMD Architecture*  
*AlB Business Centre, Dublin, Kavanagh Tuite*

**March 2008**  
€8.50 (incl VAT)

# ARCHITECTURE

The Journal of the Royal Institute of the Architects of Ireland

*Sleeping Giant, Residence in Killiney, Co Dublin*

*New Architecture*





**Architecture Ireland**  
incorporating Irish Architect

**The Journal of the Royal Institute of the Architects of Ireland**  
9 Sandyford Office Park, Dublin 18  
Telephone: 01-295 8115/6  
Facsimile: 01-295 9350  
Email: mail@architectureireland.ie  
www.architectureireland.ie

**Publisher**  
Gerry Murphy

**Editor**  
Dr Sandra Andrea O'Connell

**Editorial Co-ordinator and Products & Technology**  
Ailbhe Moloney

**Commercial and Advertising Sales Director**  
Cecil Maxwell

**Commercial & Building Features Advertising**  
Alan McCafferty

**Arts**  
Muireann Molloy

**Design & Production**  
Origin and Des Kiely Design

**Printing**  
C&F Printing Solutions

#### Correspondents

**Ulster:**  
Ciaran Mackel B.Sc.Dip.Arch.Dip.  
Project Management, MSC Design, MRIAI  
**Munster:**  
Alexander White Dip.Arch., MSDI, MRIAI  
**Leinster:**  
Brian McClean B.Arch.B.Sc.Arch, MRIAI  
**Connaught:**  
Malcolm O'Beirne Dip.Arch.B.Sc.Arch, MRIAI  
**London:**  
Sean Madigan AADip.Arch, RIBA, MRIAI  
Angela Brady B.Sc.Arch., Dip.Arch., FRIAI, RIBA  
**Germany/Austria/Switzerland:**  
Rory O'Donovan B.Arch  
**France:**  
Vincent Ducatez, Architecte DPLG, MRIAI,  
M. in Arch.



Published by  
**Nova Publishing Ltd.**  
for the RIAI

**RIAI**  
8 Merrion Square, Dublin 2  
Tel: 01-676 1703  
Fax: 01-661 0948

#### Websites:

**Architecture Ireland**  
www.architectureireland.ie

**RIAI**  
www.riai.ie

- 16 Contributors
- 21 Comment
- 23 President's Column
- 25 Architecture News

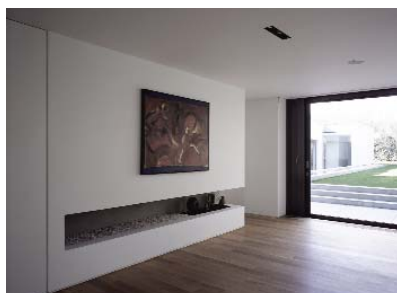
## PROJECTS

*New Architecture*

- 30 **Sleeping Giant, Residence in Killiney, Co. Dublin** by O'Donnell + Tuomey Architects
- 37 Review by Rory O'Donovan



- 38 **The Long House, London** by Keith Williams Architects



- 44 **Hilton Hotel, Kilmainham, Dublin** by Anthony Reddy and Associates



Cover: *Sleeping Giant*, O'Donnell + Tuomey Architects. Photo: Dennis Gilbert / View.

Curtain walling: Technical visible grid curtain walling

Windows: F1065 top hung casements

Project: Thurles Arts Centre, County Tipperary

Architects: McCullough Mulvin Architects

Awards: Architectural Association of Ireland Award

Best Public Building, Irish Architecture Awards



Situated on the banks of the River Suir, The Source is an award-winning library and arts complex in Southern Ireland, which incorporates a complex facade design created using Technical curtain walling.

Sheer panes of glass face the river and allow natural light to flood into the centre, creating a bright and pleasant internal space.

Visible grid curtain walling was used on each elevation and features glass to glass joints where it changes direction to follow the bend in the river. The glazing also projects outwards and returns in at angles of up to 35°.

Technical's system allowed the architects to create a 'random rhythm' for the facade

and an irregular pattern, which almost has the appearance of stonework. This was achieved by breaking the glass walls down into smaller sections, giving an abstract style and an alternative to conventional grid curtain walling.

To discuss how Technical's facade systems can enhance your next architectural project, call our specification team on 01 4105766.



Inspirational Facade Solutions

01 4105766

in fo@technical.ie

www.technical.ie

# CONTENTS



Architecture Ireland

The contents of this journal are copyright. The views expressed are not necessarily those held by the RIAI nor the publishers, and neither the RIAI nor the publishers are responsible for these opinions or statements. Publication in *Architecture Ireland* is a record of RIAI members work and it is a condition of acceptance of RIAI members submitted material that copyright clearance has been obtained. Neither the RIAI nor the publishers accept responsibility for copyright clearance.

The editorial team will give careful consideration to material submitted, articles, drawings, photographs, etc, but does not undertake responsibility for damage of their safe return. The editorial team reserves the right to edit, abridge or alter articles or letters for publication.

*Architecture Ireland* is published ten times a year and is distributed to all members of the Royal Institute of the Architects of Ireland, in Ireland and overseas. It is available to others at an annual subscription rate of €85 including VAT in Ireland, €110 in Europe and €135 elsewhere, surface mail included. Individual copies €8.50 including VAT, postage included.

Enquiries to 01-295 8115/6

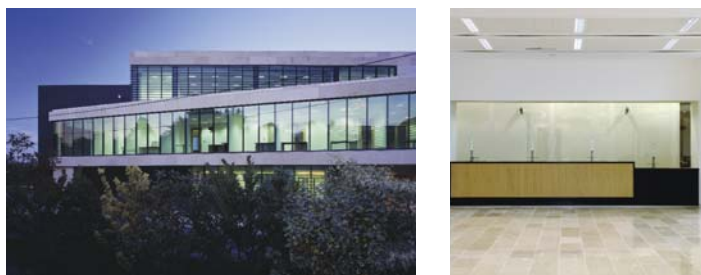
All advertising and editorial queries should be addressed to the publishers.

ISSN 1649 - 5152  
© Nova Publishing Ltd.

## 50 George's Court Offices and Apartments, Dublin by KMD Architecture



## 56 AIB Business Centre, Co. Dublin by Tuite Kavanagh Architects



## FEATURES

- 63 EASA Student Conference 2008: Big Buildings, Big Landscapes and Big Ideas - *Sandra Andrea O'Connell*
- 67 Time To Get Informed About Passive Houses - *Dr Wolfgang Feist in interview with Vivienne Brophy*

## PRODUCTS AND TECHNOLOGY

- 71 Windows and Doors
- 73 Glazing and Curtain Walling
- 79 Product Gallery

## ARCHITECTURE IN PRACTICE

- 87 CPD
- 89 Bulletin
- 91 Dispatch - *Ann McNicholl*
- 93 Architecture and Project Management - *by Flavio Lombardo*
- 97 Book Review
- 99 Arts - *Muireann Molloy*
- 100 10 Questions for Triona Stack, O'Donnell + Tuomey Architects

## CONTRIBUTORS

### James Stephen Curl

(Book Review, p97)

Professor James Stevens Curl's *Oxford Dictionary of Architecture and Landscape Architecture* (2006) is recognised as the best of its kind. His *Victorian Architecture: Diversity & Invention* (2007) and *The Egyptian Revival: Ancient Egypt as the Inspiration for Design Motifs in the West* (2005) have also been acclaimed.



### Vivienne Brophy

(Time To Get Informed About Passive Houses, p67)

Qualified as an architectural technologist and architect, Vivienne is currently a Director of UCD Energy Research Group and Lecturer in Architectural Design and Technologies in UCD Architecture. Vivienne's research and teaching focuses on supporting undergraduate and postgraduate students, the architectural profession and the wider construction industry to meet the challenge of delivering truly sustainable buildings.



### Flavio Lombardo

(Architecture and Project Management, p93)

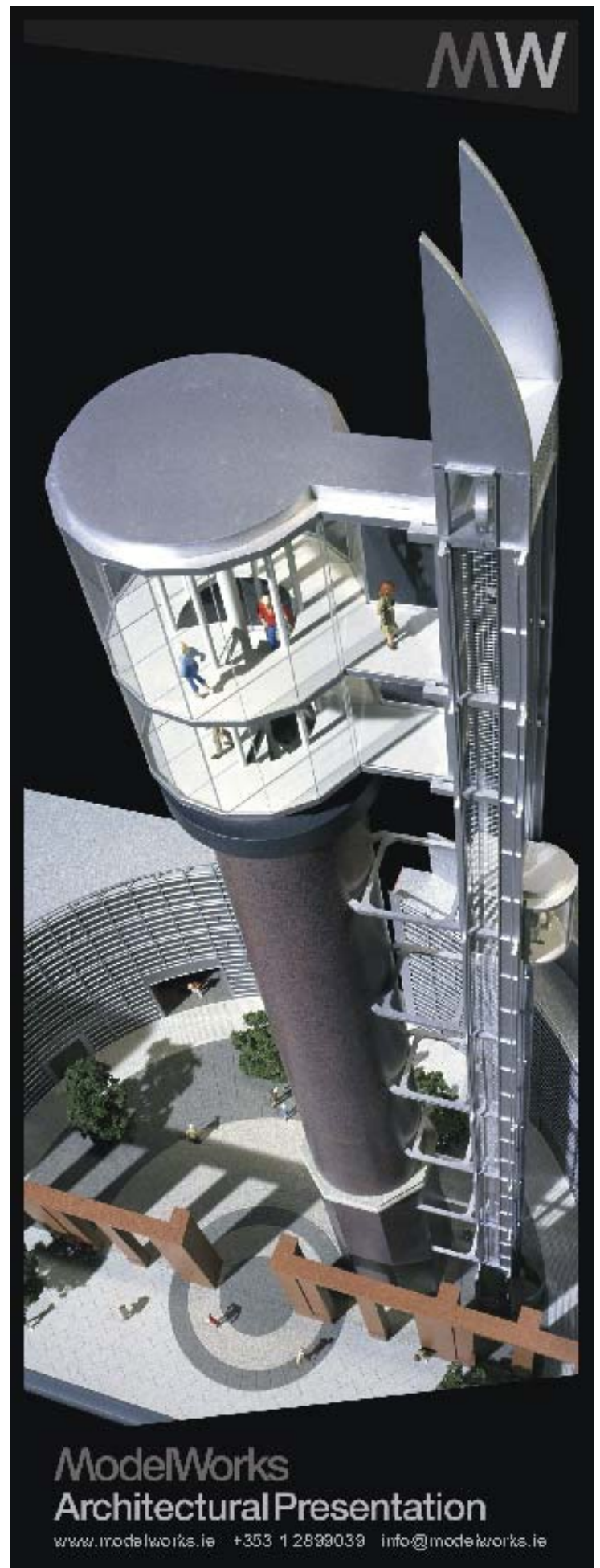
Flavio Lombardo was born and educated in Italy. He graduated at the Faculty of Architecture, Turin Polytechnic in 1998, where he was also licensed to practice architecture the following year. After working and teaching for several years in Italy, he moved to Ireland where he is currently a Senior Architect at Scott Tallon Walker Architects.



### Rory O'Donovan

(Review *Sleeping Giant*, p37)

was born in Dublin and studied architecture at UCD, graduating in 1976. He has lived in Vienna since 1986 where he worked in private practice. Since 2002 Rory has worked exclusively as a free-lance writer and translator in architecture and urban design for leading publishing houses in Germany and Switzerland, the Architekturzentrum Wien and, of course, *Architecture Ireland*.



# ARCHITECTURE AND PROJECT MANAGEMENT

by Flavio Lombardo

## Why Use a Management Approach to an Architectural Service?

Every architect who delivers an architectural service needs, to some extent, approach project management issues. However, never has the delivery of an architectural service become so complicated that simple questions like what to do, how, who, when, may be difficult to address. New legislation, coordination with other disciplines and consultants, faster ways of working that reduce time to analyse, and the increasing size of some projects – all add to the complexity of modern architectural practice.

It is essential for an architect who has project management responsibilities to predispose operative tools and managerial strategies to ensure the control of all components the client requires. By adopting a project management approach, an architect can draft a working plan which determines purposes, objectives and strategies, and can address properly the optimisation of the results that come from the combination of time, resource, cost and quality required. A project management approach to architectural services also contributes to the quality of service, gives confidence to clients, meets the requirements of many projects, and maximise the productivity of the process. An efficient project management system also provides a consistent framework and guide to the practice's own systems underpinning project management and encourages a rational mentality to apply to logical systems.

## The Importance of Planning

*"The nicest thing about not planning is that failure comes as a complete surprise and is not preceded by a period of worry and depression."* Sir John Harvey-Jones

For an architectural service to achieve a successful outcome one needs to plan ahead. There is a common misconception about planning, especially in architectural practice, where many believe that planning is just forming a chart and putting time against activities. But successful planning is something else. It is a process that ensures that all the various elements of a project are properly coordinated. It should take into account a detailed definition of the work that needs to be done, the dependencies between parts of it, their duration, a schedule of milestones, an analysis of the resources and their responsibilities, the channel of communication, a risk management plan and a project budget plan. The diagram overleaf shows a possible approach to produce a project programme for an architectural service.

## Work Programme

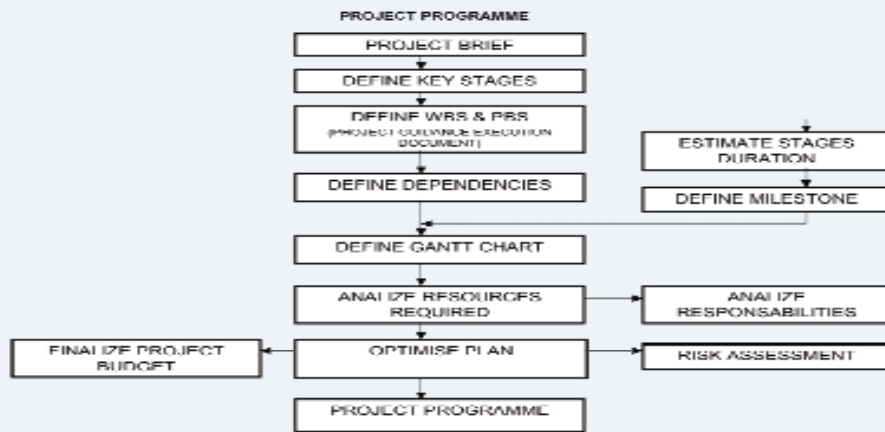
The aim of the Work Programme is to identify the objectives of the project and translate them through activities. In this way, it is possible to coordinate, manage and control the different

parts of the architectural service being provided and determine the right use of time, human resources, cost, material and information to be produced. Two important techniques of the project management methodology can be helpful for this purpose: they are (1) the Work Breakdown Structure and (2) the Product Breakdown Structure.

**The Work Breakdown Structure (WBS)** is a hierarchical, logics organisation of the activities forming the scope of the architectural appointment. It involves organising a structure that lists the various activities to be carried out in order to complete the final process by breaking down the overall project deliveries through stages, tasks and detailed activities. It consists of subdividing stages of work into smaller and more manageable work packages, actions or procedures that can be evaluated, estimated, planned and assigned to a responsible person or department for completion. The WBS is a starting point that helps therefore to identify all the activities needed and subsequently can be used as a reference base to undertake study with regard to time, resources required, project cost and risk analysis.

For success in any project, it is essential for everyone involved to commit to use a common set of processes and procedures. While in architecture projects tend to be different, most of the services are similar and, therefore, several master WBS templates could be created and subsequently adapted to a project. Furthermore, the WBS activities could be linked to a system of procedures, work instructions, standard forms to be followed when the event occurs. This approach would implement productivities, reduce time and control risks that may arise through omission or personal interpretations and misunderstanding of activities. It would also allow larger practices, where more staff is involved in project management, to adopt a uniform and consistent approach to projects.

**The Product Breakdown Structure (PBS)** is a hierarchical organisation of the material and information of the product to be produced at different stages of a project. The identification of the products (drawings, schedules, specifications, reports, etc.) determines an initial understanding of the quantities, types and format of the information to be produced. It would help to define at an early stage an organisational system of naming them rationally. This is very important, especially in large projects where thousands of drawings need to be produced and traced from different people and/or different organisations. For example, *CI/SfB Construction Indexing Manual*; *Uniclass: Unified Classification for the Construction Industry*; *CPI: A Code of Procedure for Construction Industry*; and *Drawing and Specification* are helpful literature and practical guidance for structuring and producing architectural documentation. The PBS also gives a better understanding of



the resources required, both in terms of human resources and logistic support (equipments, PC programs, licences, photocopies, scanners, plotters, new technologies etc), which all have a cost implication.

### Time Programming

Time Programming is fundamental for organising, controlling and monitoring the advancing phases of the project. In architecture – where a project lasts for a long period of time, depends on timing from outside sources, and is dictated by legislation – the ability to analyse and estimate the time necessary to complete the tasks is essential for the success of a project. Programming time is also very important as it is linked with establishing cost and any delays that might occur to the various project activities, which are reflected proportionally in an increase in cost. Different project management tools and techniques provide a valuable programming guide for this purpose.

The **Dependency Chart** helps to better understand the various dependencies originated by different stages and activities. Furthermore, giving an estimated time to activities permits one to set up a **Network Diagram**, which provides important information about logical sequences of work, early/ late starts and finishes for each stage and, subsequently calculate floats and the critical path of the project. The right evaluation of this data is extremely important because it allows one to evaluate how to use time and maximise the use of human resources distributing them throughout the project duration.

One of the most useful planning and control documents for scheduling time is the **Gantt Chart**, which is based on a graphic representation where, within the ordinate axis, the activities of the project are reported and, within the abscissa axis, the temporal scale is reported. This is a very powerful document for identifying the project duration, defining the project milestones, controlling the project execution, and understanding how changes to the plan can influence the project duration. Effective project management software allows you to plan and control all of the above tools.

### Human Resources Programme

Another key area of success within the project lies within the quality of the human resources – how they are organised and managed according to their qualifications and skills, and how much active participation and motivation they give to the project. A fundamental part of any architectural management strategy is the correct formation of the project team, both in terms of quantifying the number of staff and skills required and subsequently determining the responsibility of each. Human Resources are another area which has a direct impact

on cost, and it is essential to plan the human resource element of the project efficiently in advance using the above key areas. It is also important to establish whether activities planned should be carried out by internal staff or whether external resources should be commissioned.

Organisational charts such as the **Resource Requirement Chart** and the **Responsibility Matrix Chart** give an immediate perception of the roles, functions, capacities, duties, as well as all the dependencies and responsibilities of the people involved in the project. They are the bases to set up communication channels, reporting systems, communication processes, both internally and externally.

### Risk Assessment

Architecture projects tend to move in a relatively straightforward way from inception to completion, however, there are a variety of problems that may impact on this process. For example, problems with planning permission, building defects, personal injuries, surveys, problems with fee agreements, lack of quality control on design changes, poorly worded contract documents – all can make the architect very vulnerable to claims. It is very important for the successful outcome of an architectural service and the practice business to assess the risk of the service provided for each project. Project management techniques offer helpful guides to identify the risk, evaluate the probabilities and the impact, and set action plans that will contain, avoid, accept, transfer, allocate or mitigate the risk.

### Project Budget Plan

Last but not least, I would like to stress briefly how important it is for the successful outcome of an architectural service to prepare a project budget plan. In a profession with very little financial training (and not always focused on profit), fee and service competition, increase of staff cost, fee fragmented during a long project live cycle, associated with the other practice cost – are only a few examples of how important it is to have a project budget plan in place and to plan and control the project cash-flow for each project.

Project Management offers a useful starting point for an architectural practice to develop a fully integrated information and control system, which allows the architect to plan, instruct, monitor and control the large amount of data required for a project. These systems assist with problem solving and decision-making as well as helping to establish a management structure to meet the needs of the project in terms of the organisation, the stakeholder, as well as the individual working on all aspects of the project.