

Glass and architects, a long term relationship



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As President of the Architects Council of Europe (ACE) I am pleased to address the readers of IGS on the occasion of the BAU Munich Event. The ACE is the representative organisation for the Architectural profession at European level.

It has 45 Member Organisations drawn from 32 European countries that include all EU Member States, Accession States, Norway and Switzerland.

These Member Organisations are the national representative and regulatory bodies in each of the represented countries and, as such, the ACE represents about 450,000 practising architects.

The main work of the ACE is to monitor legislative and policy developments at European level that affect the quality of the built environment and the architectural profession itself seeking to ensure that the effects of these policies are beneficial for society at large.

The ACE was founded in 1990 and it has gained a considerable standing in institutional circles at

European level through its good and consistent policy and advocacy work.

The ACE relies on a large number of practising architects who undertake work within its Work Groups on a voluntary basis. These Work Groups address issues that, while concentrating on policy and legislative matters, include technical matters that affect the day-to-day practice of architecture across Europe.

An essential element of the technical work of the ACE is its involvement, at corporate level, in research related activities such as the European Council for Construction Research Development and Innovation (www.eccredi.org) and the European Construction Technology Platform (www.ectp.org). It has been involved as an institutional partner in a number of EU funded research projects one of which addressed the question of the integration of photovoltaic panels in buildings (PISA II).

For many, many years and long before it

became fashionable, the question of sustainable architecture has been central to the spirit of several aspects of the work of the ACE.

It was in the mid 1990's with the publication of its White Book entitled "Europe and Architecture Tomorrow" that the ACE first discussed and publicly engaged with the fundamental questions of sustainable development.

This was further reinforced in 2004 by the publication of its Policy Book "Architecture and quality of life" in which the ACE anticipated the major questions that face society in the 21st Century. More recently, at a major European Conference that it organised entitled "Designing for the Future: The market and quality of life" the ACE set a marker which demonstrated that the free market economic approach is not the panacea that policy makers have claimed it to be over recent decades. Sadly the current global financial crisis has proven the words of the ACE to be prophetic.



Oceanarium, Stockholm, view from the harbour.
Photo courtesy of the building's architecten.

In order to clearly state its position the ACE recently adopted a Declaration on Sustainable Architecture in which it sets out six commitments that the architectural profession across Europe at both individual and institutional level is asked to adopt.

Fundamental among these is the commitment that the ACE will promote sustainable design by including energy and environmental performances information in all architectural competitions, public architectural awards and competitive selection processes and that, where appropriate, energy and environmental performance information will be used as assessment criteria in the selection of buildings for publication in architectural reviews. The Declaration can be downloaded from the website of the ACE at www.ace-cae.eu.

Turning to the title of this short article, it is worth recalling that the architectural profession has had a special interest in glass since the early part of the 20th Century. For architects the appearance

on the market of techniques that permitted the reliable production of large sheets of glass liberated architectural design from the enclosing spaces of walls with openings.

The possibilities presented allowed architects to bring large areas of transparency into the walls of ordinary buildings in order to improve the quality of daylight available to occupants.

It is recognised by the architectural profession that maximising daylight within buildings is a significant benefit for the wellbeing of occupants, encouraging greater productivity in work environments. As such the architectural profession has been highly innovative in pulling the glass industry towards greater sustainability and greater technological achievements in order that the design wishes of the profession for greater transparency, higher light levels and greater wellbeing for occupants can be achieved.

When these purely design objectives are linked to the concern for a sustainable architecture the

profession has discovered the great potential in the use of glass technologies to temper the skin or external façade of buildings. This wish to produce sustainable architecture has led to the development of double walls, sophisticated shading devices, sophisticated reflection devices to direct daylight deeper into interior spaces and has led to demands for higher performance from the glass so that whilst keeping great transparency and reduced reflection, glass becomes more insulating.

It is probably fair to say that the Architectural profession, through its designs for sustainability is seeking to devise the perfect skin for buildings a skin that can ventilate, waterproof and protect the interior environment of the building and guarantee high comfort levels at the same time.

The achievement of such a perfect skin means that the architect must be aware of how to best orientate the building to capitalise on passive solar energy, ensuring significantly lower heating demand within the spaces enclosed by the skin.



The ACE European Conference earlier this year "Designing the Future: The market and quality of life"

These concerns for greater energy efficiency and lower carbon dioxide emissions have become a mantra within the architectural profession and the ACE has noted a great willingness on the part of the profession to adopt these new approaches to building design. It has also noted, with regret, that many developers and building owners are reluctant to engage in these new, innovative, yet proven, technologies in the buildings they procure.

It has therefore become clear that the best way forward in our technologically advanced society is to break down the barriers between the various parties in a construction project so as to adopt a collaborative and team based approach whereby all relevant partners, including industry, are at the table at the same time in order to set common goals and devise the best methods for achieving common goals in a partnership approach.

The ACE is confident that despite the increased complexities of project procurement and the emergence of new models of procurement that significant continued innovation within the glass industry will give it a leading role, together with the creativity of the architectural profession, on the road towards a more sustainable architecture and a more secure future for generations to come.

In achieving these goals, a greater dialogue may be needed between the Architectural profession and the glass industry in order that greater understanding is developed between the two. Architects have a very particular need when it comes to taking decisions on which kind of glass to specify – the need for reliable, accurate and technically correct information on the characteristics and performance parameters of the various types of glass available on the market.

Linked to this is the need to balance value for money with these technical capabilities, as it is value for money that is the essential concern of building owners and developers.

It is therefore necessary for the glass industry to have an eye to value for money so that spiralling building costs are not the result of a necessary move towards greater sustainability in building design.

The special interest of the architectural profession in glass has already endured many changes in the structure of society, technology and public taste and it is clear that the long-term relationship will continue in this age of sustainability if both sides keep communication lines open.