



The facade of the Luyeyuan Stone Sculpture Art Museum, completed in 2002, consists of cast concrete. Its structure was created using slate slabs as formwork.

Bi Kejian, Chengdu, CN

Yiakun Architects, Chengdu, CN

Liu Jiakun

Liu Jiakun was born in Chengdu in 1956. In 1982 he earned his degree in architecture from the Chongqing Institute of Architecture and Engineering, after which he was employed by the Chengdu Architectural Design Academy while also working as a freelance author. He spent time in the provinces of Tibet and Sinkian before returning to his home in 1999 to establish Yiakun Architects. One project which drew particular attention was the Rebirth Brick Proposal, a project which offered earthquake victims the opportunity to build their own emergency shelters using only a few materials.

Conserving resources, protecting the environment and ecology are currently dominating political discussions among the people of China. Rivers overflowing their banks in the countryside and severe air pollution in the cities have made this a theme they cannot ignore. The only problem is that no one seems to believe there is a fast or efficient solution. The basis for sustainable construction, the desire for an intact environment, now exists within society, even though the primary emphasis continues to be placed on outer appearances rather than on ecology, including in the field of architecture. Even the government is now aware of the problem. China has already issued a series of decrees concerning the energy efficiency of buildings, and a number of fundamental regulations must now be complied with during the planning phase. Even though they are not particularly strict, these regulations still manage to make a small contribution to reducing CO₂ emissions – yet this is no more than a drop in the ocean. That is why it is necessary to expand this framework, and to ensure that compliance with these regulations can be tested during the planning phase, for simply hoping for construction

While the demand for energy efficient architecture that conserves resources seems to be universal, do the things you have seen lead you to believe that ecological awareness among architects and owners has actually increased? Where and between what groups do you believe there is still work to be done regarding 'sustainable construction' in your country, and what aspects are not being given enough attention in the current ecological debate?



The lecture hall for the Sculpture Department of the Sichuan Fine Arts Institute was built in 2004.
Bi Kejian, Chengdu, CN



The Shanghai Qingpu Construction Exhibition Center is a 190 metre long structure whose facade is dominated by glass and stone.
Lv Hengzhong, Shanghai CN



Liu Jiakun is one of China's most influential architects
Jiakun Architects, Chengdu, CN

methods that conserve resources are not enough. Usually it is the high cost of the special materials required that keep owners from making the necessary investment, for the most energy efficient building materials are usually also the most expensive. Research costs and poor sales to date have made it difficult to lower prices. Yet owners often overlook potential long-term savings that already exist. This means that one approach for architects is to demonstrate to customers just how they can benefit from energy efficient technologies. Even so, everything possible should also be done on the developer side to produce ecological and economical building materials at the lowest possible price. If costs can be reduced, the interest of owners in advanced and energy-efficient materials is sure to skyrocket. The importance of aesthetic design should not be underestimated either, for, in spite of an awareness of the environment, many owners continue to place greater value on the outer appearance than on a building's inner values, i.e. its contribution to protecting the environment. Let's be honest: many of the Passivhaus buildings constructed to date leave something to be desired when it comes to style.

Intricate building components often cannot be used, and design elements such as large window areas must frequently be sacrificed. Numerous architects believe that, while energy-efficient construction might be an interesting field of study, they would prefer to build attractive buildings. Others in turn see it as their ethical obligation to protect the environment, and many of these end up overshooting the mark. After all, what is the point of a perfectly insulated building if more energy is used during construction or for the production of the building materials than is actually saved by the new structure? Ultimately, no matter how conscientious those involved are, the government is the only one who can truly promote energy-efficient construction. Until that point, the architects' job is to do what they can towards protecting the environment while using the affordable materials that are already available. I hope that energy-efficiency in service of the environment is not simply a remedy born of the crisis, but that it is also able to generate interest while satisfying emotional and aesthetic needs.



David Kohn was the UK's Young Architect of the Year in 2009.

Julian Anderson, London, UK



The partitions in the temporary Flash restaurant in the future gallery of the Royal Academy of Arts were made of stacked wooden crates.

Ioana Marinescu, London, UK



Arts Space of the Future is a temporary space for art events in London.

Ioana Marinescu, London, UK

David Kohn Architects, London, UK David Kohn

David Kohn studied architecture at Cambridge and Columbia University, New York. After working with Caruso St. John Architects in London, he founded his own office, David Kohn Architects, in London in 2007. Apart from architecture the office is also involved with art and urban development. The results of Kohn's work in these fields have earned him recognition and the award of Young Architect of the Year in 2009.

There has definitely been an increase in environmental awareness among architects and clients in the UK. This is evident in government policy but also in architecture studies and client briefs: the government has introduced Energy Performance certificates for all buildings, clients now ask architects for advice about energy consumption, and students make field trips by train rather than plane. Nonetheless, the UK still lags significantly behind other EU countries in these areas and needs to make improvements across the board. Perhaps our biggest challenge in this context is to develop approaches to energy conservation that will yield long-term environmental benefits and to define the role that architects have to play in this regard. Britain has a strong tradition going back to the Victorian era of encouraging technical progress in architecture. This cultural baggage is an impediment to environmental reorientation, because focusing on technology is not the right way to go: it has become increasingly clear that environmental protection for architects is not primarily a question of technology but of changing cultural attitudes to cities. The mantra "reduce, reuse, recycle" is perhaps a better

starting point for architects than technology. This is not to say that innovative energy conservation technology does not have a key role to play and that architects should not specify suitable products. Clearly they should. But this is not where architects can lead. Rather, they have a unique duty to bring on board a large interdisciplinary team and through their ideas to change our understanding of the relationship to the built environment. Caring for our environment must start with valuing what we have. This may be obvious, but modern urban planning today normally starts from scratch, through demolition. A radical shift in thinking is therefore required and a realisation that the shells of earlier cultures can be revived. This is not a plea for preservation of buildings but for the ongoing reinvention of our relationship to existing contexts.



The town of Olot is located in the volcanic mountains of northern Catalonia. A little way outside of town, in Vall de Bianya, can be found "Casa Bianna", a long, one-storey private home. Strip windows emphasise the shape of the structure.

Eugení Pons, Lloret / Girona, ES



Daniela Hartmann has been living and working in Barcelona for more than 15 years.

Hidalgo.Hartmann, Barcelona, ES

Hidalgo.Hartmann, Barcelona, ES Daniela Hartmann

Daniela Hartmann was born in Münster in 1964. She studied interior design at the FH Mainz University of Applied Sciences until 1991, and five years later she and Jordi Hidalgo founded the Hidalgo.Hartmann architectural firm in Barcelona. The company soon experienced its first competition success, winning numerous prizes for its projects published in many different venues around the globe. Both partners are lecturers at the Elisava School of Design in Barcelona.

For architects, the person is the focus of their activity – creating the “shell” in which they can prosper is their design task, and climate conditions, geographical knowledge of the location and the use of long-lasting materials are an inherent part of this. Multiple examples in Spain demonstrate the fact that environmental awareness and attractive architecture does not have to be mutually exclusive. Quite the contrary, for ecological approaches are often integrated into the design process for aesthetically appealing structures. Nowadays, our profession sees the integration of environmental factors into construction as another challenge integral to the creative process, although I believe that the best examples are to be found in the buildings commissioned by large companies. This is due to the fact that the prestige of modern, competitive and innovative companies also depends on demonstrating ecological awareness and a willingness to commit funds to the purpose. In general, financing buildings has become more difficult, something which is due to regulations as well as to the prices of construction materials. As a result, architects find their choice of materials has been restricted, and ecological

products in particular are practically out of reach in this context – at least when one is not willing to compromise on appearance. I can demonstrate this quite clearly with photovoltaic modules. In my opinion, they really only go well with flat roofs. While it is true that there are systems available that integrate these elements into the facade, very few owners are willing to make the substantial investments these entail. It is the job of industry to develop cost-effective versions of these products while paying attention to aesthetic requirements. Another contribution to environmental protection is made by green areas. Not only should these play a much bigger role in municipal planning, they also have their place on a small scale as well. We must make room for plants. Not only do they deliver added value visually, but their importance to human health and the reduction of CO₂ emissions does not get nearly the attention it deserves. All efforts will be for naught unless something is done in large cities. If we limit our ecological concepts to ideal cases such as detached houses, we are unlikely to achieve the results that everyone hopes for.