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# Breaking the Mould

**Advancing technology has enabled architects to create stunning miniature replicas of their work. But is it possible for this more traditional method of showing off architectural designs to co-exist with breathtaking computer graphics?**

With the constant upgrading of design technology it is a never-ending affair trying to keep up with what's going on in the world of architecture. One area in particular that has seen tremendous advances is the medium of presentations for developers and architects.

For many years the standard method of conveying proposed architectural designs to interested parties has been the construction of models. The advent of sophisticated software and machinery has meant that the world of model-making has been opened up to new technology that has made this skill a sophisticated art form. This technology has also opened up the

market for computer graphic illustrations.

## Model Making vs. Computer Graphics

Model-making is surely one of the most intricate and time-consuming forms of presentation. The results of this time-honoured craftsmanship can be absolutely spectacular. Technological advances in other areas may be seen as an attempt to improve on this art form, but we are surely a long way from seeing an alternative medium completely take over. The use of computer graphics is a definite alternative because it offers a different perspective but is unlikely to impinge seriously on the position of model-makers.

Working from his studio in an industrial complex on the Southwest tip of Hong Kong island, Patrick Ford of IMA models has devoted the last two years to building up the model company he established with two other business associates, Russell Wilson and Philip Smith. "About 99% of the architectural models that we construct are used for presentations to market buildings to investors," Ford explained. "The vast majority of our commissioned work comprises residential tower blocks as well as commercial and industrial buildings. Right now Asia is the place to be in this industry, there is so much construction going on, both in Hong Kong with the Airport Core Programme (ACP) and in mainland China, specifically in Guangzhou and Beijing."



Three examples from the Miners Models stable

## Skilled Staff Shortage

With increasing workloads IMA Models has had to negotiate one problem in particular - finding freelance staff to help out when things get busy. The barrier is actually getting hold of personnel who are trained at this highly skilled craft and are flexible enough to adapt to the different methods used in the construction of the models.

Clive Miners has been running Miners Models for fifteen years now and has moulded the company into one of the largest and best known in the region. Miners also spoke of the problems he has in locating adequately trained staff. Since Miners invested in new machinery



Competition model for Liang Peddle Thorp by IMA Models





IMA Model's Patrick Ford

two years ago he has found that it has revolutionised much of the production process, making it quicker to produce intricately detailed pieces. Previously all detailing was done by hand, now with the aid of the CAD/CAM systems, milling machines can be programmed to carry out the most delicate detailing at a fraction of the time, allowing Miner's to cut down on labour costs. However training the staff to use this type of machinery is not easy. It takes time to get a decent handle on the requisite technology and proficient staff are often difficult to come by.

Miners explained how model making has developed as an industry in recent years. "When I started out in this industry there was only one course specialising in training for model-making in England. Now, as an indication of just how it has developed as a tool within the industry, there are at least eight courses from which aspiring model-makers can choose." The UK is still very much the model-making centre of the world. Over the years, as the art form has been exported all over the globe, it has gradually encroached as a presentation device into a number of applications besides architecture, including advertising, photography, films and exhibitions.

**CAD - The Way Forward**

Another medium for architectural presentation has benefited greatly from an increased sophistication in technology. The development of 3D software packages for Computer-Aided-Design is increasingly being used by

architects as a marketing tool. In Asia this movement has been spearheaded by Virtually Real, the Hong Kong computer graphics company that sprung into the limelight with its short promotional film of Foster Asia's new Hong Kong airport terminal design, called "Air and light". The video featured real-life film footage combined with CAD graphics to successfully bring to life the Airport Authority's plans and themes behind the new building at Chek Lap Kok.

Darren Richter, one of Virtually Real's three company directors continues to be astounded by the success of the company. Working an eight day week with overtime, the hard work put in by the team has meant that the company is now at a point where it is trying to market and expand its operations within the region. "There is plenty of work in the pipeline," Richter said. "In the short term we are still very busy with the airport project but in the long term we are looking throughout the region to expand. Bangkok and Kuala Lumpur are obvious targets and right now I am in the process of establishing a marketing office in Brisbane, Australia."

So how is it that such a simple form of presentation can remain competitive in the face of the computer technology that companies like Virtually Real are utilising? As Patrick Ford puts it, "the two really work side-by-side and offer quite different ways of presentation. Computer illustrated graphics are a brilliant way to generate a clear impression of a planned development and to show what it might look like once it is built. However a model is something physical and this is where it comes into its own because the physical aspect cannot be replaced."

**Marketing Tool and Trouble Shooter**

Not only do both of these forms of presentation offer excellent marketing opportunities, they can also be used as a device to help eliminate teething problems and clarify any points of

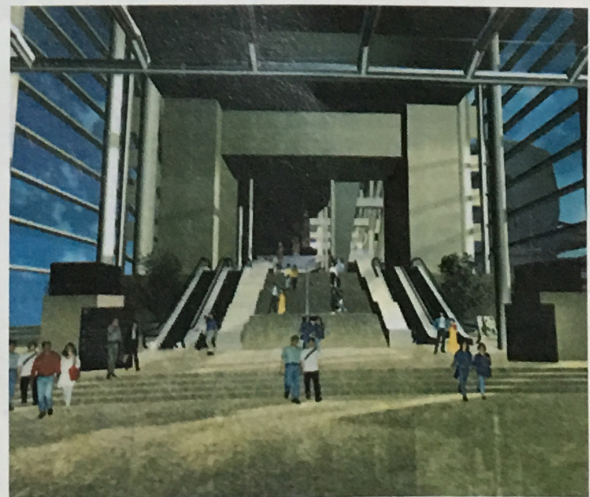
uncertainty. For these reasons a presentation can help to save a lot of time, trouble and money - which far outweighs the price of the presentation itself. "On several occasions we have had incidences where walls didn't join up or roofs didn't fit and this has helped save a lot of embarrassment for the architects," explained Ford. Unfortunately for architects, the people who would really benefit from this sort of aid in their design, the cost of such a tool to assist them in their work is often perceived as a prohibitive factor. What is overlooked is just how much time and trouble it can save and how much a presentation can go towards marketing a development.

Technology in both spheres is the obvious way forward. IMA Models has started to incorporate the use of CAD/CAM technology which has already revolutionised production at Miner's Models. Meanwhile Virtually Real will be updating their software in the course of the coming month. Presently using 3D Studio Software the company will start to use an updated version of this software that will bring new features and enable faster output. "The hardware remains the same but the software now seems to be updated at an average of every 18 months," said Richter.

Whether the advent and wider use of virtual reality in architectural design will change this equilibrium, we can only hazard a guess. For the time being though there seems to be nothing quite like the physical presence of a model in a sales pitch.

**SIMON PITMAN**

**AAC**



Virtually Real's work in 'Air and Light'