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The Future of Modelmaking

Looking forward is difficult. It would be easier to look back at the long history of humankind's fascination with making replicas and representations of things and ideas. Models have been around since the beginnings of civilisation - from the clay statuettes of pre-history, through the working masons' models of cathedrals, and the miniature engineering prototypes of the Industrial Revolution, to the glossy computer images of today.

No human society has ever functioned without models to capture, explain, disseminate, persuade, sell, reinforce and analyse all kinds of ideas, values, concepts and situations. Where then will it go in the future?

Predicting the Future

As human beings, we are subject to a wealth of urges and desires. One of the most powerful of drives felt by us all is the need to predict the future. We do it all the time and at many levels of our consciousness. We look out of the window to see if it will rain; we watch each other's face in order to predict a reaction; in every decision we make we weigh up alternative predictions of the future.

Trying to predict the future is a survival mechanism built into our behaviour. We cannot stop ourselves doing it. If we can predict the future, we can control our position in it, and thus survive more safely.

PREDICT - CONTROL - SURVIVE

The urge to predict and control the future - and thus survive - is the driving force beneath our human need to understand our world. It drives all science, all politics, and a good deal of art and design.

Of course, this is the reason most delegates attended the conference - to try to predict the future and safeguard their position in it. Unfortunately, our ability to predict what will happen is very limited - much more limited than we like to admit. To try to see a clear picture of the future is probably a waste of time, because we can only imagine the future in terms of the present, and by the time the future comes, it will be following rules of its own, rather than rules we understand now.

Let's look briefly at two examples of prediction:

A lot of the discussions at the conference were based on the practical application of computers. Think back a few years. Do you remember the "paperfree office", the absolutely logical prediction that having more computers would mean less paper? Yet nobody foresaw the parallel development of fast copiers, cheap fax machines and printers, and the opposite has come true. There is more paper than ever.

In foreseeing the future we have always been the prisoners of the present. Going further back in time, there were equally rational arguments for why the installation of mains gas supplies would inevitably lead to nationwide disaster. Imagine the proposal:

...we are going to take a highly inflammable and explosive material, pump it under every road and into every building in every city and town, and then we are going to give millions of people free access to this system so that they can they can all, more or less simultaneously... set fire to it...

But the disaster never happened. Logic loses again. Every science-fiction film shows the naivety with which we predict how the world will be. The films often look silly and they are each obviously a product of their time.

Trends in modelmaking

The future will not make sense in terms of the present. This draws a question mark over trying to predict the future by extending the trends we see now, but we have little choice. What trends do we see in professional modelmaking? Delegates more closely involved with the business might disagree with me, or have more ideas to add. The trends I see are:

- a) The continued incursion of hi-tech methods and materials
- b) Earlier involvement. More development models. Less complete information.
- c) Competition, but also combination, with computer-originated imagery
- d) Growth in freelance employment
- e) Growth in service/specialist support
- f) Professional boundaries softening
- g) Growth in formal education/training
- h) More tendering and free-pitching

It is possible that the most influential changes of all are not yet on that list. They will be caused by a combination of factors impossible to perceive now. What factors might affect the future of modelmaking? We can take a guess:

1. The Technology, but more importantly, its output and cost. Not so much the old things done better; more likely new things we did not even know we could have.
2. The Clients, and what they expect. They will expect what is impossible now. Not just the same models better, faster, cheaper, but also different.
3. The Environment, its demands and opportunities. The commercial working environment, as well as the biosphere. Will modelmaking move to the pacific rim, following manufacturing industry?
4. Chance. Some things will surprisingly stay nearly the same, but which?

The multiple permutations of change possible in these and other factors make any clear prediction very difficult. It is chaos theory in action ? a mass of small variable events combining to generate large but essentially unpredictable outcomes. As with the weather, the length of the forecast is crucial. If a prediction covering two or three years is quite possible; five to ten years is guesswork. One thing is certain. If we paint a single, fixed picture of the future now, we are deluding ourselves. It will look as comical as those old films.

We might speculate on some possibilities:

- a) The virtual disappearance of benchtop product modelmaking
- b) The rise of the multi-skilled modelmaker, or
- c) The return to highly specialised staff, working in specialist processes
- d) Much greater caution with toxic materials and dangerous practices, caused by legal liability
- e) The marginalisation of the small firms unable to invest in hi-tech efficiency, or
- f) The growth of service firms able to spread investment over many 'client' modelmakers, or
- g) The cost of hi-tech equipment plummets to bring it into the reach of everyone
- h) Real-space models are superceded by screen-based systems familiar to a new generation of clients entirely brought up on 2D media, or
- i) Nothing much changes at all, but a few small things change a lot ...

Then what of our task of this conference and the papers published here? Did the conference provide any useful insights into what might happen in modelmaking? I hope so, but perhaps we can relax a bit and accept cheerfully that those insights will be fragmented and tentative. We need not strive for that single, perfect vision.

A Contingency Approach

We do have to know the answers now, and we probably cannot know them anyway. But we are not powerless. What we can do is consider some of the alternative possibilities in advance, so that when they do arise, we successfully recognise them and can act more effectively.

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