

When pros refused to tell photographic student Gavin Gilmour how to go about multi-imaging, he decided to work it out for himself.

ROBYN GOWER reports.



he final year of Gavin Gilmour's photographic course almost killed him.

Having worked 14 hours a day to complete his career project, he decided to take a week's holiday in sunny Queensland to recuperate. Three days later he was in a coma — the result of a near fatal hang-gliding accident.

The crash landed him in hospital for three months, but photography got him out of bed. Two awards were awaiting him, and a few broken bones weren't about to stop him collecting them.

Gavin is just about to complete the final semester of the Associate Diploma of Arts in Photography at the ACT Institute of TAFE. Only six of the 36 students who started the demanding four-year, 10 hours a week, course made it through to the end.

Finishing has required a great deal of commitment on Gavin's part. For 10 years he has worked in the drawing office of the Australian National University's (ANU) Nuclear Physics department, which he now manages.

"I had been using photography as a tool in illustration for many years," explains Gavin, "but I wanted to combine technical skill with creative photography in this particular project."

The result was an award-winning portfolio of multi-image pictures that took the college by storm. Gavin won the AGFA-Teds Award as Most Creative Photographer of the Year (1990) and the ACT division of the Australian Institute of Professional Photography



(AIPP) Outstanding Portfolio EBOND award 1991. And this was just his first semester portfolio in his final year!

Students were given 18 weeks to complete a career project which explored a style of photography they would like to follow on completion of the course. It was a welcome relief from the rigours of photographic theory, physics and chemistry. Gavin had no problem dreaming up a concept for the project.

"My objective was to investigate techniques of multi-imaging used in high-tech advertising and commercial photography," he says.

His research on various multi-imaging methods turned up very little, so he decided to look further afield. He travelled to

Sydney and Melbourne in search of other photographers using multi-image techniques. Some offered advice, but none would outline a clear-cut formula.

"One photographer said it had taken him 10 years to formulate a composite technique, so he wasn't going to give information away for nothing," Gavin says. "He told me it was a trade secret."

Gavin soon realised it was all trial-and-error — despite the costs of film and the hours of work required.

Fortunately he attended the first 'Light Of Australia' photographic conference (1990), where he heard Sydney photographer Ken Redpath deliver a workshop on multi-imaging.

Gavin adopted some of those techniques and improvised others.

His image concepts were planned on paper, but each required a slightly different technique. Most were based on the results of his first image — the pyramid. His theme: to show communication via satellites and telephone networks.

Technical difficulties made him simplify the concept to make it work.

The artwork was drawn in black ink, on semi-transparent paper and placed on registration pins (Kodak Registration Punch and Pin) to be photographed on 8x10 lithographic film. The lith film negatives were then photographed separately in registration with different colour filters onto the one sheet of transparency film (4x5).

The pyramid was made from white foam core board spray-painted matt white. As

ON THE LEARNING CURVE

others before him have found, models have to be perfect — any irregularities will show up on the film.

The final image was composed of six multiple exposures, using three Sinar 4×5 cameras. “The advantage of 4×5 was that I was able to use its movements to control perspective,” Gavin says. “The ground glass helped with registration, I was able to use back camera projection, and it was easier to mask in front of the lens.”

One camera photographed the model pyramid, while another was used to shoot the artwork (lith negatives) placed on registration pins on a lightbox. The third photographed the airbrushed artwork of the skyline, and the mist hanging over the city.

After setting up each shot, Gavin locked all the camera movements and drew the image on the ground glass's fresnel screen with a fine marker pen.

Only key elements, such as the horizon line, the pyramid and perspective lines were included. The fresnel screen was then transferred from one camera to another to align the subject matter.

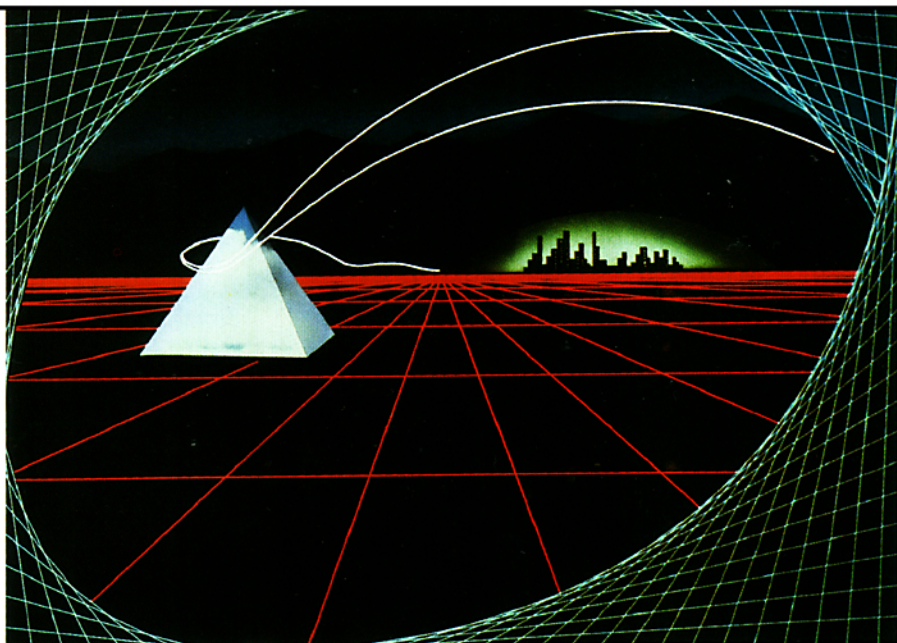
Gavin photographed the pyramid model on a large piece of black velvet, sandwiching the unexposed film with a pre-exposed and processed transparency of sky in the double dark film holder. The camera's height and movements were set so the pyramid appeared to be sitting flat. Lighting ratio was about 2:1.

He masked the subject surrounds with strips of black paper (to block out unwanted details) mounting it on a standard bellows frame positioned in front of the camera lens. This was done at the working aperture to avoid subject cut-off.

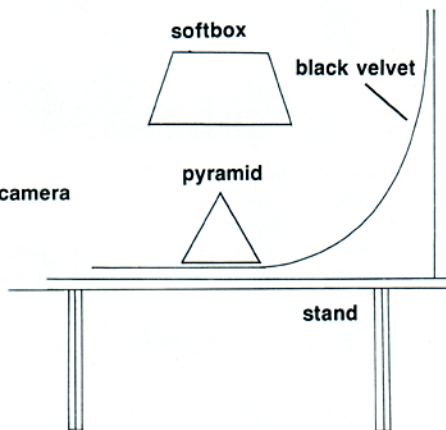
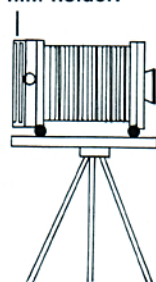
The position of the sky transparency was checked against the pre-drawn image on the fresnel screen.

To check the sky/pyramid effect, Gavin taped a sky transparency to the opening of a loaded Polaroid back, allowing an extra half-stop's exposure for light loss through the pyramid transparency. The Polaroid showed the effect of combining the lighting ratio (2:1), and colour and tone characteristics of the sky transparency.

A sheet of film with the sandwiched sky transparency was then placed in the camera and exposed to the pyramid model. The transparency was then removed (in total darkness) from the film holder without moving the unexposed film (exposure 1).



sky trannie in contact with unexposed film in double dark film holder.



ABOVE: Creating the pyramid image took three cameras and six exposures!

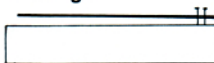
LEFT: Pyramid was shot against a black velvet background, sandwiching film with a pre-exposed sky transparency.

view camera



Second camera was used to photograph lith negatives placed on registration pins on a lightbox.

lith negs



registration pins
lightbox

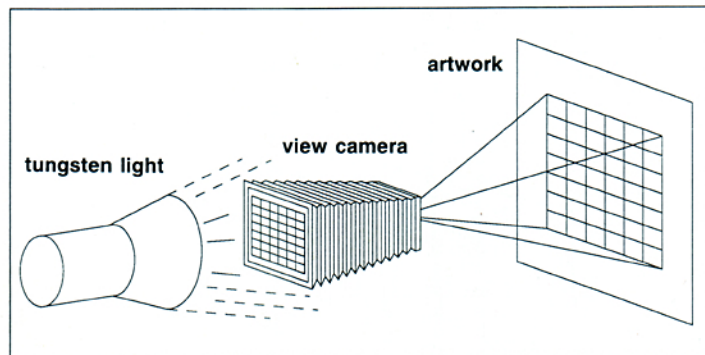


copy lights



Third camera photographed airbrushed artwork of city skyline and mist. Camera was focused by shining tungsten light through camera back.

Second camera, which had not been moved, was then used to integrate the elements.

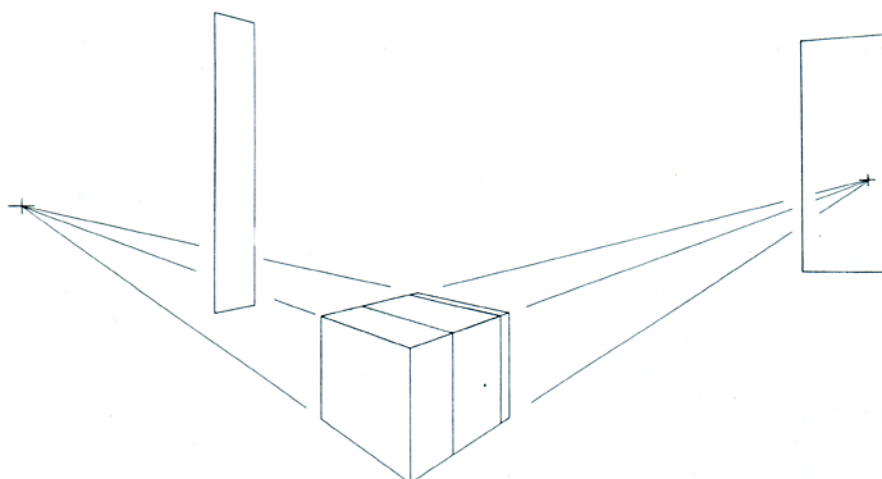
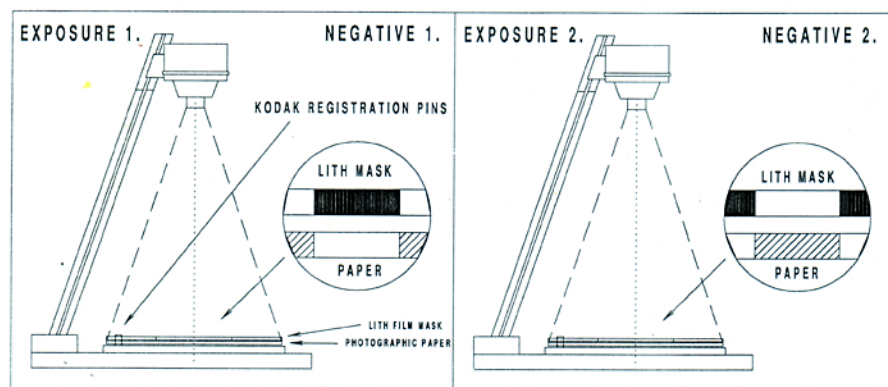


Back projection of a light through the camera's ground glass grid. The grid is focused onto the artwork.



Simplified layout of cube composite photograph. This was a two-exposure composite using a Kodak registration system and two enlargers, each with a lith film mask on registration pins, on top of the photographic paper.

In the first exposure, the centre area is masked out by the positive lith film mask. In the second exposure, the centre area is enlarged in by the negative film mask.



Layout for the cube composite masks.

The next steps involved the lith film negatives of the artwork on the lightbox. Gavin took Polaroids to check registration between the first two exposures — just as well, there were many inaccuracies caused by movement in the camera lens plate between shots. Fine tuning of the shift movements obviated this.

Gavin used red, blue and magenta filters to achieve the various effects and colours (exposures 2, 3 and 4). Again, it was all trial and error, with subjective decisions being made on colour and intensity in each element of the image.

The white dome of mist over the city required a third camera, and yet another exposure. The airbrushed artwork was made up with a frisk mask (used to blank-off artwork during airbrushing) which was registered with the image drawn on the fresnel screen. To focus, Gavin projected a light through the ground glass and focused the ground glass grid onto the artwork before removing the light and firing off another shot (exposure 5).

The final exposure, again using the second camera, combined all the elements in registration with one another. Gavin did have to airbrush the edge of the pyramid to make it look as though it was mirroring the surrounding colour.

“I learnt a lot about what not to do in this particular project,” Gavin said. “I discovered that strong double-sided tape (used to stick the film to the double dark) could possibly damage the film and introduced its residue to the E6 process.”

He also learnt that all camera supports (including the lightbox) had to be secured. “I had to maintain the same subject orientation throughout all exposures to keep the edges of the double dark film holders in registration.

“I couldn’t rely on Polaroid to check the accuracy of registration, as the film showed a different result.”

But he believes the most important lesson was that planning, research and organisation can avoid a lot of heartache.

“One also needs heaps of patience, persistence and motivation,” Gavin says.

“I was a bit naive in the beginning. I believed the information would be easily accessed through technical reference books and professionals in the industry.

“The project was well worth the effort and expense. I gained a lot of valuable knowledge and experience, as well as personal satisfaction.

“The images produced have their faults, which will ultimately leave their mark as a learning experience.” ■