About the Cover

Sogitec: From Hard-Core Business to Romantic Future Tech
Margaret Neal, Managing Editor

Figure 1. A computer-graphic gas heating system.

Figure 2. An apartment being computer-graphically constructed around the heating system.

Figure 3. The apartment beginning to glow as the heating system warms it.

Gas energy will be part of the world’s future. That’s the final message of Sogitec’s 30-second TV commercial for Gaz de France. This month’s cover image is from the last scene of that film.

Graphic revelation

The commercial opens on a heating system and then pulls back to reveal an apartment interior constructing itself around the heating system. As the apartment is warmed by the system, it starts to glow. Then we pull back further and see that the apartment is actually in a giant spaceship, and finally we see that the spaceship is circling Earth (see Figures 1 through 5).
Crunching power

The major problem in making this commercial, as revealed by Xavier Nicolas, head of the computer animation department at Sogitec, was the huge database required because of the minute details used in the commercial. When the apartment is built around the heating system, for example, we see it put together detail by detail. Sogitec uses a powerful computer complex consisting of a Perkin-Elmer 3200 multiprocessor, an Evans & Sutherland PS 300 real-time animator, 12 graphics terminals, and a 35-mm and video transfer system.

The image of Earth was accomplished by mapping a rendering of Earth onto a sphere, Nicolas reports, but everything else was done with polygons. Many different light sources were used throughout the commercial.

The apartment and heating system were designed and drawn (blueprints) and then digitized. Why not use photography? “Because we could deal with all the figures and choreography, plus the lighting,” says Nicolas, “when we had them in the computer.”

The brand new commercial first aired in May. It was directed by Georges Kular, with graphic design by Pierre Fabre and animation by Daniel Poiroux.

Business to romance

The Film Production Center was set up two years ago by Sogitec to do advertising films, television titles, and industrial films with computer graphics. Now the Center has graduated to work on a feature film, which features computer graphics in its plot.

The plot

In the film a famous singer is about to be double-crossed. Her former lover—the father of her baby—is an electronics pirate who lives off plunder from record companies. He discovers that a powerful producer is working in a secret laboratory with a

Figure 4. The camera pulls out to reveal that the apartment is part of a giant spaceship.

Figure 5. The spaceship orbits Earth.
brilliant scientist named Kolewsky to develop a hologram of the singer. This hologram could stand in for the singer and would be a docile, completely controllable substitute (see Figures 6 through 9).

In Sogitec's description of the movie, it explains that "This sparks off a conflict setting at odds the individual and the technique, the present and the future, and also the obscure forces that drive us and occasionally make us prefer shadows to brightness."

**The bad guy**

In this film computer graphics is the tool of the bad guy. Inside Kolewsky's secret lab we see a real woman run through a realistic, futuristic laser scanner, which will reconstruct her entire being. We see the symbolic particles that the scanner will read from her body and which will be used to completely model her "double." All the computer graphics parts of the film are animated, and they had to be perfectly timed with the live action. The singer's body was completely modeled by computer for use in the calculation of the computer graphic "particles" of her body.

Some scientific liberties were taken, of course, because the purpose of the film is to entertain. It had to be more magical than scientific, to open possibilities of imagination, and in Sogitec's words "to break away from high-technology aestheticism."

The film required large numbers of independently animated graphic elements, the particles of her body. Random movement of these particles was achieved by using special computer programs developed to cope with such a complex three-dimensional animation.

Finally, each image was rendered in color and then in
black and white on high-contrast film, to be integrated with the live action by special effects.

The challenge

It was important to the story line that the computer-generated images not be the star of the film but rather be a believable component in the story.

Sogitec describes the experience as a rewarding one for computer graphics people as well as cinema people. It was "a meeting ground for two expressions, which up to now in Europe had lived in mutual ignorance, regarding each other as incompatible."

The original script for *L'Unique* was written by Jerome Diamant Berger, who also directed the picture. The Sogitec production was headed by Xavier Nicolas, working with Jean-Francois Henry, who designed the computer images, and Christian Foucher, Eric Randall, and Alain Grach, who generated the images.

Bright future

In a remarkably short time Sogitec has become a multiple award winner in Europe, Japan, and the US. (It has won 12 major awards in less than three years.) The company is moving into the future with a decidedly upbeat attitude, dancing between its various assignments from hard-selling business applications to feature film work. It should be an interesting company to watch as it rockets into the future.

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