L.A. SIGGRAPH PRESENTS AN EVENING WITH
SONY PICTURES IMAGEWORkS
FEATURING A SPECIAL SCREENING OF
STARSHIP TROOPERS
TUESDAY, NOVEMBER 11TH

The Program
7:00  Doors Open (Priority entry for members)
7:30  Presentation and Screening

The Location
Mann National Theater
10925 Lindbrook at Gayley in Westwood

Directions
From the 405 freeway exit Wilshire East; continue east on Wilshire to Gayley, then turn left.

Parking
Parking is $5 at UCLA's lot 32 on Kinross, one block north of the Mann National, turn left on Kinross. Street parking is free after 6 p.m. in most areas; check street signs for details.

Fees/Registration
This event is free to L.A. SIGGRAPH members and $5 for non-members. New members who sign up on-site and pay the $25 annual membership fee (checks or cash only) do not have to pay the $5 registration fee.

The Event
Sony Pictures Imageworks is pleased to host the November L.A. SIGGRAPH meeting and present a special screening of the Tristar Pictures and Touchstone Pictures production of Paul Verhoeven's Starship Troopers. The screening, which will take place at the National Theater in Westwood, will be preceded by a brief presentation by Imageworks artists.

Scope, Scale and Detail Mark Epic Space Battles

When director Paul Verhoeven approached Sony Pictures Imageworks in late 1995 about doing the visual effects for Starship Troopers, his tale of an epic battle between humans and bugs, it was quickly apparent that he was describing a job the size and scope of enormous proportions. Verhoeven envisioned a film with the intensity and grit of a great war film and the epic scale of a Titanic. With Phil Tippett responsible for the creation of all of Starship Troopers computer generated creatures, what Verhoeven wanted from Imageworks was the creative and technical savvy to stage space battles unlike any seen before. The tools needed to do this would include the full range of visual effects technique: green screen, blue screen, model, miniature, and pyrotechnic photography as well as computer generated imagery (CGI) and digital compositing. Under the leadership of senior visual effects supervisor Scott E. Anderson, an Academy Award winner for his work on Babe, and visual effects supervisor Dan Radford, Imageworks put together a team, eventu-
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ally to include over 250 artists and technicians, to bring these battles to the screen.

The first step in the process of creating this work was to establish the aesthetic approach. Verhoeven knew from the outset that he wanted to emulate in outer space the great naval battles of World War II. According to Suzanne Pastor, visual effects producer, "Paul was very clear about his aesthetic aim on this show. He never veered from his vision — to get visual effects shots better and unlike anything else seen in space." Anderson and Radford posed a series of questions: what would a battle in space really be like? How would these ships move? What do things look like in space?

From these questions, fundamental decisions were reached that resulted in a unique visual style. As Radford describes the process, "on each shot we would sit down and say, 'What haven't we seen before? What have I always wanted to see in a shot like this? What would that be?'

Unlike traditional science fiction movies in which a single ship zooms across empty space, the ships in Troopers move with the plodding heaviness belittling tremendous vessels, like the Rodger Young, up to a kilometer in length. As Dan Radford explains, when the visual metaphor is shifted from aircraft to large, battleship-type vessels, "it gives a gentler, longer-developing motion that lets the scene play longer in time, and let's you feel that these things are really big and desperately trying to maneuver." The rear propulsion of such ships also creates a very subtle weaving motion which may not be consciously detected but still effects how movement is perceived.

For that reason, Imageworks developed a high contrast, crisp look—understanding that the clarity of space changes the way we see. On earth, depth perception is cued by atmospheric haze; as objects move further away, they "gray out," and the brain perceives this as distance. Anderson and Radford therefore asked what could cue distance in space. "We have darkness," Anderson explains. "As things go away, light falls off. So things tend to gain contrast and become darker as they go into the distance. They don't quite drop away into the darkness of space, because you do want to know that something is out there, but we allowed things to recede in a way that gives the impression there is even more out there than you are seeing." The result of this decision is that the space shots have an infinitely deep focus and a stark clarity across the entire frame.

Finally, it was decided to depart radically from conventional images of space as unbounded and infinite in all directions. Instead, the Troopers team wanted the audience to be tightly immersed in the action, a feeling that Anderson calls "epic claustrophobia." He continues, "we have huge space, wide open vistas, but you always feel boxed in by what's going on around you." This claustrophobic feeling was accomplished by filling the screen with a fleet of as many as fifty ships flying tight formation, then placing stars or asteroids in the background, and always pushing the planet up into the action framing the bottom of the screen.

Special Thanks
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