artists of illusion

by lois siegel

Scanners is out of this world! Burning buildings and exploding heads are all in a day's work for the film's team of special effects experts. And when their job is done, few will know where reality begins and the illusion ends.

Gary Zeller wears his army cap for goodluck. In his business, he needs all the luck he can get! photo: Lois Siegel
Scanners is one of the largest special effects pictures ever to have hit Canada. Written and directed by David Cronenberg, this 4.5 million dollars science fiction thriller stars Jennifer O'Neill, Stephen Lack and Patrick McGoohan.

One of the most outstanding aspects of this Filmplan film is the creation of the special effects, a fascinating, if sometimes dangerous occupation.

**Tonight**

**The Burning Building**

*by G. Zeller*

So reads a sign in the doorway of a structure in Old Montreal one rainy November evening. The upstairs apartment will soon be set ablaze by Gary Zeller, special effects coordinator, and his eight-man crew. Scanners is yet another film to be added to Zeller's long list of credits, which includes Dawn of the Dead, Altered States, PT 109 and Operation Petticoat.

Zeller himself is in the apartment amidst large cylindershaped objects, pipes (which remind one of gas chambers), fans to stimulate and control smoke, spurtng fog machines, and numerous other devices to create frightening effects. He and his crew don protective, fireproof suits, and special helmets with motors to aid breathing. The local firemen stay clear. They're curious, but have little desire to get too close. Zeller checks his escape rope in case something goes wrong and he has to leap out the window. Only days before, he blew up a car using six bombs — explosives he terms "highly dangerous." His biggest problem is convincing those around him how dangerous his effects really are.

"With the same kind of explosives we used last night I could have blown up the George Washington Bridge," Zeller emphasizes. "The trouble with explosives is that they're like a snake in the grass. You never know when they'll do just the opposite of what you've planned. People regard effects as a novelty — as a magical act. I try to influence an atmosphere of great caution. The only detriment is the constant distraction. You have to keep your mind and eyes on what you're doing. You're dealing with too many people in too small an area."

Zeller practices the effects he creates before he gets on a set. "I would never let anyone do anything that I wouldn't do," he insists. He often tests the effects on himself — shooting flames off the end of his fingers for example. Every summer he and his friend, who owns a junk yard, blow up some of the cars. "Effects look simple to create, but they aren't. You have to check and recheck. You have to watch people who walk behind you. People who are just curious. Someone comes up and wants to take a photograph with a flash and you're in a fire suit. You're wearing protective gear and you're pouring highly dangerous toxics — flammable substances like nitromethane, ether, intimate mixtures that are extremely volatile. Someone asks you some foolish question and distracts you. That's when you can get yourself into trouble. When I'm working, I get very serious because I'm always running a certain risk. It's when you get too cocky or too assured that the trouble starts."

Instead of using 'Class A' explosives — dynamites and nitrogels — he uses "low" and "high" explosives. If a gangster throws a hand grenade into a store and the store front is supposed to blow out, Zeller makes the room airtight, fills it with propane gas, and lights it. No bombs, just the pressure from the propane creating a dry, clean explosion with very little burning. "Then you have to be careful about glass fragments boomeranging at you."

And he is careful — because he has seen people killed on productions. In Florida he once saw a guy on a boat blown twenty feet into the air. Someone had overcharged or misplaced the explosive devices, and "you don't survive an explosion."

He emphasizes that the creating of special effects is not a macho game. "Most people don't realize that I, and stunt people, cannot get life insurance, and that we have a lot of trouble with medical policies. It's the biggest problem that I run into. If there's an accident, I'm in trouble. I have to charge a high price for my work to cover myself."

Lois Siegel writes, photographs, teaches and makes experimental films in Montreal.
States. Zeller, an American, gets $1000 a day. But last year he didn't work for six months because of fatigue and injury on the job. "Producers don't visit people like me in the hospital," he declares.

He likes filmmaking in Canada because of the "family atmosphere. There is not the same tension as in the States. In the U.S., one is paid twice as much, but demands are high. You become a work machine. It took me thirteen years to get into IATSE. To get a card you need a very strong background, and you have to pass a test to prove you are worthy. It's a closed shop and very selective; for example, a set designer might be given a mock-up photo and a limited amount of time to paint a wall to look like marble, and according to scale. Still, it's hard to get into the business by virtue of talent. It's who knows you, who wants you, word of mouth."

Particularly critical of special effects work in Canada, Zeller explains "There is a great deal lacking in technical experience here. There are only about four people who do special effects in the country, and because the people are inexperienced, they should rehearse what they do. There is too much gambling. A director should see how an effect works beforehand to know what to expect. Companies also have the tendency to buy materials at the last minute. If they pre-planned and shopped earlier, they could find things at a cheaper price. Everyone is too caught up in the movie. The less communication there is, the more tension and waste. The industry is young and eager, and the government is supportive, but I'm afraid the industry might burn itself out. They need some box office accolades.

"An effects person has to have a highly technical background and be a jack-of-all-trades," Zeller explains.
He always uses a stop watch to time effects and often finds himself teaching other people on the crew how effects work. “When we use propane gas, I have to show them how to tighten the container, how to test for leaks, how to protect themselves. I often feel like a civil defense worker. I've had people freeze on me in emergencies, and effects people have to depend on each other to protect one another. Simple instruments, like a walkie-talkie which sends signals through the air, can set off an explosive. Nylon clothes can set off sparks in much the same way as shoes rubbed against a carpet. There are no short cuts when you are working with dangerous materials.”

Zeller developed his skills quite naturally as a naughty boy in New York: mischievousness paid off. As a kid he loved to experiment by blowing things up: cherry bombs in urinals, explosives in teachers’ toilets. When he was about eleven-years-old he made a bomb which blackened all the clothes in the basement and smelled up the house for a week. His background material consisted of a Gilbert Chemistry set, for starters.

Zeller first studied the odd combination of theatre and chemistry at the University of Miami. At the time his father was in the display business, and he still remembers the pervasive smell of hot glue and paint. In 1967, he went to Vietnam for two years as part of the elite, special combat unit labeled “The Seals,” to aid and train South Vietnamese. He calls it his “hero trip”. “I learned a lot in the Service, but I would never recommend it to anyone. It doesn’t balance your personality,” he states, tagging it as his personal holocaust. He returned to the U.S. with a broken jaw, one blind eye, bad hearing, and a desire for the ‘quiet life.' He became a professor teaching industrial arts, polymer sciences, fine arts and sculpture at Pratt Institute, New York University, State University of New York and the School of Visual Arts.

Now, Zeller lives in a log house in the Catskills of upstate New York, where he can live in peace between explosions!
Special Effects Make-up

Sugar and spice with a touch of glycerine is nice...

Scanners concerns an underground group of people — called "scanners" — with terrifying extrasensory powers. As weapons of destruction, they extract information from others, causing their victims' noses or ears to bleed. Gary Zeller's expertise with explosives is not confined to blowing up buildings. To annihilate the scanners, a head or two must inevitably be blown up as well. Working with Zeller on the film are three special effects make-up experts who specialize in gory, magical images. In a highly sophisticated and delicate operation, Chris Walas and Tom Schwartz from Los Angeles, and Stephen Dupuis from Montreal, make the heads that Zeller so violently destroys.

To blow up a head, a model of the actor's head is required. The make-up men will do the casting in about twenty minutes. "We put alginate on the actor's face to get the impression. Alginate is perfect impression material because it doesn't adhere to hair. It is used for making dental impressions — so it doesn't matter if an actor swallows some of it. This creates a negative, which is then filled with plaster to create a positive," the special effects people explain.

Next, they make a rubber mold to get a gelatin head. Finally, hair, teeth, eyes and glasses are added, and gelatin blood and guts put inside the head to make the appearance as realistic as possible, because close-ups are scheduled for the explosion.

"To get more flexibility out of a face, it should be broken down into separate pieces so that the foam will work more softly and fluidly," Chris says. "It takes that much longer because you are doing that many more prosthetic appliances. Every little seam must be blended down perfectly. Full body make-up usually takes three to four hours." How do special effects people deal with an actor who is getting nervous? Chris smiles. "We find that a hammer blow to the back of the skull..." Stephen, "Or we stab him." And Chris again, "Ice picks through the forehead." Chief requirement for special effects make-up artists: a morbid, but rich sense of humor!

Life's too short! Soon these special effects creations will be blown to smithereens in Scanners.

photo: Lois Siegel

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"Actually, we try to prepare an actor for the work by first explaining it to him," they state in earnest. "Most people become uptight because they don't know what's really involved. It's a very relaxing activity, and the actor doesn't usually do anything. He just sits there and falls asleep."

Materials are either made, or purchased from chemical companies. Gelatin and glycerin are available in Canada, but some materials must be purchased in New York. Eyes are made with resin glue, the irises painted with acrylic. Gelatin is used to create skin, which is then coated with make-up consisting of RCMA theatrical colors and rubber mask grease paint. Mixed with other chemicals to lengthen its life, the gelatin holds up for over a year. "If you mix gelatin normally with water, it will start drying out and shrinking, and it will turn rock hard and crack," the artists elaborate. When one of the heads developed a leak through an eye, the entire head had to be drained and reconditioned. "The heads have a plaster shell inside them. The first coat is skin color, then there is a red coat for the muscles, and finally we pad it with plaster. Inside the plaster we add the blood and guts, and then we seal it. When the head explodes, all the parts go flying."

Chris Walas' past experience includes the film *Piranha*. But he first started creating effects as a monster fan having fun on Halloween, then found a job making masks for a company. Because the work wasn't challenging enough, he soon switched to TV and films.

Stephen Dupuis had a similar beginning, "working in a small shop with goop and make-up, creating horrible faces." When the film industry picked up, he found himself in demand.

Tom Schwartz' experience included all types of make-up work in Los Angeles.

On *Scanners*, the special effects make-up people trade-off jobs to avoid boredom. Stephen says, "When I get tired playing around with one face, Tom will take over and play with his nostril a little, while I drink coffee."

Besides creating heads, the special effects men are required to put scars on people. One character has a finger poked through his forehead. Actor Stephen Lack's head burns up at the end of the film "like Joan of Arc." Another character gets a dart in his hand. "For this effect we made a little foam rubber prosthetic," Stephen says; "a piece of plastic with a dart attached under the prosthetic. Prosthetics are fake pieces made of foam rubber, like the ape noses and eyebrows in *Planet of the Apes*. The edges are very thin, so you can glue them onto a person's face. The edge is then blended to match the skin."

Stephen explains how the special effects make-up people first approach a film. "They give us the script and we read it. Then we wait because changes are made. Afterwards, there is a second draft and maybe more. When the final draft is ready we meet with the director and decide what we have to do. With *Scanners*, many special effects were eliminated because the company wanted a good rating, so they cut down on the blood and guts."
On location with *Scanners*, Robert Silverman playing the ill-fated artist Benjamin Pierce wounded in his studio.

Stephen Dupuis giving a Scanner a nose job.

26/March 1980
The work is both demanding and time-consuming. The effects people usually work until eleven at night. "People who don’t know what we can do expect magic. We ask for two weeks to prepare something; they give us one week."

When asked what advice they would give to students interested in special effects make-up, the team responded, "We suggest they think of something else to do — unless they’re really crazy! It’s a strong commitment, and you have to work very hard to learn all the different elements. You have to be able to sculpt a bit, make good molds, and understand basic chemistry. And you have to realize that while you’re learning all this, the other people working on the film don’t know your work and don’t want to learn, so you have to fight them. As soon as they hear ‘special effects’, they think that you can pull rabbits out of the hat in five minutes. They expect you to come up with something tremendous overnight."

For students creating special effects for films, the team suggests using mortician’s wax for bruises, which can be purchased at most theatrical stores. It doesn’t last very long and needs a lot of touch-up, but for one shot it’s adequate. If the person doing the make-up has a good eye for color. The problem with amateur artists is that they usually exaggerate an effect by putting on too much make-up. As a result the effect jumps out at the spectator. Effects people can often tell exactly what’s happening on a movie screen. "We see seams — where the effect begins and ends. We discover what materials are being used because of the way they react physically to what happens to them."

Best known in the field of special effects make-up are Dick Smith from New York (who worked on The Exorcist, The Deerhunter and Little Big Man), and Rick Baker from Los Angeles (Star Wars — the aliens in the cantina scene, King Kong and The Incredible Shrinking Woman — the gorilla suit).

"In the States a lot of the effects make-up people talk to each other all the time. When they do something they will invite everyone else over to see it," Chris says. "So basically, there is a trade-off of information. The people who are more protective are those who aren’t really sure what they’re doing, and who feel put out by the people who are."

When asked how much money a well-known effects person can make, the Scanners people reply, "Think of a number that would make you faint, and that’s probably what someone like Smith is paid."

Sometimes a special effects make-up man is contracted for the construction of the actual pieces separately, and then paid a weekly salary for working on the set. The construction of a work includes material costs. "People often think special effects men overcharge, but they don’t realize the price of materials. Silicon rubber costs about $100 per gallon and is used to make the negative image of the plaster head, a flexible rubber mold. One gallon is good for creating only one mold."

And what if something goes wrong when the crew is filming one of the heads? Says Stephen, "We have a nervous breakdown.” And Chris. “We blame it on someone else. . . . Then make another one fast!”

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