

from Hewlett-Packard. They give me first crack at going through the stuff and buying items individually." Recently, for example, he found a top-of-the-line sublimation printer, complete with 48 Mbytes of RAM and a full suite of Ethernet equipment. He bought the \$9,000 device for \$250, and plans to sell it for \$2,500. "Buying and selling like this just doesn't take up that much time," he says. "And it lets me make enough money to pay the rent and buy parts for SRL."

MECHANICAL MENAGERIE

In any given SRL show, up to two dozen large machines perform, each controlled by trained SRL technicians. Granted, the training might only last a day or two, but the technicians still take their jobs seriously. Wearing the prerequisite earplugs and sound-muffling headsets, they use radio controllers to manipulate the machines. "We build the controllers ourselves," says Pauline. "There are lots of channels available, up to 30, and we use both the FM and AM band, together with PCM radios, to avoid interference

An SRL crew tests a flame-throwing jet engine prior to a show.



issues. We also use noise-resistant, custom-built boards inside metal enclosures to stop RF interference. Since we use them around huge Tesla coils and actually arc the coils to the machines themselves, we really need that protection."

Some devices use controls that operators actually wear. In one, for example, the machine's articulated arm mimics the arm motions of the operator. And in a device that fires concrete-filled cans, a person wearing a special headset aims at an object merely by looking at it. Other, less lethal machines crawl and lurch across the performing area on their own. Ever-alert SRL staffers keep them from going astray or into the audience.

"At one time, we experimented with artificial life and A-life algorithms to construct a show in which the machines would operate and interact automatically," recalls Pauline. "But we ran into problems with time and money. It takes some serious funding to integrate the sensor technology and keep it all safe. So I decided there was no way we could continue to do those things on a large scale

without more money."

SRL machines are powered by a variety of sources, everything from gas-powered motorcycle engines and full-sized V8s to lead/acid batteries and compressed air. "We try to stick with high-density energy sources," explains Pauline. "The batteries, for example, are deep-cycle versions from Panasonic. They each hold about 20 amp-hr at 20 volts, and they can be recharged relatively quickly."

He also has about eight jet engines, including a pair of Boeing 502, 175-lb thrust, 200-hp turbojets and a 10-year-old, 900-lb thrust engine from an Exocet cruise missile. "The manufacturers are usually more than happy to send you maintenance manuals on these engines," says Pauline. "They figure if you have an engine, they don't want you to kill yourself with it, so they're pretty forthcoming with information, except for the military companies. I'm not too sure I could've gotten the manual on the Exocet motor. But I got my hands on one anyway."

Pauline and his crew are using jet engines to move machinery, like the jet-powered go-kart that has appeared in several shows, and to just create noise, smoke and flame. His crew consists of about two-dozen hard-core volunteers



An SRL show put on in Seattle carried the title "A Carnival of Mislplaced Devotion: Calculated to Arouse Resentment for the Principles of Order."

and another eighty or so who do much of the manual labor and thousands of other small but necessary jobs that must be done to stage an SRL event.

In return for their work and know-how, volunteers get a crash course in machine shop practices and access to SRL's shop and stockpiles. Many SRL volunteers are scientist and engineers who bring their own skills to the job. For example, SRL staffer and electronic whiz Greg Leyh works at SLAC where he specializes in power conversion and is building the power supplies for a new accelerator. He also claims to have designed the world's largest Tesla coil, a 45-ft-tall, 150-kW model, for a wealthy New Zealand man who enjoys watching it arc.

SRL has literally built a cast of machines, some dating back almost 15 years, available to star in upcoming shows. "Once you build these machines, they just don't go away," says Pauline as he points out the Inch Worm, the Shock Cannon, and other SRL creations. "The names are mostly perfunctory. I like to stay away from the artworld convention of precious naming."

The machines, some in pieces, some huddled under plastic sheets, litter the

area in and around SRL's building. They include:

- The Running Machine, a six-legged affair powered by a small gas engine, a Vickers piston pump, and a wicked-looking chain drive. A moving, articulated arm on the front of the machine carries a cutter which severs cables holding heavy objects aloft during the shows. "With a top speed of 6 miles per hour, this is the fastest leg-powered machine in the world, and it has the longest range, about 40 miles," notes Pauline.

He got the idea for the drive from articles on Hughes' gatling-gun loading system. They were having problems making parts strong enough to handle the high peak loads of moving ammo at 600 rounds/sec and still small enough to fit into an aircraft-sized system. Hughes' engineers decided to use a chain and spread the loads over the complete cycle time. "I looked at that and said, Wow, that's the real problem

A V-1 rocket creates smoke, flame and noise to announce an upcoming show in Austria.



on machines with legs," recalls Pauline. "Peak loads make the linkages fail and limit the speed the legs can move. So I came up with this chain drive. It's reliable, runs for hours, and because the chains are strong, it's efficient. Plus, if the chain breaks, it's easy to get another one. It's not a complicated linkage that takes weeks to machine."

- The High Pressure Air Launcher was originally developed by NASA for avalanche control. It uses gas pressure to automatically load and fire up to 26 concrete-filled cans at 500 ft/sec. The "ammo" can hit targets a mile away. The device uses CO₂ and circumvents existing Federal Firearms Laws. In recent shows, SRL has let people on the Internet aim and fire the Launcher, making them the first organization to let the public operate potentially lethal machines over the Net.

- The Hand-O'-God is a giant spring-loaded hand mounted on a remote-controlled wheeled platform. The hand is made of several hollow metal cylinders that serve as fingers and are attached by steel cables to a set of giant springs. The hand weighs 1,500 lb and is cocked by an air-cylinder with 8 tons of pressure. When the springs are released, the hand flexes forward with a considerable amount of force. The hand



SRL turned a machine used to shoot explosives and trigger avalanches into the High Pressure Air Launcher, a device that fires concrete-filled cans.

KEEPING TRACK OF SRL

For more information on Survival Research Laboratories, updates on shows, and an opportunity to buy SRL paraphernalia, check out the Web site at <http://www.srl.org/>

is held aloft on four spindly metal arms and a set of brackets taken from a military loading system. "The chrome-moly alloy is incredibly strong and can easily hold the 1,500 pounds," says Pauline.

• The Taser is a 20-kV rail gun used to fire molten metal comets across the stage. It's based on plans Pauline found that could've been for a propulsion system for submarines or ships. Originally, the rail gun would fire capacitive energy into seawater and propel the water out like an underwater jet engine. "We built one intending to shoot napalm or gasoline out of it, but water worked best," says Pauline, noting that it would shoot a ball of water about 100 ft. "But it wasn't that interesting, so I tried some other things."

He added heavy copper rails, fiddling with their length and width to focus the magnetic field in the barrel of the device. He wanted the field to force the metal into a tight ball. Eventually he came up with a design that uses an air cylinder to slam high-



A flamethrower and several smaller SRL machines perform in the show "The Unexpected Destruction of Elaborately Engineered Artifacts: A Misguided Adventure in Risk Eradication, Happening Without Known Cause, in Connection With Events That Are Not Necessarily Related."

carbon steel "shots" into the copper bars or rails, which are charged from a 20-kJ capacitor bank. The steel sparks and is liquefied and ejected practically simultaneously. "At first I used an ignitron to supply the spark, but they're expensive and finicky and have a limited number of shots, so I came up with the idea of using the metal slamming in there to create a spark."

• The Jet-Engine Powered Wheeled Vehicle uses a simple jet engine fabricated from a modified high-pressure axial turbocompressor-driven furnace burner with a Lear Jet combustor can. It uses a Kawasaki 750 motorcycle engine to power the turbine and associated pumps. A B-29 turbo compressor is being installed to add more thrust.

• The Shockwave Generator harnesses explosions of propylene and oxygen to create a powerful vortex ring.

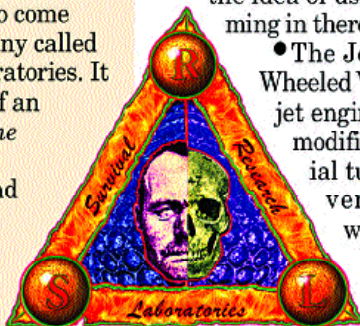
The vortex is strong enough to break windows from 700 ft away and has been known to damage roofs on buildings 50 yd or more away from SRL's impromptu testing grounds (i.e., right outside the machine shop).

• The portable Foam Generating Machine takes standard high-expansion fire-fighting foam and generates 1,500 ft³ of thick, free-standing foam/min. It's primarily intended for use on audiences. Another device that has been morphed into an audience misery enhancer is one of the Boeing jet engines. It gets set up on a pivoting frame, turned on, and swung to and fro at the nearby crowd. A strong-smelling chemical added to the diesel fuel amplifies the desired effect. An afterburner fuel-injection system added by SRL lets it also operate as a huge blowtorch.

SRL assaults audiences, like those in Austria, with extreme noise. Inspiration for many of the noisemakers comes out of military research. The Spinning Machine that twirls a cable at supersonic speed, for example, is

WHAT'S IN A NAME?

When Mark Pauline was first putting together his performance-art group he happened to come across an ad for a company called Survival Research Laboratories. It was buried in the back of an issue of *Soldier of Fortune* magazine, a publication ostensibly for hit men and mercenaries. Though he doesn't remember what the company was selling, he liked the name and appropriated it for his organization. In the twenty or more years since he grabbed the name, he's never heard from the SRL that took out the ad.



sort of a twisted spin-off of U.S. research done on supersonic prop-driven planes. Seems at some point, any more energy used to turn a prop gets transformed into noise. An enterprising SRL worker realized that they could spin a steel cable instead of a prop and put together a relatively inexpensive noise machine.

Pauline's collection of air raid sirens and whistles stems from work done by the French in the 50s and 60s on noise weapons for crowd control. "I've copied some of their designs for crowd-control whistles and we have one hooked up to a three-stage turbocompressor," he says. "The literature documents some of the effects sound can have and they're rather disturbing."

While SRL was building ever larger turbocompressors to power ever louder whistles, a physicist at SLAC caught wind of their pursuit of noise. A collector of military documents, he happened to have complete plans for a V-1 rocket. "That guy knew we would get more low-frequency sound out of the V-1 than we ever could out of a whistle," says Pauline, who modified the plans a bit and built one. The original engine used valves with a 40-hr life, not enough for SRL's purposes. "So I made the valves out of Inconel 750, a spring material, and gave them basically an infinite life," says Pauline. He uses an eight-stage Spencer turbocompressor as a starter and a 454-cu-in. V8 to run the compressor. Depending on how rich they run the fuel, SRL technicians can coax the V-1 to belch smoke clouds, shoot 40-ft flames, or put out a roaring 40-Hz buzz.

"That V-1 really has an effect on people. It makes them feel like they're drunk. Their IQ drops, along with their ability to operate in a test envi-

ronment," says Pauline, drawing on more French research.

Does he have any compunctions about exposing his audiences to sounds that might have effects they're unaware of? "Our machines aren't going to damage anyone's hearing necessarily, and no one has really complained. We give everybody earplugs. But by the time someone leaves a show, they could feel pretty thoroughly thrashed," says Pauline. "Besides, I think it's really fun."

"Some people leave the shows very upset because they found themselves in the wrong place or a smoky machine invaded their space," Pauline says. "Others go away with a much more positive memory of the experience. But we're trying to do things that are memorable, though some might call it traumatic instead."

ON THE DRAWING BOARD

Pauline and his crew are busy in the workshop turning out machines and exploring new frontiers in technology while planning the next SRL event. They are broadcasting shows and events on the Web to widen their audience. They also use the Web to encourage interaction with the audience, letting them control machines from a distance. And they're working on some more contraptions like the Pitching Machine and the Flying Platform.

The Pitching Machine uses a V8 engine hooked via an inverted chain drive to a custom-built gearbox to spin two large car wheels at 125 mph. The wheels are mounted only inches apart and turning in opposite directions. Two-by-four sections of board fed into it come flying out at about 120 mph to arc 900 ft through the air. Pauline describes it as a weapon for the 21st century; even if there's no more gunpowder, there will always be methane

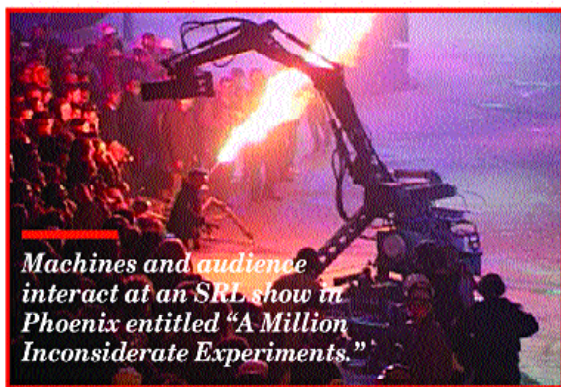


An SRL technician operates a machine that mimics the motions of his arm.

to burn and leftover two-by-fours to shoot. "At shows it will be like 2-ft clubs flying through the air," imagines Pauline. "And we'll have a 7-ft pneumatic cylinder feeding boards in one by one."

The Flying Platform, so far, is only a small, round aluminum hovercraft fairing and some designs in Pauline's head. He plans to power it with a small motorcycle engine turning a lifting blade designed to handle 20 hp. A 6-lb pulse jet engine putting out 70 lb of thrust will provide steering and rotation. The finished machine should weigh about 350 lb and be able to lift a few thousand pounds, according to his rough calculations.

For the immediate future, SRL will be trying to set up more complicated contraptions that use sophisticated controllers, along with more devices that fly and other extreme machines. "The machines look very odd, and that's part of the psychology of creating an event," explains Pauline. "We couldn't have just wheeled vehicles. Everybody's already seen that. But having machines with legs, some with square wheels, or running on steel screws, keeps the attention of the audience and gives them an experience more like a performance than an exhibition." ■



Machines and audience interact at an SRL show in Phoenix entitled "A Million Inconsiderate Experiments."

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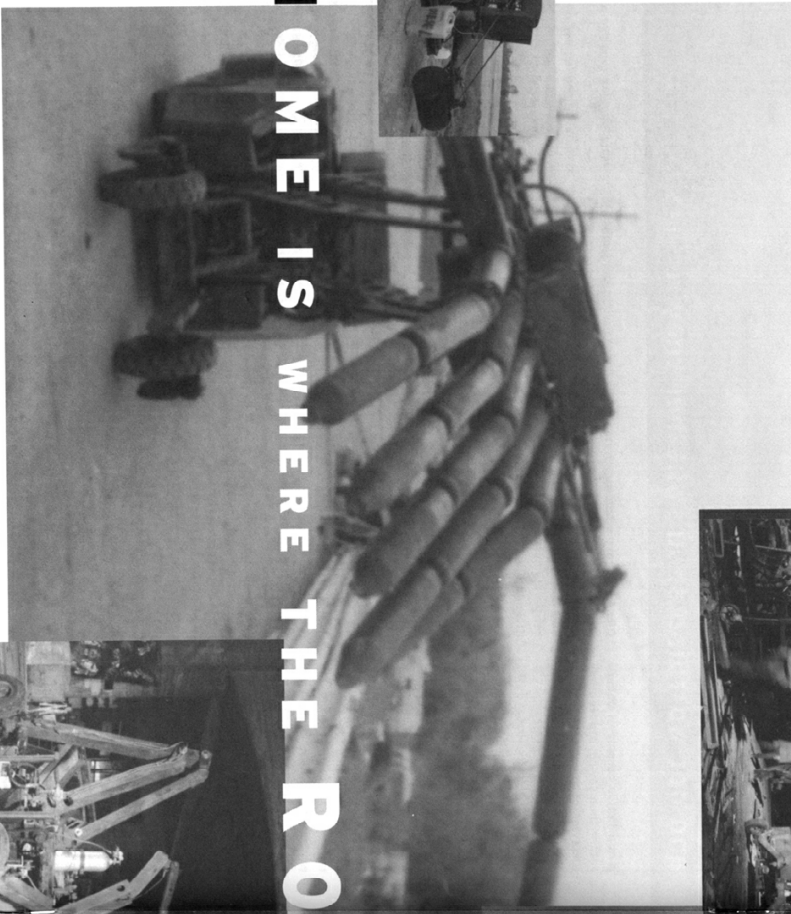
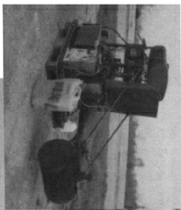
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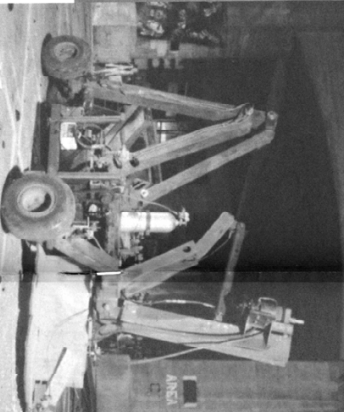
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The Unrespected Destruction of European
Engineered Artifacts, Austin, Texas, 1997.
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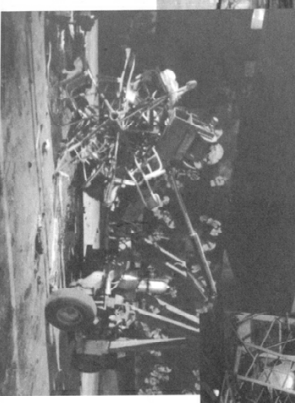
HOME IS WHERE THE ROBOT IS:

"Error has transformed animals into men. Could truth be capable of transforming man again into an animal?"
—Friedrich Nietzsche, *Human, All too Human*, 1878

NEW ART EXAMINER
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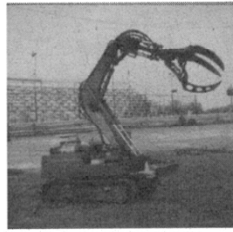
A Homecoming
for Survival
Research
Laboratories
BY MARK VAN PROYEN



Here is a pop quiz: Internationally speaking, who is the best-known living artist from northern California? Judging from the evidence that I sampled while touring Europe last year, it is clearly Mark Pauline, the founder of Survival Research Laboratories (SRL). Granted, my polling technique was less than scientific: In fact, there was no polling technique at all; there were just several unconnected occasions when, upon finding out that I hailed from San Francisco, total strangers

from very different walks of life keenly inquired if I knew Pauline and what might I know about SRL. The consistency of this opinion also harks back to my days as a cab driver and bartender, when I would encounter out-of-towners seeking those special thrills that only San Francisco could provide: "Where is the trolley car?" "How do I get to the City Lights Bookstore?" "When will there be an earthquake?" And "Where are those machines that smash each other up?"

It is not hard to fathom the fascination that engenders SRL's international cult status. It is the irresistible allure of aggression, danger, and violence rendered as a form of devil-may-care macho play. Since 1978, Mark Pauline has been inflicting a growing fleet of menacing machines on each other for the sake of entertaining paying spectators. Twenty years later, the machines



complex, and more plentiful, as has his group of collaborators, who now number close to 100. The show is always basically the same. Technology runs amok and destroys itself as well as all innocent things that happen to get too close to it. The visceral appeal of SRL's events is also buttressed by the illusion that to vicariously participate in one of the group's machine performances is to flaunt the possibility of serious injury or harsh reprisal from the political powers that be. In other words, the exaltation of getting away with something is provided by the mayhem of SRL's careening fleet of radio-controlled juggernauts, even as we are also invited to think seriously about what we might actually be getting away with. Is this just the stupid and not-so-stupid fun of simultaneously displaying the hostility of humor and the humor of hostility? Certainly, that is a large part of it, and I suspect that the Freudian in me would like to linger on this aspect. As might be expected, their rock 'em, sock 'em events have invited jibes and condescending dismissals from those who are inclined to roll their eyeballs at the specter of boys playing with their mechanical toys, but the questions remains: What's the harm? And once we realize that the only thing harmed is the fearful sanctimony that often passes as adulthood, we can come a bit closer to the heady state of satanic laughter that is at the core of an SRL event. It is also why those events are so much fun.

These atavistic intimations of a quasi-fascistic, techno-driven Darwinism might be experienced as seductive or off-putting, depending on preconception and personal proclivity. The mistake is to stop inquiring at this point, because one might miss the important theme of self-mocking wit that is also revealed in the faux-brutalism of SRL's events. This leads

us to consider the possibility that the brazen aggression that they feature might in fact be an elaborate veil that opens on to a more melancholy realization: No matter how shockingly theatrical and dramatic they might be, all forms of *epater le bourgeois* are quickly becoming obsolete because there are no longer any historical stakes left for which to play, nothing left for art to get away with. The Scylla of administered spectacle and the Charybdis of administered commodification have done their work well, and they now have the totalizing power to instantaneously render anything and everything into just another set of dead rituals, and that even includes SRL's techno-robotic slaughter of the symbolic innocents.

From this vantage, it becomes clear that the over-the-top aggression displayed in an SRL show carries the added meaning of a rage against the dying of the light of spontaneity as it becomes engulfed by the all-encompassing clouds of twenty-first-century administration. Thus, what we really see in an SRL performance is an admixture of irony, satire, and catharsis that functions as a kind of wake, offering a brilliant riposte to the new globalism's tragedy of all-encompassing uneventfulness. It earmarks the realization that, after a century of repeated crisis, the only crisis left is the impossibility of real crisis.

It is to SRL's credit that their performances are simultaneously construable as articulate recognitions of and witty resistances to this inescapably tragic fact of Postmodern life. It is even more to their credit that, since their 1978 beginning they have been able to put their point across to a large "crossover" audience almost entirely on their own terms without much in the way of backing or support from official institutions. This is not to say that they have never received official sanction. They performed in Amsterdam in 1988 as the invited guests of the Dutch Government and performed the ground-breaking ceremony for the construction of Mario Botta's new San Francisco Museum of Modern Art building in 1992. But on the rare occasions when they have worked with official agencies, they have always succeeded in retaining the lion's share of artistic control.

What Is Real? was the title of SRL's most recent machine performance, which was held last June 25 in a parking lot under a San Francisco freeway, a bold unauthorized finale capping off a four day, international web development conference held in the city. It is significant to note that the conference and its attendees loomed large as SRL's notion of an ideal audience,

Their rock 'em, sock 'em events have invited jibes and condescending dismissals from those who are inclined to roll their eyeballs at the specter of boys playing with their mechanical toys.

implying a cunning disregard for those who would count themselves as members of the artworld, that being an arcane set of antique institutions by the standards of today's brave new world of information technology. It also signals something relatively new for SRL: the use of the internet as a primary conduit of information (see <http://www.srl.org>) more or less replacing the clandestine distribution of the cryptic posters that announced the times and locations of their early productions.

The fact that well over 3000 people showed up at sundown on a cold Thursday night was proof that the strategic circulation of email can suffice as event promotion, if the event

in question portends to be sufficiently eventful.

Everybody who arrived received a set of ear plugs as they paid their admission, and they were ushered into a kind of roped-off arena that had viewing areas on three sides, and a glass gazebo supporting a large rag-doll effigy of what appear to be a besotted Little Bo Peep on the fourth. The overhead commute traffic provided a low drone, adding to a scene that looked much like the abandoned bowels of Gotham City. It filled up fast with an odd assortment of pierced hipsters, addled cybergoths, and nerdy conference-goers, all using the 45 minutes before the start of the event as a happy social occasion. At 8:45 pm, the roar and rumble of machines could be heard, and SRL's trademark air cannon (now sporting a 20-foot-long barrel) swiveled around to menace the audience. Every 20 seconds, the cannon emitted a loud percussive pop, providing a steady drum-beat that heralded the entrances of the various self-propelled machines, about 15 in all. They ranged from the large Nanchuck Machine—which periodically went into a blind fury of pummeling the obstacles that it confronted—to a gyrating machine which had several dozen kindergarten chairs affixed to a whirling cylinder. This one would careen about and periodically drill into the glass gazebo, ripping hard into the giant rag-doll effigy. A large robotic claw reached up high and ripped apart a small mobile-home trailer dangling above the arena. A big tank of some foul-smelling fishy liquid was toppled, splashing on to some members of the audience. Periodic eruptions of propane flames, smoke generators, and flashing colored lights rounded out the performance, which unceremoniously ended at 9:20, at

Could it be that we have all seen Sigourney Weaver being chased down a steamy corridor by aliens too many times to be appropriately awe-struck by the ritual unleashing of mechanical demonic-animatronics?

which time the audience was allowed to come into the arena to walk amongst the wreckage and chat with the various SRL members who designed, constructed, and operated the machines.

In some ways, *What is Real?* was a kind of homecoming for SRL, because it was their first full-scale event in San Francisco since 1994. They've been lying low and gathering materials since their big and exhausting 1997 event in Austin, Texas. Despite the large crowd in attendance, it also retained the flavor of a guerrilla event, even though police and fire department officials were on hand. Rumors circulated that SRL had also staged some smaller, more hit-and-run-type events during the previous three days of the conference, but no one that I met could describe these in any detail. I would expect that they may have had something of the commando flavor of SRL's very early beginnings; during the 1980s heyday of San Francisco's punk and techno scene when William Gibson's *Neuromancer* was still

in its first printing and a band called Chrome provided a foul-tempered soundtrack for Ronald Reagan's early reign of fear.

Is it possible for SRL to recapture their raw and ruthless beginnings? Could it be that we have all seen Sigourney Weaver being chased down a steamy corridor by aliens too many times to be appropriately awe-struck by the ritual unleashing of mechanical demonic animatronics? Or, has SRL become just too big and visible to pull off a successful guerrilla war against the blandness of the real? But SRL seems to have reached their goal: to achieve international recognition almost entirely on their own terms. That being accomplished, they might feel that there are no new worlds to conquer, hence a wish for a moment of taking stock and looking for roots. For most artists with 20 years of practice behind them, such a moment of regrouping and refocusing would seem the most natural thing in the world. But SRL's dedicated following doesn't seem to want to face this; some of them impatiently found *What is Real?* to be a disappointment. They were hoping for an even greater degree of mayhem and destruction, and a more ceremonious climax.

But a longer view may lead to the recognition of Mark Pauline's positive and widespread influence on a whole generation of younger artists operating amidst and beyond San

Francisco's burgeoning underground. Now that we are routinely regaled by tales of artists turning their back on galleries and institutions in favor of launching projects themselves, we might want to

credit SRL with a seminal role in reviving and building on this ailing avant garde tradition. They should also be credited for their ambitious scale. The success of such self-starters as Crash Worship, Defenestration, or the Burning Man Project attests to Pauline's early faith in the improbable possibility of a populist and participatory avant-garde. It is a faith that art institutions are now ignoring—at their peril. With its rambunctious 20-year history, one would hope that Survival Research Lab will survive.

Mark Van Proyen is Professor of Art History, Painting, and Digital Imaging at the San Francisco Art Institute.

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Virtual Slap: A Keynote Presentation

by [Adam Karrera](#)

June 23, 1998

Moderator:

Eric Paulos, UC Berkeley

Guest speakers:

Eduardo Kac, Chicago Art Institute
Natalie Jeremijenko, Yale University
Mark Pauline, SRL Artists & Scientists

This years' keynote address at the Web Design '98 Conference, shattered the ball-and-chain mentality of conventional Web developer thinking. The words "tools," "technology," and "virtuality," took on new meanings before a genuinely surprised, yet eager audience.

The "digital potential becoming a physical reality" was the message being delivered by Misty West, of Miller Freeman, as she introduced the select panel of guest speakers. In fact, the true awards for Web innovation, which were handed out earlier in the evening, could have arguably been received by any of the esteemed visionaries.

Eduardo Kac led things off with a slide presentation demonstrating how the Web can become a life source. During his experiment in 1996, people worldwide were asked to join a teleconference, anytime during a three week period. The participants simply aimed their cameras to the heavens so that light on the other end of their transmission could be used to grow a freshly planted seed, which had been isolated in total darkness. Through the nourishment of the white lights, the seedling grew to 18" in height and was later planted outside the [Art Institute of Chicago](#).

In a different process, Natalie Jeremijenko, in collaboration with the Bureau of Inverse Technology, led an experiment, called the Suicide Box. In this experiment, a sensor camera was placed under the Golden Gate Bridge so that each time someone jumped off it, a photo would be taken documenting the event. The data was continuously updated on the Web in a graph form, known as the Despondency Index, clearly showing the correlation between the daily Dow Jones Industrial average and the rate of suicides. In a more recent project, referred to as "One Tree," 100 trees which are biological clones, were placed throughout the bay area. This allows scientist to have a common denominator when researching and determining air quality in a specific region. The overall health of the bay is displayed algorithmically, via cyber trees on the Web, that reflect the current status of any particular clone.

The moderator himself, highlighted various uses of telerobotics. In one instance, Web surfers could go to a live garden, where, via teleconferencing and simple robotics, a user could plant, water and nurture an existing real-time garden, which was placed at a science museum. Eric also demonstrated, on location, a technologically similar experiment. This time, though, he was controlling a large robot, with a powerful air gun used to aim, shoot and destroy various moving targets set up at the [Survival Research Labs](#), all via his laptop.

This led, of course, to the introduction of Mark Pauline, of SRL fame, who calmly explained the method to his madness. Mark feels that with the government continually modifying and enacting new laws that prohibit or further restrict any kind of activities, which may be slightly dangerous, the world is losing its sense of excitement; being restricted, as it were, by ball in chain. Survival Research Labs is there to reverse this path of unexcitement, by providing people a genuine interactive opportunity to use hyper extreme, possibly, life threatening devices.

In fact, today, as I sit at the SRL booth, I am roaming the city of San Francisco through the camera eyes of a land-based, four-wheeled robot. It features an extendable arm which lets you interact with the city population via force feedback devices.

Clearly this group, of scientists and artistically talented people, sees the opportunities, presented through the WWW in a slightly different outlook than the business oriented e-commerce theme which is prominent at this stage of the Web's development. Right now, I personally see, a really pretty girl...sitting down on a park bench.

Ouch!!! I just got slapped in the face...virtually that is.



appetite for destruction

by Pableaux Johnson

artistic mayhem

for nearly twenty years, Survival Research Laboratories has staged elaborate mechanized spectacles in the name of theatre --conceptual art played out by lovingly-created mechanical mutants. The main players -- the machines of SRL -- combine heavy industrial machinery and "reappropriated" military machinery with cutting-edge robotics technology. Weapons of war and industrial production are disassembled and remade into primal nightmares of the Industrial Revolution.



Currently a loose conglomeration of technological artists and craftspeople, SRL started out as the brainchild of Mark Pauline, the artistic director and ringleader of the group. Since his first machine show in 1979, Pauline and his SRL compatriots -- a creative band of machinists, mechanics, welders, and other technical specialists -- have used their elaborate creations to critique American consumer and military culture in over 50 shows worldwide.

Art, entertainment, or just a lot of noise? Tell us what you think about SRL.

Understandably, the scale and explosive nature of the group's art has earned them a reputation among counterculture artists and local fire officials alike. Previous spectacles -- including the secretly-hatched 1995 "Crime Wave" show -- have resulted in legal action against the group and a de facto moratorium of SRL shows in their home base of San Francisco.

pit stop
village

the greatest
show on fire

But a like-minded group of artists, the Austin-based Robot Group, lobbied SRL to stage a show in Texas. After months of negotiations, SRL finally worked out the logistics -- including shipping 50 tons of tools and equipment -- and scheduled a show for March 28th at the Longhorn Speedway outside Austin. The invasion had begun.

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What's as right for the reception



appetitefordestruction

by Pableaux Johnson

the greatest show on fire

Art, entertainment, or just a lot of noise? Tell us what you think about SRL.

headed south on Highway 183, you could spot the Speedway from a mile up the road. The 70-foot UT tower, an everyday sight closer to the city center, rose above the speedway bleachers, glowing in traditional orange victory lights.

In three hours before the show, a two-mile line of cars parked beside the highway shoulder and dumped roughly 5,000 observers outside the speedway gates. It was a thoroughly mixed crowd — new primitives with Armageddon tattoos and pierced foreheads stood in line alongside suburban families revved up for an evening of slightly demented group entertainment. Groups were dressed both up and down in everything from evening wear to paramilitary fatigues, drawn by outlandish rumors and promises of flaming destruction — all for the low price of twenty American dollars.

Originally scheduled for 10PM, the show started late as mysterious logistical problems delayed the line's progress. Backlit SRL "crowd control" volunteers paced along the track's ridge, visible only as silhouettes behind the caution-taped hurricane fence. Gradually, the crowd crept forward — along the caution fence, through a septic field, and finally into the speedway.

Once inside the gates, the edgy mob settled into three sets of bleachers strategically placed around the asphalt oval, inserted their complimentary earplugs and listened to the evening's soundtrack — recordings of high-performance engines grinding through a 500-mile endurance race.

the warped plank stands offered a commanding view of the evening's combatants and the soon-to-be-battlefield. About twenty evil-looking machines sat on the banked track, tended by about sixty roving volunteers clad in all manner of ear, eye, and lung protection. Mark Pauline paced around purposefully, overseeing last-minute testing and tinkering.

At 11:30, just as a three-quarter moon rose red through distant cloud cover, the preparations were completed. Within minutes, the crew had taken "ready" positions as diesel engines roared and turbines whined into the night.

The loudspeakers fell dead. A single parachute flare streaked above the track and slowly drifted to the earth. A rocket-powered go cart with tailpipe glowing orange in the night howled around the track.

in the next few seconds, the entire infield exploded to life as the machines launched into a bizarre industrial feeding frenzy. The **VI rocket** shook the stands with a roar before attacking various props. **Rita the Meter Maid** rattled around looking for trouble — her flaming mace swinging at anything standing. The diesel-powered **FlameBlower** sent huge plumes of fire into the night sky, while the most rous **Tesla Coil** happily crackled and hissed away. Intermittent flare barrages criss-crossed the field, adding an airborne dimension to the show and keeping the audience guessing.

Audience members expecting an orderly series of machine battles soon became acquainted with SRL's anarchic performance style, akin to a five-ring circus with no center stage. The action at SRL performances happens ALL AT ONCE, with no separation between events. Interactions, confrontations, and battles among machines and props occur spontaneously, generated by the whim of the operators and preceding events. Each spectator's experience depends on where they focus their attention; it's impossible to catch ALL the action. Those wanting a more structured "Transformers on Ice" show were bound to be a bit disappointed.

The three-clawed **Subjugator** wasted little time before tearing apart the good ship **Entropy**. With a few deft snaps and well-placed bursts of fire, the boat had been disemboweled, reduced to planks and fiberglass shards, and finally set aflame. In between sonic blasts from the **Shockwave Cannon**, the Subjugator twirled its claw over the wreckage in a maniacal victory dance.

Several of the machines only lasted a short time before malfunctioning or being taken out of the action. The **Walking Machine**, a metal mastodon on four heavy feet, crashed into the demonic **Clown Box** and became entangled before toppling over for the night.