

THE  
**BLADE RUNNER**  
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by James Van Hise



Another incredibly talented  
behind-the-scenes technician  
gets his day in the Sun.

## GENE WINFIELD

### Custom Design & Execution From "Star Trek" to "Blade Runner"

By JAMES VAN HISE

**Y**ou've seen his work in dozens of television commercials, TV episodes and major feature films. His unit built the oft-seen *Man From U.N.C.L.E.* car and the *Galileo* shuttlecraft for *Star Trek*, and yet he has been unknown to most fans... until now. In Hollywood his work is highly respected and much in demand, not just by film studios but also by celebrities for whom he has built such diverse custom autos as a Stutz convertible and a Cadillac pick-up truck. His name is Gene Winfield. Most recently, he has transformed Syd Mead's futuristic vehicle designs into concrete form for Ridley Scott's anxiously awaited *Blade Runner*.

For most of his adult life Winfield has been engaged in auto drafts, honing skills that make him a natural for specialized TV and feature film assignments.

"I was raised in Modesto, California and in high school I became involved with building hot rods and doing some car customizing," Winfield explains. "After graduation I joined the Navy and finished out the closing years of World War II. Then I came back to Modesto and opened a shop with my two brothers. We called it The Winfield Brothers Service and it was a combination gas station and auto repair service. I began doing professional custom work there and finally had to branch out on my own into a place I called Windy's Custom Shop which I ran for several years under that name. This later became Winfield's Custom Shop and I had to expand into a larger facility in Modesto to keep up with what had become a growing business. This ultimately branched into two shops, one of which was a closed-door prototype shop which did nothing but build prototypes of new car designs for Ford and Chrysler."

Around this time, AMT, one of the country's leading model kit companies, approached Winfield about opening a shop for them in Phoenix, Arizona. Deciding that this offer was an interesting opportunity, Winfield closed one of his Modesto shops and moved to Phoenix to work for AMT. The purpose of the new shop was to build working, full-scale versions of cars featured in AMT's model kits. These cars would serve as promotional models for the kits. AMT later proved instrumental in Winfield's entrance into the television field.

#### From A.M.T. to U.N.C.L.E.

The genesis of Winfield's work on the *Man From U.N.C.L.E.* car began, though, even before Winfield linked up with AMT. "I had made some contacts in the film business when I was still in Modesto and had landed the contract to build a car for the *U.N.C.L.E.* series," he says. "This original version was going to be based on the Dodge Challenger, a car which was just hitting the market that year. The producers liked that car because it had such a distinctive design and the customizing and altering of it into a spy car wouldn't have changed the outward appearance much at all. Our designs for the Challenger conversion had been approved by the producers and one of the cars had already been delivered to me from Dodge when the network [NBC] put the kibosh on the idea. It seems that with all of the free advertising the car would receive by being in the series, Dodge might decide to curtail what would otherwise be a multi-million dollar advertising campaign and so cost the network some money. We were all ready to do the work on that car. We even had all of the accessories we needed from Dodge."

Following his relocation to Arizona, Winfield and AMT approached the producers of *U.N.C.L.E.* with another idea. "This was a year after the cancellation of the Dodge Challenger concept," Winfield recalls, "and this time I suggested that the *U.N.C.L.E.* car be based on the Piranha, a limited production car which I had designed. Since this car was unconnected with any major automobile manufacturer, and didn't look like anything Detroit was producing then, they decided to go for it."

Another attraction for NBC was that the *U.N.C.L.E.* car was provided to the series at no cost, as part of AMT's deal to produce the model kit. Although AMT spent about 30 to 40 thousand dollars building the *U.N.C.L.E.* car, they felt the venture was well worth the expense because the existence of the car in the series would be free advertising for its model kit.

"The Piranha," Winfield explains, "which the *U.N.C.L.E.* car was based on,







Above: A futuristic traffic jam made up of Winfield vehicles as seen in *Blade Runner*. Right: Harrison Ford's ground/air craft, the *Spinner*, parked on the set.

even had a drag car version with a blown Chrysler engine capable of 200 mph in a quarter-mile."

The *U.N.C.L.E.* car itself, though, was not quite so powerful, having a Corvair engine mounted in the rear. The exterior design of the car, although similar to the *Piranha*, had subtle changes, most notably on the back end of the car which included a license plate with the letters *UNCLE*.

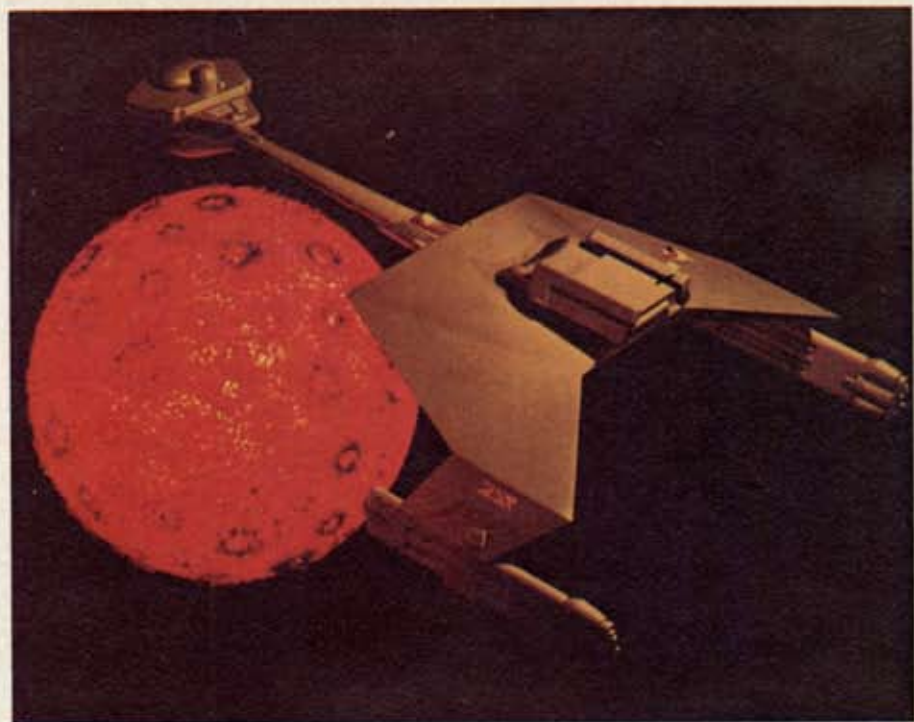
The frame of the *U.N.C.L.E.* car was, surprisingly, made of Fiberglass, but a steel cage housed the front and rear suspension. The body (except, of course, for the doors, trunk and hood) was one solid piece of Cyclocac, a thermo-plastic manufactured by the Marbon Chemical Company.

The car had such unique features as a grille



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Top: A Klingon spaceship built in miniature by Winfield and his company. Bottom: Woody Allen and Diane Keaton stroll past one of Winfield's rush jobs, a bubble car constructed for *Sleeper*.

which revolved to reveal twin (operational) flame-throwers, and mock laser beams in front and rear. Rocket launchers were built into the gull-wing doors and there was even a high-speed braking parachute which was successfully tested. The dash panel revolved to reveal a video communications center with a digital computer, radar screen and infra-red television system. Winfield expresses great pride over this dash because his company didn't take any short-cuts. "We installed genuine wood grain, not a cheap imitation finish. We built the car to be absolutely real and

functional. Even the propellers, which could be lowered from the rear, were operational. The car wasn't amphibious, although with just a little extra work we could have made it capable of that if they'd wanted it."

An interesting feature of the custom mechanical accessories is that they had their own independent electronic system. An electrical engineer was brought in to design the car's electronics and each system was built to function independently before it was installed in the car, making it easy to trace any problem.

The *Man From U.N.C.L.E.* car has gone

through several owners and was recently acquired by a man in Santa Monica who is seeing that the car is carefully restored.

"But at the same time we were working on the *U.N.C.L.E.* car, AMT's Speed and Custom Division, which is what we were called, started another big project. This was the *Star Trek* shuttlecraft. When Desilu needed a shuttle, and AMT wanted the kit contract, they made a deal where AMT built and supplied the shuttle free to the series.

"In building the shuttle we began with a heavy, welded steel frame for the base, and then a wooden frame was added to form the upper section. This was then covered with plywood and fiberglassed. The only metal on the outside were the landing struts and the long tubes along each side."

Winfield had to build two shuttles for the series. The one shown in the sequence of photos accompanying this article is the solid shuttle used for exterior shots only. As the photos indicate, it had a steel frame as a base. The second shuttle, used for interior shots, had what are called "wild sections," which are removable sections that could be pulled away to make room for the camera. Desilu provided photos showing other control panels already in use on the series so that Winfield and his crew could match the look and texture with their interiors. Winfield's AMT unit also built a 24-inch Klingon ship which was used on the series.

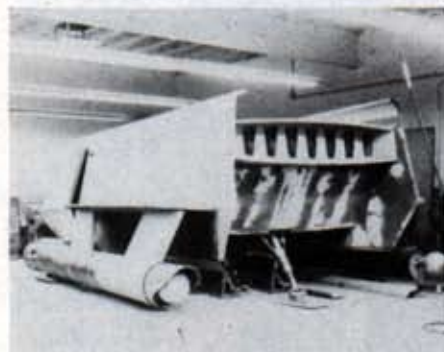
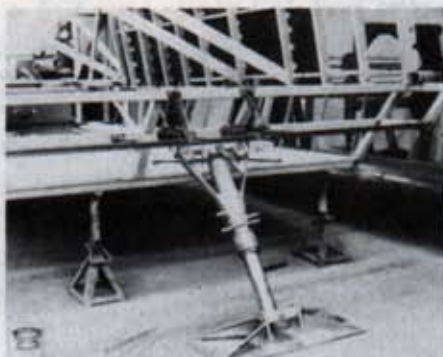
As some of you may already be aware, the shuttle built for exterior shots still exists. It's privately owned and is in storage in Torrance, California. A group in San Diego is currently trying to purchase the shuttle so that it can be donated to the San Diego Aerospace Museum. There it would be restored and put on permanent display in the same fashion as the 14-foot *Enterprise* in the Smithsonian.

"During all of this I was often commuting between Phoenix and Los Angeles as often as three times a week," Winfield explains, "until finally we decided it made more sense to relocate the AMT shop to Santa Monica. We operated it there for a year until AMT closed down the division due to a recession in its nationwide model sales. Although the facility had never been intended to make a profit on its own, and existed only for research, development and publicity, I managed to bring the operation to a break-even point before it was closed."

Using contacts in the film business made prior to his move to Phoenix, Winfield continued to find work with movie companies. He organized and maintained a fleet of Chevrolets which were rented by these companies for use in films and television. He handled these accounts for several years and also opened a shop of his own in North Hollywood. He remained in this location for three or four years before finally moving to Canoga Park, the home of many automotive businesses.

In 1966, when he began building cars to order, Winfield hired special designers to aid in the detailed mechanical and electrical requirements of such vehicles as Maxwell Smart's car in TV's *Get Smart* and the sleek Piranha conversion for *U.N.C.L.E.* These





Star Trek's full-scale shuttlecraft shown in various stages of construction. Winfield and Spock pose next to the finished product. A second craft was designed with wild sections for interior shooting. (Sequence starts top left, ends bottom right.)

assignments led to other unique vehicles in shorter-lived series, like the wild customized Western convertible, with a steer's horns on the front, in the series *The Hero* starring Richard Mulligan, as well as the snappy sports car driven by Robert Loggia in *T.H.E. Cat*.

"Before all of this, I had designed and built an all-aluminum show car called *The Reactor*. This went around the country in auto shows to show the kind of custom work I could do. It later was used on *Bewitched* and in an episode of *Star Trek* ['Bread And Circuses'].

### Custom Jobs

"Primarily I do car customizing and custom conversions like the Stutz convertible I made for Evel Knievel, which was the first of its kind. He also had me do other things for him like Cadillac station wagons and a Cadillac pickup truck."

Winfield's work in television commercials is quite extensive and includes some nationally seen spots. "For Sonoco, I froze a car in a block of ice for a week and then chipped the ice away so an actor could show that the car would still start. For Chevrolet, I cut a car in

half, front to rear, and I made both halves driveable. For Goodyear Tires, I built the rig and drove the car in the commercial when it went over drill bits, meat cleavers, saw blades and fire axes.

The Winfield shop's versatility is readily apparent from the variety of tasks in customizing and construction he's performed for movies and television.

"The car we built for *Get Smart* had an ejection seat, a cannon which rose out of the hood, ram bumper guards, a knife on the emergency brake, and a gearshift which was a hand grenade.

"For *Ironsides*, we had to take the old Ford van they were using for the series and duplicate the body on a new Chevy chassis because the original van wouldn't take the hills in San Francisco." (A later change in sponsors caused the van to be run off a cliff in one episode and replaced with a new van of a different make.)

His Reactor, which appeared in *Bewitched* and *Star Trek*, also turned up on *Batman* in an outlandish disguise as the Catwoman's car, when Eartha Kitt appeared as the feline felon.

Sometimes events conspire to leave Win-

field with a short deadline, such as in the case of *Sleeper*. For the Woody Allen science-fiction comedy, Winfield and his crew had to turn out six cars in 28 days, and all of the cars were functional. "We built two two-passenger cars, two four-passenger cars, a police van and the domestic van for hauling robots. One of the cars, which was supposed to be a hovercar, was made from an all-terrain, six-wheeled vehicle with the custom bubble car body added and a skirt around the bottom to hide the wheels. All the bubble cars used Volkswagen engines. After they finished with them, I bought back two of the cars because I liked the way they turned out. I did some more work on the interiors of them and some day I may put them in an auto show somewhere."

### Working on "Blade Runner"

What Winfield especially likes doing is constructing futuristic cars. The imaginative possibilities involved in this sort of assignment made the work on *Blade Runner*'s vehicles especially interesting for him. For this film, Winfield built 25 working vehicles.

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# Winfield

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Only 23 were eventually completed and delivered for filming; the last two were destroyed in an arson fire set in the building two shops away from Winfield's establishment.

"The cars we made for *Blade Runner* include taxis, Armadillo vans and small cars called the Everyman's Car. The Everyman's Car is some kind of government-owned car which one person drives to work and another person drives home." This arrangement is apparently intended to solve the problem and expense of private transportation in a society closely regulated by government.

"The Armadillo vans are made from Dodge vans with an extra axle added, as well as all of the custom work to make it look like anything but a Dodge van. One of the Armadillo vans is used in the film by the character Sebastian, who's an inventor and millionaire.

"We built four different versions of the primary car in *Blade Runner*, which is the police *Spinner* that's used by Harrison Ford." This ground/air craft is probably the most futuristic-looking of all the custom-built cars. The *Spinner* has a hydraulic wheel section in which the front wheels fold up inside the craft, ostensibly to change from the ground travel position to the flying function. The seats have collapsible headrests and also contain speakers. Like the wheels, the doors of the *Spinner* are hydraulic and move straight forward to open. Four of these full-sized *Spinners* were made: two for ground travel, one with wild sections for close-ups and interior shots, and a light weight *Spinner* which is lifted by crane to simulate flight.

One of the vehicle's curiosities is its steering wheel, made of chrome chain link, which was not part of the original design. "We originally built the *Spinners* and a couple of other cars with hydraulic twist-wrist steering because this is what the designs called for. We explained to the studio that it would be difficult for someone unfamiliar with it to learn to drive it very quickly, but they assured us that they could handle it. It was a lot of work but we delivered the first few cars with twist-wrist steering and no one there could manage it. They kept cracking up. It's a difficult thing to use because you have to put your hands completely inside the device to operate it, and they just found it too difficult to manage. So the studio people tore out the hydraulic steering and substituted regular steering wheels, and the chain-link steering wheels then are theirs, not mine. Otherwise, all the special custom vehicles you'll see in the film were done by my shop."

In his 15 years of building custom conveyances for every occasion, Gene Winfield has demonstrated an undeniable ability to grasp imaginative concepts and turn them into three-dimensional reality. His uncommon talent is a boon to filmmakers of all kinds, and the care and expertise he brings to these projects show that he regards it all as much more than just an occupation. ★