

Filmcrew

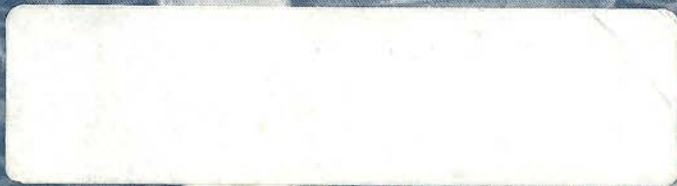
**Steadicam's Creator:
Interview with Garrett Brown**

Investing in Mutual Funds

Cleaning Those Lenses

Electronic Dimmer Systems

Equipment Theft and Recovery



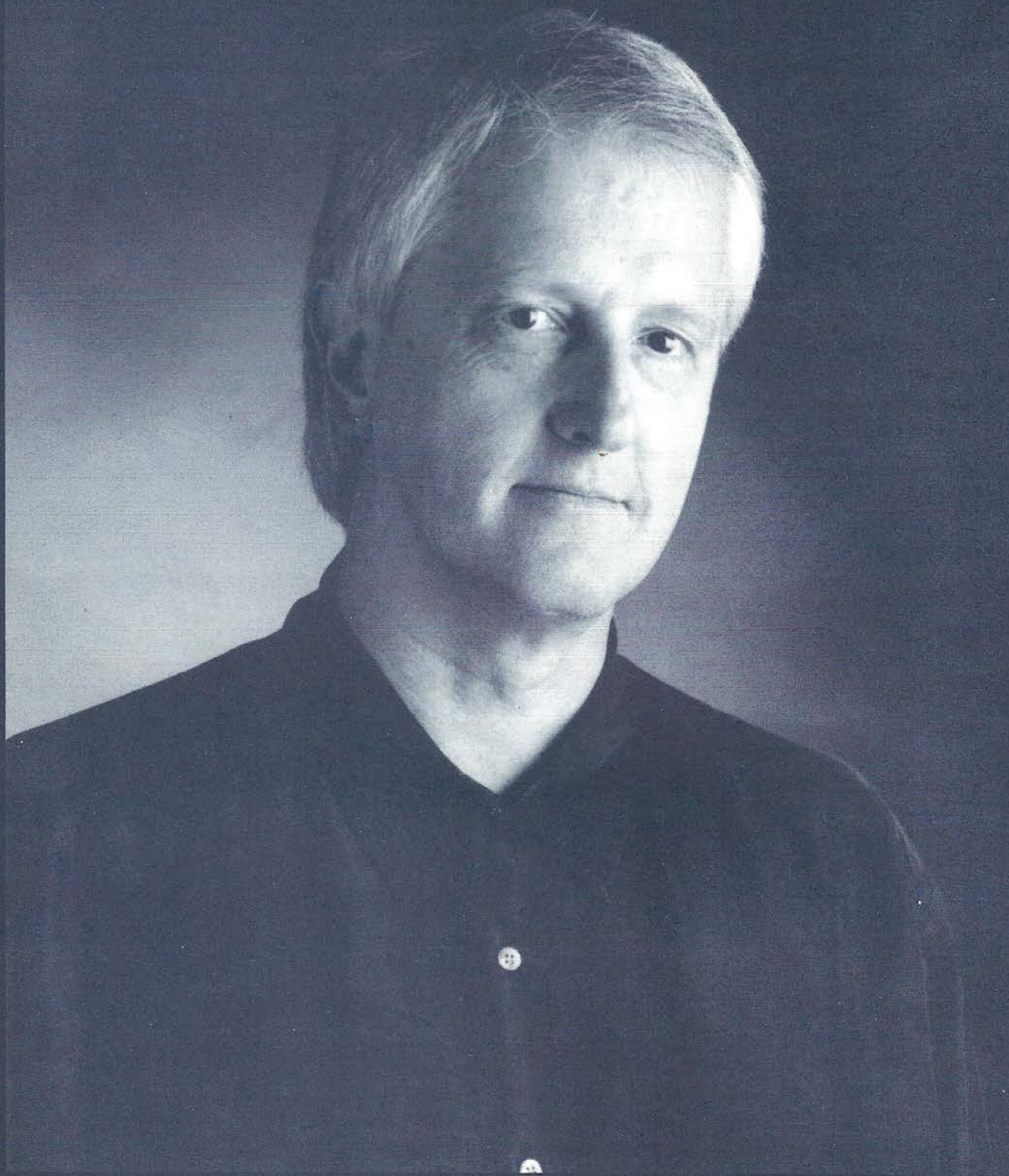
**Garrett Brown and Jonathan Brown
Los Angeles, California**

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Photograph by Sidney Battwin

Interview with Garrett Brown



Inventor of the Steadicam®

In 1972 the dolly got its first real competition with the invention of the Steadicam. From that point on a whole new world of shots that were never before possible suddenly were. Some of the most memorable—the Philadelphia Art Museum steps scene in Rocky, the Big Wheel shots in The Shining—were done by the inventor himself, Garrett Brown. FilmCrew recently interviewed Garrett in between shoot days while he was working on Warren Beatty's film Bulworth photographed by Vittorio Storaro.

FilmCrew: How did you get into the industry?

Garrett Brown: I was a folk singer in the '60's, one half of "Brown & Dana". I was 20 years old and it was a great young man's job. Al Dana and I drove thousands of miles a year to play colleges that couldn't afford groups like Peter, Paul and Mary! I thought showbiz was going to be it for me for life. But after 3 years and an automobile accident, I ended up with no career and no job. I had left college and I had no diploma and no idea what to do. It was 1964. A friend of mine had gotten into advertising and pointed out that it was the current bolthole for all ne'er-do-wells. Generally, souls with some creativity but with no particular qualifications could get into advertising in the '60s. I ended up as a copywriter.

Eventually I became the agency producer and, as I looked at my suppliers who were operating fun, entrepreneurial film companies, said, "This is for me". Meanwhile, I read my way through the 30-foot shelf of film books in the Philadelphia Library, so I knew the language and could speak the speak but I had never actually produced anything.

Finally I left the agency, bought a bunch of used gear and started a little motion picture production company. I made commercials with a Bolex, an Eclair ACL and bought a Rommel-era Arriflex still covered in camouflage paint. I also had a very heavy dolly which came with all this used gear, a Fearless Panaram 800lb dolly. It offended some deep part of me inherited from my inventing ancestors that I couldn't move a camera stably without putting this contraption under it. Even my little Bolex couldn't be carried along smoothly without 800lbs of cast iron under it. We broke our hearts lugging this dolly around in pickup trucks and laying it on my rusty rails but I loved the moving camera.

I think I'm a moving camera junky—I love this two-dimensional medium when it has the illusion of three dimensionality.

Commercials with technical challenges interested me the most. In the early '70's a client, Connecticut Gas, wanted a commercial showing numerous artisans in an old two-story building, each in their own room. The client wanted shots entering each room. I came up with a camera rig that allowed my cameraman to walk in and out of the rooms. The spot was unique and successful and I felt I had an idea to pursue!

There had to be a way to intercept the unwanted motions that a human being constantly makes and prevent them from getting to the camera. I began to build a series of gadgets aimed at this goal. I went down a couple of unproductive roads and though I could actually make stable shots, they were not conceivable commercial devices. (Some of them were 70' long and you couldn't smoke near them!) Eventually, I had a reel of otherwise impossible shots. I brought the footage to Ed DiGiulio at Cinema Products [CP] who made a deal immediately. Within a day we had the bones of a contract and CP launched on building the Steadicam.

Master Series

MASTER SERIES

The Steadicam prototype worked and I had the only one in the world. Almost immediately I started working on films. *Bound for Glory*, *Rocky* and *Marathon Man* were all shot in 1975, and we never looked back.

FC: You mentioned that you have ancestors who were inventors. Who?

GB: My father has a number of patents, and one of them is for something you use everyday. He invented the material that binds all paperback books and that replaced the animal glue they used to use. It's called Hotmelt but he did it for DuPont and although they sell hundreds of millions of dollars worth of the stuff a year, he only got the watch and the retirement dinner. That kind of put me off of doing the

their industrial finishes for cars. Other ancestors were railroad men. I think there are a few genes knocking around in there that help me with mechanics. I'm not trained as an engineer, I just have a reasonable ability to visualize things.

Inventing is a job that is misperceived by people. It's mostly about identifying the gaps in your life that might be filled by something. People take for granted and gloss over the gaps, the missing things. My clue that something is worth working on is if I really really want one myself. I'm not into inventing things that one thinks can be sold to other people. It's somewhat unreliable and you can break your heart and lose your money. But if *you* really want one and you figure it out, the worst case is that you at least own one. The rest of it is just dogged hard work, trying every damn thing you can think of and a willingness to spend your own money. I get a lot of calls from people who wish they could invent or have an idea for something and they frequently falter when they realize it's going to cost something—their own dough. Then I ask them, "Do you believe that much in it?" People who might invest in the stock market or in a franchise seem strangely reluctant to invest in their own ideas.

FC: What you have created has had a major impact on the industry and movie making. What does that feel like?

GB: We never thought that the Steadicam would have the kind of legs that it has. I was afraid it might be knocked out of the ring by some mysterious black box that stabilized by pushing a button. But, twenty-three years later it's bigger than ever and still growing. It has taken its place as a production tool. Cinema Products and I have continued to refine the technology and operator skills keep improving. What the Steadicam does for a movie is now rather fundamental and irreplaceable... like the tripod! It's like a violin. With a good violin operator you get music!

FC: Out of the thousand or so Steadicam operators in the world, how many of them are masters?

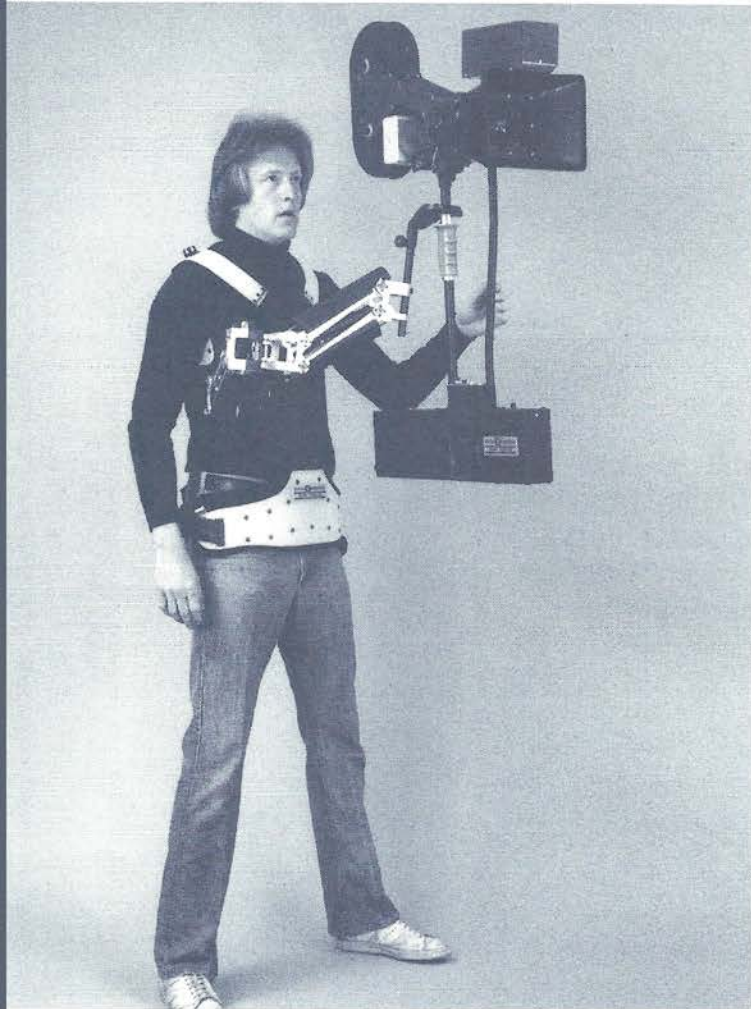
GB: There are probably 150 "living masters" in the world. Someone who could air drop into New Guinea and shoot anything. They speak dozens of languages and are immune to heat and cold, and they can levitate!

FC: Do you think there will ever be "black boxes"?

GB: Eventually there may be programs that aim your camera, make a judgment based on light and shade and diagonals and golden means and spit out perfect pictures. But they'll be a big pain in the ass with a manual a foot thick and I don't want to run one, thank you very much. That's not for me.

FC: So I remember these great Molson radio spots in the 80's. Rumor has it that you were one of the voices?

GB: It was an offshoot of my agency days. I worked with a woman named Ann Winn. We were copywriters at adjacent desks. The agency thought we were amusing because we were always making



Early manufactured version of the Steadicam

inventing job inside a big company. I've done all of my things outside and then licensed them.

FC: How old were you when he invented Hotmelt?

GB: I was two years old. And my son was two years old when the Steadicam was invented. I guess Browns fall into the inventing business at that age.

FC: Was your dad inventing gadgets the whole time you were growing up?

GB: No. He was a chemist at DuPont and then became a manager of

jokes so they asked us to knock off Nichols and May and do a funny radio spot in 1969. We did it. We ad-libbed them and it was a hit. We worked for a lot of clients including Kodak. When the Steadicam came along and Ann when off to raise race horses, I stopped. In '79 Molson dusted off a demo we had done and tested it. It pinned the needle on all their focus groups so they asked if we would do some more. We said, "No, we don't do that now." They kept calling and finally as the ante got high enough, we looked at each other and said, "Hell yes we'll do it!" We did Molson for thirteen years and also American Express. We stopped when I started working on the Olympic cameras. Now someone has lured us back.

FC: Can you tell us who?

GB: It's a new product and it's secret. It'll be on the radio. SO LISTEN!

FC: Another rumor has it that you built a super-lightweight camera weighing less than 8 pounds. Is that true?

GB: I have a camera that may be the lightest in the world. We built it for an early Skycam prototype. It's a Filmo that weighs 4 1/2lbs. John Russell of North Hollywood built it for me. An amazing job. He hogged it out so much that it has the general thickness of aluminum foil.

FC: Let's talk about the Master Series™. Besides a great look, what's new about the latest Steadicam?

GB: Cinema Products' introduction of the Master Series represents the culmination of our efforts to support the new Steadicam techniques. For example, with what we have learned about dynamic balance, we have made significant advances to help with whip panning. Steadicam gets up to speeds of 150rpm in the middle of a whip pan, therefore it needs to be dynamically balanced around the line of the post. This new rig is designed to remain in balance as you add accessories and change its configuration. It also has radio-controlled trimming for the camera's attitude—even during a shot.

Motorized trim is analogous to the trim

wheels on a plane. Picture flying along in a private plane without trim wheels. For hours you would need to maintain steady pressure on the stick to stay on course. The trim wheels allow you to set it so that it's a virtually hands-off operation. The idea of having to land the plane in order to trim is inconceivable but that's where we were with the Steadicam. You couldn't lay hands on it during the shot. And it's an instrument that needs fine tuning. It's a dynamic process in the sense that you do it all the time, during every take.

Before, for all those long shots we had to pick one trim and we were stuck with it. We picked the trim attitude for the most difficult part of the shot or the part that went on the longest, and everywhere else we were fighting against it and the framing, in a microscopic sense, moved around a little bit.

My son Jonathan Brown is a camera operator and he and I worked side-by-side on *Bulworth* with two Master Series rigs. We have put more than 800 rolls of film through our Steadicam cameras. Most of the shots we have done are with 75mm or 100mm lenses. In order to do that happily you must be able to burp the trim of the stage so the tiniest influence of tilt up or down is exactly what's needed. The actor rises a little in his chair, and a trim change stays with him.

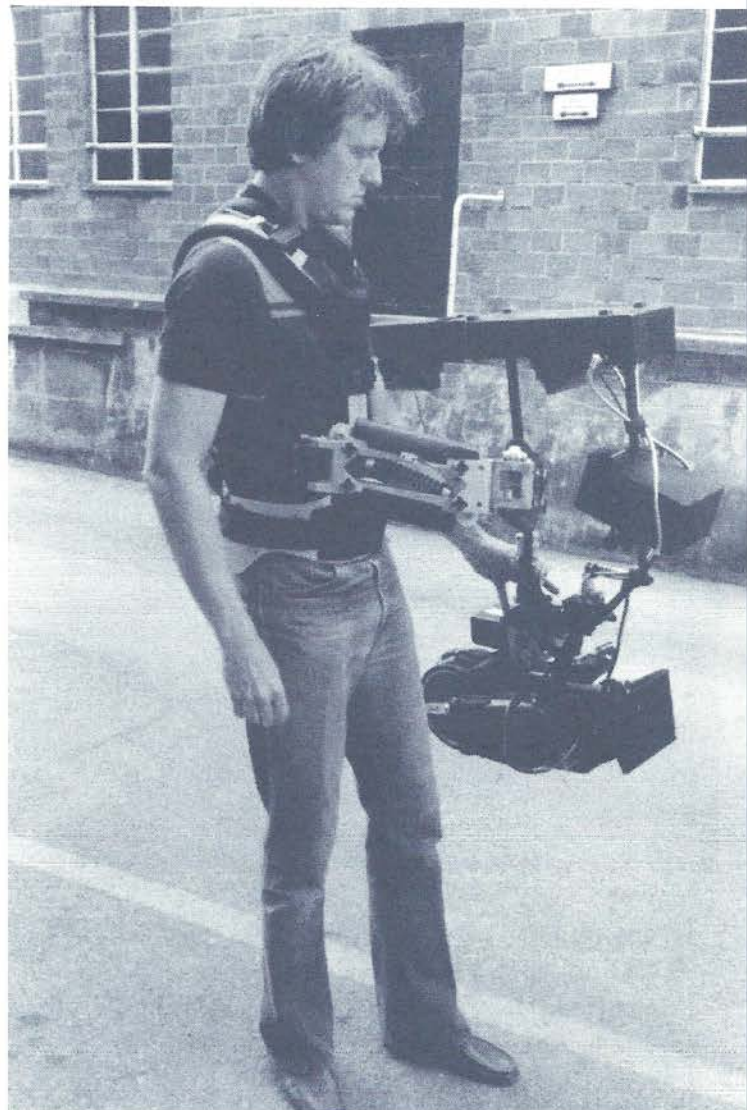
Also I wanted a bigger monitor and the Master Series has the biggest, sharpest monitor available, which is a 6" diagonal 16x9 aspect ratio.

The rig now has the ability to alter its rotational inertia so you can slide the compo-

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nents inboard to do a whip pan or you can pull them apart and get twice the inertia of the old 3A for a shot like a title sequence that needs to be very stable.

It also has a new vest and a complete no-tools design so everything you need to do can be done by flipping hand clamps and levers and moving things instantly that used to require going to the stand, getting a wrench, locking it, unlocking it. Just the snap clamp that locks the gimbal in place is so fast that



Steadicam rig for low angle shots for "The Shining." Elstree Studios, England, 1979.

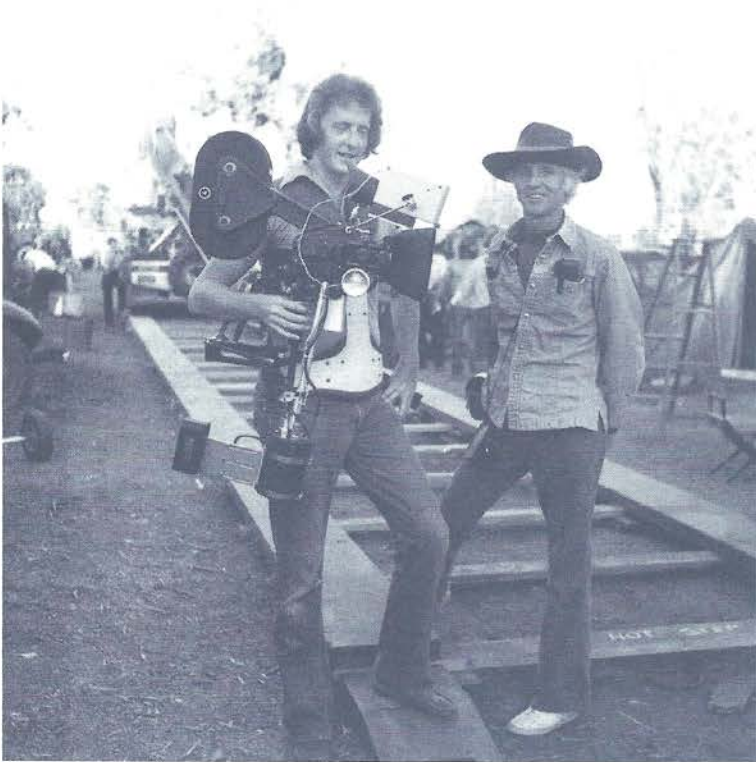
you adjust it more often because it's easy. I've observed that the Master Series is twice as fast to work with as the old Steadicam.

FC: Where did you get the idea for the arm? Was it watching someone carry a cup of coffee?

GB: That kind of thinking was responsible for the general idea of isolating the camera. The arm itself was inspired by looking at those old articulating lamps and imagining new ways for two arm sections to work together.

The Master Series has a fantastic arm. The old one had a rough "ride" and a strong float point and if you boomed up you would have to hold it and invest a lot of British thermal units to get it to stay at that height. This one can be put anywhere from top to bottom and, with a couple ounces of force, will stay there.

FC: How long have you been running the Steadicam Workshops and what percentage of the working Steadicam operators have been through the course?



Garrett Brown & Haskell Wexler on the set of "Bound for Glory"

GB: The first one was in Rockport in 1980. Almost all good operators have been through "the system". I figured out the other day that I have taught nearly a thousand souls worldwide, while others, including the late Ted Churchill, have taught as many more.

FC: In addition to having created the Steadicam, teaching and working on your other inventions you also operate, you still shoot to this day. Is that right?

GB: Yes, I do. It's a lot of fun. Over the past few years, I had cut back on operating to work on the video camera technology for sporting events. I worked the '92 Olympics with MobyCam, a camera that follows the swimmers underwater, for NBC. And then this past year in Atlanta, we brought 18 new systems to the Olympics. (I over-extended myself, somewhat!) We had Dive Cam, which drops with the

divers. (It is up for a Sports Emmy this year.) We also did a thing called GoCam that chases the runners and was used to follow fencing, wrestling, gymnastics and soccer.

We also did six or so sports and the Opening and Closing Ceremonies with four new-generation, ultra-light SkyCams that "fly" over large-scale events.

In order to recover from the Olympics spiritually, I went back to operating Steadicam when Storaro asked me to work on *Bulworth*.

FC: I would consider that recovery might consist of a visit to the Cayman Islands.

GB: I agree but, physically, Steadicam is a lot less difficult than people imagine. It's a great deal more work to lug 1000' mag cases back and forth to the truck than the average Steadicam shot. True, every now and then you get a brutally difficult running shot, which I don't encourage, frankly, because there are a lot of other ways to transport a camera. I love to ride on a western dolly and concentrate a little more on the operating.

Steadicam was perceived as a running camera for the first few years but basically it's just an all-around camera support and a very capable aiming tool. I enjoy imitating a dolly very closely, but with the mobility and the chance to look straight ahead that Steadicam makes possible on rough ground and in tight location sets. This is the most fun because you're tucking into corners and the camera is on one side of you and then the other side and the viewer has no idea where the operator is. As Ted Churchill once put it, "You're an arty pack mule." You're doing the athletic job of schlepping it around—which approaches an almost balletic grace among people who do it well—and you're making those artistic choices with the lens, moving in three axes and three dimensions. It's a great job.

FC: Who would you say has influenced you the most in the business?

GB: Haskell Wexler and Vittorio Storaro. I also really enjoyed working with Stanley Kubrick. *The Shining* was a fine experience and I'd do it again in a flash.

FC: When you're operating, is it a Zen thing, much like what in sports is called being in the zone?

GB: Yes. I just did a shot that I think will illustrate the point. Warren Beatty had dreamed it up the night before and when we got on set it boiled up in a quick meeting in his trailer. Storaro is a joy to work for for a number of reasons, not the least of which is that he loves to light. He is one of the few cameramen that I've known who is perfectly content if the director says to him, "Well, I want to shoot from the other side." Instead of evil looks and grumbling, Vittorio says, "Great. No problem. Watch this." And he'll enthusiastically relight the reverse angle. It's fun to watch him. He does it very rapidly with his system of dimmers and "Jumbos", which are big multiglobe lights made in Italy.

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So Vittorio roared off to light while I started walking through it in order to memorize the terrain. My style is oriented towards rehearsing and trying to learn the ground like a dancer. The shot unfortunately required me to walk backwards which I seldom do. I prefer the "Don Juan" position (walking forward, looking to the rear), but I had some obstacles to pass that I couldn't manage without backing up.

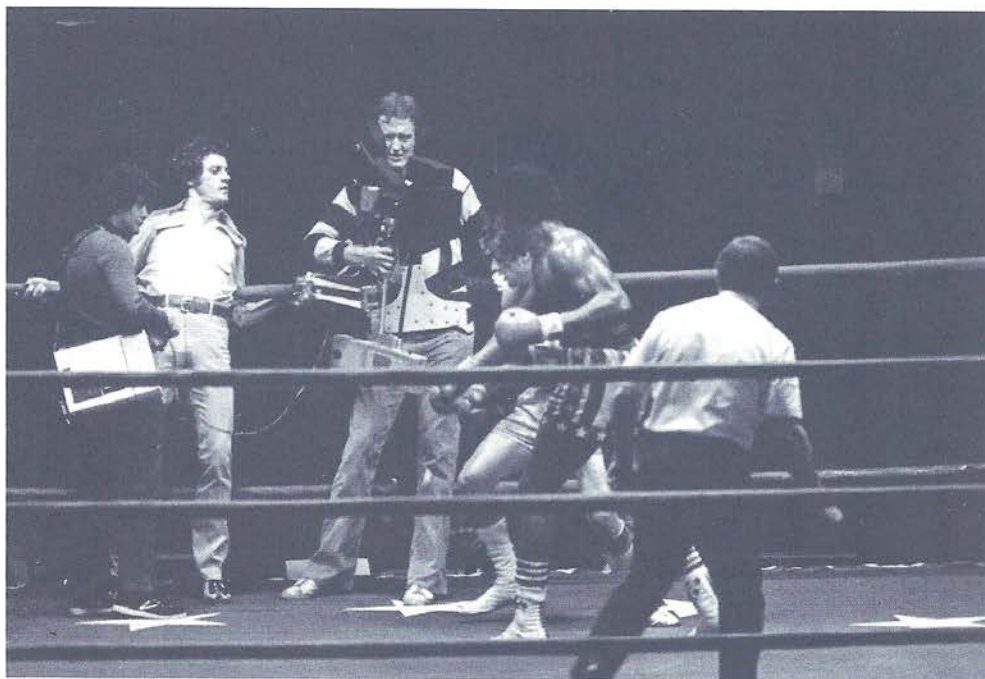
The shot had three or four moments that had to be seen very precisely as we flew by, and required very specific choreography. The process is immediately Zen-like. Early rehearsals involve aiming the lens purely by instinct because most of your attention is on navigation. "Where's that curb? Where's the tree? Will I crash into Oliver Platt?"

It is amazing to look at these playbacks because some instinctual part of your brain must have been aiming the damn thing even though I barely had a chance to look at the screen! I like doing multiple takes because, like a dancer, you find yourself continually improving—beginning to really make a movie out of a long difficult shot, until you can master the smallest nuance.

In this case, since Warren had sprained his foot the day before, we were under tremendous pressure to get it on the first take as he wouldn't necessarily be able to get through the course more than once. My incentive was tripled, and I nailed the first one in a rush of adrenaline. Warren then mysteriously found

the energy and inclination to do eleven more and, I'll tell you something, by take three I was in the "zone" that you're referring to—almost a dream state. The legs are doing what they do, and you're thinking about the framing and odd little things you can improve with three inches to the left here and a slight pan at this point or a deceleration there to allow someone to catch up a little bit. It is pure joy as long as you don't absolutely wear yourself out. I think it's still the best job in the business!

I intend to keep operating until I'm ancient, and maybe then I'll just hardmount the arm to my walker! **FC**



Shooting "Rocky" 1975. First production Steadicam prototype.



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