# International Cinematographers Guild



To Storaro Index

## **Maestro of Light**

Vittorio Storaro, ASC on writing poetry with light

By Bob Fisher

"To me, making a film is like resolving conflicts between light and dark, cold and warmth, blue and orange or other contrasting colors. There should be a sense of energy, or change of movement. A sense that time is going on — light becomes night, which reverts to morning. Life becomes death. Making a film is like documenting a journey and using light in the style that best suits that particular picture... the concept behind it."



So said cinematographer Vittorio Storaro, ASC mere hours before receiving his first Academy Award for *Apocalypse Now*. He isonly the 14th cinematographer to receive a Lifetime Achievement Award from his peers in the American Society of Cinematographers. This annual prize is presented to a director of photography whose body of work has made an indelible impression on the art of filmmaking. The first recipients included ASC stalwarts George Folsey, Joe Biroc, Stanley Cortez, Charles Lang, Jr., and Philip Lathrop, all of whom worked their way up the Hollywood crew system's ranks. Storaro joins fellow ASC members Haskell Wexler, Conrad Hall, Gordon Willis, Sven Nykvist, Owen Roizman, Victor J. Kemper, Vilmos Zsigmond and William A. Fraker on the short list of a new generation of cinematographers who redefined the art of contemporary moviemaking.

Storaro is the youngest cinematographer to receive the ASC Lifetime Achievement Award, and joins Nykvist as the only foreign national to receive such recognition. He is most esteemed for *Apocalypse Now, Reds, The Last Emperor* and *Dick Tracy*; Storaro earned Oscars for his work on the first three films and a fourth nomination for *Dick Tracy*. Some of Storaro's other narrative credits include *The Conformist, Last Tango in Paris, 1900, Luna, One from the Heart, Ladyhawke, Ishtar, The Sheltering Sky, Little Buddha, Flamenco, Taxi, Tango, Bulworth and Goya in Bordeaux.* He also photographed *Captain E-O*, which tens of millions of people saw at the EPCOT Center in Florida, *La Traviata in Paris*, an opera which aired on television, and 15 one-hour documentaries, *Roma Imago Urbis (The History of Rome)*, which play at museums around the world.

#### Portrait of the Artist

Like any artist, Storaro was born with innate talent burnished by experience and cultural influences. Born in 1940, his first introduction to movie magic came while observing his father as a projectionist at Lux Film Studio. "I remember sitting in that little projection room and watching films with my father," the cinematographer recalls. "It was like watching silent movies because you couldn't hear sound in the booth. I just saw the images and would try to understand the story. When I was very young, my father brought an old projector home because the studio installed a new model. All the kids in the neighborhood sat on little benches in our garden. My brothers and I painted a wall white and my father would show us Charlie Chaplin movies, which, of course, were silent. There is no doubt that he put his dream of becoming a cinematographer into my heart."

photography by enrolling in the Duca D'Aaosta technical photographic institute while 11 years old. After graduating at age 16, his father asked Piero Portalupi, one of Italy's great cinematographers, to help his son find a job in the industry. "I never met him but I owe him a debt because he told my father it was more important for me to continue learning," he remarks. "When I tried to enroll at the Centro Sperimente di Cinemagrafia [the state film school] they said I had to be at least 18. I didn't know what to do. My family was poor."



He spent his afternoons working in a photography shop, sweeping the floor, developing photographs and eventually printing and retouching pictures. During the mornings, he attended a very small film school (Italian Cinemagraphic Training Centre). After his 18th birthday, Storaro applied for admission to Centro Sperimente di Cinemagrafia again, but the rules had changed — the entry age was now 20. He persuaded authorities to allow him to compete with 500 other applicants, but was warned his chances were slim because the school planned to accept only *three* cinematography students.

Storaro became one of 30 students selected for interviews, partially based on a series of photographs submitted with his application. "I was one of the last people they interviewed," he remembers. "It was two o'clock in the afternoon and there were 10 people seated at a long table questioning me. They were very tired and I was very shy, but I knew I had to make an effort. They asked me the first question and I never stopped talking for two hours. I don't recall being especially aware of wanting to be a cinematographer at the time, but I believed it was my best chance of being selected. I was afraid if I finished third, they might decide to select a 20-year-old instead of me." He ended up being the first of three cinematography students chosen. That summer, his father arranged for Storaro to have an unpaid internship as a camera loader on a black-and-white production. "For every shot, I cut a little piece of negative and processed it at exactly the right temperature to test the exposure."

The day after completing his studies, Storaro went to work as a focus puller on an anamorphic picture. He contributed to two more movies as assistant cameraman before becoming an operator. "From that moment on I considered the camera to be like a pen that you use to draw images," he states. "Operating a camera is mainly about composition and rhythm. I also operated the camera for several commercials. It was very primitive. While we were shooting, someone with a watch was timing every pan and zoom. He would say, 'You have 4 1/2 seconds to do that zoom.' It was a great lesson for me, learning to make each element of a shot work in that amount of time."

Storaro then served as a camera operator on three films. Suddenly, however,the Italian film industry underwent a crisis: one year, 300 feature films were produced, but by the next year the number decreased to 10. "Most of the people I knew weren't working and I was still too shy to ask for work." He grasped the opportunity to expand upon his knowledge of art. "I realized that at film school, they taught me mainly about cameras, lenses, film, sensitometry, everything connected with technology. Nobody taught me anything about how to interpret stories. I realized that we should use technology to express ideas and visions. Nobody told me to study painting, music, literature or philosophy. I applied myself to studying the works of the great masters of art, including Faulkner, Vermeer, Caravaggio, Mozart and Rembrandt."

After two years of self-imposed study, Storaro received an opportunity to work — on *Before The Revolution* (1964) — it required his taking a step backwards to function as an assistant cameraman. "I decided it would be too arrogant to feel that because I was a camera operator yesterday, I couldn't be an assistant today," he reasons. "My first impression [of Bertolucci] was that he had incredible knowledge, especially for someone so young — Bernardo was 22 and I was 23. His father was one of the most important poets in Italy and his family's friends were all writers and poets. Bernardo knew so much. Every shot was perfectly laid down and structured. It was a shock for me to witness his clarity and strength. He knew exactly how he wanted to use the camera. In my mind, he was the ideal director." After *Before the Revolution*, Storaro resumed duties as a camera operator. He also worked on a number

of short films with Camillo and Luigi Bazzoni. Storaro served as camera operator but since the crew was so small, he also did much cinematography.

In 1968, Storaro shot Franco Rossi's *Giovinezza*, *Giovinezza* [*Youthful*, *Youthful*], his first feature as a cinematographer and only black-and-white movie. "I finally felt I'd been able to tell a complete story. It was a complete journey using all the language of light and darkness and contrast. We began with words on a page and translated them into a journey on film that tells a story. It was like your first love. I remember I cried two days before the movie was over because I knew that it was going to finish and that same emotion would never come back."

The following year, Storaro committed to his next film, L'Uccello dalle piume di cristallo (The Bird with Crystal Plumage), when Bertolucci contacted him about La Strategia del ragno (The Spider's Strategem). Though a TV production, Bertolucci determined to shoot it like a feature film — ignoring the small screen's confined boundaries. There was a two-week period when the production schedules for Bird with Crystal Plumage and The Spider's Strategem overlapped but Bertolucci said he'd rather have Storaro for part of the film than not at all. That led to what Storaro describes as his life-long journey with Bertolucci, including The Conformist, Last Tango in Paris, 1900, Luna, The Last Emperor, The Sheltering Sky and Little Buddha.

"When I first heard about *The Last Emperor*, I was in Russia shooting *Peter the Great*," says Storaro of his 1987 Oscar-winning masterpiece. "Bernardo sent me the original book written by Pu Yi [the final emperor of China]. I didn't open it up for weeks. Finally, at Christmas we had a three-day break and I felt my mind was clear enough to read the book. From his arrival in the Forbidden City as a three-year-old, he was kept in kind of a limbo. By the time he was seven, China had become a republic. Everything outside the walls had changed but he only knew what the court and the eunuchs allowed him to know."



In fashioning its sumptuous style, Storaro prepared an analogy between the quality of natural light and the Emperor's spiritual awakening."The Sun is our main source of energy. It gives us the full range of the spectrum...all the colors. I asked myself, How could we represent his life through the use of colors? If they kept the Emperor away from knowledge, he had to be shielded from light. At the beginning of the picture, he never sees his own shadow. The people around him kept the young

emperor in the 'penumbra' of partial shadows. As he begins learning from a tutor what is happening outside the walls, the Sun touches his face and he sees his own shadow for the first time. The more he learned, the more light I poured on him and the darker his shadow became. As he finds more balance in his life, the audience begins to see more of a harmony between light and shadows."

The cinematographer also represents each segment of the Emperor's life with individual shades of the color spectrum. "I saw his life like the journey of the Sun," Storaro explains. "Red is the first color in the spectrum — it represents life. The Sun is orange when he enters the Forbidden City. It is the color of a sunset symbolizing the end of the Chinese Empire. We used yellow to symbolize royalty and the purest form of energy. Those were the only colors used in the first part of the picture."

Among other visual nuances, Storaro utilized two sets of Technovision lenses. Standard lenses, which have a very warm look — one the cinematographer describes as "almost plastic in texture" — were reserved for scenes when the Emperor remembers his youth. On the present-day moments, he employed the newer Technovision lenses, which lent sharper, harder and more defined images with slightly colder colors. For some early scenes, Storaro combined "pre-flashed" footage with the ENR process to compress the white tones, suppress colors and amplify the blacks. "Symbolically, it was like

compressing his life."

#### Into the Heart of Darkness

While filming *Last Tango in Paris* in 1972, Storaro found himself at the Rome airport en route to pick up his family. Spotting Bertolucci talking to a bearded gentleman, he joined the director and his companion. That chance encounter marked the first meeting of Storaro and Francis Ford Coppola. Sometime later, Storaro was shooting a small movie in a very little studio in Rome, when he encountered both Coppola and Gordon Willis, ASC who were engaged in production on *The Godfather-Part II.* "I had only met Gordon once before when he visited Technicolor [in Rome] while I was there timing *'Tis a Pity She's a Whore.* We shook hands, and Gordon told me that he enjoyed my work. I felt honored to hear that from the man who had shot *The Godfather.*"

A couple years later, co-producer Fred Roos called Storaro to discuss *Apocalypse Now*, Coppola's interpretation of Joseph Conrad's *Heart of Darkness* onto the Vietnam War. Storaro asked why Willis wasn't shooting the war epic, explaining to Roos that he didn't feel right about Willis' absence. That led to a 30-minute telephone conversation with Coppola who informed Storaro that Willis was not interested. "I told him that I still needed to speak with Gordon. Francis asked me to meet him in Australia to scout some locations, and then we would fly to Los Angeles and have dinner with Gordon. He said, 'You speak to Gordon and after that you give me your answer.' I went to Los Angeles where Gordon was shooting *All The President's Men*. I cooked some pasta for all of us. We had a wonderful dinner. Gordon said, 'Francis and I love each other, but this is not my movie.'

"I knew this [Apocalypse Now] would be a very difficult movie to control. On all of my previous films, I was able to create a concept or a look by deciding how to control the use of light. However, this film had such enormous scope, I knew control was going to be very difficult to achieve. I felt very close to Francis — like a brother — in a very short time. When we talked, he made me feel he respected my judgement and he would give me the freedom to express myself."

Originally, Storaro planned to document the impact of a dominant culture superimposing itself upon another. "We wanted to show the conflict between technical and natural energy. For example, the dark, shadowy jungle with natural energy compared to the American military base where big, powerful generators and huge, probing lights, provided the energy. There was a conflict between technology and nature as well as between different cultures. Remember the USO show with the Playboy Bunnies on that huge stage? We framed them with those big spotlights in a way that conflicted with what the eye expected to see against the background of the jungle. It wasn't glaring — it was just a suggestion, something that slightly disturbed the eye. Mainly, we tried to use color and light to create the mood of conflict in subtle ways. The way that red fire contrasted to a blue or black gun in the foreground. Or the way the color of a weapon stood against the sunset. Or how an American soldier with a blackened face was seen against the green jungle or blue sky — all of that helped create the mood and tell the story."

According to Storaro, "the look" of *Apocalypse Now* evolved day-by-day over 15 long months working in the Philippines. He used the changing light and seasons to establish a flow of time. Deranged megalomaniac Colonel Kurtz (Marlon Brando) "represents the dark side of civilization, the subconscious or the truth that comes out of the darkness. It couldn't be normal. He had to be like an idol. Black is like a magic color. You can reveal patterns and moods that aren't possible in other ways. When I saw this scene in my head before we shot it, I pictured it in black with Brando always in the shadows or the dark side. Coppola gave me the freedom to express this idea."

Stephen Burum, ASC, who directed and handled second-unit cinematography for *Apocalypse Now*, comments, "I had never met Vittorio before. I had seen *The Conformist* and *Last Tango in Paris*, and neither of them was anything like *Apocalypse Now*. He [Storaro] was very generous and gracious. He never said, 'Here is what I'm doing. Now mimic me.' Instead he said, 'I'm giving you the freedom to go out and do something interesting. Maybe you can give me an idea.' That's the way he approached his relationship with me. I would go out and shoot the boats and helicopters, and every three weeks, we would look at the first- and second-unit dailies together."

"He was so generous and supportive that he inspired me to be more creative," continues Burum. "There are very few people like that. There is something very humane about his work. He is always interested

in the human condition, and capturing it on film in an interesting way. He is very bold, and yet very subtle. His work doesn't scream at you for attention. But there is a quality that sneaks up on you. I see one of his pictures and I find I want to go back again and again. There are very few people whose work is like that."

A dozen years after *Apocalypse Now*'s theatrical exhibition in 1979, Burum joined Storaro and colorist Lou Levinson in a telecine session re-mastering the film for laserdisc release. Levinson was shuttling back and forth on just a few frames of a scene with an orange mist floating on the river. "Make that a little more red, but keep the green the same," instructed Storaro. "More red. More. Can you keep the green? Wait. That's right." It was like watching an artist adding tiny dabs of colors to a new canvas, offering people an opportunity to see *Apocalypse Now* in its proper format.

Storaro routinely blazes new paths that others follow. When working with Coppola on *One From the Heart* (1982), considerable media hype arose about the director's innovative use of video assist technology. Storaro linked his camera to a prototype video tap system. Press coverage focused onhow Coppola would revolutionize moviemaking with that instrument. Hardly anyone noticed Storaro breaking new ground by adapting stage lighting techniques as a filmmaking tool. He coupled every lamp to a dimmer, controlling them from an "an electronic desk." That system allowed Storaro to choreograph angle, density and color of light to the movements of cameras and actors, transitions in time and other variables. His choreography was like that of a maestro conducting a symphony. As actors move through scenes, and day turns into night or vice-versa, Storaro orchestrates lighting instruments as though creating music. A few years later, while filming the mini-series *Peter the Great* in the old Soviet Union, Storaro switched from the DC power routinely used in the film industry to the less cumbersome AC power, requiring less cabling and a simpler console.

#### Red Dawn

Storaro's long-standing connection to actor/director/producer Warren Beatty emerged from a moment of pure serendipity. The cinematographer was dining with writer/director Robert Towne in Los Angeles, and Beatty just happened to be in the same restaurant. During their half-hour chat, Beatty grilled Storaro with questions about 1900, which he had recently seen. Soon after, Storaro returned to Italy to shoot Luna. One night, his ringing phone awakened him at about 1 a.m. On the other end he heard a voice say, 'Hi, Vittorio. How are you? Do you remember me?' By then, the awakened Storaro was wracking his brain, trying to place the voice with every writer and director he had met in Los Angeles.

"He started telling me the story of John Reed [an American activist/journalist involved in the Russian Revolution] and finally I recognized who was at the other end of the telephone," states Storaro. "That was my first conversation with Warren Beatty about *Reds*." At their first face-to-face meeting, Beatty acted out *Reds* page-by-page. That's when Storaro realized that working with an actor who was also a director would be an incredibly different experience. Principal photography lasted for about a year with shots done in England, Finland, Spain and the United States. An important part of Storaro's preparation included studying Sergei Eisinstein's images of the Russian Revolution. An "ideology" he penned as a guide for production read: "Try to think of the movie as. . .a graphic representation of John Reed's life. . and what it means to us. . .His dogged work is a light which strives to penetrate the shadow in an uncertain present." On *Reds*, Storaro pioneered use of the ENR proprietary process developed by Ernesto Novelli at Technicolor Labs in Rome. By leaving more silver in print film, the ENR process renders richer black tones. He applied this technique to footage of the actors, matching its look to archival imagery from the Russian Revolution. Since then, variations of ENR (such as bleach-bypass and silver-retention) have become commonplace at labs. However for many years, Storaro ranked as the sole explorer on that frontier, never wavering in his convictions.

When prepping Beatty's adaptation of Chester Gould's long-running comic strip *Dick Tracy*, Storaro designed an imaginative color palette that provides daring visual clues for the audience. His concept employed ENR to amplify color rendering. Only Technicolor offered that service, but Disneyhad a contract with another facility. During an early meeting with Beatty and studio executives, Storaro was informed that switching labs would be impossible. Striding towards the door, Storaro sadly assured them not to worry, while adding his sorrow at missing an opportunity to work on this great film with his good friend Warren. In relating this experience to an audience, a young cinematographer observed that Storaro could afford to take such a principled stand due to his esteemed reputation. The

cinematographer answered wryly, "I wasn't always Storaro."

During that two-year period when Italy's film industry suffered a downturn, Storaro had his drought broken by Bernardo Bertolucci, who hired him as an assistant cameraman on his directorial debut *Before the Revolution*. A couple years later, Bertolucci asked Storaro to shoot his next film—*The Conformist* (1969). They met late in the evening in the director's office. The cinematographer had the script in his hands when Bertolucci mentioned his desire to use a camera operator unfamiliar to Storaro. At the time, the 29-year-old Storaro had two credits, and was working in Italy during hard times. He handed the script back to Bertolucci, thanked him for his consideration and strutted out the door. The director followed Storaro into the corridor where the conversation continued. After some discussion, he agreed that Storaro could choose his own camera operator for *The Conformist* but if any problems arose after a week, then they would talk. The operator — Enrico Umetelli — ended up collaborating with Storaro and Bertolucci for many years.

Complications also arose one week deep into shooting his first mainstream studio film, *Apocalypse Now.* Production was shooting in the Philippines and shipping the negative to Technicolor Labs in Rome. Only one flight a week left for Rome while three went to Los Angeles, so Storaro was asked to switch laboratories. The cinematographer, however, held his ground. "I had a very close relationship with Ernesto Novelli in Rome," he attests. "We collaborated on *The Conformist, Last Tango, 1900* and other films. We were halfway around the world. How could I work with a lab I didn't know? There are moments when you have to be strong and when you take a position you have to be very aware of the possible consequences. Francis [Coppola] could have said, 'Okay, let him go.'"

#### Lord of the Dance

In 1994, Storaro turned the page on a new chapter of his lifelong journey by collaborating with Spanish moviemaker Carlos Saura. The director had already helmed a short film celebrating a traditional Spanish song-and-dance and wanted to expand that theme into a longer film augmented by digital stereo sound. He telephoned Storaro, inquiring about the cinematographer's interest. Storaro was on his way to Kyoto, Japan to serve as a judge on a film festival jury. Saura flew to the Far East, bringing drawings for scenes that interlock images and music. The cinematographer subsequently photographed the performance piece *Flamenco* (1995) and *Taxi* (1996), a Spanish-language drama about a crew of racist cab drivers. That led to *Tango* (1998), a narrative film chronicling the cultural impact of Italians and Spaniards migrating to Argentina over 100 years. About 90-percent of *Tango* was photographed on a single stage using an experimental two-way TransLight material developed by Rosco Laboratories as background for day and night scenes and sunset and twilight transitions.

Storaro visualized deployment of TransLights on *Tango* to create a dream-like, surrealistic setting, spanning a century. The images derived from 15 still photos depicting immigrants arriving in Argentina carrying their meager belongings. Fabrizzio Storaro (the cinematographer's son and video assist operator) digitized and composited the still pictures into a montage. Rosco applied that as a model for conceiving a montage with two sets of images — day and night — aligned in perfect registration. The daylight scene was set in front of the TransLight and the night scene on back. The mural was 90-feet long and 30-feet high with the illusion of day and night achieved by front- or backlighting the TransLight.

During five dance numbers, Storaro also used a progression of colors — indigo, blue, green, yellow, orange and red — to express specific meanings. Though the same shades may vary in meaning for different cultures, a universal principle still holds: each color emits a specific wavelength of energy which people are capable of perceiving in the same way that its vibrations are felt. "Each of us responds differently to high and low wavelengths of energy. It isn't just something you see. It's also something you feel."

*Tango* also provided test for the cinematographer's innovative Univisium format, which is designed to eliminate routine panning-and-scanning and other cropping of native aspect ratios when motion pictures are displayed on television. The format is designed to use the entire image area of a 35mm, three-perf film frame — from edge to edge — with a standard 2:1 aspect ratio.

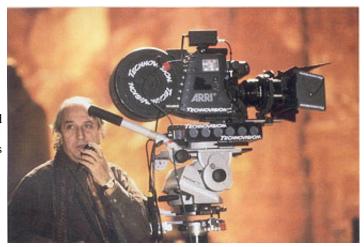
"I feel this [2:1] is the right balance or equilibrium between the new, widescreen [16:9] TV sets and the anamorphic or 65mm [2.35:1] large format for the cinema. I believe it is very important for cinema and television audiences to see movies exactly the way they are composed by the director and cinematographer."

The impressionist biography *Goya in Bordeaux* (1999) marked his fourth collaboration with Saura. Using Univisium enabled Storaro to frame the theatrical and subsequent home video releases in the same 2:1 aspect ratio. He utilized a 250-foot long, 30-foot high Rosco TransLight, incorporating 20 paintings as backgrounds and the "electronic desk" as a tool for orchestrating lighting. Of their collaboration, *New York Times* film critic Stephen Holden observed: "They forcefully conjure up the spirit of Goya… portraying him as an unstoppable bull of a man and an artistic visionary whose greatest work fearlessly locked horns with the darkest human truths. . . It is not meant to disparagingly describe *Goya in Bordeaux* as a movie so ferociously red-blooded that at moments it threatened to slop off the screen. In such earlier films as *Flamenco* and *Tango* Mr. Saura and his brilliant collaborator, the cinematographer and lighting genius Vittorio Storaro, became so intoxicated with their subjects that they splashed their visual ideas on the screen as if they were throwing buckets of paint. *Goya in Bordeaux* explodes with the same sense of unbounded visual exuberance."

### The Spice Must Flow

Last year, as Storaro was wrapping up original photography for *Picking Up the Pieces* in Los Angeles, assistant director Matt Clark asked if he would speak with writer/director John Harrison about a sixhour miniseries to be produced on a tight budget and short deadline. At first, the cinematographer declined the invitation, but Clark piqued his interest when he revealed the mini-series to be based on the classic Frank Herbert fantasy book *Dune*. Ironically, Storaro had been approached in 1974 with the possibility of shooting a cinematic version of the novel (A movie adaptation was later helmed in 1984 by David Lynch with cinematography by Freddie Francis). "I didn't know anything about *Dune*, but I was a great reader of science-fiction novels," he says. "I bought and read the book. It was fascinating and wonderful. I was totally in love with the story. I met with the person who was supposed to direct it, but that earlier version of the film was never realized. I've always felt this story needs to be told in more intimate detail."

Set in the year 10,091, Dune is staged on the desert planet Arrakis amongst an indigenous population that harvests a mindaltering "spice" known as *melange* — that holds the key to everlasting life and interdimensional space travel and also functions as the currency of intergalactic trade. In discussions with director Harrison, Storaro explained how standard translucent material could establish desert horizons with sunrises and sunsets and other backgrounds or set extensions.



The producers (a co-venture by four European and U.S. companies) had planned to originate in the new high-definition 1080-line, 24-frame format with progressive scanning; their rationale was that the process would save time and money during production and also for compositing visual effects. A second-unit crew was set to shoot desert backgrounds for compositing with live-action elements.

Storaro, however, believed that shootingon 35mm film would be truer to the tale's emotional intentions. The cinematographer assured producers that he could bring in the \$20 million mini-series (shot at Barrandov Studios in Prague, Chekoslavakia) on time and budget using Univisium in conjunction with the translucent material for backgrounds (in lieu of digital compositing) and the "electronic desk" to control lighting. Univisium takes advantage of space in the image area once reserved for soundtracks,

allowing use of three-perf film, which provides 25 percent more running time before magazine reloading It also reduces film, lab, answer print and interpositive costs by 25 percent. Coupled with the TransLights and efficiency afforded by the "electronic desk," those savings more than eliminated the perceived cost advantage attributed to the HD digital video format. Univisium requires modest modifications in camera movement and a new 2:1 gate. Clairmont Camera, in the U.S. and Canada, and Technovision in Europe and other parts of the world, currently provide Arri 435 and Arri 535B cameras modified for Univisium with its standard spherical lenses. Technicolor in Rome, London and Los Angeles, are set up to provide lab services.

With these backgrounds, Storaro wants the audience to see the desert on the alien planet without subconsciously thinking its terrain resembles Morocco. "We are talking about a story that happens 6,000 years in the future on another planet, so we had total freedom to create any look," indicates Storaro. "I was happy about the decision not to go out to a real desert for two reasons. First, it is not easy to create a fantasy vision in the desert at night. There are so many things you can't control. Second, we were able to shape the look to what we wanted and not what we found. We decided that the light in the desert had to be different than what you would see on Earth. It was always changing, which was easy for us to do with the TransLight material and lighting system. The light board allowed us to create the illusion of movement by the planet, its sun and two moons, by creating shadows and changing the color of light to suggest transitions."

The director also realized that, for the actors, TransLights would generate a more realistic environment than standing in front of greenscreen as the principals could also see the motivated light surrounding them. Storaro's son Fabrizio provided imagery for the TransLights, using a combination of still pictures, paintings and drawings. The images were scanned into digital format, composited, enhanced and converted to a positive, translucent material. In all, three major sets had TransLight backgrounds. For a cityscape with a view from the palace, the cinematographer used a simple follow spot to create circles of light depicting the two moons and sun on the horizon. As a symbol of pure energy, the sun shines pure white while one moon had a blue tone and the other was green. "I have been working with Fabio Cafolla [lightboard operator] since 1983," Storaro says. "Once you have that experience together, you can take new steps forward on each project."

He also assigned a signature color to each main character, matching colors assigned to each of nature's four primary forces — green for water, ocher for earth, red for fire and blue for air. He discussed this strategy with Harrison (and production designer Mirken Kreka Kljakovic and and costume designer Theodore Pistek) and created an ideology for applying this plan shot-by-shot, scene-by-scene. He developed this technique very early in his career, based on studies of the ancient Greek philosophers, and has refined it over the years.

As a symptom of their diet of ingested spice, the indigenous people of Arrakis — the Freemen — have unnaturally bright blue eyes. In investigating a means of achieving that effect, Storaro visited an eye doctor in Prague to peruse some blue contact lenses. She showed him one type in a catalogue designed for application in fluorescent light. Storaro shot some tests with those lenses with two different densities. He selected the higher one, and during production used a black frontal light on actors' faces, which rendered perfect blue eyes on film. "The only problem was that the ultra-violet light, particularly in the shadows, affected the color of skin tones and clothing. Costume designer Kljakovic tested and discarded different materials. The final step was in the telecine suite. He built a little window around the eyes, locked in the blue and also removed any ultra-violet spill light from faces. It took very little time."

Storaro recorded all six hours of *Dune* on Kodak Vision 200T film, working closely with Technicolor-Rome color timer Carlo LaBella. He had the film transferred to video format for off-line editing. The conformed negative was converted to a hi-def master at Laser Pacific Media in Los Angeles. Storaro supervised the digital video finish with Lou Levinson, the chief HD colorist at Post Logic, in Los Angeles. *Dune* initially aired in its native 2:1 format on the USA Networks Sci-Fi Channel and in Europe.

#### The Man and His Dream

During the early Seventies, when virtually all cinematographers described their art as "painting with light," Storaro expressed a more complex idea. He said cinematographers "write with light." The

difference isn't merely one of semantics — he considers cinematography to be a constantly evolving language. "It is the real meaning of what we are trying to accomplish. We are writing a story with light, the absence of light, motion and colors. It is a visual language with its own vocabulary and unlimited possibilities for expressing ideas and feelings."

Storaro has been an eloquent advocate for the role that cinematographers play as co-authors of motion pictures, along with the director, writer, composer and editor. "There is no one person who can make a great film alone," he wrote in 1990, from commentary printed in the 40th anniversary issue of the Association of Italian Cinematographers' offical publication. "It's like a symphony which is played by soloists and conducted by the director. It starts with the writer. The cinematographer uses light, colors, composition and movement to determine how the story will be visualized. Music helps to determine the mood. What the ear hears influences what the eye sees. The editor determines the sequence of what the audience sees."

When Vittorio Storaro, ASC is asked if, in retrospect, he would do anything differently today, the master artiste replies, "Ninety-nine percent of the time when I see my old films I am serene. It was the best I could do at that time of my life with what I had to work with. What's important is your life and how you evolve as a human being and as an artist."

**Email** the author with questions or comments