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Sharon McCormack, an artist from White Salmon, Wash., quickly engineered a hologram of Michael Jordan for the Dec. 23 issue of Sports Illustrated.



Gorge artist scores with SI's cover hologram of Jordan

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hen Sports Illustrated needed a hologram of basketball star Michael Jordan for its 1991 Sportsman of the Year issue, it needed the same skills that make a great athlete: speed, experience and an unerring eve.

It found them in Sharon McCormack, one of the leading holography artists in the country.

McCormack, who lives in White Salmon, Wash., had just finished the hologram for the cover of Prince's new compact disc, "Diamonds and Pearls" when she got the 11th-hour assignment.

At the end of October, Sports Illustrated's publisher decided to feature a three-dimensional image, or hologram, of the magazine's annual sportsman of the year -Chicago Bulls guard Michael Jordan - on its Dec. 23 cover.

That put Karen Mullarkey, SI director of photography, in the proverbial full-court press.

"Every time we came to a fork in the road, time determined our decision," said Mullarkey, who had only six weeks to produce a piece of art that usually takes four months. "People thought we were crazy."

SI decided on American Bank Note Holographics the company that prints the holograms on Visa cards because the company had the technology to quickly produce the 4.1 million embossed-foil holograms the magazine needed.

ABN immediately called photographer McCormack, who has worked on projects with them for five years. SI then pinned down an appointment with Jordan for a Nov. 10 photo session in Chicago.

(See accompanying sidebar.)

The assignment followed on the heels of baseball-card

Hologram:

College project plants seeds of holographic career

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holograms McCormack shot earlier in the year of players Nolan Ryan, **Rickey Henderson**, Dave Justice and Cal Ripken Jr.

McCormack, who says she tried doing all kinds of art in college, graduated from Humboldt State University with an art degree, with an emphasis on photography.

McCormack's evolution from photography to holography began with a college class report on light as art. When she heard that someone was producing images that looked threedimensional, she said, "That can't be

Intrigued, she traced a display of laser-lit holograms to the littleknown School of Holography in San Francisco and took a short, introductory course during her college Christmas break in 1970. She was hooked, but she didn't know it.

McCormack dropped out of graduate school in cinematography in 1974 to visit friends in The Netherlands, where an Amsterdam gallery mounted a show of her photographs to which she had added materials for

a three-dimensional effect. The show traveled to several other European cities. Then, the American Embassy gave her a grant to do a photo exhibit highlighting the U.S. Bicentennial for a show in The Netherlands.

After traveling with her camera in Africa and the Middle East, she returned to San Francisco, determined to get involved in holography, in which, as it turned out, she could use her photography. She studied computers and worked at other jobs, but continued studying at the holography school, where she became director in 1975.

Since the art form was unknown territory, everything was experimental. There were no rules. She worked alone a lot, "because I learn better by hands-on, by myself," she

McCormack helped her mentor with designing and, on her own, she fabricated lensing systems. She spent four months in Japan making a lens for a company that made holo grams for store displays. When she returned to San Francisco, she made a lens for the Louis Pasteur Institute in France to make medical X-ray hol-

In 1979, she started making her own computer-controlled machines, because "I knew what I wanted." She made three 10-minute hologran films, and in 1981 she was commissioned to make "Time Man."

The makings of Michael Jordan's holographic smile

Holograms, says Sharon McCormack, are "as close McCormack selected a strip of 200 movie frames about 10 seconds of shooting — which best captured Jordan's charisma and sent it to New York, where as you can get to replicating reality within a Sports Illustrated's Dec. 23 cover is the first mass-American Bank Note made the hologram and reproduced 4.1 million copies.

produced, full-color image of a person in motion. By tilting the cover hologram from left to right, the viewer sees Michael Jordan break into his trademark big smile. In the right light, the viewer can see Jordan's red shirt and the blue background.

McCormack, using a specially altered 35mm camera, photographed Jordan while he slowly rotated right to left 120 degrees on a turntable.

At just the right moment McCormack told Jordan to slowly break into a grin and slowly increase it into a wide smile - but without moving his body. The process was repeated several times.

"He didn't even blink his eyes. He was a good subject." said McCormack.

in which she mixed live action with computer graphics. Image-mixing is one of her specialties

But her big breakthrough came in 1989, when she produced a full-color hologram of a clown, which appeared to move his head from left to right, smiling then frowning, as his flower wilted. To get the hologram, she took her laser image from movie film, so that the hologram also seemed to move.

She used the same technique, called stereography, to produce a gift for Michael Jordan. Another of her specialties, it's a 360-degree, moving light sculpture that shows Jordan passing a basketball around his waist.

Although McCormack does not minimize her expertise, she said that many of her assignments came about because "it's a small field, and I have been around a long time.

For the last five years she has worked as an independent holographic artist with American Bank Note, which created the eagle on the cover of the March 1984 National Geographic, the first hologram on a magazine cover.

McCormack remains head of the School of Holography, but she only works with advanced students. She moved from San Francisco to the Columbia River Gorge last March, because "I got tired of my time in the car" in traffic

Because she usually shoots subects on location, she feels she can live anywhere she chooses. Her home is a 45-minute drive from Portland International Airport.

McCormack says she picked White Salmon because she is "insanely in love with windsurfing," the reason she was drawn to the gorge in the first place. She also skis regularly

And there is still a lot to do in her studio. After all, she's working on the fourth dimension

George Baldassare, SI production editor, chartered two planes to fly the holograms to Chicago, where they were turned into sticky-backed labels. Then the labels were taken to another plant, where they were attached to pre-printed covers, which were shipped to the eight plants where SI is printed.

Despite the rapid technical innovations since she started, McCormack compares holograpy today to the early "daguerreotype stage of photography," when pictures were produced on silver or silver-cov ered copper plates.

"It's totally magical to me still," she says. "It reveals a realistic image unlike any other medium."