

'Spidey' indulges in urban renewal

By HUGH HART
SPECIAL TO THE NEWS

As the hero of "Spider-Man" sails through the canyons of skyscrapers that are Manhattan, keen-eyed New Yorkers will be forgiven for thinking something is amiss. This is a greatest-hits Manhattan, a compilation of some of the city's prized architectural possessions.

"We wanted this story to happen in the real world and not take place in some fantasy," says "Spider-Man" director Sam Raimi. "On the other hand, we knew if you placed these fantastic, outrageously costumed characters into the normal setting of New York, it would just be too jarring."

The solution: a virtual version of New York digitally constructed from images of real-life "hero buildings" handpicked by production designer Neil Spisak.

"The idea was to heighten New York City just enough to make it mesh with the wonderful corny parts of 'Spider-Man' that we love," says Spisak. "So we decided to take our favorite buildings and build a city that is as realistic and recognizable as New York, but more heroic and maybe a little more esthetic than what any real street could be."

Inspired by Times Square, Spisak scouted Manhattan for historic Art Deco and Beaux Arts landmarks, as well as more modern structures that embodied a timeless, "slightly romanticized" vision of the city.

Besides the Equitable Building and the Roger Smith Hotel, the cast of handsome structures includes the 1931 McGraw-Hill Building (330 W. 42nd St.), the 1929 Radisson Hotel (511 Lexington Ave.), the Bryant Park Hotel (40 W. 40th St.), the courthouse on Lafayette St., the Trinity Build-



NEIGHBORHOOD WATCH: Spider-Man swings through a reworked Manhattan.

ing on Broadway, the Walters and Samuels building (214 W. 29th St.), the Bank of Montreal (10 Hanover Square, near Wall St.) and Nelson Tower on Fifth Ave.

A four-person team took 8,000 photographs of the selected buildings. Computer artists at Sony Picture Imageworks in Los Angeles then used those images to create wire-frame models, to which they digitally added surface "skin" through a process called texture mapping. Mundane imperfections were removed digitally.

"There's always some awful air conditioner, or a sign you don't like," says

Spisak. Further, "The visual-effects people would take windows from one building, a rooftop from another, or you add a cornice or a chimney from some other building."

The digital sleight of hand made a believer out of "Spider-Man" location manager John Fedynich. "If it were a walk-and-talk down the street, you might say, 'Hey, this building doesn't belong there — that's from Wall Street.' But because those sequences of Spidey flying through the streets were so fast, I thought it worked. I thought it showed off New York really well."

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DOW JONES

Seoul Survivors

Back From Brink, Korea Inc. Wants A Little Respect

Samsung Is Reborn as Maker Of Upscale Electronics; It Seeks Image to Match

Case of the Missing Billboard

By JAY SOLOMON

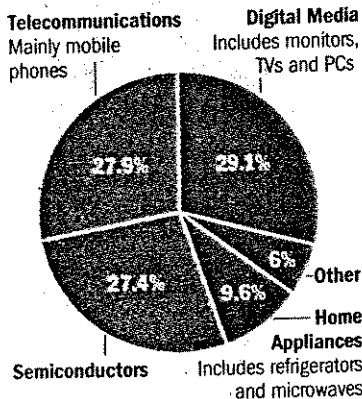
NEW YORK—A trailer for the film "Spider-Man" showed the superhero hurtling past a billboard in Times Square. But instead of the sign's real-life ad for Korean electronics giant Samsung Electronics Co., American moviegoers saw a plug for USA Today.

Samsung executives went ballistic. They accused the studio—a unit of Japanese electronics titan Sony Corp.—of airbrushing the sign for competitive reasons. And they prompted the owner of the billboard space to sue Sony units for "digital piracy" in the Southern District Court of New York. The suit is still pend-

High-Tech Mix

Samsung Electronics' 2001 sales, by segment

Total: \$26.64 billion*



*Converted from Korean won at current rate
 Source: the company

What's News—

Business and Finance

IMCLONE'S FORMER CEO was arrested on charges of trying to sell ImClone stock and tipping off family members after learning that regulators would soon reject his company's cancer drug. Samuel Waksal's arrest creates doubts as to whether Bristol will maintain its current relationship with ImClone.

(Article in Column 6)

■ **The jury in the Andersen trial** said it was deadlocked, but the judge hearing the case ordered jurors to resume deliberations today until they reach a verdict.

(Article on Page C1)

■ **The SEC reopened a probe of Tyco** as part of a broader review of possibly questionable corporate accounting in the aftermath of the Enron meltdown.

■ **Tyco received clearance for a CIT share offer**, but was forced to take a \$4.5 billion charge to reflect the unit's impaired value.

(Articles on Pages A3 and A6)

■ **Spanish Broadcasting filed an antitrust suit against Hispanic Broadcasting**, in a bid to scuttle its \$3.5 billion deal with Univision.

(Article on Page A3)

■ **Omnicom said it would provide investors with more disclosure** after shares plunged following a critical Wall Street Journal article.

(Article on Page A3)

■ **The Fed found "modest but uneven growth" nationwide** in its latest "beige book" business survey, making a rate rise unlikely.

(Article on Page A2)

World-Wide

■ **BUSH ISSUED a fresh warning** as a poll showed him still riding high.

The president, signing a \$4.3 billion bioterrorism bill, said the U.S. remains "under attack" and al Qaeda is still "lurking around." The Wall Street Journal/NBC poll found his approval rating at 69%, though roughly half of respondents said the administration has withheld information on threats it should have made public; 52% want an independent commission on Sept. 11. Meanwhile, a U.S. official said at least one associate of suspected al Qaeda plotter Jose Padilla is in custody overseas. Padilla's lawyer challenged the government's detention of his client without charging him. (Page A4)

The INS told agents to inspect baggage belonging to Yemenis for thermos bottles or night goggles. A New Jersey appeals court ruled the INS has power to keep secret names of immigrants detained after Sept. 11.

■ **Full estate-tax repeal failed** in the Senate in a 54-44 vote, leaving in place the temporary repeal enacted as part of the Bush tax cuts. That means gradual steps toward ultimate elimination in 2010, with the levy returning to its 2001 rate in 2011. But the battle isn't over, and estate planning will remain a confusing matter until it is. (Column 4 and Page D1)

■ **Israeli troops pulled out of Ramallah**, where they had surrounded Arafat's compound during Sharon's visit to the U.S. Powell met in Canada with his G8 counterparts and outlined Mideast peace steps the U.S. is considering, including calling for an interim Palestinian state. An address by Bush on the issue could come next week. (Page A15)

■ **Rumsfeld warned al Qaeda** may be making Kashmir a base as he left India for Pakistan amid signs war tensions are waning. Pakistan played down recent conciliatory moves and said the crisis won't truly

Tracing V

Events leading to currently part of

Dec. 26

■ Samuel Waksal to review his cor drug Eribitux.

Dec. 27

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 ■ Friend Martha S
 ■ Dr. Waksal tries shares. Two brot

Dec. 28

■ FDA announces application.

Dec. 31

■ First day of trad: Stock drops 16'

Sources: Securities and

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By SHAI

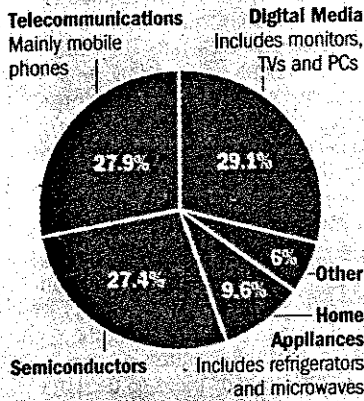
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Source: the company

ing, but in the released version of the film, Samsung got its sign back.

"They tried to remove us from Times Square," Samsung's digital-media-division president, Chin Dae Je, bragged to guests during a speech at a party in Manhattan last month. "But Samsung is still alive."

Samsung's tenacious defense of its image is about more than vanity. In the wake of the Asian financial crisis, Samsung is among a handful of Korean companies that have emerged as focused and lean competitors on the world stage. The crisis, which gripped South Korea in late 1997, forced Seoul to take a \$58 billion bailout from the International Monetary Fund, as its reserves dwindled and its currency plunged.

But now this nascent makeover of Korea Inc. is at a critical stage. To sustain their growth in the way that Sony, Nokia Corp., Honda Motor Co. and other manufacturers have done, the Koreans are trying to create enticing brand names that consumers around the world will want to buy over and over again. It's a feat that precious few Asian companies outside Japan have been able to pull off.

Niche Under Threat

And the Koreans start at a disadvantage. For much of the past three decades, Samsung and South Korea's other massive conglomerates, known as *chaebols*, were disdained abroad as low-end makers of refrigerators, VCRs and sedans. Executives at the Samsung Electronics unit came to agree: The company ran the risk of becoming a faceless supplier of computer monitors and semiconductors to more powerful multinationals. Even that niche was under threat from low-cost producers springing up in China.

The financial crisis that slammed Asia in 1997 and 1998 savaged the *chaebols*. A plunge in the South Korean currency made it impossible for many *chaebols*, which had expanded into everything from shipbuilding to semiconductors and autos, to repay their huge foreign and local debts. Hyundai and Daewoo groups were split up by creditors.

But the situation gave Korea's boldest executives a unique opportunity to reinvent themselves. Its feet to the fire, Sam-

Please Turn to Page A12, Column 1

(Articles on Pages A3 and A4)

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The Fed found "modest but uneven growth" nationwide in its latest "beige book" business survey, making a rate rise unlikely.

(Article on Page A2)

Monsanto slashed its earnings estimate and plans to take a \$2 billion charge for writing down the value of its seed business.

(Article on Page B2)

Procter & Gamble raised its growth estimates for the current quarter. The announcement pushed its share price up 4.4%.

(Article on Page B10)

Stocks rallied in late-day trading, boosted by earnings news from Motorola and P&G. The industrials rose 1.1% to 9617.71.

(Article on Page C1)

Brazil's currency fell to a nine-month low amid worries of a debt crisis and the possible election of a left-wing president in October.

(Article on Page A15)

Bristol-Myers has asked Goldman Sachs to explore alternative strategies that might help remedy its drug-pipeline problems.

(Article on Page D6)

Japan will delay plans to impose tariffs to retaliate against U.S. sanctions on foreign steel.

(Article on Page B2)

Most Americans don't trust executives or brokerage firms and have a negative view of drug and oil companies, a poll found.

(Article on Page A4)

Dow Jones said second-quarter results won't meet Wall Street forecasts, blaming weak revenue from financial advertising.

(Article on Page B10)

Viacom and major film studios conspired to drive small video retailers out of business, the retailers allege in a Texas lawsuit.

(Article on Page B10)

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Rumsfeld warned al Qaeda may be making Kashmir a base as he left India for Pakistan amid signs war tensions are waning. Pakistan played down recent conciliatory moves and said the crisis won't truly dissipate until troops are demobilized. Nuclear-arms experts are debating the lessons of the latest scare on the subcontinent. (Page A14)

A U.S. military plane crashed on takeoff in Afghanistan, and the Pentagon said three of the 10 people aboard were killed. The MC-130 was carrying special forces troops. Meanwhile, the Afghan grand council put off a vote on a president until today as wrangling continued. (Page A15)

Saudi Arabia has rejoined U.S.-led maritime efforts to enforce Iraq sanctions and restart joint military exercises, moves welcomed by Bush aides eager to topple Saddam Hussein. Warming ties result partly from the big role Riyadh has been given in Mideast peace efforts. (Page A14)

The EPA is expected to announce today it is easing pollution rules to make it easier for utilities to modernize and expand coal-fired plants, officials told the Associated Press. The industry lobbied hard for the change.

A medical journal eased rules barring authors from having any financial tie to drug companies. The New England Journal of Medicine said that the policy was hurting its ability to deliver data promptly. (Page D6)

Hospital residents should work no more than 80 hours a week, have 10 hours off between shifts and get a day a week off, the accrediting body for such programs said. It said it will enforce the rules aggressively.

Serbia's government teetered on the brink of collapse as the ruling party of former Yugoslavia withdrew. A U.N. appeals panel upheld landmark convictions of Bosnian Serbs that elevated rape to a war crime.

Castro led a huge march in support of an amendment to make his one-party system "untouchable" in Cuba. The dictator wants to derail a referendum on democratic reform.

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Back From the Brink, Korea Inc. Now Wants a Little R

Continued From First Page

sung cut 30,000 of its 70,000 workers, shed noncore units and emerged as a leader in melding wireless technologies with gadgets ranging from personal digital assistants to refrigerators. Today, Samsung is the world's largest producer of memory chips and flat-panel monitors, its No. 2 maker of DVD players and the No. 3 manufacturer of cellphones. Significantly, the company has positioned itself as a high-end maker of mobile-phone handsets, DVD and MP3 players, and digital televisions.

New Elite

Samsung is part of a new Korean elite muscling in on a global market for big-ticket consumer goods that's been dominated by U.S., Japanese and European manufacturers. Hyundai Motor Co. has quadrupled its car exports to the U.S. since the financial crisis, thanks to sleeker designs, improved quality and 10-year warranties. LG Electronics Inc. has become the world's largest producer of air conditioners and CD-ROM drives. General Motors Corp.'s takeover of Daewoo Motors Co. in April could transform Daewoo into a major supplier of autos to Latin America and China.

Now these firms are struggling to make the transition from skilled manufacturer to household name in overseas markets. Samsung has drawn closer to the holy grail of global recognition than its compatriots and has a \$450 million global advertising budget for this year. The company has also picked a very fast rabbit to chase: Sony.

Inside Samsung Electronics, many executives voice a near obsession with besting Sony. The rivalry parallels Korea's broader enthusiasm for outdoing Japan, its one-time colonial master. While Sony is also an important customer of Samsung's, buying semiconductors and displays from the Korean company, Samsung executives increasingly feel that they no longer have to take a back seat to the Japanese giant.

"Sony is now only strong in audio and video, like DVDs and TVs," says Oh Dong Jin, president of Samsung Electronics America. "We are much stronger now in other fields," such as mobile phones and flat-panel screens.

Sony downplays the rivalry but does hear footsteps. Samsung "found Sony a model or a benchmark for their brand image," Sony Chairman Nobuyuki Idei says in an interview. "The product design and the product planning—they're learning from us. So Sony is a very good target for them." But Sony also buys large amounts of Samsung-made parts for use in its own products, and Mr. Idei says he sees Samsung more as a supplier than a threat. "We still believe that Samsung is basically a components company," he says. "We feel that keeping good relations is a benefit for both compa-

nies."

Taking on the inventor of the PlayStation and the Walkman won't be easy. Some U.S. retailers remain skeptical of the Samsung name's selling power. Even the man leading Samsung's branding blitz, 47-year-old global marketing director Eric Kim, balked at accepting the challenge.

When senior Samsung officials tried to head-hunt Mr. Kim in June 1999, the former engineer says, he had reservations. An emigrant to the U.S. at age 12, Mr. Kim had been thriving in America since his first job as a paperboy in Torrance, Calif. He went on to serve in senior management at a string of Massachusetts-based software companies, including Spencer Trask Software Group Inc., where he was CEO when Samsung came calling. The idea of working at a chaebol, known for their massive bureaucracies and Byzantine financial structures, was less than compelling, Mr. Kim says. Indeed, the father of two had already turned down an offer from Samsung a decade earlier.

Samsung's chief executive officer, Yun Jong Yong, changed Mr. Kim's mind by offering the Korean-American a much bigger job. He also enticed him with a sexy goal: to go after the champions of Japan and Europe. Mr. Kim says the electronics maker's new lineup of consumer products persuaded him it was doable.

"Samsung is going to be the first Korean company to create a true global brand," he says.

After settling in Seoul in September 1999, Mr. Kim moved to overhaul Samsung Electronics' marketing arm. Samsung had an unwieldy army of 55 advertising firms working for it. Mr. Kim consolidated them into one and signed a \$400 million advertising contract with Madison Avenue's Foote, Cone & Belding Worldwide to create a global brand image for Samsung Electronics. They rolled out a global ad campaign featuring ethereal models equipped with the company's gadgets. In one spot made for the last Winter Olympics, a downhill skier brandishing a Samsung mobile phone slaloms down a steep mountain, which morphs into the hair of a wintry fairy.

Many executives in the U.S. retail market said they have been astounded by Samsung's ability to generate a brand presence, considering how small a position the company had. "Just 24 months ago, Samsung was seen as a third-tier company, but now it's broken into the top level," says Ray Brown, vice president for general merchandising, electronics, at Sears, Ro-

beck & Co. Sears and Samsung last year ran a joint promotion for Samsung's high-definition televisions by airing college football games at Sears stores.

Meanwhile, Samsung had been moving to increase sales by striking partnerships with American technology and phone companies. In 1997, Sprint Corp. was just entering the wireless business, and Samsung had virtually no presence in the mobile-handset industry outside of South Korea. Sprint executives needed to place a \$600 million order for nearly two million handsets and expected to choose premier brands Nokia or Sweden's Telefon AB L.M. Ericsson.

"Samsung had the reputation as being a maker of cheap microwaves," says John Garcia, Sprint's vice president for sales and distribution.

But Samsung had a trump card: Unlike the Europeans, Samsung's phones used the same technology that Sprint's wireless system was based on. Needing to strike a deal quickly, Sprint executives traveled to Seoul to size up whether Samsung Electronics could meet their requirements. They saw that Samsung was a dominant player in a sophisticated market: More than 60% of South Koreans own a handset, and 14% have broadband Internet access at home, both among the highest in the world. Mr. Garcia said Samsung's factories and South Korea's booming cellphone market persuaded him the Koreans could fill the order. A contract was signed in 1997, and Samsung delivered 1.8 million handsets in 18 months, half the contracted time.

3G Network

Sprint executives now say Samsung Electronics is their biggest supplier of mobile-phone handsets. Later this year, Sprint will roll out a more-sophisticated wireless network, called 3G, and the company says Samsung's high-end cellular phones, which have the capability to send pictures and stock quotes, will be a core part of the system. The two companies say their contracts have grown significantly since the initial \$600 million order but won't give figures.

Mr. Kim started schmoozing another tough customer: America's top retail chains. Samsung executives say their products had virtually no presence on U.S. store shelves as recently as three years ago. Top chains such as Best Buy Co. stuffed their shelves almost exclusively with Japanese and European lines.

Among Samsung's converts is Mike Linton, Best Buy's executive vice president. Mr. Linton says Best Buy executives canvass their employees to find out what new features customers want from their electronic devices. They then share their information with Samsung in the hope that Korean engineers in Seoul can create gadgets to meet the demand.

Samsung officials say this give-and-take helped them create two of their best-

selling products player and a ce serves as a PDA sales of its good million last year targeting \$1 billion Buy this year.

Such partners have significantly pany's profile. A on 37th Street an Samsung Electro and DVDs hog store's entrywa who sells handse operator VoiceSt outlet, says he h: sung 12 months ence has grown

Samsung Ele back this up. Si total sales in th doubled to \$2.8 b demand for its ce ers and digital T nearly doubled during this time, ers have more t million.

Globally, San lion won, or at profit in 2001, o trillion won, du many technology of dollars. The c ization of \$48 b Sony's \$52 billio

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Samsung's t ging ahead. M tives gathered l overlooking Tir multimillion-do prized electroni Entertainment sung was digita in a trailer for never intended actual movie. pending suit o of the space.

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...selling products last year: a DVD/VCR player and a cellular phone that also serves as a PDA. In all, Samsung says sales of its goods at Best Buy hit \$500 million last year, and the company is targeting \$1 billion in sales through Best Buy this year.

Such partnerships with U.S. retailers have significantly raised the Korean company's profile. At an outlet of CompUSA on 37th Street and 5th Ave. in New York, Samsung Electronics' digital televisions and DVDs hog a display case at the store's entryway. Michael Barahona, who sells handsets for the U.S. wireless operator VoiceStream at the CompUSA outlet, says he had barely heard of Samsung 12 months ago. "Samsung's presence has grown dramatically," he says.

Samsung Electronics' sales figures back this up. Since 1999, the company's total sales in the U.S. have more than doubled to \$2.8 billion helped by growing demand for its cellular phones, DVD players and digital TVs. Cellphone sales have nearly doubled to more than \$1 billion during this time, while sales of DVD players have more than quadrupled to \$129 million.

Globally, Samsung reported 2.95 trillion won, or about \$2.4 billion in net profit in 2001, on total revenues of 32.4 trillion won, during a year in which many technology companies lost billions of dollars. The company's market capitalization of \$48 billion is now just below Sony's \$52 billion.

Samsung is still an unfamiliar name in some quarters. Across Manhattan at the Union Square Circuit City, Willie Louis and his fellow salesmen in the television department say many of their customers have never heard of Samsung. Sitting in front of a line of Sony, Hitachi and Panasonic TVs, the 10-year sales veteran says the Korean brand "just doesn't have the name recognition of these Japanese companies." Down the street at an outlet of the discount retailer, P.C. Richard & Son, no Samsung appliances can be found on the floor.

Samsung's top salesman keeps slogging ahead. Mr. Kim and other executives gathered last month in a restaurant overlooking Times Square to celebrate a multimillion-dollar upgrade of their prized electronic billboard. Sony Pictures Entertainment Inc. confirms that Samsung was digitally dropped from the sign in a trailer for "Spider-Man," but says it never intended to ax Samsung from the actual movie. It won't comment on the pending suit over the sign by the owner of the space.

"During the 1980s and '90s, the Japanese and Europeans dominated the electronics industry," Mr. Kim said, as confetti rained down on Samsung's brass. "But now we believe Samsung can dominate any market, including the U.S."

—John Leger in Brussels
contributed to this article.

Strikes at Supplier Create Parts Shortages For Big Auto Makers

Dow Jones Newswires

DETROIT—General Motors Corp. and the Chrysler Group of Daimler-Chrysler AG reported parts shortages at their assembly plants as a result of labor strikes at Johnson Controls Inc.

The United Auto Workers said hundreds of workers walked off their jobs at Johnson Controls to protest a "pattern of anti-union activities and unfair labor practices." The union said the strikes are in Shreveport, La.; Oklahoma City; Earth City, Mo.; and Northwood, Ohio. A Johnson Controls official confirmed that there are strikes at three of the company's facilities and pickets outside the company's nonunion Northwood plant.

Chrysler spokeswoman Michele Tinson said there were parts shortages at the company's plant in Toledo, Ohio, which makes the Jeep Liberty—one of Chrysler's most important models—and at its St. Louis South facility. The first and second shifts weren't working at those plants yesterday, she said.

GM spokesman Dan Flores said its Oklahoma City and Shreveport, La., plants ran out of parts. The first and second shifts reported to work at the Oklahoma City plant, but the second shift didn't build trucks, Mr. Flores said. The second shift didn't report at the Shreveport plant, he said.

The UAW charges that Johnson Controls failed to provide legally required information, publicly belittled and disciplined union supporters and unilaterally changed work rules, job rotations, the attendance policy, overtime, insurance packages and shift-operating times. The union also said Johnson Controls has deliberately failed to bargain in good faith.

Company officials wouldn't directly comment on the UAW's claims, but said Johnson Controls has a number of unionized plants in the U.S. that continue to work well. The company is in discussions with the union to resolve the issues.

Stryker Corp.

Stryker Corp. has tentatively decided to close its implant facility in Rutherford, N.J., over the next 18 months. The Kalamazoo, Mich., company expects the move will result in \$10 million to \$15 million of employment-related costs. The medical-device maker said it will begin talks with local-union representatives. The current union contract, which applies to the plant's 440 workers, is set to expire Aug. 31. Fifty additional employees would also be affected. Stryker will take the charges during the quarter in which those talks conclude. The company noted that the actual charge could be higher than \$15 million.

Southern Co. Is Set To Pay \$60 Million For New Power Asset

Dow Jones Newswires

ATLANTA—Southern Co. signed a letter of intent to pay about \$60 million for the Georgia business of New Power Co., a unit of NewPower Holdings Inc., which filed for Chapter 11 bankruptcy-law protection on Tuesday.

Utility holding company Southern said it will pay \$28 million for the customer-contract and customer-care and billing systems. It will pay \$32 million for New Power's Georgia natural-gas inventory and accounts receivable and another unspecified amount for the rights to use New Power's risk-management system.

Southern has formed a new company, Southern Co. Gas LLC, to run the Georgia gas operations. The new entity will seek Georgia Public Service Commission certification to become a natural-gas marketer in Georgia. Terms of the deal are subject to bankruptcy-court and regulatory approvals.

New Power provides natural gas in Georgia to about 210,000 residential and small commercial customers, a 15% share of the market. Southern serves about four million customers and owns five electric utilities.

At 4 p.m. in New York Stock Exchange composite trading, Southern was up 13 cents at \$26.32.

Seitel Inc.

Top Leadership Is Changed Amid Shareholder Lawsuits

Seitel Inc. President and Chief Executive Paul Frame resigned and Chief Financial Officer Debra Valice was fired in what a company representative termed an effort at "cleaning house." An official from Seitel, which sells seismic data to oil-and-gas exploration companies, said the changes were a result of trying to maintain the company's strength in light of developments during the past few months. Seitel, Houston, faces 10 lawsuits by shareholders who said company officials overstated revenue to drive up stock prices. The allegations are "totally baseless," said Kevin Fiur, whom the company named as president and CEO yesterday. Mr. Frame and Ms. Valice couldn't be reached for comment. A Seitel official said their immediate plans are unknown. Mr. Fiur was executive vice president and chief operating officer. Marcia Kendrick, chief accounting officer, was named acting chief financial officer. In 4 p.m. New York Stock Exchange composite trading, Seitel fell 11 cents, or 9%, to \$1.14.

Exhibit C

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THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

SHERWOOD 48 ASSOCIATES; SUPER
SIGN COMPANY; JAMESTOWN ONE
TIMES SQUARE, L.P.; OTS SIGNS, L.P.;
SHERWOOD 1600 ASSOCIATES; and
BROADWAY MEDIA LLC,

Plaintiffs,

v.

SONY CORPORATION OF AMERICA;
SONY PICTURES ENTERTAINMENT,
INC.; SONY PICTURES DIGITAL
ENTERTAINMENT, INC.; COLUMBIA
TRISTAR FILM DISTRIBUTORS
INTERNATIONAL, INC.; and SONY
PICTURES RELEASING CORP.,

Defendants.

Civil Action No.: 02-CV-2746 (RO)

DECLARATION OF FRED ROSENBERG
IN SUPPORT OF PLAINTIFFS' OPPOSITION TO DEFENDANTS'
MOTION FOR JUDGMENT ON THE PLEADINGS

I, Fred Rosenberg, declare as follows:

1. I am Senior Vice President, Operations of Sherwood 48 Associates ("Sherwood"), one Plaintiff in the above-styled action. The matters set forth herein, unless otherwise indicated,

are of my personal knowledge and if called as a witness, I would and could competently testify thereto.

2. In my position, I am aware of the various relationships and agreements entered by Sherwood and its affiliate, Super Sign Company, regarding advertising activities on Two Times Square.

3. Two Times Square is a truly unique, one-of-a-kind advertising venue. The building offers one of the most coveted, high-profile and most expensive advertising locations in the world. Advertising space on Two Times Square is highly desirable to advertisers not only as a result of the prestige and the favorable connotations associated with the building, but also because the images of the building and the signs will be seen by billions of television viewers, Internet users, movie goers, magazine and book readers, and others during the course of their contracts with Plaintiffs. Advertisers depend on the fact that their signs will not only be seen by the hundreds of millions of people who pass through Times Square every year but also on the residual impact of their signs appearing in photographs, newspapers, magazines, TV shows, movies, and elsewhere. This "residual value" is an essential element of our advertising agreements and is what justifies the unusually high license fees companies are willing to pay to license the space.

4. In or about March 2002, representatives of Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. (collectively "Samsung") informed Sherwood that the trailer for the *Spider-man* movie contained an altered image of Two Times Square. Specifically, Samsung's sign on Two Times Square had been replaced in the trailer with an advertisement for

USA Today. Upon investigation, it was discovered that the trailers and commercials shown in the United States contained the same altered images.

5. On April 4, 2002, Sherwood received a formal letter of complaint from Samsung's advertising agency, Cheil Communications America, Inc. ("CCA"). CCA and Samsung believed that Sherwood permitted Defendants to alter the image of Two Times Square in the *Spider-man* trailers, commercial and movie. CCA and Samsung also stated that they relied upon the "residual value" associated with exposure of the sign in television, movies and elsewhere in agreeing to pay the high licensing fee required for the space. A copy of that letter is attached hereto as Exhibit A.

6. Samsung has suggested to Sherwood that, if Defendants' conduct is found to be acceptable, it may not be willing to pay the same rates to renew its license agreement since it cannot be guaranteed to receive the "residual value" gained by appearing in television programs and movies.

7. Through their digital alteration of Two Times Square in the *Spider-man* trailers, commercials and movie, Defendants have injured Sherwood and its relationship with Samsung and have caused confusion as to Sherwood's involvement in and approval of Defendants' activities.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: New York, New York
June 20, 2002


FRED ROSENBERG



105 Challenger Road
Ridgefield Park, NJ 07660
Tel: 201-229-6050 Fax: 201-229-6058

April 4, 2002

VIA FACSIMILE & MAIL

Mr. Jeffrey Katz
SHERWOOD 48 ASSOCIATES
745 Fifth Avenue
Suite 1707
New York, New York 10151

Re: Sony Pictures

Dear Mr. Katz:

As you are aware, Cheil Communications America, Inc. ("CCA") acts as advertising agency for Samsung Electronics America, Inc. (a New Jersey corporation) and Samsung Electronics Co. Ltd. (a Korean corporation) in connection with the "Samsung Spectacular" sign which has been on your Two Times Square Building since 1991. CCA, along with its parent company, Cheil Communications, Inc., and each of the aforementioned Samsung companies (collectively "Samsung") are parties to the current contract concerning the Samsung Spectacular.

The purpose of this letter is to memorialize and to follow up with certain communications that I have had with Brian Turner of your organization outlining the position and concerns of Samsung with respect to the "Spiderman" movie trailer in which Sony Pictures has removed (presumably by digital means) the Samsung sign on the building and replaced it with a sign for "USA Today."

In particular, although this advertising is remarkably expensive, Samsung always has believed that the costs were justified given the overwhelming and unique exposure the Two Times Square Building offers Samsung and the Samsung trademark. Samsung's investment is based in significant part on the fact that the Two Times Square Building is one of the world's most famous and most photographed buildings. Samsung depends on the fact that the Samsung trademark is seen by hundreds of millions of people every year in person, photographs, television, movies, and any number of other mediums. Indeed, part of the justification you gave Samsung for the high cost was the unlimited visibility of the sign in a variety of mediums, including movies.

Samsung is thus greatly concerned that you have allowed Sony Pictures to remove the Samsung sign in the "Spiderman" movie, trailer, and other worldwide advertisements and replace it with a

sign for "USA Today". This alteration obviously eliminates the visibility of the Samsung trademark. This alteration also lessens the value of Samsung's investment in the advertising on the Two Times Square Building. Samsung believes that it is entitled to all of the residual effects of advertising on the Two Times Square Building in all mediums.

We would appreciate your assurances that this practice will end, both for the "Spiderman" trailer and movie and in the future, before any further damage is caused to Samsung.

Very truly yours,

Cheil Communications America, Inc.

By:


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Attorneys for Plaintiffs

THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

SHERWOOD 48 ASSOCIATES; SUPER)
SIGN COMPANY; JAMESTOWN ONE)
TIMES SQUARE, L.P.; OTS SIGNS, L.P.;)
SHERWOOD 1600 ASSOCIATES; and)
BROADWAY MEDIA LLC,)

Plaintiffs,)

v.)

SONY CORPORATION OF AMERICA;)
SONY PICTURES ENTERTAINMENT,)
INC.; SONY PICTURES DIGITAL)
ENTERTAINMENT, INC.; COLUMBIA)
TRISTAR FILM DISTRIBUTORS)
INTERNATIONAL, INC.; and SONY)
PICTURES RELEASING CORP.,)

Defendants.)

Civil Action No.: 02-CV-2746 (RO)

DECLARATION OF STEPHEN J. ZOUKIS
IN SUPPORT OF PLAINTIFFS' OPPOSITION TO DEFENDANTS'
MOTION FOR JUDGMENT ON THE PLEADINGS

I, Stephen J. Zoukis, declare as follows:

1. I am a partner in JAMESTOWN, a Georgia general partnership, which is the sole general partner of OTS Signs, L.P. ("OTS") and Jamestown One Times Square, L.P. ("Jamestown"), two of the Plaintiffs in the above-styled action. The matters set forth herein,

unless otherwise indicated, are of my personal knowledge and if called as a witness, I would and could competently testify thereto.

2. In my position as a partner in Jamestown, I am aware of the various relationships and agreements entered by Jamestown and OTS regarding advertising activities on the One Times Square building.

3. One Times Square is a truly unique, one-of-a-kind advertising venue. The building offers one of the most coveted, high-profile and most expensive advertising locations in the world. Advertising space on One Times Square is highly desirable to advertisers not only as a result of the prestige and the favorable connotations associated with the building, but also because the images of the building and the signs will be seen by billions of television viewers, Internet users, movie goers, magazine and book readers, and others during the course of their contracts with Plaintiffs. Advertisers depend on the fact that their signs will not only be seen by the hundreds of millions of people who pass through Times Square every year but also on the residual impact of their signs appearing in photographs, newspapers, magazines, TV shows, movies, and elsewhere. This "residual value" is an essential element of our advertising agreements and is what justifies the unusually high license fees companies are willing to pay to license the space.

4. At some point after May 3, 2002, I became aware that the Discover sign on One Times Square had been replaced with a sign for Cingular Wireless in the *Spider-man* movie. NOVUS Credit Services, Inc. ("NOVUS"), the company who licenses the advertising space on One Times Square for the Discover sign, expressed concern over the alteration and deletion of the sign in the movie, indicating that the "residual value" of the sign appearing on such movies

was precisely the type of exposure NOVUS expected when it entered into the license agreement for the space. NOVUS is a subsidiary of Morgan Stanley ("Morgan Stanley").

5. Morgan Stanley/NOVUS has suggested to Jamestown that, if Defendants' conduct is found to be acceptable, it may not be willing to pay the same rate to renew its license agreement since it cannot be guaranteed to receive the "residual value" gained by appearing in television programs and movies.

6. Through their digital alteration of One Times Square in the *Spider-man* movie, Defendants have injured Jamestown and its relationships with Morgan Stanley/NOVUS.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: Atlanta, Georgia
June 20, 2002



STEPHEN S. ZOUKIS



BEHIND THE MASK OF
SPIDER-MAN™

Mark Cotta Vaz
Foreword by Stan Lee

BEHIND THE MASK OF
SPIDER-MAN
THE SECRETS OF THE MOVIE

MARK COTTA UAZ



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NEW YORK

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Acknowledgments

My appreciation to fearless editor Steve Saffel, who entrusted me with this assignment, set me off on a journey, and provided superb guidance throughout (may the comics gods award you a *mint* copy of *Amazing Fantasy* #15). And a ceremonial bow to those magicians of design, Fred Dodnick and Sylvain Michaelis, for the beautiful results. On the Sony side, I can't say enough good things about Cindy Irwin, who has a magical ability to overcome all obstacles. Whether it was providing a contact or coordinating the dispersal of hundreds of copies of selected visuals, she swiftly and expertly met every challenge. (Fun fact: Cindy *hates* spiders—but she loves that Spider-Man!) Similarly, *Spider-Man* associate producer Grant Curtis became an important resource who, despite the pressures of production, was unfailing in help, support, and good humor. And I'll take a couple swings on the spider's web in honor of Sony's Grace Ressler, who helped get things started.

A special thanks to Barbara Lakin in Sony photographic services for making me feel at home and giving me total freedom to peruse the *Spider-Man* visual record—I *did* raise a glass in your honor at Sam's! (And thanks to Jeffrey Stewart for the able assist.) My fond appreciation to all who gave of their time to be interviewed and a big Spidey salute to the folks who helped arrange it: Lisa Medwid, executive director for the office of the chairman, for time with John Calley; Heidi Fugeman, assistant for Ian Bryce; Lynn Padilla, producer's assistant for Laura Ziskin; Jeff Klein and Carlynn Chapman (executive assistant) for Avi Arad; Kelly Bush's I/D Public Relations and Dana Pucillo, Amy Thompson, and Carrie Byalick for Tobey Maguire and Willem Dafoe; Brenda Kelly and Hope Diamond at Shepley, Winings, Hober for Kirsten Dunst; Cory Richmond for Rosemary Harris; Jack Gilardi for Cliff Robertson; Robin Baum for James Franco; Steven Hirsch for J. K. Simmons. And to the masters of Imageworks: Yair Landau and Don Levy, Pamela Matthews (for facilitating questions for Don and Yair), Mary Reardon, and Chris Antonini, who ably arranged follow-ups and fact-checks.

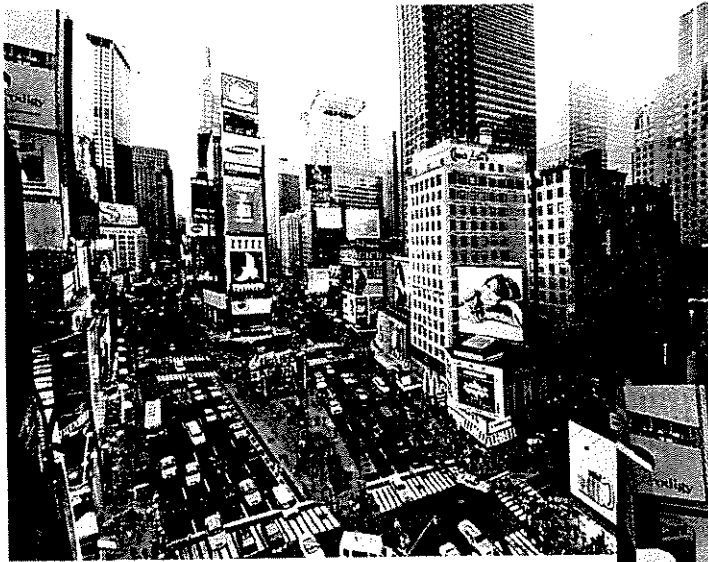
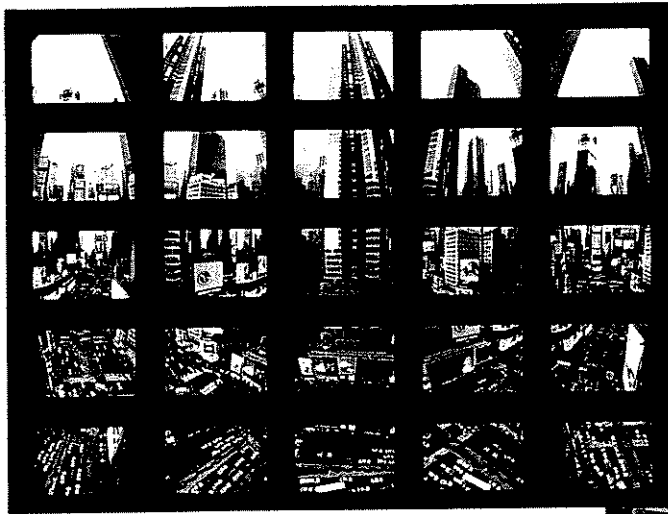
A special salute to senior visual effects coordinator Lisa Zusmer, who, in the heat of post-production, took on the difficult task of preparing a superb sampling of Sony Pictures Imageworks' computer graphics images.

Victoria Shoemaker, my literary agent, was her usual font of wisdom and support. A blessing to my mother for her particular and expert insights. (And here's a filial kiss for padre and a hug all around for the clan. Hey, Peter! Now you get to dig into the secret stuff!) I'll also get Spidey to spell out in webbing a super "Thank You" to Denise Fitzer, Michael Kirk, Paige Brown, Tracey Tardiff-Hill, Laetitia May, Christiane Friess, Mike Wigner (master of "Happy Donut Land"), Bruce and Ginny Walters, Jesse Strauch at Infinity Color, Ozzy Inguanzo, Spider-Man Art Dept. coordinator, Ned Gorman, and Tom and Vita Blatchford.

Finally, I'm sure Sam Raimi's ears have been burning, what with all the good things said about him. All the testaments, freely given, speak to a talented guy with a good heart—as this writer can attest. Thanks, Sam. It was a pleasure.

—Mark Cotta Vaz

BEHIND THE MASK OF SPIDER-MAN



Top: Imageworks conjured up a virtual version of New York in several ways, including using "pan and tile" techniques to create this establishing view of Times Square. The process began with a motion-control film camera programmed to capture predetermined pan and tilt angles shot at the location. The few seconds of footage for each angle—or tile—were scanned into the computer, the resulting jigsaw mosaic seamed together in "a virtual geodesic dome," as Scott Stokdyk explains.

ABOVE RIGHT: Times Square tiles with borders showing how the images were seamed together into a continuous environment.

ABOVE LEFT: Placed tiles without borders.

BOTTOM RIGHT: Seamed image with color correction.

Your friendly neighborhood spider-man

The room is cool and dark, except for the high-tech glow of a monitor, but there's a whisper of distant, wide-open spaces in the Moroccan rug that hangs on a far wall and the candle flickering in a jar. Sam Raimi is leaning forward on a couch, deep in the muse of postproduction, watching as editor Arthur Coburn works on the digital Avid editing machine. Unlike the days of Moviolas and cutting and splicing film, a click of this machine calls up any piece of digitized footage. It's a medium where not only principle photography, but visual effects shots in progress—elements of animated characters and synthetic cityscapes—can be combined with the live-action footage.



On the phosphorescent screen, a computer-generated Peter Parker, dressed in his wrestling costume, drops out of the sky onto the roof of the car driven by his uncle's killer. Then the killer is firing gunshots through the roof as the scene plays out with temp music, screaming police sirens, and screeching tires taking hairpin turns.

"Spidey is no fool," Coburn mentions, wondering if maybe Peter should be out of there before too many bullet holes crack through the roof.

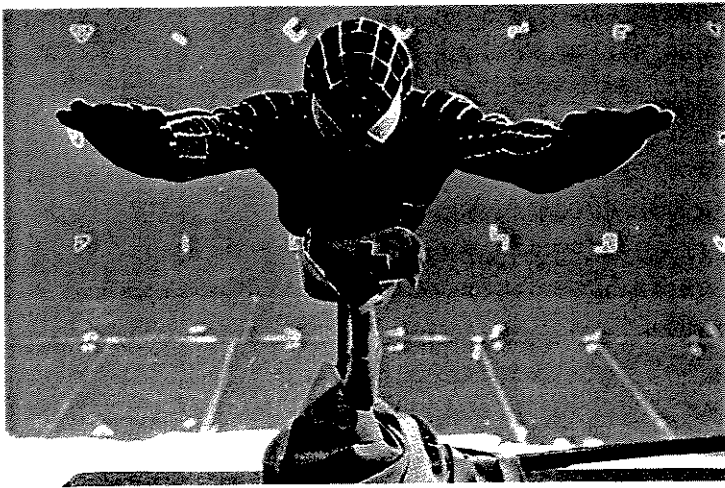
"I think all we need is one shot to show he's got a gun and is firing," Raimi replies.

Then, in his leap from the car, the masked man seems to stay up in the air too long for Raimi's taste. "At the top of that shot he doesn't want to come down."

Left: Final Imageworks "slick costume" Spidey model, test image pictured against the film's final "hulking ruin" battleground (note the shadowy Goblin in the background).

ABOVE RIGHT: Spider-Man and Mary Jane take a breather following the World Unity Festival assault.

BEHIND THE MASK OF SPIDER-MAN



Top: The effects artists at Sony Pictures Imageworks get to vicariously emulate Spider-Man's web-swinging heroics. Let's hope John Dykstra and crew haven't taken their assignment as seriously as did their colleague Mysterio, one of the wizards of special effects who decided to simulate Spider-Man's superpowers. *The Amazing Spider-Man #13, "The Menace of . . . Mysterio!"* pages 15-16 / Artist: Steve Ditko

Above: Spidey is set up for a greenscreen shot. The dramatic shots of Spider-Man soaring through Manhattan utilized a computer-generated character composited into a synthetic New York backdrop.

"You want another shot for this?"
 "Maybe there's one where he descends quicker."

The two debate the entire chase sequence from where Peter Parker takes his still fledgling superleaps, the sequence featuring a rough, computer-generated figure swooping down over both live-action plates and an entirely computer-generated cityscape. Looking like a video game figure (and long, long before the final high-resolution detailing and animation will be done) this is

Imageworks' previsualization, 3-D animation that allows the filmmakers to create a rough composite, to better ascertain how live action and CG animation are matching up.

"The previz basically replaced the animated storyboard panels, but those early animatics were important—before shooting started, the whole movie existed," Bob Murawski, who shared editing duties with Coburn on *Spider-Man*, explained. "Once we got the shot, with the previz we had a CG Spidey we could put into the live action. The previz gives a feeling of the overall pace of a shot, whether it's too fast or slow. While we're editing we can speed things up or slow them down, move that animated figure around in our live-action plate. We sped up the CG figure of Peter in his wrestling suit 20 percent when he's jumping from rooftop to rooftop. There was a lot of back and forth between us and Imageworks. What was cool was every week there was a progression. We saw more and more refined versions of the CG work; it became more textured and realistic. Also, with a lot of CG shots coming in, there was the

potential of making things different, a lot of options and the ability to manipulate the story and action.”

The Imageworks facility is located in Culver City near the historic old Selznick movie lot where once stood the gates that kept out King Kong, and where antebellum Tara stood and Atlanta burned. Imageworks had been pushing the art of visual effects on such productions as *Stuart Little* and *Hollow Man*. Not only did the effects house have to create a realistic, athletic Spidey, but it usually had to place the superhero within a synthetic New York City.

“Whenever Spider-Man had to do more radical web swings with radical camera moves following him, that dictated where we’d have our synthetic environment,” digital effects supervisor Scott Stokdyk explained.

The Imageworks approach for creating its virtual cityscape was texture mapping, with scanned textures applied to basic CG forms. “Texture mapping means we generated our synthetic buildings with photographs of real buildings,” John Dykstra explained. “We could take still photographs of real buildings from different angles, and use survey data so we’d know exactly the positions of those buildings. We could then build a piece of geometry to match that building, varying the data depending on how close we had to come with our virtual camera. Then we created a projection in the virtual environment that matched the position of the taking camera position, and projected the textures from the building back onto that geometry.”

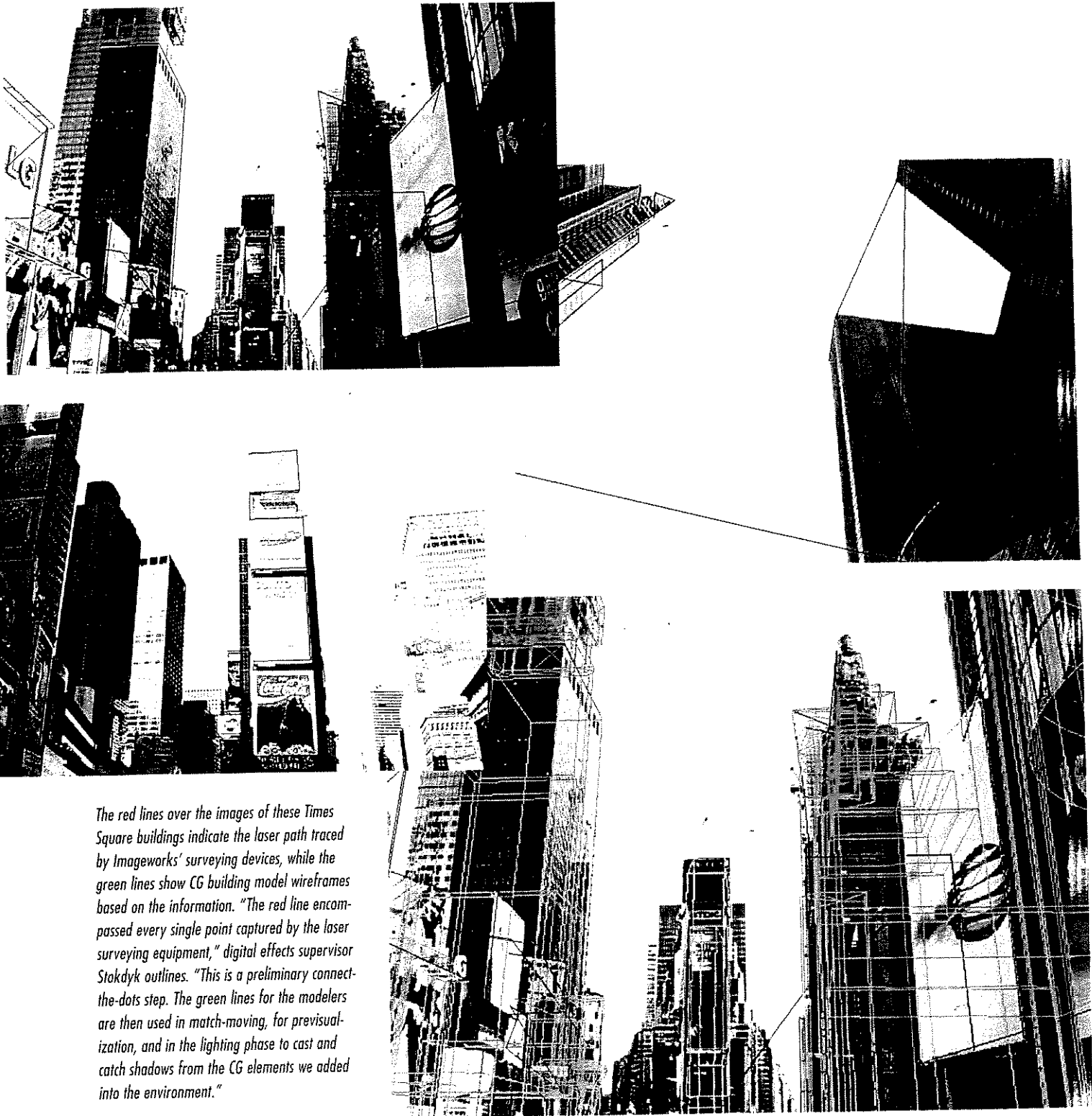
The process was coordinated with production



After the completion of the greenscreen effects shot of Spidey swinging in to rescue MJ, the production cut to live-action filming of the web-slinger setting Mary Jane down on a garden rooftop at Rockefeller Center.



BEHIND THE MASK OF SPIDER-MAN

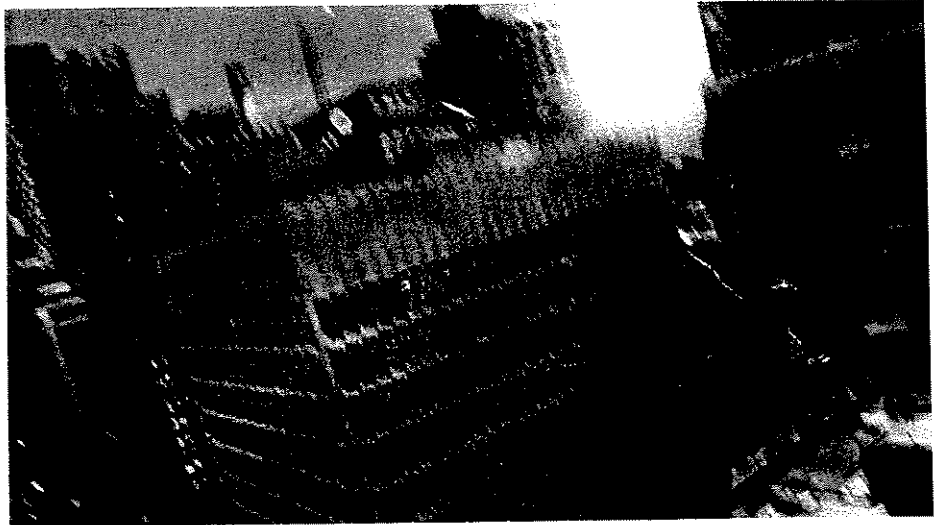


The red lines over the images of these Times Square buildings indicate the laser path traced by Imageworks' surveying devices, while the green lines show CG building model wireframes based on the information. "The red line encompassed every single point captured by the laser surveying equipment," digital effects supervisor Stokdyk outlines. "This is a preliminary connect-the-dots step. The green lines for the modelers are then used in match-moving, for previsualization, and in the lighting phase to cast and catch shadows from the CG elements we added into the environment."

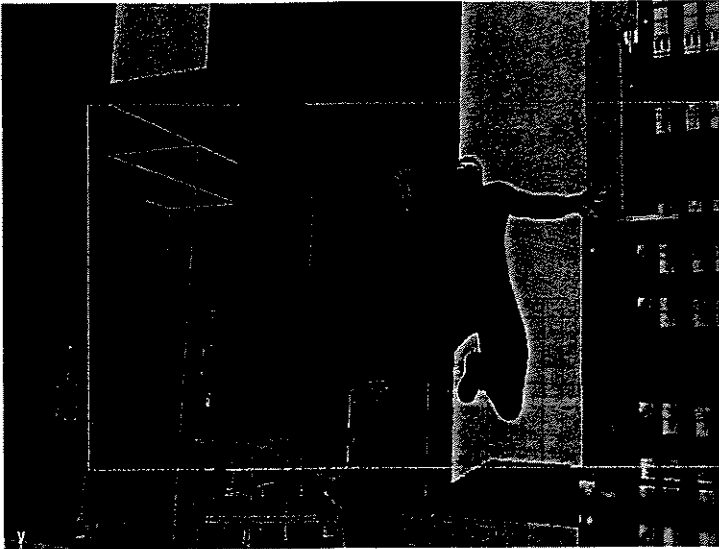
designer Neil Spisak, who selected fifteen specific “hero” buildings in Manhattan, which Kerry Nordquist, Imageworks’ lead texture painter, spent more than a month photographing, along with supplementary buildings. “I selected the buildings that formed the working library, very specific buildings scouted all over New York,” Spisak says. “There was the idea of the Beaux Arts buildings mixed with a little bit of the more modern buildings.”

Nordquist shot his still photos from both street level as well as from adjacent buildings, aiming at the skyscraper heights with his telephoto lens. He returned to Culver City with some 8,000 photos, Stokdyk estimated. Some photos weren’t acceptable for texture mapping; others were purely reference shots for different times and lighting conditions. The detailed survey data—taken using the same measuring devices as used by road construction crews—provided essential information concerning key points in the buildings.

“One of our concerns was whether fifteen hero buildings was going to be enough, because we wanted to [maintain] the integrity of the buildings the production had selected,” CG supervisor Ken Hahn, whose focus included the 3-D environments, said. “But we found that if you looked at a hero building from a different angle, particularly the older ones, there were enough architectural differences, say stone work or glass,



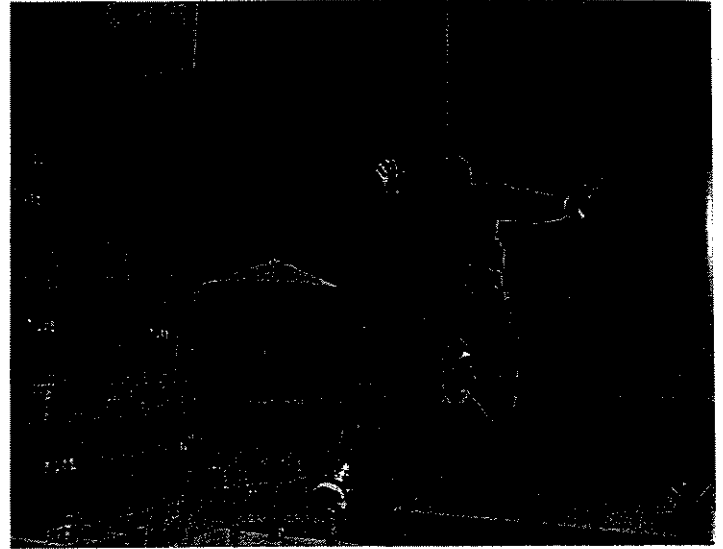
The CG Spider-Man’s first appearance, in a July 11, 2001, theatrical trailer, which included this dramatic sunshine “flare” shot, also featured an entirely synthetic city as backdrop. The “building pipeline” team included lead technical director Francisco de Jesus, lead texture painter Kerry Nordquist, lead modeler Alex Whang, and early R&D supervisor Sam Richards. The “hero” building models were created in Maya, with Houdini software essentially “gluing together the texture maps to the models,” Ken Hahn, CG supervisor for the building R&D, says. The CG cityscape was also designed so Imageworks’ technical directors could have their computers program the types of rooms assigned from a digital library, automatically calculating such random details as the percentage of rooms with lights off or on. The city views were also embellished with a variety of CG props, including birds, pedestrians, building heat vents generating smoke, and moving traffic. “Anything to keep the shot alive and in motion,” Hahn observes.



ABOVE LEFT: Imageworks' animation previsualization of Peter Parker for the chase after his uncle's killer.

ABOVE RIGHT: After animation was accepted, the cloth simulation program for the wrestling costume, developed by Daniel Kramer under CG supervisor Daniel Eaton, could be run. "We render our cloth tests with a checkerboard pattern because it makes it easier to see wrinkles, movement, and surface stretching," Scott Stokdyk notes.

RIGHT: CG Spidey performance animation, with cloth simulation.



that it was tough to tell that it was the same building. We mixed and matched the various hero buildings, and we also shot midlevel buildings we could intersperse."

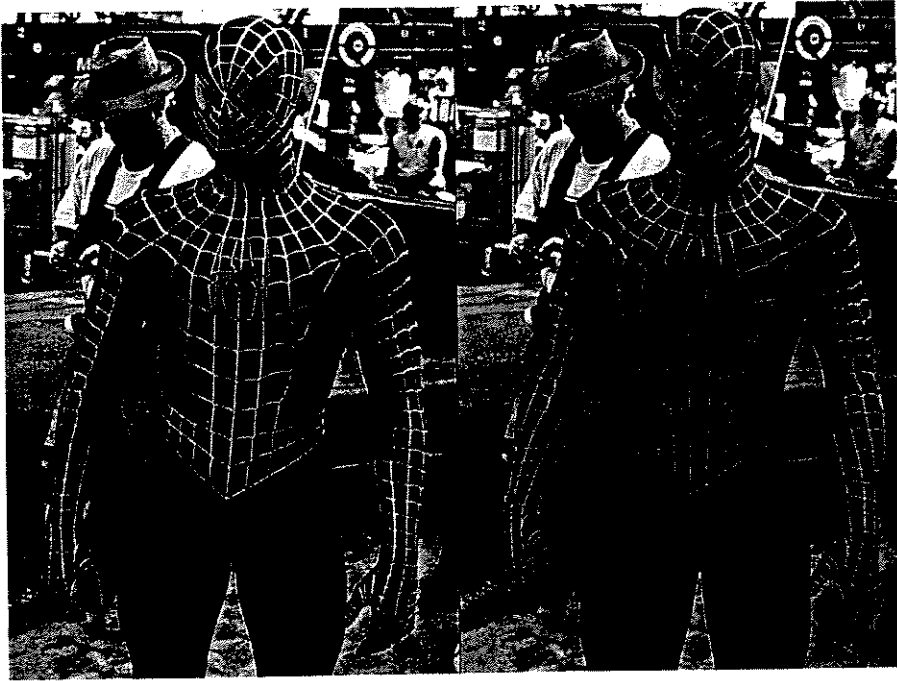
Ultimately, the virtual cityscape was formed using those fifteen high-resolution foreground buildings that would be closest to camera, with twenty to forty midlevel and background buildings that would be created at varying resolutions. Imageworks further extended the digital cityscape

to the distant horizon. At that distance objects would be too far away to betray perspective shifts, and digital matte paintings and still photos would provide the distant skylines.

For the reflections on the building windows themselves, Imageworks technical directors converted their shaders—the algorithm for determining the shininess and color of a surface—to work with Mental Ray rendering software, which allowed for realistic motion-blurred reflections as Spidey, and the virtual camera, flew past.

Author Terrence Masson, in his 1999 book *CG 101*, has called rendering "the cinematography of computer graphics." Rendering involves the actual creation of a digital picture in terms of its lighting, surface quality,

BEHIND THE MASK OF SPIDER-MAN



Test photo scan of a suited-up Chris Daniels (left) and CG model replacement; Dafoe in the Goblin suit poses for test scan (left) and CG model replacement. As with Imageworks' test replacement of real buildings with computer-generated copies, these photo scans provided a sure way of ascertaining how accurately the digital doubles matched the real-life performers. "Without this kind of proof-of-concept test, we're reduced to subjective judgments and making the characters look 'cool,'" Stokdyk notes. "We had to prove we could cut back from CG characters to the real thing."





and other aspects. For *Spider-Man*, digital reflections and shadows were “ray traced,” a rendering technique different from “radiosity,” a technique that calculates the ambient qualities of reflected light throughout a scene. While some consider radiosity a more realistic approach for lighting a 3-D scene, the lighting for *Spider-Man* was “cinematic lighting,” Hahn explained. “Radiosity looked too real-world, too monochromatic. We did try to light our virtual environments realistically, but that wasn’t the aesthetic the production was looking for.”

Hahn cites as an example of cinematic lighting the first *Spider-Man* theatrical trailer, which featured shots of a computer-generated Spider-Man swinging through the city. The trailer, showing Imageworks’ virtual city during Spidey’s fly-through, began with a specific sun position requested by the production, which produced a dramatic lens flare over a swinging Spider-Man—and was one of the first CG Spidey shots Imageworks developed. But if that sun position had remained consistent throughout, it’d have put everything in shadow.

“It’s subtle, but we basically cheated the sun position three times

After having saved Mary Jane from a pack of muggers, Spidey drops in to share the moment with the fair lady. That’s Tobey Maguire suspended upside down for the romantic interlude.

throughout that sequence,” Hahn said. “Actually, we cheated the sun position a fourth time—to light Spider-Man. He’s brighter in those shots than he’d be normally. But in movies you want to light the main character to stand out, not fade into the background. That lighting was particularly important to Avi Arad. He wanted audiences to see Spider-Man, not have their gaze drift off him.”

Creating the CG superhero was a case of déjà vu all over again for supervisor John Dykstra. As the overall visual effects supervisor on the 1995 release *Batman Forever*, Dykstra had watched over the creation of a computer-generated Caped Crusader, the beginning of a learning curve that reached fruition in the CG web-slinger. “I began doing our CG Spider-Man when we began doing that figure of Batman, no question about it,” Dykstra admitted.

One of the first synthetic stuntmen was the lawyer who was eaten by a T. rex in 1993’s *Jurassic Park*. For the next level, in *Batman Forever*, the “breakthrough” CG Batman took a 600-foot fall with a dramatic virtual camera move, and “our CGI superhero allowed us to give the character the graphic quality of the comics,” Dykstra said at the time (in an article for issue #63 of *Cinefex* magazine).

But while that CG Bat-hero might have been super in its day, it’d be no match for today’s super-CG Spidey. “That was six years ago!” Dykstra said, smiling. “*Spider-Man* is multiple light-years beyond! It’s fair to say that the Batman character was terrific for his time, and had a panache you wouldn’t have gotten out of a stunt guy. And, in a sense, you could call our

Spider-Man a digital stunt person, because it’s a surrogate for the actor, Tobey Maguire.



The Kiss of the Spider-Man. “One thing I always thought was funny,” Dunst giggles, “is what if Mary Jane pulled down Spider-Man’s mask and he was some kind of weird old creepy dude? That was very risky of MJ to pull down his mask and kiss him.”



“But there’s a physical performance and physiognomy that’s critical to our character. Today we have hugely, hugely higher resolution figures and more experienced animators, so our character can live more in an anthropomorphic world of real people. It has all the subtleties of motion, down to the slight tremors that go through people when they shift their weight. The ability to interpret athleticism is another step up. And there are more factors: Is our Spider-Man excited, happy, or unhappy? Those emotions have an impact on how he moves. The key is the CG guy is indistinguishable from the live guy, with the exception of the feats he can perform.”

“The Spider-Man model we built was very complex, but very efficient,” Peter Nofz noted. “It’s a process of computers getting faster and faster and us being careful not to add anything that wasn’t absolutely necessary. The entire computer model is built up of patches [each a four-sided 3-D geometric surface], and a model can ‘break’ if one patch stretches differently for one motion than another. Gaps can become apparent. They can be stitched together, but it’s better to have them stay together from the get-go. In fact, normally we put limits on all our models to discourage animators from doing something that a human being couldn’t do. But with our Spider-Man model we definitely allowed animators to go beyond what a human being can do.”

The CG Spider-Man model required two costumes, one the classic spandex costume—his “slick” costume as Imageworks called it—the other Peter Parker’s outfit of sneakers, sweat pants, and a sprayed spider-pattern shirt. Instead of the normal cloth-simulation program for adding clothes, Imageworks’ Daniel Kramer, working under CG supervisor Daniel Eaton, came up with a method for taking the cloth patterns from the actual wrestling costume into the computer and projecting them over the slick-costume model figure.

Key to the animation was the setup of the classically costumed Spidey figure. Imageworks had created computer-generated muscle, bones, and skin for the anatomical reveals of the invisible man character becoming visible in the 2000 release *Hollow Man*, a breakthrough that helped effects artists produce a CG Spider-Man with a believable physique. “We treated the slick costume like human skin, but with slide and stretch in different areas,” Stokdyk explained. “When we worked on *Hollow Man* we learned a lot about how to get good representations of muscle underneath the skin—this was the next step.

“Koji Morihiro, one of our physiquers, spent almost eight months looking at all the videotape we shot of the people in the costumes during the cyberscan, balancing how that costume should realistically stretch over muscles,” Stokdyk added. “Then he’d basically bind the surface to the animation skeleton, going through a range of motions and doing different weightings on the surface to make it look right, dialing in how much every point on that surface would move relative to the motion of the whole. From there, when the animators were animating the slick-costume model, they could just apply their animation to the system Koji had set up.”

The Spider-Man animated character itself lived in a strange, subjective area of having to look realistic while performing fantastic feats, and that was of constant concern for animation supervisor Anthony LaMolina. “At first glance it doesn’t feel right to see a character jump thirty feet up on a wall. The most challenging shots were just

having him crawl up a building, because it involved so many subtleties [that had] to look right. There's the angle of his fingers, the shift of weight as he pulls himself up the wall, the movement of his hips and shoulders. So you're always playing around with this fine line between doing fantastic things, yet still having audiences accept it as a real person doing them.

"Spider-Man had to evolve, in terms of his ability. In the beginning, when he's first using his powers, he's a neophyte, and when he's swinging from his webbing he moves like a layman acrobat, clumsy and afraid. As the film progresses he becomes more adept at using his powers, and by the end, he's quite slick."

The animation itself first blocked in the action, establishing the general "motion and emotion of a shot," as lead animator Spencer Cook explained. "When that was accepted by the director and John Dykstra, we started adding the detailing, paying attention to what Spider-Man's fingers were doing, the exact twisting of his body.

"There's a lot that goes into it. When they shoot a background plate on stage or location, that has to be imported into the computer and an exact 3-D representation is made of that world by our match-move department, to literally match the point of view of the plate photography. With that 3-D environment, we do the animation, evaluating how the character interacts with the environment. If it's a completely CG environment, we'll have simple 3-D representations. In Maya software we have these things called shelves, a series of buttons to click on to activate different commands. Then, another team of modelers adds details to the buildings, the texture painters add even more detail to that, and the people who do the lighting, compositing, and rendering all add their specialties."

"There's this whole part of the movie that gets made in postproduction," producer Laura Ziskin said. "So we were always at Imageworks to see shots and address issues. Someone asked me, 'Do you go every day?' Well, it's like, why would I go to the shooting of principal photography every day? It's where the shots are being made that are going to be in the movie. *Of course* I had to be there."

That soaring figure of Spider-Man, as rescuer and protector, is what entrances Mary Jane and, ironically, further separates her from Peter Parker. "MJ has this obsession/crush thing with Spider-Man," Kirsten Dunst said, smiling. "He gives her feelings she's never had before. He makes her feel like a woman, instead of a girl. All girls love mystery, and it's a fantasy thing with Spider-Man—what's under that mask?"