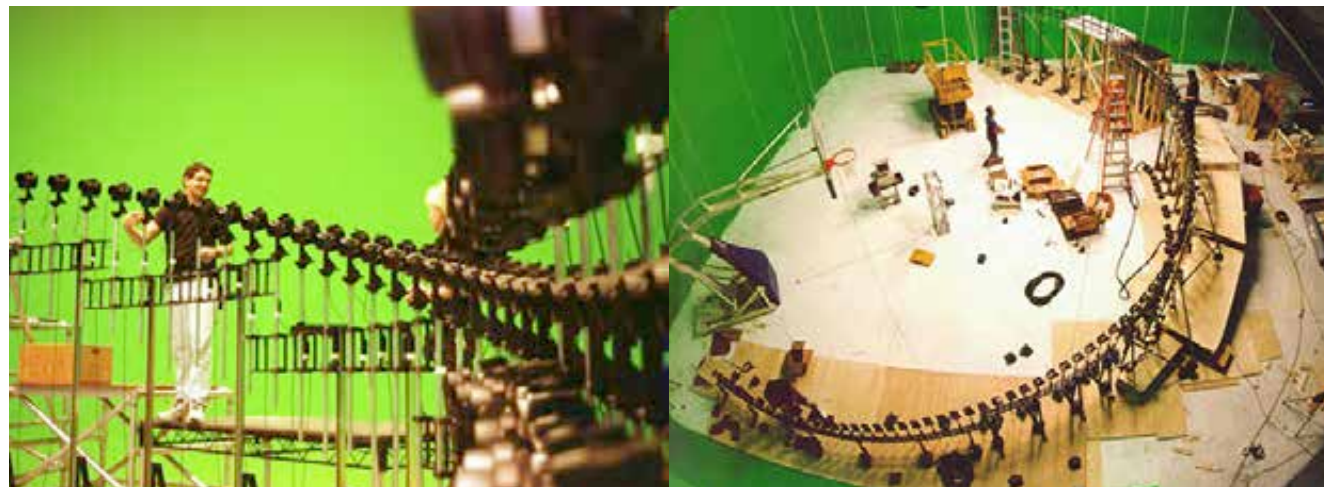


It could be argued, in fact, that the *Matrix* films were in significant ways more radical. *Star Wars* utilized motion-control technology to greatly enhance the telling of a conventional space opera that had already been conceived on paper. *Jurassic Park* would have been essentially the same film if it had used go

neered like an F-22 stealth jet, a cyberpunk dime novel expanded into a psychedelic epic complete with allusions to A-list thinkers from Socrates to Jean Baudrillard. (Reportedly, the latter's *Simulacra and Simulation* was required reading for cast members.) The film is set two hundred years in the future, at which time the great



motion in the scenes that employed CG animation. If we turn to *The Matrix* (1999), *The Matrix: Reloaded*, and *The Matrix Revolutions* (both 2002) we see something rather different. These films — especially the first — were driven by the powerful evocation of alternate realities conjured up by the deployment of convincing visual illusions, some created with CGI and others by means of the ingenious use of digitally triggered and tracked but essentially conventional camera technology. At times in these movies it seems as if the visual effects are establishing the narrative rather than illustrating it, enhancing it, or filling it out. There had been precedents — in sections of *Blade Runner*, for example — but the *Matrix* series set a new benchmark for the use of visual effects as content. In the most exciting sections of these films there is an overwhelming kind of balletic choreography that replaces conventional storytelling. And the balletic is matched by a sure sense of comic-book-style visualization — hardly surprising given the Wachowskis' background as writers for Marvel Comics and other imprints. They had already explored this style in their first movie, the low-budget *Bound* (1996), a film that channeled the sexually charged worlds of James M. Cain and Billy Wilder and used them to create a lesbian psychodrama.

*Bound* was a slickly elegant, taboo-breaking small film. *The Matrix* would be something altogether more ambitious, equally slick and elegant but engi-

majority of humans are cocooned in a virtual reality that they perceive as being authentic. In fact the world they experience — the Matrix — is a sedative simulation of life as it is presumed to have existed in 1999, controlled by a race of intelligent machines that, in order to maintain its own civilization, needs to cannibalize the bioelectrical energy generated by human organisms.

On-screen the presence of the Matrix is signified by the intervention of a fluorescent green drizzle of “code” made up of characters and numerals of the sort adapted for use in the early years of the computer era (at the same time recalling the elegance of Japanese calligraphy). In that demimonde, a hacker known as Neo (Keanu Reeves) discovers clues to the existence of the Matrix on his computer and, tipped off by a mysterious rebel named Trinity (Carrie-Anne Moss), is led to Morpheus (Laurence Fishburne), who heads a cell of undecieved humans raging against the machines. The scene is set for stunning episodes of eloquent mayhem featuring terminally cool protagonists in leather trench coats and impenetrable Ray-Bans.

Live action for all three *Matrix* features was shot mostly at Fox Studios in Sydney, Australia, and on location in Sydney, but visual effects for the first film were the work of the innovative team at Manex Visual Effects, based at a former US naval base in Alameda, California, while effects for the two remaining films were provided by ESC Entertainment, also in Alameda.

ABOVE Camera setup for “bullet time” sequence, shot against a green screen to permit compositing; and preparation for filming a scene with Neo. Cameras are behind green-screen barriers with cut-outs for the camera lenses. In the first *Matrix* film, the shifting viewpoint in the slice-of-time shots was achieved by partially surrounding a character or object with an array of still cameras — arranged in a uniform curve calculated by computer visualization — the shutters of which could be triggered to produce a sequence of shots. By the time that the *Matrix* sequels were in production, visual effects supervisor John Gaeta's team was able to create bullet-time events entirely by digital means — a virtual camera (a coinage that is credited to Gaeta) replacing the array of still cameras.

OPPOSITE Neo and Agent Smith (Hugo Weaving) face off in *The Matrix* (1999).

