ever, with a movie like Spielberg's *Raiders of the Lost Ark,* and it would have been no great surprise to the viewer if Indiana Jones suddenly appeared on-screen.

To anyone familiar with the Hergé books, all this looked a little odd. Jackson was certainly right: mocap made it possible to create photorealistic three-dimensional characters who closely resembled Captain Haddock (Andy Serkis), Tintin (Jamie Bell), and Snowy the dog, except for the fact that Hergé's drawings are such masterly and economical exploitations of two-dimensional space. For Hergé purists, to see the characters virtually falling out of the screen is somewhat disturbing, and at times that screen seems overcrowded to no great effect. That said, the movie is quite spectacular, with plenty of marvelous and memo-

rable moments. Weta Digital provided state-of-the-art CG effects, including a new virtual-lighting software named PantaRay — a ray tracing system that requires a huge amount of computing power but permits remarkable levels of subtlety in the shading of, for example, dimly lit interiors.

Perhaps surprisingly, given the talent involved and generally good reviews, the film did not perform especially well, suggesting that — while motion-capture has its place in today's movie industry — out-and-out mocap pictures like *Tintin,* and *Beowulf* before it, fail to connect with audiences at some basic, visceral level. Curiously, photorealistic mocap seems to work more convincingly for live-action than for 100 percent animation.

The most memorable CG film to be released in 2011 was Gore Verbinski's *Rango,* which went on the win the Academy Award for the year's Best Animated Feature. This movie was produced by Nickelodeon Films (who were also coproducers of *Tintin*), Verbinski's Blind Wink, and GK Films, the company of *Rango* producer Graham King, best known for his Academy Award–winner *The Departed*. The animation house involved was ILM, George Lucas's VFX division, which had never been responsible for an animated film before. In this debut ILM's artists proved that they were capable of competing with the best, including Pixar, which had of course begun life as part of Lucasfilm. Similarly, Verbinski had never directed an animated film before, though he had masses of experience with CG effects in the *Pirates of the Caribbean* movies.

Featuring the voice of Johnny Depp as *Rango,* a pet chameleon who begins the film lost and disoriented in the Mohave Desert, this movie has a look and sensibility unlike any other animated movie, a darkly comic blend of Death Valley baroque and Hollywood

existential (p. 254). Firmly grounded in the mythology of western movies, the anthropomorphic creatures who populate the picture are spectacular grotesques, none more so than Rango himself, with his pate like some kind of mutant cactus, his ping-pong-ball eyes, and his crooked, scrawny neck that looks barely capable of supporting the head of a pin, let alone the chameleon's ponderous noggin. The world they live in is something that might have been hallucinated by John Ford while battling desert fever.

Verbinski has said that he originally thought of *Rango* as a "small" film to direct as a change of pace after the *Pirate* movies. As he got into it, however, he began to realize that producing a high-quality CG movie was a much bigger task than he had anticipated, both in terms of logistics and artistic challenge. Being from a live-action background gave him a rather different point of view from that of directors who have come up through the ranks at animation studios. His approach to voice recording, for instance, was at odds with the system that prevails at most animation studios. Voice tracks are laid down before animation of the characters begins, allowing the animators to synch lips, body language, and action to the situations and dialogue. The conventions of prerecording — which go