redrawn and changed a bit each time, while the rest of the figure is on another cel which then is photographed repeatedly. Our third film, Robert Breer's Fuji, uses many separate drawings made on index cards and without cels overlaid but, as we shall see, it plays in an experimental way with conventions associated with traditional cel animation.

Each of the three films illustrates a different approach to this form of filmmaking. Clock Cleaners employs continuity techniques of classical Hollywood cinema. Duck Amuck plays in a comic way with those techniques. And Fuji uses a mixture of live action and drawings to create a complex abstract form.

**CLOCK CLEANERS**


Clock Cleaners is a narrative, but it does not adhere to the typical patterns of narrative development that we have observed at work in feature-length Hollywood films. Employing a strategy common in slapstick shorts, it sets up a situation and then has the characters perform a series of nearly self-contained skits or gags, building up as the film goes along. In this case, three familiar stars, Mickey Mouse, Goofy, and Donald Duck, all appear, each working in a different part of the huge clock tower. They do not interact until near the end of the film. No overall pattern like a search or a journey helps the plot develop; although the characters could be said to share a general goal of cleaning the clock, they have not accomplished it by the end of the film, and our sense of narrative progression has more to do with their mishaps than with any work they may get done.

Because we already know the basic traits of the three stars from other cartoons, they can launch into their actions without any exposition beyond the fact, quickly established, that they are clock cleaners. Donald is irascible, and his scenes involve a fight with the clock's huge mainspring, which he has accidentally released from its tight coil. Mickey is kindly, but his efforts to eject a resting stork from the clock backfire. Goofy, whose main trait is defined by his name, unwittingly lets the clock's mechanical figures knock him silly and then performs a precarious dance high above the street. All these characters end up together, caught in the works of the clock at the final iris-out. Animation historian Leonard Maltin describes Clock Cleaners as typifying the plot formula used in several Disney cartoons of the 1930s with these three stars: "These superbly animated shorts featured the characters as a team that approached a given situation, then split up for solo episodes before coming together again at the finale." As a result, Clock Cleaners has an episodic plot, but it develops as well, beginning with short, slightly risky predicaments and ending with a lengthy, dangerous climactic scene.

Initially, Donald accidentally loosens the clock's mainspring and gets caught inside the resulting tangle of metal bands. Then Mickey's struggles with the stork leave him dangling on a rope above the street, but the danger is only momentary. We return to Donald, who is flung from the spring into a gear, but he ends by falling on a platform inside the clock. Goofy's
elaborate balancing act on ledges and ropes, however, puts both him and would-be rescuer Mickey in considerable peril—until both are tossed in to join Donald in the comparative safety of the clock's gears. Thus comic accelerating of danger and a final removal of that danger help create the film's narrative form.

In cel animation, costs rise when more movement and graphic detail are added to the shots. Of all the animation units in Hollywood during the heyday of the cartoon (roughly from the 1920s to the 1950s), Walt Disney Productions had the most lavish budgets, the best technical facilities, and the largest staff. While the Warner Bros. animation unit (which created Bugs Bunny, Daffy Duck, and Porky Pig, among others) and the Fleischer brothers (which created the Betty Boop and Popeye cartoons for Paramount) may have been equally imaginative, historians agree that Disney's animation was the most elaborate and virtuosic.

In Clock Cleaners, for example, the first shot inside the giant clock shows Mickey and the clock hands and numerals all visible, silhouetted against the translucent face. A tilt and crane move us to a high angle, revealing the huge gears and wheels of the clock's mechanism, with Goofy at work on a platform far below. This shot, full of separate, intricate movements, is typical of the Disney virtuosity. Similarly, the opening view of the city is detailed (Color Plate 61). The high-angle view suggests the height at which the trio are working. The brighter color of the skyscraper's roof draws our attention to the top of the structure, and carefully painted haze over the city below provides aerial perspective as an additional depth cue. The settings within the clock are also drawn elaborately, using shadow and texture to suggest three-dimensional space.

Although Clock Cleaners is a fantasy, its space and time are created by using some of the familiar devices of live-action classical Hollywood films. The film's establishing shot (Color Plate 61), for example, contains a zooming movement toward the central clock tower, and a dissolve leads into a closer shot of the mechanical figures. A tilt down then reveals Mickey on the clock's second hand, and another dissolve moves us closer to him. Finally, a third dissolve shifts the view inside the clock, and so on. Space is carefully laid out with continuity editing. Later, Donald battles the unruly mainspring of the clock, and there is a cut-in to his startled reaction as the end of the spring seems to talk back to him (Color Plates 62 and 63). Note again how bright colors make the foreground action more eye-catching, while subtle blues give a texture to the stone blocks of the wall behind.

Toward the end, Mickey looks over to see Goofy in danger, staggering in a daze along a rope that is about to run out of a pulley and drop him. Again continuity editing makes the space and the situation clear, as one shot shows Mickey looking off to the left (Fig. 10.107), and the next shows the situation from his point of view (10.108). In the second shot, the drawing simulates the effects of a wide-angle lens, exaggerating depth so that Goofy appears tiny in the frame, and the rope and pulley appear large—emphasizing Mickey's realization of the danger.

Clock Cleaners also exploits some spatial possibilities that are unique to animation. The mechanical figures strike the big clock bell when Goofy's head is inside, and the drawings convey his reaction by means of multiple images of his feet (Color Plate 64), which seem on the screen to flap wildly.
Similarly, the characters’ bodies are more flexible than those of real actors—as is evident in the running gag where they get their heads caught in a giant gear that jerks their bodies back and forth. (Such quick movements are fun to watch in slow-motion, on an editing machine or video player, and such an exercise also gives us a better appreciation of the animators’ skill.)

Still, Disney’s cartoons of the late 1930s and 1940s try for a relatively high degree of verisimilitude in the construction of consistent, three-dimensional space and continuous time. Such an approach was not universal, however, and a great deal of experimentation with bizarre and imaginative stylistic possibilities went on, even within Hollywood animation—as our next example demonstrates.

**DUCK AMUCK**


Cartoons made at other Hollywood studios often resembled those of Disney in that they laid out space with continuity editing and used an accelerating gag structure in their narratives. But because cartoons were considered a genre of comic fantasy, they could also play with the medium. In Warner Bros. cartoons particularly, characters often spoke to the audience, or referred to the animators and studio executives. The tone of the films was also very different from that of Disney. The action was often faster and more violent. The main characters, like Bugs Bunny and Daffy Duck, were wisecracking cynics rather than innocent altruists like Mickey Mouse.

The Warners animators tried many experiments over the years, but perhaps none was so extreme as *Duck Amuck*, now recognized as one of the masterpieces of American animation. Although it was made within the Hollywood system, it almost has the feel of an experimental film because it asks the audience to take part in an exploration of techniques of cel animation.

The film seems at first to be a swashbuckler of the sort Daffy Duck had appeared in before (such as *The Scarlet Pumpernickel*, 1950). The credits are written on a scroll fastened to a wooden door with a dagger, and Daffy appears at the beginning as a dueling musketeer. But almost immediately he moves to the left and passes the edge of the painted background, which tapers off into white blankness (Fig. 10.109). Daffy is baffled and calls for scenery, then exits. A giant animated brush appears from offscreen and paints in a barnyard. When Daffy enters, still in musketeer costume, he is annoyed, but changes into a farmer’s outfit. Such quick switches continue throughout the film, with the paintbrush and a pencil eraser adding and removing scenery, costumes, props, even Daffy himself, with dizzying frequency and illogic. At times the sound cuts out, or the film seems to slip in the projector, so that we see the frameline in the middle of the screen, with Daffy’s feet at the top and his head at the bottom.

All these tricks result in a strange narrative. Daffy repeatedly tries to get a plot going, and the unseen animator constantly thwarts those attempts. As a result, the film’s principles of narrative progression are unusual ones. First, it gradually becomes apparent to us that the film is exploring various