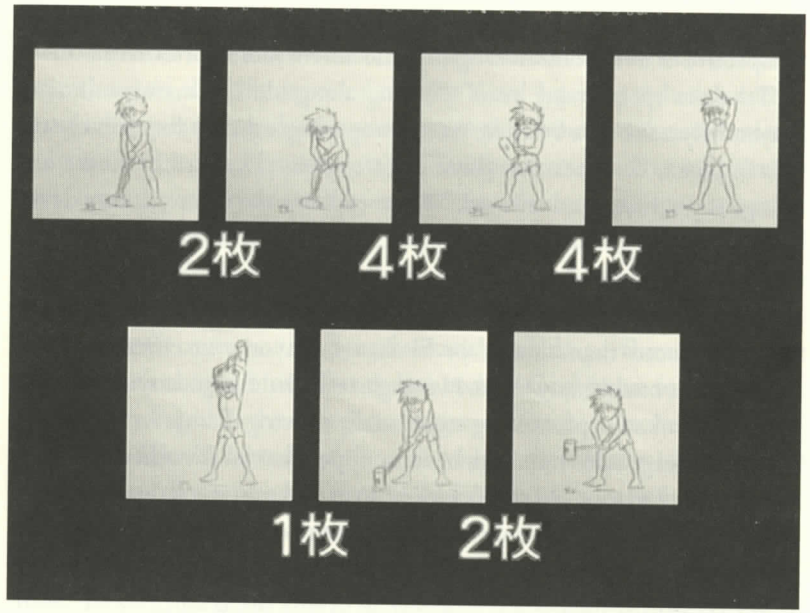
released. What links these different styles is the challenge of creating the illusion of movement—the illusion of life, in fact—using a series of still images.

The Animator Test

For Yasuo Ōtsuka, animation is about the joy of movement—that is, the shock of delight at seeing one's drawings move. When Ōtsuka first applied for a job at Toei in 1956, he was given an illustration of a boy holding a sledgehammer. One of Toei's anime directors told him to draw five or six key frames to depict the boy using the sledgehammer to drive a stake into the ground. Ōtsuka thought, this will be easy. As the director started to leave the room, he stopped and added, "Oh, and by the way, the hammer is made of iron. It's so heavy the boy can barely lift it."[2] Ōtsuka says, "I realized, this was going to be harder than I thought" (Ōtsuka 2001: 21–23).

Ōtsuka stood up and acted out the movements. If the hammer was too heavy, the boy would have to lean over, grab one end of the handle near the head, bend his knees, lean back, and heave. In a documentary about his career in animation, Ōtsuka re-enacts his train of thought in figuring out that the boy could raise the hammer only to a vertical position or he'd fall backward. When the hammer hit the stake, the boy would almost stagger. Ōtsuka sat back down and, with pencil in hand, turned to the blank pages, each with holes at the top to align them in a metal holder called a "tap" (*tappu*). He got to work on the backlit desk and drew the key frames. The documentary film shows a key-frame animation challenge made more difficult by changing our view of the character, who is shown at an angle instead of directly from the side (see figure 15). The numbers between the key frames (*genga*) refer to the number of in-between frames (*dōga*) that would have to be filled in later to produce smooth movement. Calculating these numbers is part of the job of the director, animation director, and key-frame artists. Drawings like these would constitute about one and a half seconds of film. Making animation requires not only an immense amount of work but also special talent.

Ōtsuka's devotion to drawing, and especially to the art of drawing movement, gave him a role in Toei's success. He worked with the directors Hayao Miyazaki and Isao Takahata, although Ōtsuka acknowledges sadly in the course of the documentary that he did not have what it takes to be a director. Toei expanded in the postwar period thanks in part to synergies



15. Animator test showing key frames and a number of in-between frames from the documentary film *Ōtsuka Yasuo no Ugokasu Yorokobi* (2004).

across media and connections with other nations, and this in turn helps explain the particular directions pursued by other anime studios, too. To extend our discussion of the relationships between "niche" and "mass," which also relate to scales of analysis for crucibles of creativity, let's consider briefly the limitations of using a notion of national character as an explanation, in order to see how more proximate explanations better characterize anime's emergent success.

"The Japanese Have Always Liked Stories with Pictures"

Although some anime creators and scholars identify historical continuities in popular culture as a way to define national identity, these assertions should be interpreted with caution. Consider the anime director Isao Takahata, who is most famous perhaps for directing the stunning film *Grave of the Fireflies* (1988). The film portrays the horror of the Allies' firebombing of Japanese cities in 1945, a practice that killed far more people than the atomic bombs and that decimated more than sixty Japanese cities (Sayle 1995). (Two large cities were spared the firebombing: Kyoto, for its historical importance, and Hiroshima, which figured in other plans.) Taka-

hata's film, which is based on a novel, depicts the firebombing from the perspective of two children caught in the horror and its aftermath.

Takahata spent many years working alongside the master animator Hayao Miyazaki. In a book he wrote proposing a theory for anime's success in Japan, he notes that there is no country where more anime and manga is produced and enjoyed. "What explains the extraordinary development of manga and anime in Japan?" he asks (Takahata 1999: 3). He reminds us that in the aftermath of the destruction of the Pacific war, manga, "requiring only pen and paper," were cheap to make and thus more easily produced than theater or films, and anyone, in cities or in the countryside, could enjoy them. He singles out the manga *kamisama* (god) Osamu Tezuka for pioneering emotionally moving dramas in his comics, generating large audiences and, in turn, opportunities for other artists. As the output of manga grew, anime producers had a large catalogue to draw from and an audience already devoted to many of the fictional characters. Moreover, as those audiences matured, so did the output of manga and anime creators as they strove to innovate in new directions.

But Takahata seeks a more fundamental explanation and in so doing uses what I view as too simplistic a model of cultural resonance. "The biggest cause (*saidai no gen'in*), which is not limited to the present," he writes, "is the fact that the Japanese people have enjoyed anime and manga-like things from long ago all the way until today and have also been good at making them" (Takahata 1999: 3). To illustrate this, he points to picture scrolls (*emakimono*) drawn in the twelfth century. What defines manga and anime, he says, is not the reliance on caricature but the techniques of telling stories with pictures that unfold (or in this case, unroll) over time. From this perspective, picture scrolls are in effect "twelfth-century animation," the title of his book. Takahata extends this idea of resonance historically by showing how scroll artists used "manga-like" drawings to portray movements of spinning wheels and flying arrows. His experience with anime also allows him to see picture scrolls in terms of filmic techniques. In the book, he diagrams how picture scrolls were unrolled to portray one scene at a time. The reader also could "zoom out" by unrolling both edges at once or "pan" across a scene (rolling up and rolling out simultaneously), producing camera-like effects almost a millennium ago. Takahata's book is a wonderful overview of the storytelling magic that ancient Japanese artists employed. But as an explanation for anime's cultural strength, it relies too heavily on the appearance of similarity, which, in turn, short-circuits history.

Takahata is not alone in finding resonance between contemporary animation and traditional art forms. The media studies scholar Takuji Okuno (2007) argues that the roots of today's "Cool Japan" products—anime, manga, J-Pop music, and videogames—are to be found in the aesthetics of early modern Japan. He contrasts the European arts, such as oil painting and classical music supported by aristocratic courts, with Japanese arts of the townspeople and merchants that flourished during the Edo period (1600–1868). He proposes that picture scrolls of the twelfth century led to the early comic-book-style *kibyōshi* of the Edo era, which became manga in the twentieth century. He identifies lavish kabuki performances as the precursors to anime. This effort to link today's Cool Japan forms to practices that emerged in the Edo period appears elsewhere, as well. The neo-pop artist Takashi Murakami (2000) relates some of the innovation of anime to so-called eccentric artists of the Edo period because both rely on a visual plane that eschews a 3D perspective in favor of a "superflat" merging of layers. The "special characteristic of [the animator Yoshinori Kanada's] style," he says, "lay in his ability to produce effects like those of [the woodblock artists] Sansetsu, Shohaku, and Hokusai in images of warships, tanks, robots, and girls" in, for example, the feature film *Galaxy Express 999* (Murakami 2000: 15). This is a common way to identify the continuities within cultural settings to characterize national identity through time.

Lest this tendency to make cultural generalizations seem especially Japanese, I would note that a kind of *Americajinron* (theory of American uniqueness) can be found in studies of U.S. animation. Such perspectives tend to maintain a national frame of reference and to make loose cultural connections between animated works and broader social trends. In pointing out contrasts between pure cinema and animation, the scholar Paul Wells puts it this way.

> The animated film clearly said something different about American culture and said it in a different voice. In many senses its emergence was grounded in what had become typically American grand narratives—pioneers creating a language of expression which explored new frontiers; apparently ordinary people applying their artisanal skills to achieve fulfillment as individuals and as progressive working communities; succeeding within the harsh conditions of industrial capitalism and the new machine age; expressing the desire for a liberal democratic consensus that embraced utopian values and ideals. (2002: 10)

While this depiction of the deep insights that cartoons can offer is eloquent and insightful, it risks trapping analysis in a mode of resonance with larger trends that may be more metaphorical than not. To be fair, Wells's goal is to show that "mere cartoons" can and should count as substantial cultural texts in their own right, and he adds concrete details to the metaphorical connections he proposes. But there is still a danger, it seems to me, of oversimplifying through ideas of cultural resonance.

Neal Gabler's biography of Walt Disney also works within a national frame of reference, at times showing how the narrative structure of Disney's films resonates with larger cultural realities. For Gabler, Disney's success is America's success: "In both Disney's imagination and the American imagination, one could assert one's will on the world; one could, through one's own power, or more accurately through the power of one's innate goodness, achieve success. In a typically American formulation, nothing but goodness and will mattered. Disney's best animations—*Snow White and the Seven Dwarfs*, *Pinocchio*, *Bambi*, and *Dumbo*—were archetypal expressions of this idea" (2007: xvii). Gabler traces in great detail the course of Walt Disney's life and the conditions of his studio as a way to support these broad claims. The problem is not that Gabler is wrong in his interpretation, but he doesn't take full advantage of what cultural analysis has to offer. By characterizing Disney's best animation as "a typically American formulation," Gabler equates certain artistic works with national identity, and culture becomes a dead specimen, studied as if pinned to a board rather than fluttering chaotically in its natural environment.

Disney as Model and Rival

An alternative to associating Disney solely with America is to consider how the company was perceived as both a model and a rival in the early days of postwar Japanese animation. When Yasuo Ōtsuka was hired, Toei aimed to create feature films with potential for export, but not primarily to the United States. Toei's first release in 1958, *Hakujaden* (Legend of the white serpent) is based on a Chinese folktale; with the help of a Hong Kong movie company, it reached Hong Kong, Taiwan, the United States, and Brazil. The next few years saw the release of three more Toei feature films, a much faster rate than Disney's one release every two years. Toei viewed itself as more rational in production. By 1961, the company had three hundred workers, but there were labor problems, including the formation of a labor union, strikes, and lockouts (Toei Animation 2006: 20–21). Labor unions for animators never became a powerful force in Japan, whereas in the United States, the struggles and successes of the animators' union is a remarkable story (Sito 2006). One wonders, to what extent does this help explain the poor working conditions of Japan's animators today? In any case, labor issues remain a challenge for animators, and the arrival of computers has not eliminated those concerns. How, then, does animation get going as an industry? In Japan, manga was important.

The manga writer and critic Eiji Ōtsuka (no relation to the animator Yasuo Ōtsuka) tells the history of manga by beginning with the comics in American newspapers in the early twentieth century. Comic book characters such as the Yellow Kid and Little Nemo helped increase newspapers' circulation and kept consumers coming back (Ōtsuka and Ōsawa 2005). This use of characters was imported to Japanese comic strips. For example, the manga puppy character Norakuro was created in 1931 and had satirically depicted Japan's wartime efforts in Asia. The hapless Norakuro kept getting himself into trouble but eventually found ways out. As Thomas LaMarre (2008) points out, the use of animals in wartime animation conveyed a linkage between animal species and racial groups in ways that reinforced the imperialist logic of the day. Humorous comics can be serious business. Of course, the influences can be traced to domestic forms of popular culture, as well—for example, in the ways the street performance of storytelling through a series of pictures (*kamishibai*) was the rage in 1930s (Nash 2009). Some of the artists went on to produce manga, as did some of the children in the audience as they grew up.

For Toei, however, the standard for quality animation was set by Disney. The anime historian Yasuo Yamaguchi outlines a variety of innovations by Disney that influenced the development of anime, and styles of representation were not all that were borrowed (Yamaguchi 2004: 36–38). Toei sent a young film director, Taiji Yabushita, to Los Angeles to learn the production system directly from Disney (Yamaguchi 2004: 67). Some of the influences, which crossed categories of animation aesthetics, labor organization, and corporate branding, included the following:

* The use of exaggerated expressions—for example, the "squash and stretch system" of deforming characters to emphasize their personalities.
* The storyboard system, which allowed Disney to use a variety of sequential pictures to convey the story and the feeling of the scenes to the animators.
* A curriculum for training new talent, which was necessary because with

each hit production, animators would be hired away from Disney at higher salaries. Disney responded by developing a system to train new workers.

* The division-of-labor system, which allowed the Disney studio to work on animated shorts and feature-length films at the same time.
* Establishment of the Disney brand—for example, by describing all works as "Walt Disney presents" and polishing the brand image by having Disney himself personally introduce the works.
* The development of merchandising, whereby the licensor of animated characters would receive 3–7 percent of the sales price of goods related to those characters, which was necessary to offset the deficits incurred by animation production. (Yamaguchi 2004: 36–38)

In this list, we can see some of the ways the creative crucible of anime was born. The influences shade from aesthetic styles (squash and stretch) through techniques of dividing up the work. Yet Toei also took pride in viewing Disney as a rival it could top through "more rational" forms of production organization. Some of these practices remind us that "technological" decisions can have a dramatic impact on the kind of labor required of animators.

Peter Chung on National Differences

The cultural analysis of national style and international influence is complex. In Japan studies, a focus on processes of transnational adaption has been used as a critical wedge to counteract the ethnocentric view that the Japanese are either passive victims of outside influence or active only in the sense of choosing to imitate others. What are we to make of squid pizza, Tokyo Disneyland, and tango in Japan? Joseph Tobin (1992: 4) tackles these issues through the concept of "domestication" in an effort "to indicate a process that is active (unlike Westernization, modernization or postmodernism), morally neutral (unlike imitation or parasitism), and demystifying (there is nothing inherently strange, exotic, or uniquely Japanese going on here)." He aims to combat the ethnocentrism of analytical perspectives that view everything in terms of its Western or American origins. A drawback of this approach, however, lies in reinforcing the boundary rather than highlighting the dialogue between Japan and the rest.

How can one balance this mix of dialogue and divergence? We might consider some of the interactions between media and performance histories in the United States and Japan and consider how they relate to differences in styles of animation. The animation director Peter Chung offers some interesting insights. Chung was born in Seoul but lives primarily in Los Angeles. He works closely with American, Japanese, and Korean animation studios, so he has a perspective on some of the national differences while also being a living example of the collaborative work that crosses national boundaries. He wrote and directed the short animated film that appears on the compilation DVD *Animatrix*, a project overseen by Studio 4°C of Tokyo that aims at extending the *Matrix* franchise through short films by famous and up-and-coming directors. Chung's installment, *Matriculated*, was produced by the DNA animation studio in Korea. It features a female resistance fighter who lures two Sentinels (evil robots) into a trap in an effort to negotiate with those who control the Matrix. Chung gained fame in part for his *Aeon Flux* series of animated shorts that aired on MTV, which were set in a dystopic future ruled by a sadistic dictator. (He disavowed any involvement in—and any blame for—the live-action film version that starred Charlize Theron.) He draws in a style that can be perceived as "anime-like" in the sense that it contains pointed lines, spiky hair, and futuristic settings, but Chung dismisses the idea that a particular style of drawing distinguishes anime and animation.

In November 2006, I visited Chung at his home overlooking the city of Los Angeles. For him, what makes Japanese animation distinctive has less to do with the drawing style than with how it is produced. The most obvious difference, he said, is that "in American animation the dialogue is recorded first. Even though that may sound like a little technical, procedural issue, it actually affects how animation is used, the aesthetics, and the entire approach to the idea of animation as performance. This is a central difference between American animation and Japanese animation."[3] As Toei's history confirms, it is most common in Japanese animation for voices to be recorded after the animation is drawn—hence, the term *afu reko* (after recording). Sometimes exceptions are made, as in the case of Gonzo's *Red Garden*, for which the voices were recorded first (see chapter 4). *Zenmai Zamurai* used the after-recording method, and in the voice-recording session I observed, I was surprised by how little attention was given to closely matching the mouth movements that had been animated. The focus instead was on having the right emotion portrayed by the voice actors.

The differences that follow from recording voice actors first, however, can be profound. In the case of *Red Garden*, the producers viewed the prerecording as especially helpful for emphasizing the nuances of the particular actresses' performances. By having the animators respond to the voice actresses, rather than the other way around, the producers gave more weight to the actresses' work. This is precisely what Chung pointed to in explaining how recording the voices first means that a cascade of differences follow in how artistic decisions are made:

> American animators think of themselves as performers, as actors. They take very seriously their job of interpreting the voice performance and giving it the correct physical gestures. Also, usually for American feature films, an animator is cast for a particular character. For example, in Disney's *Aladdin*, one animator will work on the Aladdin character, another on Genie, and so on. In Japan, the animators each work on entire scenes. In Japan, they are more like illustrators. The term for animator is "*genga man*," [or] "original drawing person." The [animator's] role is to make a drawing, not to perform. But this comes out of working from drawings, not from a voice track.[4]

This also means that, while making the drawings, the animator tends to work more closely with the storyboards produced by the anime director than with the actors' voices. I observed this firsthand at meetings between the director of *Red Garden* and the three *genga man* (two men and a woman) going through the storyboards he had drawn. Although the director emphasized the importance of matching mouth movements to the recorded voices, most of the discussion focused on other aspects of drawing particular scenes, such as how rain should be portrayed and the speed at which a character would fall.

According to Chung, the differences relate to the origins from which the respective traditions drew:

> American animators come out of vaudeville. The origin of animation as media was short films. When films first started being shown in theaters, they were preceded by vaudeville acts, out of which grew Bugs Bunny shorts and so on. All of these forms were born out of personalities—Bugs Bunny, Daffy Duck, Mickey Mouse, Goofy, Popeye. They are much less about the story. . . . [T]he character of Mickey Mouse was the equivalent of a Buster Keaton. That's the way that they functioned in the entertainment world. From the very beginning in American animation, animators saw themselves as vaudeville performers. It affected everything. [For example,] their staging is much more proscenium-based.[5]

In Japan, animators drew inspiration from Disney and from the animated *Popeye* and *Betty Boop* shorts by the Fleischer brothers, among others. The emphasis on characters with personalities is not uniquely Japanese, therefore, but the linking of characters to particular actors and performances—such as Mickey Mouse's borrowing from Buster Keaton in *Steamboat Bill*—tends to be more common in U.S. animation. This can be taken to extremes when animated characters are inextricably linked—for example, Robin Williams as Genie in *Aladdin* or Eddie Murphy as Donkey in *Shrek*.

Yet the attention to physical movement as a way to portray personality necessarily introduces a localization dynamic based on what we observe daily. Yasuo Ōtsuka describes the mixed reaction in Toei's early days to a book showing animation techniques created by Preston Blair, an American. It was a time before copy machines, and one of Ōtsuka's supervisors had copied the book by hand. Blair depicts techniques such as the "take" (surprise), anticipation (the pose before moving), follow-through (body position after a movement), and so on (Blair 2003 [1949]). Some characters are animals (squirrels, dogs, rabbits); others are cartoonish people. Animation styles go global through this kind of observation and appropriation. At the same time, Ōtsuka (2001: 38–39) reports, the animators at Toei felt there was a bias and a lack in Blair's guide: "The textbook was born from analyzing actual movements, but these were still the exaggerated gestures of Europeans and Americans. . . . They portrayed 'Western (*batakusai*; lit., smelling of butter)' movements, like the way some Japanese who have lived abroad will spread their arms and shake their head when they say 'Oh no!'" This helps to clarify the challenges of defining anime in terms of "Japaneseness." There is a danger in defining "Japaneseness" as that which is not "Western," because outside influences are only "outside" in a limited sense. For Japanese animators, the skills and practices of Blair's guide were clearly recognizable, and Ōtsuka copied the entire book himself. "I have to do it with my hands or I can't learn it," he says in the documentary about his career. But the urgency to make something that spoke to them and their audiences also meant that Japanese animators adapted animation techniques through their own life experiences, including close observation of styles of physical movement among fellow Japanese.

Nevertheless, the emergence of Toei's approach to animation was less

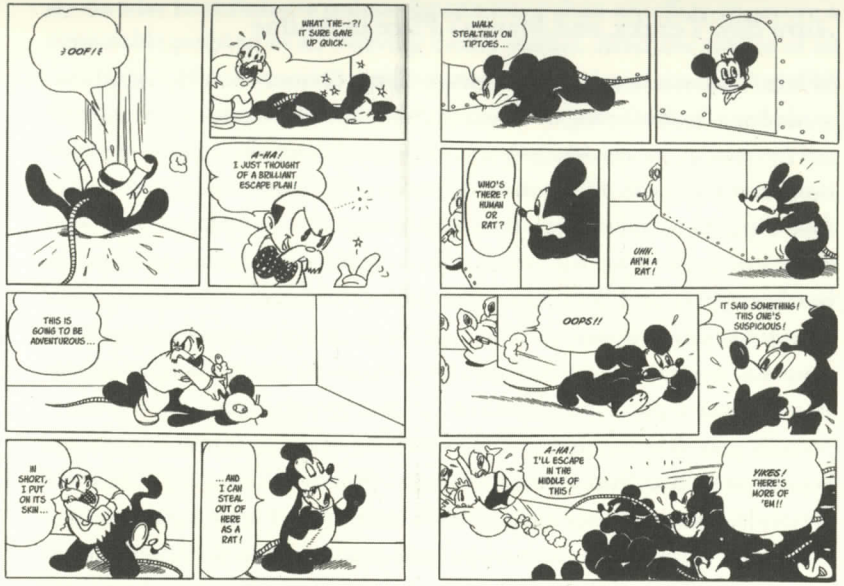
an exercise in defining a unique Japaneseness than an effort to secure a sustainable position in an evolving media market. After the success of its first feature film, released in only nine months ("several times faster than Disney," according to Toei [2006: 20]), the company worked on rationalizing the labor process with a "first key frame" group and a "second key frame" group dividing up the work. Three more feature films were produced in less than three years. Animation for TV began in 1963 with *Tetsuwan Atomu* (Mighty Atom, also known as Astro Boy), to be discussed later. Toei soon followed with *Ken, the Wolf Boy* (*Ookami shonen Ken*), which, like Astro Boy, was based on a manga and included a sponsorship tie to a confection company.

Toei hedged its bets by working on several different kinds of anime production aimed at slightly different markets. During the 1960s, Toei worked simultaneously on one TV series and two feature films each year. One of the features was designed for the export market (released in the spring); the other feature film was oriented more to the domestic market for release over the summer or winter vacation (Toei Animation 2006: 17). The success of the science-fiction adventure *Cyborg 009* (1966) as a feature film for the domestic market pushed Toei in new directions, partly because it was the company's first hit based on a manga (by Shotarō Ishinomori). After 1966, Toei shifted its emphasis toward TV series. *Maho Tsukai Sally* (Sally the little witch), from 1967, was the company's first TV series in color. It started the "girl witch" boom, a genre that benefited from the sale of toys that appeared as magical items in the show. *Gegege no Kitarō* (1968), based on a manga by Shigeru Mizuki, inaugurated horror anime on TV and got caught up in a monster boom in Japanese popular culture. *Taigā Masuku* (Tiger mask) of 1969 was a fighting anime, and it captured that era's popular *gekiga*, a reference to extreme drawing styles in manga, especially of fighting and action sequences. The feature film *Puss in Boots* (1969) was a remarkable hit for Toei; the animated cat Pero from the *Puss in Boots* series has since been the company's mascot (Toei Animation 2006: 34–35). It is this back-and-forth between the company and maturing audiences that led to the emergence of certain styles. Indeed, reading the history of Toei from the company's perspective makes clear that the competitors the company thought most about were other studios in Japan. For this reason, contrasts with the *Astro Boy* approach deserve a look.

Astro Boy, Tezuka, and Manga's Place in Anime

While Toei was working on feature films, Osamu Tezuka, rightly regarded as a "god of manga," aimed to move into the world of TV anime—or TV manga (*terebi manga*), as it was known at the time. Television broadcasting began in Japan in 1953, but few homes had sets. In the following year, some of the largest televised events were professional wrestling matches between Rikidozan and Masahiko Kimura versus the Sharpe brothers (Mike and Ben), who were then visiting Japan from the United States. At times, thousands of people would stand on the streets outside train stations to try to watch the TV screens inside the stations (Chun 2007). As the 1950s progressed, economic growth expanded consumer spending so that by 1958, TV sets, washing machines, and refrigerators became known as "three sacred treasures" (Yamaguchi 2004: 74). Tezuka established his animation studio Mushi Pro in 1961, but, as Yasuo Yamaguchi notes, "Production time and budgets [for TV animation] were simply unrealistic." Toei was taking about eighteen months and spending about 60 million yen (roughly $167,000 in 1961 dollars) to produce ninety-minute feature films with a staff of two hundred to three hundred people, comparable to the schedules and budgets of other studios working in the field, including Disney. At that rate, Yamaguchi points out, a single thirty-minute TV show would require about one hundred people, a production time of six months, and a budget of about 30 million yen ($80,000). But the market for a thirty-minute TV production was 500,000—600,000 yen (roughly $1,500), and that is what Tezuka agreed to. "Needless to say, this meant working at a loss," notes Yamaguchi (2004: 74–75).

Nevertheless, Tezuka benefited from an impressive catalogue of characters that were already popular. The outpouring of emotion that arose from his riveting stories could be viewed as a kind of untapped resource, a social energy that could be captured through both television animation and its connection to merchandising. In this respect, Tezuka made an enormous impact on the development of manga and anime. He was incredibly prolific from the time he began publishing in the late 1940s until his death in 1989. Disney's influence is noteworthy here, too. Tezuka reportedly watched *Snow White and the Seven Dwarfs*, which was first shown in Tokyo in 1950, more than eighty times and *Bambi*, which premiered in Tokyo in 1951, more than fifty times (Schodt 2007: 59). Tezuka even produced his own comic book versions of the Bambi and Pinocchio stories,



16. Tezuka's *Metropolis*, a metaphor for Disney? Courtesy of Dark Horse Comics.

which were published first without obtaining permission from Disney, only to be officially licensed years later. It is tempting to see a metaphorical portrayal of Tezuka's complex relationship with Disney in his manga *Metropolis* published in 1949. One of its heroes, Detective Ban, is imprisoned by bad guys in their underground fortress. The jail is overrun by enormous irradiated mice that closely resemble the famous Mickey. In trying to flee, Ban falls on a mouse and kills it. To make his escape, Ban slices open the dead mouse, sews himself inside, and runs off, terrifying those around him (see figure 16). Is this Tezuka taking on Disney and using it for his own purposes? Yes and no. Frederik Schodt and others make the important point that Disney was not Tezuka's only influence. He grew up enthralled by the all-women Takarazuka Revue in the neighborhood outside Osaka where he was raised, a study in complex gender dynamics (see Robertson 2008). Tezuka also linked *Astro Boy* to inspiration from Mighty Mouse (Schodt 2007).

Why the Big Eyes in Anime?

A recurring question in anime studies is, why the big eyes? So many of the characters "look Western" (i.e., white, Caucasian), I often hear. Does this mean that the Japanese want to be white? This is a complicated question and, frankly, difficult to prove one way or the other, once and for all. My

own explanation, however, would lead through Disney and Tezuka and the early history of animation. I should note, however, that when I've asked Japanese friends and colleagues for their opinions on this issue, one of the interesting responses goes like this: "Why do you think anime characters are Western? They are speaking Japanese, so obviously they are Japanese." Some Westerners' interpretation of big eyes as "white" may be more a measure of Western prejudice than of Japanese yearning. Moreover, as the cartoonist Scott McCloud (1993) argues, greater abstraction in cartoon drawing also leaves more room for readers to insert their own interpretations. Perhaps it's human to see ourselves in abstractions of people, and that could be one explanation for the persistence of this thorny issue in discussions of anime.

More generally, however, I tend to see the large eyes as a style. Some explain it in terms of the expressiveness of eyes: Bigger eyes enable illustrators to play more with the nuances of communicating with one's eyes. But there is also the centrality of Tezuka in manga history in Japan and Tezuka's own obsession with Disney characters. Tezuka learned from Bambi and Snow White—not to mention Popeye and Betty Boop, who also have large eyes. Emulation can help explain a global style. Given that anime is now associated with "big eyes" more than Disney is, we can also see how generational differences in audiences (and productions) can obscure some of these historical connections. In the end, what makes the eyes in Tezuka's characters so influential was indeed his very success as a manga artist, even if this did not translate into success for his anime studio.

Tezuka's popularity also paved the way for other manga artists. Schodt provides a fascinating examination of *Astro Boy* in the context of Tezuka's life, noting that later stars of manga publishing, including Fujiko Fujio, Leiji Matsumoto, Shōtarō Ishinomori, Tarō Rin, and Yoshiyuki Tomino, gained training in his studio (Schodt 2007: 49; Yamaguchi 2004: 81). Yet Tezuka's success, especially in terms of anime, was mixed. Later in life, Tezuka joked that manga was his wife, while animation was his mistress. "He loved manga, [but] his passion for animation was almost beyond control," says Schodt (2007: 56). Despite the huge popularity of the TV series *Astro Boy*, Mushi Pro went out of business.

Can Failure Be a Kind of Success?

As mentioned, Tezuka proposed an extremely low budget for making *Astro Boy*. He planned to make up for the budget shortfall partly through merchandising and by using money from sales of his manga (Schodt 2007:

56). A central merchandising outlet turned out to be *Astro Boy* stickers bundled with Meiji chocolate bars. Marc Steinberg argues that this tie-in ignited a boom in character merchandising partly because media became ubiquitous and constant: The "anytime-anywhere potential of the stickers arguably led to the new communicational media environment and cross-media connections that characterize the anime system and the force which drives it: the character" (Steinberg 2008: 113). Steinberg gives a sense of the social dynamics of the classroom and playground, where having a sticker of a powerful boy robot transformed media into something attached to oneself (a pencil case, a backpack) at all times. Yet it might make more sense to consider the "anime system" as something that emerges from this circulating energy and that finds different expression depending on through whom and to where it passes. I see this social energy of the people who care as the force that drives whatever "system" (partial, unfinished, multidirectional) eventually emerges, a social energy that arises from people's commitments and shared interests. Characters are an organizing principle, and merchandise can be seen as physical extensions of our feelings for characters. Tezuka's *Astro Boy* led the way for TV animation, but the processes had been under way for some time.

Despite the challenges, Mushi Pro managed to make a weekly *Astro Boy* episode by radically reducing the number of frames that needed to be drawn (Yamaguchi 2004: 80). The weekly *Astro Boy*, which premiered on New Year's Day in 1963, was the first animated TV series to air regularly in Japan. Separate cels were used for arm and leg movements while the rest of the character was left unchanged. Only three mouth movements—open, closed, and middle—were used. Commonly used scenes, such as Astro Boy flying, were banked and reused. Cuts were kept short (only a few seconds) so the weaknesses in the animation would be less apparent. To show a car going by, one cel was moved across a background; for walking scenes, the background was slid (and legs were not shown). The Mushi team aimed to make half-hour episodes using only two thousand drawn frames. In feature films such as Toei's, it was common to use only one cel for two frames of film, but for *Astro Boy*, one cel for every three frames shot was the smoothest animation used, and often the animators tried to use only one drawn cel, with zooms and pans giving the illusion of movement. Despite the severely limited animation, *Astro Boy* was an enormous success, drawing audience ratings of 30 percent of all households.

This was not an entirely beneficial development for animation, however, at least, not from the perspective of those like Yasuo Ōtsuka, who viewed animated movement as the goal. Indeed, Ōtsuka (2004) discusses the enduring legacy of *Astro Boy* with a somewhat disappointed air. In the early days of Toei, the story and characters were all created within the company. But in the case of anime based on manga, the process of production and the sources of success are somewhat different: "The story and the characters were already worked out, and they aimed to get viewer ratings from the popularity of the magazine. It didn't just make it easy to get support for a program; it also made [the program] easier to produce" (Ōtsuka 2004: 29). This evenhanded assessment belies a great sense of loss for Ōtsuka. In the documentary about his life, he expresses frustration at what became of anime after *Astro Boy*: "Anime is mass production now. With TV shows and films based on already popular manga characters, sponsors know they can get a large audience that comes just to hear the voice actors and to see the story (which they already know). You can use pans and tricks, and the characters don't even have to move. I didn't think that an era would come where audiences would turn out because they wanted to hear a voice actor or because it was a particular story." He had hoped people would watch for the quality of the hand-drawn animation.

The conflict between those who love the art of drawing movement and those who worry about the cost of production is a basic one in animation, and Tezuka cannot be blamed for all of it. When I interviewed Hiroshi Yoshioka, a producer at Toei Animation, in 2006, he had been in the business for many decades. He dismissed the idea of "the curse of Tezuka," that is, blaming one person for the low budgets provided for anime production and the practices of limited animation. "We all had those problems," Yoshioka said. Indeed, as time went on, Toei began to rely more on manga-based animation, including, as mentioned earlier, *Cyborg 009*, a manga by Shōtarō Ishinomori.

Still, it is tempting to see in *Astro Boy* a split that continues to complicate the question of what matters in the art of animation. LaMarre points to the distinction between "drawing movement" (as in character animation) and moving drawings (as in sliding foreground and background cels) as two ways to understand the art of anime. To see full animation as the pinnacle of achievement and limited animation in terms of its lack is to downplay the aesthetics of sliding planes of images, which is precisely where LaMarre (2009) sees the distinctiveness of anime as a medium. For him, the relationships between these planes of drawings are a powerful

tool for us to rethink our relationship to technology more generally. If cinematism arises from a "ballistic" view of a monocular camera—flying through space like a bullet or as if one were watching out the front of a train, for example—then "animetism," according to LaMarre, is to see the world from the side, looking out the window of a train, understanding scale and distance by observing how the trees and hills of the countryside slide by at different speeds. This is a very interesting insight, and it has made me see things in animation in ways I had never seen them before. I am familiar with animation picture albums that focus on "the art of . . ." (fill in the blank), which often emphasize the elaborate backgrounds and settings of various worlds. I also have come to expect anime books to begin with the characters and their biographies. But thinking of animation by beginning with the multiplane camera and in terms of sliding planes is taken further by LaMarre than by anyone else. By drawing attention to the divergent layers of animation, LaMarre draws inspiration from the multiplane camera, which facilitates the art of sliding planes of images and thus expands our sense of what can be observed in the world of anime. To follow this metaphor, we might also extend our thinking about anime by viewing it as a plane sliding against a background of manga and raising the possibility for new aspects of characters and worlds in other media forms. Or to put it another way, we might read the distinction between planes in terms of cross-media synergies, especially in the additive value of manga characters and in terms of their audiences.

"Democratic Capitalism" of Megahit Manga

About 60 percent of current anime programs are based on manga series. This continuing connection between manga and anime adds another dimension to thinking about who makes anime and what anime makes. To some extent, manga artists make anime in the sense that they play an important role in providing the characters, premises, and worlds on which the majority of anime TV series are based. But I would argue that not only the force of imagination of the artists but also some of the particular features of the manga industry strongly contribute to the health of the anime industry. Granted, the long hours and low wages for animators is a threat to the long-term sustainability of anime as a global media force. At the same time, the enormous back catalogue of manga—not to mention of other common sources of anime, including young adult fiction ("light novels" in Japan) and videogames—suggests that Japanese companies will

remain well positioned for years to come. The catalogue has a certain social and cultural power precisely because a wide range of Japanese audiences are familiar with the visual storytelling styles and are devoted to particular characters. As audiences for manga grow in the United States and other countries, this should bode well for expanding anime audiences.

In the inaugural issue of *Kino*, a magazine devoted to manga analysis, the editors ask a provocative question: "Why is it that in manga, unlike in other media forms, the hit series are also the best series?" The magazine is published by Kyoto Seika University, the first college in Japan to have opened a department in manga. The editors offer this answer:

> Although it may sound like an exaggeration, manga represents the perfect combination of democracy and capitalism. Unlike films, music, and literature, which can turn lousy works (*dasaku*) into hits through the strategic use of marketing and reviews, in the world of manga this rarely happens. This is because manga readers pass around copies of magazines and read manga for free while standing in bookstores and convenience stores. Manga readers are less swayed by promoters and critics. That means that megahit manga are those that prompt people to say "I want to read this; and I want to get others to read it too." ("Megahitto no hōsoku" 2006: 3)

The editors draw attention to the intimate "call and response" between manga artists and readers. Unpacking some of the details of this process can help us understand vibrant crucibles of creativity beyond the studios themselves. This offers a useful contrast to Takahata's cultural analysis ("the Japanese like stories with pictures") by showing a more dynamic, interactive understanding of the process by which pop culture success emerges through specific dynamics related to marketing, pricing, access, and distribution, not to mention contrasts in terms of content.

Manga's success as a media form relies on the feedback loop between producers and audience. Manga is cheap to buy and can be accessed for free relatively easily. The full price for weekly magazines is roughly $3, and they contain about twenty different serials. Yet these can also be read for free while standing in convenience stories, a practice known as *tachiyomi* ("reading while standing"). For the editors of *Kino*, this is important because it reduces the influence of promoters and critics, not unlike imagining a democracy without lobbyists and pundits. Reading for oneself or hearing by word of mouth is the more likely mode for learning about new manga. Manga in print are also easily passed around, a kind of grassroots

circulation where reading itself is part of a social relationship. This takes us further than Gladwell in thinking about crucibles of success as depending on audiences.

Publishers take advantage of audiences' passion by including postcards with the magazines, asking which stories were the readers' most and least favorite. One of the major publishers, Shogakukan, reports receiving three thousand to four thousand postcards every week. Unpopular series are quickly cut. Those that survive for years have prevailed against stiff competition, vying against old favorites and a constant stream of new artists attempting to break in. One can understand the tension as a professional manga artist in a country with an endless supply of semi-pro manga artists. The largest annual convention in Japan revolves around fan-made comics (*dōjinshi*). When I attended Comic Market in August 2006, I was stunned by the size and intensity of the event. Over three days, almost half a million people attend. Roughly thirty thousand *dōjin* circles (amateur groups) occupied small tables to sell their wares, generally for less than $5 each. Most of the tables sold fan-made comics, but a variety of things were for sale—buttons, T-shirts, information guides, character goods, videogames, and so on. Manga publishers are not enthusiastic about the practice of selling fanzines, which they feel cannibalizes their market. Yet in the larger scheme of things, it may be that the global success of manga arises in part from the widespread amateur production that also builds energy around this popular culture world.

Some large-scale contrasts between such media worlds can expand our notions of emergence and media success by pointing to alternative paths and different contexts. Today, Japanese manga is viewed as violent, sexually transgressive, and disturbing in its themes—at least, compared with American comics. But that has a very specific historical basis. As David Hajdu describes, the wild spaces of American comic book production in the 1930s and 1940s in the United States took a sharp turn in the early 1950s. Until then, he argues persuasively, comic book artists were "cultural insurgents," who helped instill "in their readers, a disregard for the niceties of proper society, a passion for wild ideas and fast action, a cynicism toward authority of all sorts, and a tolerance, if not an appetite, for images of prurience and violence" (2008: 330). Crime, horror, and lurid tales were the bread and butter of early American comic books. That all changed when outrage among some critics exploded, and a consortium of publishers established a Comics Code in 1954, a remarkable salvo of self-censorship in the realm of popular culture. The following were some of the rules of the new American code:

* Policemen, judges, government officials and respected institutions shall never be presented in such a way as to create disrespect for established authority.
* All scenes of horror, excessive bloodshed, gory or gruesome crimes, depravity, lust, sadism, masochism shall not be permitted.
* Profanity, obscenity, smut, vulgarity, or words or symbols which acquired undesirable meanings are forbidden.
* Suggestive and salacious illustration or suggestive posture is unacceptable.
* Females shall be drawn realistically without exaggeration of any physical qualities.
* The treatment of love-romance stories shall emphasize the value of the home and the sanctity of marriage. (Hajdu 2008: 290–91)

As Hajdu notes, when the comics industry recovered in the 1960s, it fell back on the formulas of superheroes. This helps explain the greater diversity and more extreme content of manga from Japan compared with the United States.

As the sociologist Sharon Kinsella (1998) explains in the case of adult manga, the extreme forms of storytelling that appeared in Japanese comics were also occasionally vilified, but the industry did not succumb to the same kind of self-regulation. Whether a new law passed in Tokyo in 2010 that aims to prevent some of the more disturbing aspects of child-related eroticism/pornography in cartoons will serve as a turning point remains to be seen. But at the least, we can observe that a greater openness in manga created a kind of space where adult themes could be portrayed and examined. This, too, helps to explain how anime gradually shifted from being primarily a children's form to one that spoke to teens and adults, a process I explore further in the next chapter.

Conclusion

The early postwar history of anime reveals a complicated process of emulation and learning from overseas, along with contrasting approaches within Japan itself. Disney animation served as both rival and model for a variety of anime that developed in Japan, not only in terms of style, but more

broadly in terms of labor organization, branding, merchandising, and training new talent. Yet the democratic capitalism of manga in Japan also meant that the catalogue of original works to draw on encouraged a closer link between anime and manga, while also explaining a relative absence of variety in American comics after the Comics Code was established.

Anime offers the opportunity to explore the complex workings of value in today's transmedia environment, especially in how value arises through the social circulation of media objects, not just in terms of moments of commodification. The story of anime's "success" might be best understood as a cast of characters playing out their parts through shared dramatic premises in a world that changes as time goes on. From that perspective, it makes sense to understand that the success of the anime industry, for example, in dominating TV broadcasts worldwide, nevertheless does not ensure success for each individual anime studio. Success looks very different depending on where one stands. My effort to move the analysis from resonance to emergence is paralleled by a move from content industries to collaborative creativity. In the examples of Toei's feature films and Mushi Pro's interest in TV, however, we can see that the anime industry is characterized by a variety of cross-cutting commitments and approaches. My interest in collaborative creativity draws attention to the networks of cooperation and spheres of competition that produce today's worlds of anime.

The concept of collaborative creativity is meant to remind us that anime's influence cannot be gauged solely by examining what happens on-screen or only by how it is marketed by studios. More broadly, anime is illustrative of processes of cultural production that reach across media forms and across categories of producers. Thus, collaborative creativity can also provide new insights into the distribution of power in media, both in terms of top-down or bottom-up forces and in terms of Western hegemony versus local difference. Karl Marx proposed that those who control the means of production have the overriding power in social-economic relationships, but given that fans can powerfully influence the meanings and values of popular culture, who ultimately controls the "means of production"? The ordinary oppositions no longer hold once we acknowledge that fans and consumers are indispensable actors in generating the value of cultural goods. This brings us back to the energy around anime, which arises through its circulation and the combined efforts of large numbers of people, whose collaborative approaches to creativity

built an industry through hard work, through synergies with other media, and by developing a fan base that has grown and matured over time. At each stage of the process, collaborative creativity arises from both a focus of attention and a circulatory movement that constantly reframes and redefines what anime is about. We might think of this collective energy as a kind of soul, the tendrils that run through media and connect us to others. This becomes even clearer as we turn to questions of robot, or mecha, anime and its relationship to toys in the next chapter.