Toy Story 3, which ran 103 minutes, was laid out on 49,651 storyboards.

Story artist Christian Roman starts by mapping a character’s movement, sometimes adding a gag or two to the script.
VISITORS TO Pixar’s E”mer”ville, Calif., campus who hope to catch a glimpse of the animation studio’s next killer project better prepare to have their hopes dashed. The studio is so secretive about work in progress that Bostonia reporters, there to interview story artist Christian Roman, were not allowed to go anywhere without an escort and were forbidden to discuss what movie Roman is currently storyboarding (based on Pixar’s lineup of films, it could be The Good Dinosaur or Finding Dory, among others). Because he wasn’t allowed to show us his office, Roman met with us in the neutral space of a conference room, where several easels were purposely devoid of any hint of ongoing or upcoming work.
Meanwhile, on the floor below, a sun-splashed atrium displays the studio’s past glories, some plated in 24-karat gold. There are Academy Awards for Best Animated Picture for *Finding Nemo* (which took in $936 million at the box office globally), for *The Incredibles* ($631 million), for *Ratatouille* ($623 million), for *WALL-E* ($521 million), for *Up* ($731 million), for *Toy Story 3* ($1 billion), and for *Brave* ($538 million). Since its creation in 1979 as an offshoot of Lucasfilm, Pixar has made 14 feature films and earned more than $8.5 billion. It is arguably the most successful animation studio in the history of film, neck and neck with the “House of Mouse”—parent company Disney.

Roman (CFA’91), who arrived at Pixar seven years ago, is one of 50 story artists hired to make sure that success continues. For our benefit, he demonstrates one aspect of the process behind Pixar’s remarkable products by drawing on a computer monitor using a digital pen. He sketches a quick rectangle around the outstretched arm of Sheriff Woody, from *Toy Story 3*.

“Make you make you look at his hand, I’m going to put a window in the back of the room he’s in to really frame it and call attention to it,” Roman says. And because Woody—voiced in the film by Tom Hanks—is a foot-tall toy, the five-and-a-half-foot tall Roman makes sure the room’s ceiling is proportionally high. “With toys, you need to consider that the camera is down at their level,” he says.

Drawing is the major part of Roman’s job, but it’s not the first part. Years before a Woody or a Lightning McQueen (*Cars*) come to the screen, he and Pixar’s team of story artists visualize exactly how the cowboy or race car will interact with other characters and where they will appear in the scene. They study the script and map movement and camera angles, often adding new gags or ideas as they go. Walt Disney began using storyboards in 1933 to create his now-legendary short *The Three Little Pigs*, and since then animation studios have used them to cement the story before the expensive and arduous animation process begins. Roman and the nine story artists who worked on *Toy Story 3* made 49,651 storyboards for the 103-minute film. *Brave* holds the Pixar record for number of storyboards—112,000.

“Every angle, every moment, how the lighting works, the things in the background—it isn’t just random,” says Roman. “It’s very specific and very detailed.”

After the story artists create rough drawings in Adobe Photoshop, they insert them in Pixar’s proprietary Pitch Docter software, which puts the boards in order and allows the artists to view them like a movie. The big reveal comes when story artists pitch their work to the director and writers, acting out the scenes complete with dialogue, spoken by the artists. They even sing the songs that accompany the on-screen action (“I sing in my car a lot to practice,” Roman says).

“The director will say, ‘It’s good, but what if he does this?’ And other people in the room will chime in with their own ideas,” he says. “Everyone is really supportive, but they want to see the scene be better. So I might feel a little beat up, but I’ll take all the notes, think about it, make another version, and pitch it again.” When the storyboards are complete, they get put together in a type of film reel with rough music and voices. That rough version of the film then goes to a layout artist (comparable to camera blocking in a live-action film). The animation team poses the characters, ultimately adding shading, patterns, clothing, and other finishing touches.

**The Road to Pixar**

More than 20 years ago, when Roman was a junior painting major at BU, he imagined that the ideal job would combine what he did in his painting classes, music classes, and the BU undergrad student theater group Stage Troupe. Animation became an intriguing option after an artist from Disney came to campus to talk about working on *The Little Mermaid*. “I thought, wow, people drew this,” says Roman. When he moved to the West Coast after graduating, the best thing he could find was a job as a facilitator in animation art classes. He worked there for a year until a colleague, who also worked as an animator on *The Simpsons*, helped him land a job as a layout artist on the Fox show.

His next job gave him experience creating storyboards, and when he returned to *The Simpsons* a year later, he paired up with Brad Bird, director of the Oscar-winning Disney and Pixar film *Ratatouille*, a man he describes as a mentor. Roman became *The Simpsons* storyboard supervisor, then directed the Disney cartoons *Fillmore!* and *American Dragon: Jake Long*. He returned to the land of Homer to work as a story artist on *The Simpsons Movie*. Then in 2007, he...
got a call from Jim Reardon, a director he had worked with at *The Simpsons*, who was then head of story on Pixar’s *WALL-E*.

Roman arrived at a fortuitous time. The previous year, Apple’s Steve Jobs had sold Pixar to Disney for $7.4 billion, a move that put to rest Pixar’s famous internal feuds, and cafeteria workers serving food.”

These days, employees navigate the 22-acre campus (complete with pool, gym, basketball court, cereal bar, and regularly visiting ergonomists) on Razor scooters and work in a building populated by life-size models of blue furry monster Sulley from *Monsters University* and *Monsters Inc.*, and Bruce, the shark who refuses to eat fish, from *Finding Nemo*. There are frequent screenings of in-progress films and performances by Pixar’s improv team, which Roman started.

**FINDING INSPIRATION**

Early in the making of a film, scenes are divided up among story artists, who retire to their respective offices and create storyboard thumbnails. *Toy Story 3*, for example, about a group of toys plotting their escape from the Sunnyside Daycare center, presented several challenges. Sequels, Roman says, are often burdened with the misconception that they are fated to be inferior to the original.

“Plus,” he says, “there is reluctance to change characters or do anything radical that would break things that were already established.”

Take a scene Roman designed that wouldn’t have made sense if it had followed the script’s original direction to abandon Woody’s trait as owner Andy’s reliable toy.

“Initially, Woody stayed at the day care,” says Roman. “He didn’t leave, and wanted to go home to Andy. I did a first pass storyboarding the scene, and the team realized that it wasn’t quite right, because Woody is all about his dedication to Andy. To have him stay there didn’t seem true to Woody. Woody had to leave; he needed to try to get back to Andy. So I went back in and did the whole scene where the toys have a confrontation, and Woody decides to leave his friends and tries to find a way home.”

If Pixar’s whimsical surroundings and entertainments fail to provide sufficient inspiration, there is always the real world. For the big Sunnyside escape, the Pixar crew toured nearby Alcatraz. Researching for another pivotal scene, they waded through a dump, and naturally, they visited a preschool. Roman also spent a good deal of time with Barbie and Ken dolls, necessary work to storyboard the *Toy Story 3* scene where the two characters first meet.

“We had all the toys in the story room to see their scale relationships and how their joints moved,” says Roman, who later worked with the Barbie and Ken characters when he helped create the screenplay for the *Hawaiian Vacation* short. “We tried to keep Ken’s movements very limited because that’s the way the doll really moves, and we wanted it to be authentic.

“That’s one of the things I like about working at Pixar: we all look at stories and try to figure out what makes them good. And if it’s not good, how could it be made better? The artists and people here are at the top of their game, which makes it intimidating every day to work here, because I always have to be the best I can be.”