In the movie *Indiana Jones and the Last Crusade*, Indiana Jones chases a Nazi army tank to save his father who is held captive inside. His horse gallops urgently alongside the roaring steel vehicle before Indy jumps from the horse to the tank’s hood with a thunderous crash and punches out one of the Nazi captors who then goes spinning under the wheels of the tank as it rolls through the crusty desert.

No doubt that the riveting action sequence is a product of convincing choreography and precise scene editing. But how did the filmmakers get the scene to come alive through sound? Here’s how Randy Thom, Director of Sound Design for Skywalker Sound, once described the process:

You begin by trying to forget for a while what the Nazi tank in an Indiana Jones film would ‘really’ sound like, and start thinking about what it would feel like in a nightmare. The treads would be like spinning samurai blades. The engine would be like the growl of an angry beast. You then go out and find sounds that have those qualities, or alter sounds to make them have those qualities. It makes no difference whether the sounds you collect actually have anything to do with tanks, samurai blades, or growling animals. The essential emotional quality of the sounds is virtually all that matters. When you find the sounds that make you believe a screaming mechanical beast is about to rip you to shreds with enormous spinning blades, then, and only then, do you bring in actual recordings of a tank and blend them with the nightmare elements.

For nearly 30 years, Thom has been working for LucasFilm, an entertainment company founded by George Lucas. At Skywalker Sound, LucasFilm’s audio post-production facility, Thom works with film directors to design and mix sound effects, dialogue, and music to create a movie’s overall sound. Thom’s film credits include the blockbuster hits *Ratatouille*, *Harry Potter and the Goblet of Fire*, *The Polar Express*, *The Incredibles*, *Cast Away*, *Forrest Gump*, and the *Star Wars* trilogy. Not bad for guy who hadn’t planned for a career in film.

“I got involved in radio first, as a DJ,” Thom says. “That’s where my interest in using sound creatively began.” When Thom moved to film and started working on *Apocalypse Now*, a film that set the gold standard for sound design, he found his forte and learned he could use sound to tell stories.

**Crashing Crescendos**

For Thom, sound design in film is not just about loud guns and heart-pounding explosions. Nor is it just a well-written score or mood music. “The sound designer’s job is to work with the director to figure out how to use sound to tell the story, and to record, collect, and manipulate sounds to accomplish those storytelling goals,” he says. “In a movie, the filmmaker can have control over every aspect of what the audience hears. Not only can music be added, but virtually any kind of sound can accompany the visuals.”
In the movie *Cast Away*, Thom demonstrates how a predictable musical score can be replaced by carefully orchestrated sound effects. After being stranded alone on an island for years, the main character discovers that every year at the same time, the wind blows in a way that provides the perfect opportunity for him to paddle past the breakers and into the open sea, where he has a chance of being found. When he finally finds the courage to make the life-threatening attempt to escape, these winds come again, and the moment builds to a crescendo, but instead of exultant violins, Thom replaces the musical score with a swell of wind sounds that not only complement the action on screen but symbolize a new direction in the character’s will and determination.

**Artist at Work**

Since the 1970s, Thom has witnessed firsthand how sound technology has changed. Once analog, almost every sound for film is now stored and mixed digitally. As you can imagine, the stock of sound clips at Skywalker Sound is vast. “We can often find a sound in that library that was recorded or fabricated for one film and then modify it for use on another film. We also try to record as many new sounds for each film as possible. Very few of the sounds we use are electronically synthesized. Almost all are real-world sounds, recorded with microphones in actual locations.”

In *Cast Away*, Thom drew from a large bank of real wind sounds that he recorded all along the west coast of the country. He then manipulated them so they served the purpose he was looking for. He used large crashing wind gusts for the ocean scenes, and when the main character was in a small cave where he often slept through the night, Thom softened the winds to make them sound “a little like a flute.” While the technology allows him to work more efficiently, the way he looks at his profession remains constant: “We’re primarily artists, not technicians.”

The work done at Skywalker Sound is mostly known as a post-production process, but Thom insists that the job of a sound designer should start early. Filmmakers work tirelessly to find the right shot at the time of production, but a compelling scene isn’t complete without a sound expert who can help the screenwriter and director with ideas about using sound creatively. Ideally, Thom explains, a sound designer gets involved early, sometimes as a consultant during the writing of the script.

Although it’s rare, Thom even works with actors on the set to find the sound he needs. “On the Robert Zemeckis film *Beowulf*, I worked with Crispin Glover, who plays the monster Grendel, to develop appropriately monstrous vocalizations,” Thom says. “Eventually I’ll be combining recordings of wild animals with Crispin’s voice to fabricate a voice that is part human, part beast.”

**Sound Mind and Body**

Thom admits that because he devotes a lot of his life to sound, it’s nice to give his ears a break when he comes home. “For most of my adult life, I haven’t even had a stereo system at home because I feel like I do plenty of listening at work. This certainly isn’t the case with most sound designers, though. Many of them have elaborate sound systems in their houses.”

Whether it’s his keen hearing, his willingness to experiment with sound, or his unique ability to nail the eeriness of a moment, Thom knows he can move an audience and, sometimes, haunt them for years. He knows this because a sound he recorded a long time ago is still unsettling for him. “When my son was little, I recorded him pretending to be autistic for a film. We later discovered that he actually did have some degree of autism,” he says. “That haunts me.”

To read some of Randy’s articles about sound design, check out www.filmsound.org.