



J. W. RINZLER

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# THE MAKING OF STAR WARS: REVENGE OF THE SITH

### THE FINAL CHAPTER

J. W. Rinzler

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# The Making of Star Wars: Revenge of the Sith Ebook

# **CHAPTER 10: The Saga Is Now Complete**

#### PROLOGUE: THE SOUND AND THE MUSIC

"Music is a significant part of my films," George Lucas says, "because I have, right from the beginning, come out of a pure idea of cinema as a visual experience—and I've always believed in the strength of that experience. If you look at the films [by Bruce Connor, Scott Bartlett, Canyon Cinema, et al.] that came out of the San Francisco underground avant-garde movements of the 1960s, you can see how they used music and montage together, and that was a big influence.

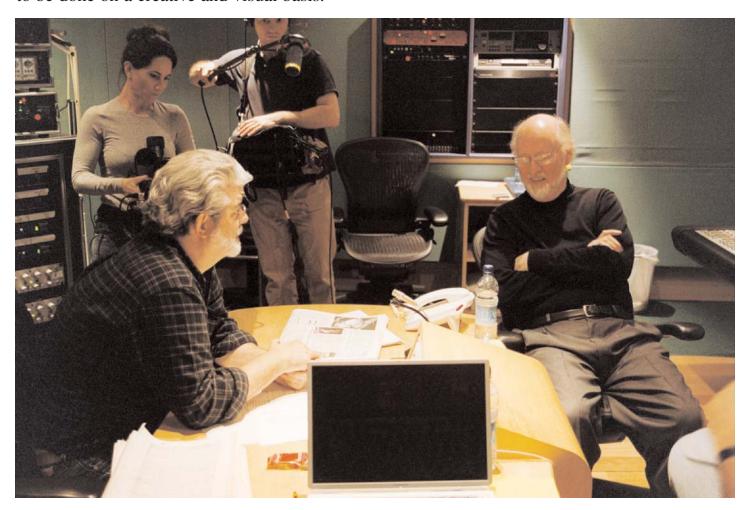
"In fact, before *Star Wars*, getting *American Graffiti* [1973] made was difficult. The studio [Universal] was still locked into a musical concept, where you did the title music and then you did a song over a montage of shots. The idea of taking a hit song that hadn't been written specifically for the movie—and sticking it on top of a dialogue scene and making it part of the story—was an eccentric idea at that time. It was one of the reasons it took me two years to get the film off the ground. People just said, over and over, this film is nothing more than a musical montage. There is no character, there is no story; all you have is a bunch of kids riding around in cars."

American Graffiti went on to become one of the most profitable films of all time; it can also be seen as one of a handful of films that laid the groundwork for the soon-to-follow music video format. After the success of the Graffiti soundtrack, Lucas teamed up with composer John Williams, on the recommendation of their mutual friend Steven Spielberg. Their union resulted in the resounding, nearly unheard-of success of the Star Wars soundtrack. Yet Lucas's use of an operatic score in that movie caused some to raise their eyebrows. "When George started Star Wars, in the mid-1970s," sound designer Ben Burtt remembers, "the trend was not to have densely scored movies. Music was used sparingly by today's standards." Lucas nevertheless went on to order a soundtrack that played for much of the film's running time.

"For the first *Star Wars* score, George decided to come to London to record the music," John Williams recalls. "And I suggested to him that instead of hiring a pickup orchestra... we might be able to get the services of one of the great London orchestras, starting with the London Symphony. And we rang them up and they were available. They didn't know what *Star Wars* was, but they decided to come and we had their services for the days that we needed. The film was

successful, but I don't think anybody had an idea that it would have the reach around the world that it did. And the music seemed to be a strong and integral part of this thing. And the orchestral sound, and that particular sound of the London Symphony, became part of the whole *Star Wars*—ian family, if you can put it that way. The orchestra has recorded the scores for all of the films now, which is a point of pride not only for me but also for the orchestra itself."

While Williams garnered an Oscar for the first *Star Wars* score, Lucas continued to fight battles in the realm of sound and music, launching himself into the vanguard of nonlinear sound and film editing. "It was probably after Francis [Ford Coppola] came back from the Philippines," Lucas says, "because that's when Walter [Murch] was cutting *Apocalypse Now* [circa 1977–78], and we saw this electronic editing system [CMX, one of the first computer-based editing systems]. In those days in television, you had what they called an 'offline' system. What you would do is record on tape, and then record on another tape, and then you'd line one up with numbers in sync, to start here and stop here. But it was very laborious and it was all done with numbers. It wasn't anything like film editing. So I said, 'This is a crude system which doesn't work, because you want it to be made for editors, not engineers. You want to be able to stop on a frame and move back and forth. You want it to have all the qualities of editing and everything that we learned in film school about the art of editing—it all needs to be included in one system. It has to be done on a creative and visual basis.'



Writer-director George Lucas in discussion with composer John Williams in the control booth of Studio 1 at Abbey Road Studios, London, England, during the recording of the soundtrack for Star Wars: Episode III Revenge of the Sith. (Scott Myers)

"It was after that I began to think about developing a system which was based on editorial principles, not on engineering principles. That's when I started the projects that became the EditDroid [nonlinear editing] and the SoundDroid [nonlinear sound editing]. It was in 1979, right after I finished *Star Wars*, when I started those projects—which continue to this day . . ."

#### Introduction

Note: This narrative begins where the book The Making of Star Wars: Revenge of the Sith ends, September—October 2004. While the book had to stop at this time in order to meet its publishing date of April 2005, for the first time ever an ebook will track the remainder of production's headlong race toward the finish line.

Many of the terms in this ebook may be difficult to understand, however, as the groundwork is laid in the printed book. Also, some of the plot points and dialogue here recorded may be different in, or absent from, the final film.

As Lucas guides *Revenge of the Sith* toward its a final edit, Industrial Light & Magic (ILM) continues to output final shots. Visual effects supervisors John Knoll and Roger Guyett lead their respective units at ILM, together completing at least sixty finals per week. Except for a few people, most of those who began this three-year moviemaking process back in April 2002 are long gone. Nearly all of the crew who experienced the massive adrenaline rush of principal photography at Fox Studios Sydney in the summer of 2003 and the pickups at Shepperton Studios in England in the summer of 2004 have moved on to other projects. Most of the concept artists have left, and just a couple of animatics artists remain at work. Only ILM is going at full steam, while another smaller but no less important group is just ramping up: the sound crew. His editorial duties almost completed, Ben Burtt has taken up the role he began in 1975 as sound designer. Aided in his work by supervising sound editor Matt Wood, they lead the efforts to make the starfighters hum, the volcanoes explode, and the whole cinematic symphony sing with audio life.

In addition to future ADR (automatic dialogue recording, or looping), which is slated for this winter, an even greater task looms: foreign versions of the film, which have to be finished simultaneously with the English version for Episode III's May 19, 2005, day-and-date release. "One of the more pressing priorities we have to address is making casting decisions for every character in the film for the twenty-five foreign-language versions," says producer Rick McCallum. "The screening process for the international actors begins in September, which is very time consuming. We're listening to every actor, and then we have to make the call on which ones to hire [about twenty-five per language]—and that's a pretty big deal."

SAN RAFAEL, CALIFORNIA TUESDAY, SEPTEMBER 21, 2004

INDUSTRIAL LIGHT & MAGIC (ILM), UJ VIEWING STATION: Once again in the cramped quarters of the viewing station located in the ILM building devoted to Revenge of the Sith, Lucas sits

down with animation director Rob Coleman, his lead animators, cloth sim supervisor Juan Luis Sanchez, Rick McCallum, and the visual effects producers to review works in progress.

Lucas notes that the film is presently running at two hours and thirty-three minutes. "The film is what it is," he says.

"I must say, the reshoots worked pretty well," John Knoll remarks, referring to the pickups and additional scenes that were shot at Shepperton a few weeks before. "They integrated rather seamlessly."

Lead animator Virginie d'Annoville takes control of the computer and calls up a short sequence featuring Yoda on Kashyyyk, the Wookiee homeworld. Coleman asks Lucas what the Jedi Master is thinking, now that his exile has begun.

Lucas pauses for a moment and then says, "Oh, God, a new Sith has been born—and one of our best guys!" He then cautions that Yoda's movements, the way they're now framed, might lose some of their impact in certain theaters. Moviemakers often have to consider the fact that movie houses, for one reason or another, may not project a film at its maximum aspect ratio, which means the audience may not see action that takes place close to the edges of the screen.

Before moving on to the next sequence, Lucas suggests that Yoda take a "deep breath" just before they cut away.

"That'll be great," Coleman agrees.

#### EPISODE III SHOT STATUS

Total # of shots: 2,300 [est.]

Finals: 812

Shots left to go: 1,488

Weeks to go: 26

#### TUESDAY, SEPTEMBER 28, 2004

**SKYWALKER RANCH (SR), EDITORIAL:** In a series of offices that make up the editorial suites, Lucas is at work once again with his two editors, Ben Burtt—who is also handling sound design—and Roger Barton. Lucas is just going over a few odds and ends with Barton when Burtt arrives. As it's the second day of autumn, everyone in the editorial offices is wearing long sleeves this morning.

"Hi, Ben!" George says.

"There were no bikes available, so I had to hike," Ben says, having just made the ten-minute trek from the Technical Building to editorial on foot. While Burtt gets ready for his session, Lucas finishes up with Barton, reviewing some animatics of the Utapau battle. In the office are several filled binders marked CAMERA REPORTS, PRE-VIZZED SCENES, and DAILY CUTTERS LOG.

"Come on, honey," Barton says, coaxing his machine along. On the Avid, the film's editorial template has as many as twenty-one layers of digital information for every shot, which can become difficult to process, and at this point *Revenge of the Sith* has only twenty-six shots without visual effects. "It's sedimentary—geological," Lucas remarks.

"Let's cut from this to a tighter shot," he says and then takes "twenty-four frames off the head" and adds twelve frames to the tail of a shot from the point of view of Obi-Wan Kenobi (Ewan McGregor), who gazes out from his hiding place at traitorous clone troopers on Utapau—his former allies are now his enemies. Acting upon the orders of Palpatine, they have betrayed the Jedi and the Republic, becoming the stormtroopers of *A New Hope*.

Lucas sends the shot back to animatics with new lighting notes, because he wants to see Obi-Wan in silhouette as he sneaks around.

"See if they can do something really, really quick, just so we can see if it's right," he says. "I think it needs to be more mysterious."

Soon afterward, at around 10 A.M., Lucas walks next door to join Burtt. The usual schedule in editorial has him working with Ben in the mornings, Barton in the afternoons. As Lucas settles into his chair, he exchanges small talk with one of his longtime collaborators, and the atmosphere is genial.

Lucas reads a daily newspaper as Burtt searches for a specific take. After he finds the shot of Grievous, they're able to reference the stuntman clad in a blue bodysuit beneath the animation—recorded back in Sydney—because principal photography is one of the many "sedimentary" layers in these shots; as with an acetate sheet, Burtt can peel back each layer to see what's underneath.

They then spend about an hour working on a four-shot sequence of the battle between Obi-Wan and Grievous, as the latter reveals his four arms, a lightsaber ignited in each hand. Director and editor sit side by side in office chairs. Against the wall behind them are a sofa and an arm-chair; a microphone is posed next to the computer setup, ready in case—as often happens—Burtt has to record a voice-over that will act as a placeholder in the rough cut. On a table in the corner of the room is Lucas's equivalent to the "bat phone"—an old-fashioned black telephone, whose ring can only mean a call for the writer-director.

"I hate to use the word *reshoot* here . . . or maybe *digital double*," Burtt begins as they fail to come up with a good shot of Grievous from behind Obi-Wan's shoulder. Instead they try lifting a shot of Obi-Wan from a different sequence shot in Sydney; they freeze him, blow him up 20 percent, and position him for reference.

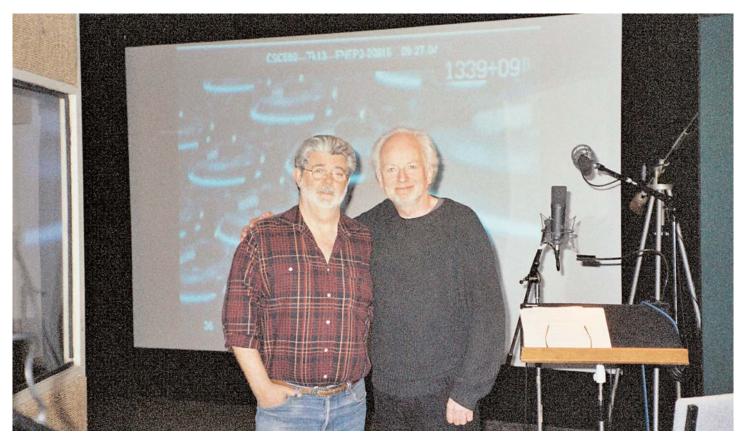
"The movie's in there—it's in the marble," Lucas says, "I'm just the sculptor setting it free." Because Grievous says to Obi-Wan in the same sequence, "You don't stand a chance" and "Surrender Kenobi," George decides that one of the lines has to go and cuts the latter.

When George and Ben switch to discussing the audio components of the scene, Lucas remarks, "Poor Ben; he has to change his brain for sound. All the buttons change when he goes to the Tech Building." The Tech Building is where Skywalker Sound is located and where Burtt does his sound design—but on a different computer software setup from that used for editing the movie.

"Right now, the entire system resides on a bicycle," Lucas adds, "the one Ben rides from the Tech Building to the Main House. The whole process will completely break down if he has a flat."

Burtt agrees, noting that, presently, to fulfill his editorial *and* sound duties, he has to use a complex combination of programs, such as Mach 5, Pro Tools, iViz, Mtools, and other software packages.

"It should be all on one program in one machine," Lucas says.



Following the completion of the actor's ADR, Lucas and Ian McDiarmid (Palpatine/Sidious) pose for a photo at Goldcrest Post in London. Behind them a Senate scene is projected onto the screen. (J. W. Rinzler)

After lunch, Lucas returns to Barton's room. Back in July, the editor's two-month-old child, Aiden, was recorded at ILM; he'll be used in close-ups of both the Skywalker twins, Luke and Leia, when they're handed over to their respective guardians.

Lucas and his editor tackle the sequence in which Anakin pledges himself to Palpatine, after they've killed Mace Windu. When the soon-to-be ex-Jedi goes down on his knees, Lucas finds the movement too "bouncy"—so they blow up the image 20 percent, slide it down within the frame, and center it.

"That's the shot," George says.

Roger remarks that one of Anakin's lines sounds a bit strange.

"Well, it's weird, I'll give you that," Lucas acknowledges. "But we need something weird. Hayden says it neutral but he looks strange. So I would blow this turkey up."

"He's got the eyeball going," Barton agrees. "It looks like Quasimodo's."

On another shot, they resort to a few more editorial tricks. "We may have dodged a bullet on this one," Lucas says, adding to me, "Don't try this at home."

Sitting down with them, assistant editor Jett Sally takes notes of everything that happens, creating a step-by-step history of their work, which he'll send down to ILM to help them navigate their digital shot production.

"There's a tremendous amount of information that goes through these processes," Lucas explains, "and it's Jett's responsibility to make sure everyone's on the same page." Turning back to the Avid, he remarks to Roger, "I'm going to go through and take out a lot of these early circle-wipes [transitional visual effects, used to change scenes]; I want to save them for later in the movie."

He continues, saying that they'll soon "balance" the film's seven reels, so they're each of equal length. "We really need to cut ten minutes from the movie—the truth is we need to cut more," Lucas admits, "because we'll be adding eight frames, often on either side of the finals we get back from ILM."

Indeed, Lucas has essentially been cutting the film for the last year, "blind." Now as he approves the final shots from ILM, they're often just a tiny bit longer than the placeholder animatics—and those thousands of demi-seconds add up.

Toward the end of the day, Lucas flops an image of Anakin, which necessitates cutting out his hair and reinserting it so that it parts on the correct side.

"That's the first time I've done that. Let's have a discussion with ILM about this," he says, laughing, "and see how loud they scream."

#### Tuesday, October 5, 2004

**ILM, C Theatre:** Sitting down next to Knoll, Lucas notes, "There are lots of [final] omits and recuts. I don't know how to break it to you—but I'm only through the first reel and a quarter."

Coincidentally, they project a shot that booms down in the Senate, which has gone through several revisions—but which Lucas approves this time.

"You sure you don't want to work on it some more?" McCallum asks.

**UJ:** Refining what he said in C Theatre, Lucas says to Knoll, "If a shot isn't working, let me know. I'm reasonably flexible on this stuff. There's fat, flesh, and bone. Fat I can get rid of, but bone has to be there."

Reviewing some animation of R2-D2, he's impressed. "There's something that I don't understand—how do you guys put the weight on Artoo?"

"Michael [Easton, CG modeler] will be happy to hear that you like it," Coleman says.

Lucas is also pleased with Yoda as he confronts the Emperor. "Good. He looks serious there."

"Yeah, I wouldn't wanna mess with him," lead animator Tim Harrington says.

"We're back to Rambo Yoda," Coleman adds.

Total # of shots: 2,300 [est.]

Finals: 847

Shots turned over: 2,314

Shots left to go: 1,453

Finals needed per week: 58

Weeks to go: 25

#### TUESDAY, OCTOBER 12, 2004

**ILM, C Theatre:** "The curtains are blowing in the wind—everything is beautiful," Lucas says of a veranda shot final.

Looking at the yellow manacles on an imprisoned Palpatine, McCallum says, "I'm not groovy about that color."

"We do everything blue—you want to do them red?" Lucas asks.

"I don't know—does anyone else have a problem with the color?"

"You could try red," Lucas suggests to Knoll.

"We'll try a few variations," Knoll agrees.

Reviewing one of visual effects supervisor Roger Guyett's shots of the Naboo skiff, George says, "When it jumps to hyperspace, it can just disappear, instead of getting smaller."

"It's not the easiest thing to do," Guyett would say, remarking on the fact that he started on Episode III not long ago. "Normally what happens is you see historically why you've arrived at these positions and you know the work intimately. But what made it possibly even harder is that I'd never worked on a *Star Wars* film before. Obviously I'm a fan but I didn't know the backstories of everything, and it all has a backstory. We were doing these hyperspace shots and I thought I was doing them right, but I was doing them slightly differently from the other films."

**UJ:** "We're joined this morning by Shawn—he's pitched me an idea," Coleman says to Lucas. Animator Shawn Kelly then plays a rough animation of a scene outside the Jedi Temple when Obi-Wan and Yoda are attacked, with Yoda throwing his lightsaber through a stormtrooper, jumping on the trooper's chest, and pulling it out.

"They do this a lot in video games," Kelly says.

"That is cool, George," Rick notes. "But I know you're not gonna like it."

"I like it," Lucas responds, "but in theory . . ."

"Darth Vader throws his lightsaber on the walkway [in Episode VI]," Knoll chimes in.

"Yeah! Let's do it," Rick interjects.

"You want to think about it?" Rob asks.

"Well, I could—it's just a little intense," George says, mulling it over. "I don't want the rating to become an R. It's good, but is it appropriate?"

"What if he jumps with the lightsaber, and lands on his chest?" Rob suggests.

"I hate to say it, but it seems very un-Jedi," Lucas says.

"But these are difficult times," McCallum counters.

"A good Jedi does not let go of his sword," Lucas protests, but adds, "If Yoda swings around, he could end up on his chest . . ." The matter is left hanging.

"Shawn is a representative for me of the young, cool, and hip audience out there," Coleman

explains. "My gut instinct was not to show it to George, but Shawn made such an appeal that I thought, *Maybe I'm too old and gray and maybe I think I know George too well*. I thought Shawn should be there, too, because there are a lot of young animators here that get each other going about how cool and not cool the things we're doing are—and even though George didn't go for it, it was a huge morale builder for them just to get something they liked in front of him."

Next up is Darth Vader in the rehab center, where Anakin is being rebuilt following his duel with Obi-Wan on the volcano planet. Lucas adds small lights glowing through the gloom, and refers to the objects Vader destroys in his rage upon hearing of Padmé's death: "I was going to have the guys upstairs do more specific animatics, because things need to be crushed, more than thrown around."

"So . . . imploding?" Coleman asks.

"Yeah. Things can crumple and fall over, but not this tornado." He also suggests that it might be a good idea to frame Vader among the pipes and have him appear as a silhouette. "I think we can be artistic in how we handle it."

"How about the fire, George?" Guyett asks.

"I think that it's a bit too much. I'd take it out. I think we've been too obvious. We need a subtler version of this."

Moving on to Kashyyyk, Lucas notes that he's added a couple of new shots of Yoda, but cut a wide shot. "That'll pay for the wrap party," McCallum notes wryly.

A discussion ensues about how long Wookiees can remain underwater, relating to a shot of a Wookiee who attaches an explosive to a swampspeeder, and then jumps off into the lake. Guyett, McCallum, and Coleman opt for keeping him submerged for a long time—until they cut away, essentially—as no one wants to deal with a wet Wookiee, digital or otherwise.

"Well, if I were a Wookiee, I'd stay underwater for a long, long time," Lucas agrees, to the others' relief.

Total # of shots: 2,300 [est.]

Finals: 884 Final omits: 88

Shots left to go: 1,416

Finals needed per week: 58

Weeks to go: 24

#### THURSDAY, OCTOBER 14, 2004

**Skywalker Ranch, editorial offices:** Lucas, Burtt, Barton, music editor Kenny Wannberg, and composer John Williams are watching Mace Windu's battle with Palpatine on a high-definition screen. They are sitting in Barton's office during the second of a two-day music spotting session, during which Lucas and Williams basically go over the whole film, reel by reel, discussing the feel of each scene and their musical interrelations. In place and audible is a temporary music track made up primarily of classical music and previously composed *Star Wars* cues.

Dressed in black, with white hair and a beard, Williams sits next to Wannberg, who has also worked with Lucas since *A New Hope*. In addition to the Academy Award he won for that film, Williams has won four others and been nominated for thirty-eight, including his most recent for *Harry Potter and the Prisoner of Azkaban* (2004). Williams's career is well documented and includes being a jazz pianist, conductor of the Boston Pops Orchestra, TV music composer—and the writer of nearly all of the soundtracks to Spielberg's films, such as *Jaws* (1975), *Close Encounters of the Third Kind* (1977), *E.T.: The Extra-Terrestrial* (1982), and *Schindler's List* (1993), for which Williams won his most recent Oscar.

"The only conversations I had with George prior to the music spotting were general ones," Williams says. "He told me a little bit about the story at lunch one day, and that it was going to be dark. That's it really."

Lucas is going over the beats of the scene during which Anakin sits alone in the Jedi Council chamber, in agony over the course of events. "This sequence doesn't have much music. It has to be a heartrending tug-of-war between good and evil," he says. "I think it should be told through Anakin's point of view. If Palpatine dies, Padmé dies, too—in Anakin's mind, it's Padmé who's being killed, not Palpatine. The overriding factor here is tension."

They discuss using one of the saga's themes. Lucas thinks that a combination of the "Emperor's Theme" from Episode VI and the "Force Theme" from Episode IV might work.

"I like that combination," William says.

Watching Anakin kneel before Palpatine, pledging himself to the Sith, George observes, "When Ian [McDiarmid, playing Palpatine] says, 'Darth Vader,' there should be a slight lift."

"Wouldn't you quote his theme very softly?" Williams asks.

"Yeah . . ."

"If we go in the operatic vein."

"I agree—and it needs to carry through to the next shot of Yoda on Kashyyyk."

When they get to the end of reel 4, however, the changeover to reel 5 occurs during what might be one piece of continuous music, which could be a problem.

"We'll see if we can find a better place to change over," Lucas reassures Williams, "so it's not right in the middle of the strings."

"Where are you going to break the reel?" Wannberg asks.

"Please, don't force us to decide now," Lucas pleads.

"We don't work well under pressure," Barton jokes.

The next reel begins with Sidious (McDiarmid) saying, "We shall have peace . . ."

"We need something that can sit under that nicely," George says.

"It almost seems that underplaying it [on the temp track] is working," Burtt notes.

"I'm just saying that it needs to be thematically correct," Lucas explains. "It's one thing to be subtle and it's another thing to be nondescript."

They then tackle a series of scenes that begins with Anakin leading hundreds of clone troopers

into the Jedi Temple, then segues into the murder of various Jedi throughout the galaxy. Williams suggests marching sounds and music. Listening to the temp track for the scene taking place on Cato Neimoidia, Lucas comments, "I really like the fact that it goes into this choir," as Plo Koon is blasted out of the sky.

"It's certainly the way to go," Williams agrees, and asks, "How close are we to the killing of the children?"

Lucas says that they're not far off, as Barton stops the movie. The director explains that the music during that scene should continue into the scene with Padmé in her apartment. "Let's keep the chorus with an orchestration, or just strings," he says. "It's almost as if she's watching the murders [as they] happen. She's crying because Anakin's turned to evil."

"I like the idea that she's intuiting what's happening," Williams says.

Lucas's son, Jett, plays a Padawan who is gunned down by stormtroopers. His father says, "I want to connect the death of Jett to this whole Jedi tragedy; it's also an echo of the children being killed. It's really one piece of music right up to here. This little action scene is part of the lamentation."

Williams nods his understanding.

Burtt remarks that the temp music for one of the Yoda shots was taken from 1980's *The Empire Strikes Back*, "Back when we were all in high school," he adds with a laugh.

Lucas is talking about introducing the "Love Theme" from Episode II into a scene when his hotline phone rings. He picks up the receiver, listens for a moment, then says, "Hi, Steven, how are you doing?"

While he converses with Spielberg, the others continue their own discussion. But they can't help noticing that as he talks, Lucas is more animated than usual.

Sure enough, after hanging up, he turns to the others and says, "Hey! They just gave me the AFI Achievement Award! They're going to give it to me in June, which means I actually have to finish the movie first. . . ."

They all congratulate him, and he adds, "Steven just got out of the board meeting—he has to give a speech—which serves him right!" Lucas laughs.

"He's gotten good at those," Williams says.

"Yeah, I know. He's much better at it than I am."

The group changes gears quickly, though, and returns to the work at hand. Reviewing the scene where Anakin tells Padmé about the Jedi "rebellion," Williams says, "It could be a little melodic."

"Whatever piece you do, as they're talking, underneath it there should be a little bit of suspense."

When the movie moves to Mustafar, Williams muses out loud, "Maybe it needs a theme for the location?"

"We're building up to the Empire," Lucas replies. "This is where your new piece of music should go."

"In your mind, what's the biggest realization of that piece?"

"I'd say it's when Anakin's dying."

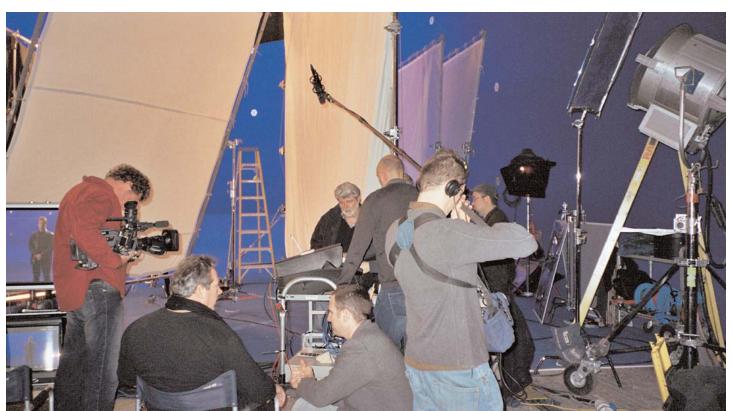
They discuss various ways that might be handled. "I keep thinking I'm going to be working from that moment backward," Williams remarks.

As it intercuts between Yoda fighting the Emperor and Anakin fighting Obi-Wan, Lucas says, "It's going from this relentless drive to the horror and the chorus," and he wants to have the Empire theme connected to the younglings' murder.

"That's a tough structured thing," Williams says. "But if I have that *lacrimoso* piece and the Force—*la forza del destino*—piece, I think I can make it work."

"The chorus represents the personal fall of Anakin," Lucas says. "The orchestration represents democracy's descent into dictatorship."

"I have to typically work backward," Williams would say. "I have to think about where the music is going to be at the end of the film and decompose it. So, if it's something you hear in a mature phase in the late part of the film, you'll have heard suggestions of it early on in the film."



The documentary crew at work, recording Lucas and visual effects supervisor Roger Guyett at Elstree Studios the day of the pickups. (J. W. Rinzler)

Having finished reel 5, they postpone lunch—it's already 12:00—and start right in on reel 6. As Captain Typho says good-bye to Padmé on the Coruscant landing platform, Lucas says, "My feeling is there should be no music here."

"I think that'd be great—a wonderful ending to the sequence," Williams concurs, and he nods toward Ken, who makes a note.

"I would have no music in this whole section—and have just the sounds of the engines start-

ing," Lucas continues.

"Well, at this point in the picture, that could be acceptable," Williams says. "I don't know the film that well yet, but it could be essentially lyrical, and not action-oriented."

They then turn to the pivotal scene on the Mustafar landing platform, where Padmé confronts Anakin. Lucas points out that when "Anakin says how powerful he is, the music needs to do a switch. Then as he looks up and sees Obi-Wan, we need something subtle. We don't want to be obvious about it. But when Anakin yells, 'Liar!' the music should be more intense. This scene has to be tragic, but it needs to do more thematically [than the temp track]. There are a number of beats in there that could be expressed subtly."

After finishing reel 6, they break for lunch. As they go up the stairs, heading for the dining room, Lucas explains that after the spotting session, "This is it. I won't hear the music until I step onto the stage at Abbey Road Studios. That's always the most exciting part. Usually, I love nine-ty percent of what Johnny has done. Of the other ten percent, I might complain about five percent of it, and Johnny rewrites it during the weekend. The other five percent I stay quiet about."

"My first impression, whenever George shows me these films, is usually, My God, so much? I'm not going to be able to write all that," Williams admits. "Because it goes from scene to scene, battle to battle, and fight to fight. I have to confess it's always a little bit daunting when I first see these things. I may ask George something like, How many weeks did you say we've got to do this in? And he'll tell me and we laugh. I also am very happy to say I was very impressed with this film, particularly the last third of it or so. The links that George has put into it really make the connections to the characters of Darth Vader, and the mother and the child; the familiar part of the mythology is so expertly woven together at the end of this film, and, I think, particularly beautifully shot. So I had some very positive and very strong reactions to seeing the film, along with my usual first shock."

#### Tuesday, October 19, 2004

**ILM, C Theatre:** "Now you'll see if I got hyperspace right," Guyett says of the revised final of the Naboo skiff.

Lucas studies it a moment, then says, "Now you have your pilot's license."

**UJ:** "Finally, I'm starting to see the movie, what I've actually been cutting this last year," Lucas says contentedly. "So now I'm juxtaposing the elevator scene, Artoo, and Grievous, so [the Trade Federation cruiser scenes are] getting much tighter."

Looking at some animation of Yoda, he says, "As a general rule, keep the heads a couple fields [an animation term referring to screen space; roughly, for a *Star Wars* film, the screen is divided vertically into ten "fields"] away from the top of the screen." He then mentions that he has too many establishing shots in the film, which are usually digital matte paintings, and has therefore cut out a couple of them, one of Utapau and another of the Senate.

"You have to do what you have to do," Knoll says.

"Steven and Francis are saying that some of the scenes are too long—that I should cut to the

chase, to Anakin and Padmé—so that wide shot of the Senate became needless. I'll be done with the [fourth] cut by next Friday."

Total # of shots: 2,300 [est.]

Finals: 913

Final omits: 102

Shots left to go: 1,387

Finals needed per week: 60

Weeks to go: 23

Note: With final omits—1,015 [finals] as of November 1!

#### TUESDAY, OCTOBER 26, 2004

**ILM, C Theatre:** "It's C-'G'-PO," Knoll jokes, referring to a computer-generated C-3PO who can walk up the steps of a nighttime veranda—an impossibility for the physical one. But the whole scene is too bright, so Lucas asks that it be brought down, despite John's objection that there would be "sky glow."

"John, let it go," McCallum says, but McCallum is himself unhappy with a revised shot of Utapau seen over the bodyguard's shoulders; it also looks a bit bright.

"Rick is making unhappy noises," Knoll says.

"I think it looks quite a bit better than it was," Lucas says, "but I admit there's a little oddity there." Another round of fix-its is decided upon, but a revised final of Tatooine, with more vaporators and dawn light, "looks great," according to Lucas.

**UJ:** Testing the waters, George mentions that he *could* cut a shot of Anakin raising his hood, if he uses instead a close-up of Obi-Wan's hands putting on his hood in a different scene but substitutes them for Anakin's. The editorial idea is accepted as a possibility, so he says, "I just wanted to see if I was asking too much, if there were any gasps."

"Well, we don't do that while you're here," Knoll says.

Lucas turns to McCallum and says, "I also have a challenge for you. More [ADR] lines."

"That's a challenge—weren't you just worrying about asking too much?"

"That was for these guys—"

"How many lines?"

"Two—three at the most."

Note: Tuesday, October 26: The Motion Picture Sound Editors announces that it will present its inaugural "Filmmaker's Award" to director-producer George Lucas for his outstanding contributions to the art of sound during the 52nd Annual "Golden Reel" Awards on February 26 in Los Angeles.

#### Tuesday, November 2, 2004

The day has come for Lucas, writer-director-executive-producer, to play an extra in his own movie, to record a cameo appearance—his first in the *Star Wars* saga. His daughter Katie, who

will appear as Senator Chi Eekway in the opera hallway with him, has been pushing her father to do this for some time; Knoll has also been persuasive, as there's been a prequel tradition of crew showing up as background characters in crowd scenes.

"Bring in the meat, darling," Rick says to costume archivist Gillian Libbert, who's handling today's wardrobe requirements. "Will you tell 'em that not even —— takes this much time!"

In makeup, Katie and George, whose character's name is Baron Papanoida, are both in blue faces and costumes. Tippy Bushkin's doc crew is here, and still photographer David Owen is snapping away.

At the rehearsal, McCallum explains, "You have to wait for 'action,' George." And the director of photography says to him, "We need to pick up the pace," as some are enjoying today's reversal of roles. "Yeah, Dad, pick it up—I have places to go," Katie says to her father.

Take. "Are we moving around too much?" Lucas asks Knoll, who is the de facto director.

"Maybe a little," Knoll responds. "Okay, let's go again, right away," he turns to the crew.

Take. "Can we do one more?" Katie asks.

"Heck yeah!" George responds, leaning on his cane for effect.

Take. "And that was Katie's best one," the DP says. There is applause, and Lucas immediately repairs to the black-tented mother ship—abode to all the HD equipment—to see the "rushes." "It's good enough for me," he pronounces to Knoll. "Take seven or eight, whichever fits best."

Meanwhile in Los Angeles, John Williams is at work on the score. "For me composing film music is probably like many filmmaking skills that require maybe six-plus days a week to keep up with the schedule. My routine is that I go to my workplace, which is a little distance from my house, every morning and do a six-day workweek. And I don't start at the beginning of the film. I'll study the film and try to pick a spot that's a logical starting point for what I think I need to do, either thematically or from a textural point of view, and work out toward the latter part of the film or the beginning part. I really may jump around a little bit.

"I usually look at it and say, Where do I know I can start? What am I reasonably sure about? What can I handle at this particular moment without knowing more about the music? And it's probably like a sculptor who will look at a stone, and [ask himself] where he wants to risk injuring the stone? And so it'll usually be something fairly simple or something straightforward enough to give me a sense of security. And I write a few measures or even more than a few measures. And pretty soon the information begins to suggest itself as one works it out and you keep chipping away at the stone—and weeks later it's got the beginnings of a face on it."



Anakin Skywalker (Hayden Christensen) runs down a strip of stage floor that will eventually be a collection-tower arm on a boiling sea of lava. This is the last take of the last live-action shot recorded in a Star Wars film. (Pablo Hidalgo)

#### TUESDAY, NOVEMBER 9, 2004

**ILM, C Theatre:** Commenting on Obi-Wan's pained reaction after punching the metallic Grievous, Knoll says, "And that's why you should never punch a motorcycle."

Commenting on the fight as a whole, Lucas says, "This has been changed—we've trimmed it down."

After a rapid-fire look at today's finals, he asks how many there were. ILM visual effects executive producer Denise Ream answers, "We showed you thirty-seven—"

"And you kicked back thirty-two," McCallum jokes.

In UJ, Lucas accidentally spills some coffee on the carpeted floor. "That's okay, we can trash the place—we're moving out," Knoll says, referring to ILM's impending move to the Presidio in San Francisco.

Getting into the animation, in this case reviewing a shot in which an astromech droid gets ripped apart by evil buzz droids, Lucas says to lead animator Glen McIntosh, "The idea is that Arfour is still talking as the head goes by camera, 'What the heck happened to meeee?'"

Another droid comment concerns a new bit where Obi-Wan uses the Force to lift Grievous into the air and smack his head against a girder.

"I don't know why Obi-Wan doesn't do that later," Lucas jokes.

"Maybe he has to recharge," Coleman offers.

After the animators file out, Lucas directs the digi-matte painting of the funeral, which is one of Guyett's shots: "Naboo is supposed to be an ecologically pristine planet, so I'd get rid of the smoke. It's supposed to be a beautiful shot of Venice at dawn—this is all about rebirth, the renaissance. It's beautiful, but it's sad—death in Venice. Mist rising off the water, with a little hint of yellow in the clouds. Beauty and death. We simply have to outdo every Italian Renaissance painting ever."

"No pressure, Roger," Coleman says.

"And we need it by Tuesday," Lucas adds.

Because these digi-matte paintings are so important, and expensive, a quick debate occurs on whether it would be better for George to start to see the paintings at a more intermediate stage, to avoid bigger changes later. "If you can get them to me two weeks earlier," Lucas says, "I can make comments."

"So we'll just keep an eye on the big establishing shots," Ream says, after a circumspect look from McCallum.

#### THURSDAY, NOVEMBER 18, 2004

**ILM, C Theatre:** After buying his coffee, Lucas says to the group gathered around Javva the Hutt one early and coldish morning: "Today's the day I finish the film."

"Final cut, first version?" McCallum asks.

"Johnny [Williams], Ben [Burtt], we all have deadlines—now I don't have a deadline anymore. Up until now I was the oxen and you guys were in the cart."

After a moment of silence, Coleman says, "I think you've been driving the cart for a while, George."

A few minutes later, watching finals inside the theater, George starts, "I had a bad thought—

"You said you were finished," Rick points out.

"Never mind. I'm completely happy."

Looking at a shot on Mustafar, Lucas hesitates, and Guyett says, "Let's move on—quickly."

"You're starting to sound like Rick," Lucas jokes, but adds, "Don't worry—I look at it all frame by frame later."

UJ: "I'm running out of challenges," Lucas admits to the animators.

"That's nice to hear," Coleman says.

"We're over the fifty percent point," McCallum notes.

Nevertheless, many changes are still being made, and Grievous has a new characteristic: coughing. "There's more gurgling and wheezing," Lucas explains.

In fact, the assembled as of today begins to see nearly completed animation of the Grievous/Obi-Wan Utapau chase, something that began in the concept art department about two years ago!

"This shot, we're thinking, is done," lead animator Scott Benza says, "unless you find something."

"It looks fantastic," Lucas says.

Another change is to MMC-2, as Anakin comes into the war room to slaughter the Separatist leaders. "What I want," Lucas says to Coleman and Guyett, "is a miniature box droid, like the one Chewbacca scares [in Episode IV]. I want these little quail running down the hallway ahead of Anakin. The idea is 'rats leaving a sinking ship.'"

"And I think today defines the word final for the next five months," Rick sighs.

Total # of shots: 2,300 [est.]

Finals: 1,074

Shots left to go: 1,098 Finals needed per week: 60 Weeks to go: 19

#### Tuesday, November 23, 2004

**ILM, C Theatre:** George remarks that a shot of the Alderaan space cruiser's approach to Coruscant, seen through a cockpit window, is "2001-ish, rather than *Star Wars*."

"What would you like?" Guyett asks.

"Twice as fast and rotate it."

Before moving on to UJ, Lucas mentions that he's locking down the lengths of sequences so Williams can proceed with the music, as the recording session is now scheduled for Abbey Road Studios from February 2 to 20. The whole soundtrack is presently budgeted between two and a half and three million dollars.

**UJ:** "The idea is," Lucas says of Grievous's first appearance, "the door [to the bridge] opens, and he looks around and coughs. And if you need more time, take it."

"Would he put his hand up?" Coleman asks. "I mean, I know he doesn't have a mouth—" "I don't think so."

Coleman then asks about the animatics of the Star Destroyer at the end of the film: "We could add TIE fighters, if you want."

"Well . . ." Lucas seems tempted. ". . . let's put in the other ones. It takes twenty years to build the TIEs."

Afterward, in his office, Knoll shows Lucas a work-in-progress of Anakin's premonitory dream of Padmé's death. "What I don't want is anything that is a camera trick," Lucas says, "like rack focus. I think it should start black, then the smoke clears and she comes out of the smoke. She comes out of the inky fog to him."

"Most of this work is really intuitive," John Williams says of his composing. "A lot of it can be taught, but much of it has to do with one's own personal tastes and proclivities. People ask, *How do you know when you're on the right track?* And my answer is, *Maybe we never know that*. Every sequence can be written musically one way or another way, and often I *do* do it twice, or, rarely, three times. And occasionally we even record it twice. So I think the certitude that you might wish for, at least in my case within my personality shape, is rarely there.

"I think what's important in the work that I do is to find a rhythm. That's the result less of being so right about the choices we make, but *is* about a consistent effort to sustain uniformity over days and weeks. And then you look back, and days three and four may have been very, very good days. And the next two or three may not [have been so good]. I think in anything we do, in any human endeavor, it's the quality of the sustained work that we perform that will get us some distance to where we want to go."

Total # of shots: 2,300 [est.]

Finals: 1,079

Shots left to go: 1,080

Finals needed per week: 58

Weeks to go: 18



The exterior of Abbey Road Studios. The crosswalk in the foreground is the one the Beatles are walking across on the cover of their record Abbey Road. (J. W. Rinzler)

#### Tuesday, November 30, 2004

**ILM, UJ:** A note from editorial has caused some confusion per the Grievous entry. "We've added the twenty-six frames for his look-around," lead animator Paul Kavanaugh says.

"Well, we thought the look-around would include the cough," Lucas says.

"So he comes in and he stops—it's just having the cough sooner?" Lucas says yes and Paul asks, "What do you think about the motion while he's coughing?"

"It doesn't have to be so long a cough. And he needs to be framed higher—as he comes in, I would pan up," George suggests. "It looks like we're pulling back before Grievous walks forward—but *he* motivates the camera. As soon as he moves, you move. We should try and add some dramatic lighting in there—maybe his eyes are glowing. . . ."

Going over the animation in which Grievous's bodyguards are crushed by a huge slab of concrete-like material that falls from above, Lucas directs the reaction of one of the hapless droids: "He should look up and you see him thinking: *Okay* . . . And then he gets out his little umbrel-la!"

"I didn't know how cartoony to make it," McIntosh says.

"Go for the joke," Lucas encourages him.

Per the new step-by-step approval process for establishing-shot digi-matte paintings, Knoll shows Lucas a work-in-progress of the rehab center exterior, "so we don't find out it's cut out the day before we've finished," Knoll says.

"It looks great; it's in the movie," Lucas reassures. "We just need more rain."

Nevertheless, Knoll suggests to Lucas that they could make a web doc called Final Omits, with a ticking-dollars graphic in the corner. It would start in the art department when Lucas decides upon a shot, continue in animatics, and move on to animation and to the digi-matte department. And the dollar counter would climb all the time—up to the moment the shot is cut.

"That might be good, but, hey, it's my money," Lucas points out. "The real pain is on the artistic side," he adds, conceding that they could include a gallery of finished but omitted shots on the DVD.

#### THURSDAY, DECEMBER 2, 2004

**ILM, UJ:** "We have a new Wookiee shot." A fair amount of whispering ensues behind Lucas after this statement. "Is this one of yours?" he asks, turning around to look at Guyett, and everyone laughs.

Because it's a complicated shot involving swinging, Tarzan-like Wookiees, Guyett remarks, "Sounds like digital Wookiees."

"It's a two-second shot," Lucas explains. "We need it to set up the sequence."

They then expand a Wookiee shot already in progress—KJB.010—the one where a huge group of Wookiees spring their ambush and charge toward the invading droid armies. Lucas redirects a background group so it's now running to join the main Wookiee group, "so you get the impression that it's a unified effort. Unfortunately, the way it is now, it looks like someone forgot to tell the guys at the back."

"I remember growing up in England," Guyett says, "and there was always a black-and-white movie on Sunday afternoon—like *The Dam Busters*, A Bridge Too Far, a lot of war movies—and we'd always watch it. So, while Kashyyyk and Mustafar are incredibly technically challenging, it really goes back to those afternoons—I love the smoke, the dirty texture, the fighting, the explosions. I love that sort of style."

#### Tuesday, December 7, 2004

**ILM, UJ:** Another new shot has Count Dooku's lightsaber flying up and Anakin grabbing it just after cutting off the Count's hands. But Knoll has problems with it. "I'm just concerned that it's not logical."

"Well, we just need the *logic* of the lightsaber going up," Lucas counters. "When you see the new shot in the cut, it's not bothersome. Before, Anakin was ending up with two lightsabers, and we didn't know how he got them."

Total # of shots: 2,138 [the number 2,300, which had always been an estimate only, has now

been revised] Finals: 1,146 Final omits: 188

Finals needed per week: 60

Weeks to go: 16

#### THURSDAY, DECEMBER 16, 2004

**ILM, C Theatre:** Commenting on the moment Grievous tosses Obi-Wan about twenty yards, Knoll says, "It's Jedi Throwing—a new sport." He then presses for giving Grievous a red lightsaber, but Lucas emphasizes that his lightsabers are only captured ones from Jedi; Grievous is not a Sith and therefore has not built his own.

As people file out, Denise Ream says, "Thanks, everyone. You did a great job this year."

"Happy holidays," Lucas adds. "Get a lot of sleep—you're going to need it."

"Thank you guys for fantastic work," McCallum says. "Get ready for three and a half months of total misery and pain."

**UJ:** After the animators have shown their work and left, Guyett shows Lucas two versions of rough test footage in which Vader's mask is lowered onto Anakin's face: a true-to-reality angle and a flatter, more cinematic angle.

"Let me see the first one again," Lucas says.

"That's a more menacing shape, I think," Guyett observes.

"It's nice to see the top of the helmet, because it's identifiable."

"The other has a more alien shape, but I don't know if that says Darth Vader to you?"

"Well, let's just use the alien one, and we'll cut it in to see how it works."

"Okay. The mask's eyes will have little screens on them?"

"Yeah, but very faint. We might want to also see a robot arm moving across the screen."

"Do you want these screens to blink on in the shot?"

"Yeah, that would work . . ." Lucas ponders. "Let's have the images come on first—then right after that, really tiny stuff coming in around the edges. This is one of those important shots."

"I think so," Guyett agrees, and he'd later add, "Some of these guys [ILM colleagues] have said they've waited twenty-five years for this moment. Even if you're not living and breathing *Star Wars*, it's an iconic moment—every kid's dream."

He and Lucas then discuss the progression of flames on Anakin as he burns.

"They have to be burned off by the time Palpatine arrives on the scene," Lucas says, and asks that Anakin's arm be more burned and robotic, and to add more smoke.

"So where do his eyes become red, frame 530?" Guyett asks.

"There's a shot earlier when they turn—430—everything else is contacts [red contact lenses], so you don't have to change anything."

In Los Angeles, John Williams is forging ahead. "The demands of writing for film music require that we are able to write pretty evenly, with a nice flow which would give us a minute a day, a minute and a half, two minutes maybe. We need to meet the schedules we're given, so we really need to be fairly glib about what we can put down. It's a very difficult job and there are some fantastic composers who can't write that quickly.

"George Lucas's *Star Wars* films probably demand more music than any other film, in terms of quantity, because he uses, I mean this in a flattering way, almost a cartoon technique, whereby the orchestra plays almost exclusively along with the action through the two hours plus of the film. So it's a tremendous amount of music . . . And so one needs to be unencumbered by the kind of insecurity that would not allow us to write so many bars of music a day.

"My own technique is orchestral, which is to say that I write for the orchestra. The texture of what the orchestra does is as important as what they actually present, in the rhetoric of music. I don't want to get too technical about it, but basically if you can picture an orchestra on paper, it's flutes here, then oboe, and clarinets, and horns, trumpets, trombones, and so on, with the string choir down at the bottom—which is violins one, two; viola, cello, and bass. So you get a vertical sense of what that is. And what I just described to you is probably eighteen lines of music. And what I do is put it on the short score, which is about eight lines, where I can double up woodwinds—flutes and oboes and maybe clarinets on one line—so that the page of music, as I write it, is constructed orchestrally.

"Then the process is that the eight lines, eight or ten lines or so that I have written—flutes, oboes, trumpets, trombones, first, second, third violin—they need to be expanded onto a thirty-two-line score where every instrument is assigned. And then from those probably thirty-two lines, a copyist extracts the flute part. And that's printed. And that's what the flutist is given, that's all he or she sees. And the same thing is true of the violin part. It's from those parts that the players play. The violinists don't know what the flutist is going to play, and cellists don't know what the French horns are going to play. The conductor's job is then to bring it all together, coordinate that and balance it. And the balancing issues are addressed eighty percent maybe in the writing of the music, and then maybe as much as twenty percent would be addressed on the stage with the orchestra."



The London Symphony Orchestra in Studio 1, Abbey Road Studios. Williams is seated in the chair on the blue platform. (Scott Myers)

#### THURSDAY, JANUARY 6, 2005

**UJ:** Animation dailies begin with a discussion of where Jar Jar is going to be in the funeral.

- "What should he wear?" Coleman asks.
- "Whatever we have," Lucas says.
- "Episode I swamp attire?" Knoll asks.
- "How about the one with tassels?" Lucas asks.
- "That one's not very popular . . . ," Coleman says.
- "Well, you can just turn the tassels off."

Reviewing Grievous's cough, Knoll suggests he needs more "minty-chlorians" and there's a collective groan.

"Grievous's voice had gone through several incarnations," supervising sound editor Matt Wood explains. Wood started working at LucasArts as a video game tester when he was seventeen, and was later a tester for the SoundDroid, which led to work on *Young Indy* and *Star Wars Trilogy Special Edition*. "First Ben did the placeholder, then there was an initial casting package. I went down to LA and recorded some actors, but George wasn't really satisfied with any of them."

Wood then went to Australia to record a second voice-over "package," but this time did things slightly differently. Along with the other actors, Wood—who had just last summer attended the Summer Training Congress of San Francisco's American Conservatory Theater—slipped in his own characterization of the droid general, recorded by Chris Scarabosio, and attributed it to "A. Smithee" (the nomenclature for "anonymous" in filmmaking).

"I never expected to hear anything back, but Rick called and said, 'George chose A. Smithee,' "Wood recounts. "'Do we have access to that person?' So I said, 'Yeah, that's me.' And Rick said, 'You're kidding—do you want me to tell George?' And I did, though I wasn't sure how he would react. But George said, 'That's great!' Later on, in one day, we recorded all the lines."

Not only did they record Matt as Grievous, but George, who had a cold that day, also went up to the mike and coughed into it as a joke. Afterward, as they were going to do a batch-processing of the dialogue, the technicians continued the joke by processing Lucas's coughing. One thing led to another, and the coughing became part of Grievous's permanent performance—"and now Rob is animating to it!" Matt says, almost incredulous.

#### The Matt Wood Voice-Over Saga

Not only does supervising sound editor Matt Wood voice Grievous in *Revenge of the Sith*—he's done at least one character in every film:

Episode I: Podracer Ody Mandrell Episode II: Dug taxi driver Seboca

Episode III: General Grievous

Episode IV: Rebel pilot celebrating on Luke's return, "They're back!"

Episode V: Rebel pilot as snowspeeders are being prepared, "Mount the

tow cable"

Episode VI: Naboo Gungan, "Weesa free!" in the DVD version finale cele-

bration

Total # of shots: 2,138

Finals: 1,374 Final omits: 192

Finals needed per week: 65

Weeks to go: 13

#### Notes:

Monday, January 10, 2005

Rick McCallum flies SFO-London to begin prepping ADR, pickups, and music scoring.

Tuesday, January 11, 2005

ILM is nominated for five Visual Effects Society awards for its work on Harry Potter and the Prisoner of Azkaban, Lemony

#### TUESDAY, JANUARY 18, 2005

**UJ:** "Best Picture?" Lucas wonders aloud after someone asks him who's going to win the Oscar. "Who the DGA [Directors Guild of America] picks will pretty much decide who gets it."

Going back to the swinging Wookiees, Coleman wonders if the shot is too bare, and what they're supposed to be swinging from.

"If you started on frame one, if you had a large dark object, like a tree limb," Lucas improvises, "then you'd see what they swing off of."

Guyett and Coleman think that might be a hard sale.

"Another way to do it then is to have them jumping off of a Wookiee canoe, or whatever you call it [catamaran] . . ."

"Yeah, one of the struts of the ship," Coleman says.

"Okay," Guyett says. "I like that."

"Yeah, and it can pull back or speed ahead of them," Lucas continues.

"So they're belaying off it," Coleman says.

"Special Forces Wookiees," Guyett agrees.

For Coleman, Episode III is winding down. "We have all the models built, we have all the characters we need, and in fact as of this date we have less than a hundred shots to turn over—less than a hundred that we haven't started at all, out of 1,265, so I feel really good."

More than two years ago, he likened this film's challenge to climbing Mount Everest, and now he says, "The climb has actually gone very well. We didn't need as many oxygen tanks as the last couple of times. We had less people freezing to death and we had less people falling off the cliff."

Reel Delivery Schedule [when visual effects need to be complete]

Reel 1 due: January 27 Reel 2: February 22 Reel 3: March 1 Reel 4: March 28 Reel 5: April 1 Reel 6: March 23 Reel 7: March 14

Notes:

Monday, January 24
At Elstree Studios, rigging of Stage 8 begins for the pickups.

Wednesday, January 26

At Elstree, crew begin lighting the stage. The next day, camera prep begins and Roger Guyett flies SFO-London.

#### WEDNESDAY, JANUARY 26, 2005

**SR, Skywalker Sound (Tech Building):** Ben Burtt is now far along in the sound design process. "When I was six years old, I was sick with encephalitis [inflammation of the membranes

enveloping the brain]," Burtt recalls, "and so I was home in bed for I guess a couple of weeks. My father, who was a professor at Syracuse University, brought home a tape recorder. He set it next to my bed, and said, 'Here's something you can play with.' So I got interested in sound recording because of that. I'd hold the mike out toward the television and record something like Superman or Roy Rogers. And then I'd listen back to them—so I got very interested in the *sound* of movies, music and sound effects and how it all went together. I had a hobby interest in it; I didn't think of it as a career.

"As an undergraduate I went to Allegheny College, where I was a physics major and got my BA. Once I decided to pursue film in graduate school at USC—thanks in part to winning a couple of national film contests with my amateur films—I thought I'd be a physicist who made scientific movies."

Instead Burtt has won several Oscars, written scripts for film, animation, and television, and directed *Young Indy* episodes as well as IMAX films. Most recently for *Revenge of the Sith*, he's worked on a number of sound effects. Excerpts from a September 14, 2004, "Spotting List for Reel 1" includes just a few of them:

#### A Efx

Jedi fighter afterburner thrust Elevator hits two battle droids Face punches and kicks in [Jedi–Dooku] swordfight

B Efx

Lasersword hums and swishes

C Efx

Buzz droid pops open Buzz droid rips off head Artoo zapper deploy

E Efx

Dooku head sliced off

G Efx

Droids scream as they get sucked out of ship

"Right now we're probably two-thirds through cutting and mixing the sound effects of the film," Burtt says, sitting within the center of a ring of sound design technology. "We're cruising at this point. George came and reviewed everything we'd cut and mixed. That was just before Christmas, for two successive days, and he made some suggestions. He's coming down today to look at the trailer.

"We are also in the middle of a series of technical experiments. We made a commitment early on to do the final [sound] mix with Pro Tools, which is not usually done with a feature film. Picture cutting here is still done on the Avid, sound editing in Pro Tools, and mixing in some other system or systems. The reason we wanted to go with Pro Tools was to streamline and simplify the process. In the past, Pro Tools was used for [sound] editing, and then everything had to be translated to a new system. So we're getting one big area hooked up together—and someday, hopefully, picture editing will join us on a system that is really *one* workstation.

"Doing that means modifying what are usually separate divisions of labor done at different workstations requiring different software and procedures. Essentially we're trying to make it so the process can be done on one platform, one type of software.

"However, the Tech Building was not set up for the first hook-up. So George had new sound design rooms built into the hillside here, nine or so rooms. Three of them are activated right now. We got the mixing console today, and next week we'll start to experiment. The idea is that these are mini mix rooms in which one editor-mixer can work and do the whole movie, rather than going onto the big expensive stage—the traditional way—where you've got three mixers getting paid huge amounts. George built those rooms with the idea that the bulk of the work could be done there, and then you'd go on the big stage to *check* the work, as we will on *Star Wars*. Building those sound design rooms was his first step in his policy of saying, *I want to do it differently*.

"We're also premixing, each editor in his or her individual room—and that hasn't been done before. Usually they just edit in their rooms and their work would be shifted down to the stage where the mixers would start premixing it, a different set of people. But now that premixing is taking place in the editing rooms.

"There's been a lot of resistance to doing this. We're asking the engineers to learn new things. Now we have editors who are also having to be mixers (this type of approach would meet huge resistance in Hollywood). And setting up the Pro Tools equipment has required a lot more inventiveness and R&D than we anticipated. Everyone has had to think differently. At first I was a little resistant to it, too, but once we began to see the satisfaction of using one system . . ."

# GOLDCREST POST, LONDON, ENGLAND SUNDAY, JANUARY 30, 2005

At Lexington and Brewer Streets near Piccadilly Circus, Ian McDiarmid arrives at Goldcrest Post to do his automatic dialogue recording (ADR). This afternoon, Natalie Portman (Padmé Amidala) will do hers.

"How are you?" Rick says to the veteran actor and stage performer. "I hope this wasn't too early." It's 8:45 A.M.

"Not at all," McDiarmid replies. "I like working early."

As he won't be on camera today, an unshaven McDiarmid takes his place next to the microphone wearing pants and a baggy sweater. After a few impressive takes, Lucas says of his character, "You're the new definition of evil."

"And that's just at home," Ian says.

Goldcrest is in the heart of a London film, theater, and adult club community. McCallum, who worked many years in London for the likes of Dennis Potter and Nicholas Roeg, had his first office down the street from here, which he rented from a retired prostitute. "My secretary put a piece of plywood over the bathtub," he remembers. "That was her office."

Now McCallum joins ADR mixer Robert Farr and his assistant Mark Appleby behind a long analog soundboard, covered with knobs, status lights, buttons, potentiometers, and sliders. Lucas and supervising sound editor Matt Wood sit at a table in front of them, and McDiarmid stands at the microphone to their right. Whatever scene is being looped is projected onto a large screen that they can all see.

The actor's timing is helped by "streamers": a line that runs from left to right on the screen; when it merges with a second line on the right, that's the actor's cue to read the line—which then has to match the lip movement, pauses, cadence, and timing of a previously recorded line that has been rendered moot by technical problems, line changes, tone problems, et cetera.

A squeaky staircase is the culprit behind the looping of CCO.120—Coruscant Chancellor's office: "I'm depending on you to be the eyes, ears, and voice of the Republic."

Take. "I think maybe a little more projection," Lucas says.

Take. "I think we can go a little stronger."

Take 7: Ian has to take off his watch, because the microphone is picking up its ticking.

Take 8: "That's great. That's what I was looking for."

A PA delivers a plate of pastries and places them in front of George, who moves them in front of Rick, who moves them away as well.

Next up are Palpatine's grunts and hisses for his fight with Mace Windu. As they review the scene, McCallum remarks, "The problem, Ian, is every single kung fu movie . . ."

"... I'll do them all," Ian jokes.

Take. "Let's try one more with even more hissing," Lucas asks.

They then do the Sith Lord's pseudo-groveling as Mace prepares to kill him, and Lucas says, "This is the point where all the kids in the audience stand up and say, 'It's a trick! Don't listen to him!'"

Because of the huge fan that was used to blow their cloaks and hair at Shepperton Studios, which of course drowned out all their voices, McDiarmid has to redo his lines as he fries Mace. As Ian reads his lines, often he acts them out physically as well. At Shepperton his performance had wowed the crew, and now he performs with the same maniacal energy, belting out the lines, "Powwwerrr! Absolute powerrrr!"

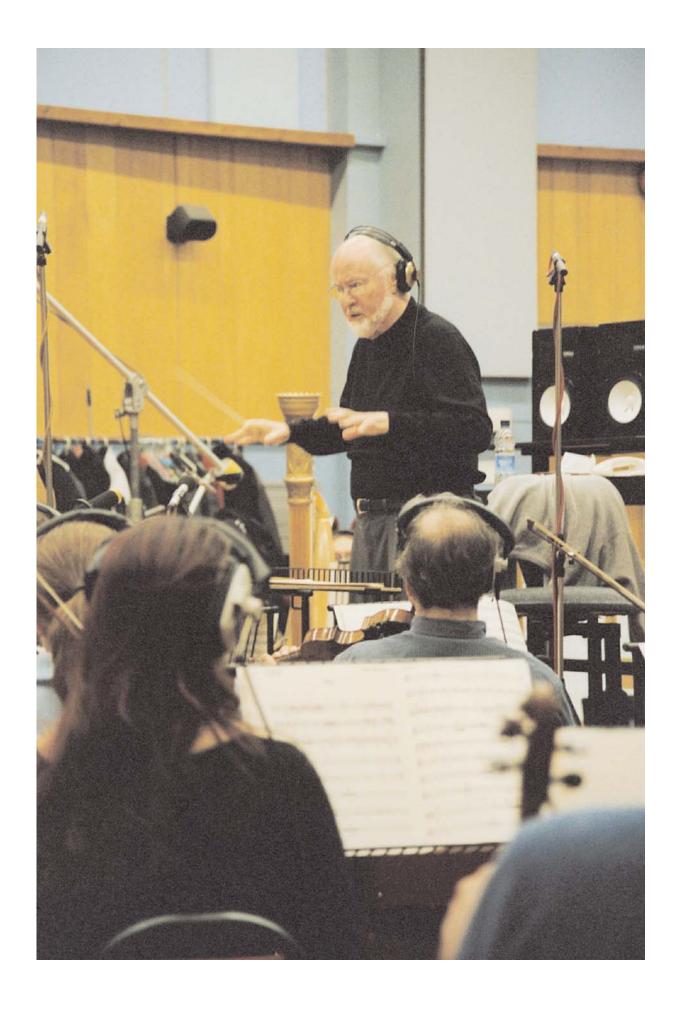
"Wow," Matt says. "Nice."

"Could I have some water?" Ian asks.

"I'll get you some," Rick offers.

McDiarmid's session ends with wild lines—dialogue and sounds that don't correspond to a specific place in the film but that can be used if needed—along with grunting, evil laughing, and hissing.

"There were some very strange sounds in there," Lucas laughs.



At 1 P.M., there is a break for lunch and McDiarmid leaves to catch a plane. In the lobby of the recording studio are signed posters of other films that have passed through here: *Hotel Rwanda* (2004), *Shakespeare in Love* (1998), *The Phantom Menace* (1999), *Lord of the Rings: The Two Towers* (2002).

After lunch, Natalie Portman arrives, her hair tied back in a bun, wearing jeans, a rust-colored shirt, and sneakers. Lucas congratulates Portman on her Golden Globe Award for the Mike Nichols film *Closer* (2005). She asks how the film is going and George says that even Francis Ford Coppola, who is usually not enthusiastic about *Star Wars*, actually likes this one.

"Oh, I can't wait to see it," Portman says.

The first scene they loop is CSH.030—Coruscant Senate hallway—where Padmé and Anakin meet for the first time in the film. "We need an 'Oh, Anakin' that sounds more like you haven't seen each other in a long time [six months]," Lucas says.

Take. "Let's try it slightly breathless—you're emotional and . . . relieved," he directs.

After take 4, he says, "That was great."

Though not much talked about in the press, looping is an important part of moviemaking. An actor's ability to come in and match or improve upon cadence, timing, emotion, and so on—rapidly, because they might jump through ten scenes in an hour—is key to the creation of their overall performance. "When you're on the set, your performance is always more organic," Lucas says. "Now you're just in the room and it's hard to summon that energy."

"It felt right on sync," Natalie says, per another line.

"It might need to be projected a little more," Wood says.

During take 5, her voice cracks.

"It is emotional—" Lucas begins.

"—but too much," Natalie admits.

After repeated takes, she asks, "Can we listen to the original again?"

After the next, Lucas says, "I like that one."

For MLP.502 (Mustafar landing platform), he explains, "I need a little bit as you drop and thud and moan [after Anakin Force-chokes her]. We need something as you fall that sounds like your breath getting knocked out of you."

Take. "Because he's letting go of your throat, the first thing I think you'd do is gasp for breath."

Take. "Yeah, that was good."

"The little whimper needs to be less wimpy," Wood requests, and Lucas notes with a smile that Wood is now an expert on voice-overs because he's the voice of Grievous.

The subject of Matt's payment comes up and McCallum says, "We're still negotiating—" "We're up to a six-pack of beer," Wood admits.

The next line to be looped is Padmé's "Luke," which she mutters after giving birth in the Polis Massa medical center, so Lucas remarks to Portman, "Remember: We're going to have the whole

London Symphony Orchestra wailing in the background, so it needs a little energy even though you're dying."

Last, Natalie has to do a variety of wild screams. "Well that's it," Lucas says. "Thank you—see you tomorrow," and they hug good-bye.

# ELSTREE FILM STUDIOS, BOREHAMWOOD MONDAY, JANUARY 31, 2005

Makeup call: 0530; Wardrobe call: 0530; Crew call: 0730 SET/LOCATION: Stage 8
Int. Padmé's spaceship, int. Palpatine's office, int. Fed Cruiser general's quarters, ext. Mustafar lava river

Elstree is a quite familiar locale for Lucas, who not only shot the first *Star Wars* here, but also spent a lot of time here working on Episodes V and VI; the *Indiana Jones* trilogy; *Willow* (1988); *Return to Oz* (1985); *Labyrinth* (1986); and others. Shoot Days 24, 45, and 46 of *A New Hope* were filmed on Stage 8, in particular, which housed the sets for the "Pirate ship [*Millennium Falcon*] cockpit and gunport" as well as the "Mos Eisley Spaceport alleys." On Friday, July 16, 1976, the last day of shooting for that film took place on this stage, and the first day of studio shooting for *The Empire Strikes Back* took place here in the "main hold" of the *Falcon* on Tuesday, March 13, 1979.

"I've made so many films here, it feels like home," Lucas says. "I had breakfast in the commissary this morning and it hadn't changed."

"But I'd heard the food had improved in London," an American crew member says.

"Not here."

To start the day, Lucas shows the new trailer to the assembled crew, which includes many stalwarts: Nick Gillard, Trisha Biggar, Michael Mooney, Nicole Young, Giles Nuttgens, Shane Thomas, David Lee, others of the Shepperton crew, and Roger Guyett, who's made the trip from the Bay Area.

"I'm happy, Nick," Lucas says to Gillard, who, like the others, is impressed with the trailer. "This is the last day."

"Are you panicked?" Giles asks Lucas and Guyett, when he hears how many visual effects are still left to be completed.

"No," Guyett answers.

"ILM is a well-oiled machine," Lucas adds. "They have six hundred shots left, but by the time I get back [four weeks later], they'll have only three hundred. It's the first time in ten years that I've been able to relax completely. Usually Rick is asking me about the next film. But there is no next film. Now I actually have Saturdays off."

"Is that scary?" Giles asks.

"It's nice. It's a huge load off. Today's the last day of work really. Next I'll listen to the mix; I time the movie—"

"Can we shoot, please?" Rick says, walking up to them.

"We can if we have an actress," Giles says. Coincidentally, at that moment Natalie Portman arrives on stage in costume.

Her revised scene consists of a new line—"Obi-Wan, is Anakin all right?"—as she lies on a skiff medbed. Obi-Wan (played by a body double) doesn't respond and Padmé faints away.

At 8:27 A.M. they do the first take. After a few more, first AD Sue Wood announces, "Natalie's part is complete." And this time it really is—no more looping or pickups or future films; the role that Portman began as a teenager is over. There is applause, and she quickly exits the stage.



From the control booth, looking out at the orchestra. The above-left monitor plays the scene whose music is being recorded, for reference. (Scott Myers)

Hayden Christensen (Anakin Skywalker) arrives and watches the trailer with Lucas. "That's great," he says. "That's all you can hope for—it's pretty amazing."

Dean Devlin—producer of *Independence Day* (1996) and *One Nation* (2005), among others—has arrived. "We're one shot away," Lucas informs him. While they talk, time passes and McCallum arrives on set.

"Are we close? Can we do this?" Rick asks.

Hayden walks over and asks Devlin what brings him to these parts.

"We move in when you move out," Devlin responds.

"Stand by for shoot," Sue says, and the recording bell rings.

Production designer Gavin Bocquet has arrived with his wife and their child, who was born shortly after principal photography in Sydney—and indeed everyone who could come to today's brief shoot is here, as the last Star Wars live-action shot is about to be recorded. The two-page "Reshoots" guide, dated January 21, 2005, describes the last shot:

Sc. 160. Shoot High Angle wide shot of Anakin running away up the collection arm as it begins its slide downward over the falls. The camera should be looking down, toward the bottom of the Lava Falls. Then, as Anakin runs away from camera, we should be tilting up to see the Collection Arm in the background and the top of the Lava Falls.

There's a quick continuity discussion as to which hand Anakin should be using to hold his lightsaber, and then Christensen runs away from camera down a strip of blue carpet pretending to jump off a CG structure as it plummets over the lava fall.

"Come back and we'll do one more," Lucas calls to Hayden. They reset.

"And . . . action!" Lucas calls out.

Christensen runs.

"We'll do two more."

After one, he says, "Ready . . . and . . . action!"

Christensen runs once more.

"Cut. Last shot. Finished," George says, turning to his producer. "Rick, it's all over. Twenty-eight years." Everyone claps. Rick and George hug.

"Congratulations," Rick says.

The trailer is viewed one more time and then everyone files out to eat some vintage-1970s English food.

#### GOLDCREST POST, LONDON

#### Tuesday, February 1, 2005

On the second day of ADR, Samuel L. Jackson arrives at 9 A.M. "Good morning," he says jovially.

"How was your trip?" McCallum asks.

"Uneventful," he replies. "As it should be."

George walks into the recording studio, and he and Jackson hug.

"I saw you in *Coach Carter*, and I thought you were great," Lucas says of the actor's latest film to be released.

"We shot miles and miles of film and found a movie in it."

They discuss Clint Eastwood's *Million Dollar Baby*, which Lucas saw yesterday. "It's good. She's [Hilary Swank] great," he says.

"It's a good three-handed tragedy," Jackson notes.

"Morgan [Freeman] is very strong and is the center of the movie. And Clint was very good."

"So, tell me," McCallum asks Jackson, "are most directors completely full of s--?"

Jackson pauses a moment, then answers, "No. They just tell you one thing and then change their mind. But I've been on ninety-nine movies and the average director's been on five. They have no idea about what can go wrong, and they decide to do things that aren't going to work. And they speak to the heads of the departments without talking to the regular guys, and then expect things to trickle down."

"It's hard to make films even in the best of times," Lucas points out. "It's hard to imagine how everything is interconnected."

After quickly looping a variety of lines, because the recording console has gone dead, talk continues. While the engineers struggle to resuscitate the machine, Lucas and Jackson discuss the former's long-nurtured film project *Red Tails*, about the Tuskegee Airmen.

"These guys are the *knights*," Lucas explains. "It's not a story about how they got there, it's really a story about what they did—one of those guys destroyed a battleship in a Mustang [one-person fighter plane]! And they went on to become the captains of industry.

"I'm going to do the bare-bone skeleton of this whole thing," Lucas adds, "and once I get that down maybe I'll let you read it."

"Excellent," Jackson says, and they agree to speak later about the project.

After the recording equipment is reanimated, Jackson finishes by looping some lines from Mace's battle with Sidious, doing quite a few death screams and ending them with a "Damn!"

"I think we're done," Lucas says.

"A great day digging ditches," Jackson says.

"Work is the thing," Lucas agrees. "Good movie, bad movie, good, bad, bad, great, great—that's what an actor needs to do. I tell people to follow your example."

Jackson is then shown the movie's trailer. "That's the way to send me out!" he says, then he, too, exits the room and the *Star Wars* production.

Hayden Christensen is slated for nearly seven hours of ADR. He arrives at around 10:30 A.M. Much later in the afternoon, George says that the actor's looping of a line on Mustafar—"I'm becoming more powerful than any Jedi has ever dreamed of"—was well done. But Christensen, who wears a Toronto Maple Leafs cap backward on his head throughout, asks for another try.

"Okay . . . if you really want to," Lucas says. But after the new interpretation, he is impressed. "Let's hear that one played back," he asks Robert.

"I have brought peace, freedom, justice, and security to my new empire" is the next line. Christensen would like to redo the pitch of his voice for this whole scene, but Lucas is skeptical. "Can we hear it?" Hayden asks.

"We can watch it," Lucas says, and they do. "Well, I can repitch it," he notes. "I can make it a tad lower."

"Yeah, that can be done," Wood says.

"Okay, please don't forget," Hayden asks Lucas.

"I won't forget, don't worry."

They do several takes of the single line. On a couple of them the timing is off, while the performance is good, so Wood says he can slide the words forward or back as necessary.

"I could do one that's more emotional," Christensen suggests.

Take. "That was good, more emotional," Lucas agrees.

"You just have to pause more after 'justice,' " Wood adds.

The next line to be looped is "If you're not with me, you're my enemy."

As he has for most of his looping, Christensen warms up by reciting to himself the preceding lines to get into the mood of the scene.

Take. "That was good."

"Can we try it one more time?" Christensen asks.

They end up doing several more, with Lucas noting down his favorites.

Dubbing Anakin's grunting and breathing as he slaughters the Separatist Council, Christensen can't help joking: "Ha, hee, hee! Take that! Sorry! I'm just following orders. Please don't take it personally. Call me!"

"See, Anakin's apologizing; there's still good in him," Wood points out.

The next overdub is not a line, it's a scream. "You yell for the jump [as Anakin tries to outmaneuver Obi-Wan on Mustafar] and scream for the sword cut [as Obi-Wan strikes down Anakin]," Lucas explains.

Take. More looped and wild screams follow, including an important howl as Vader is operated on. "Let's try a full-on scream," George says. "You can even go beyond the cut [to Padmé on Polis Massa]."

Christensen does one more. Lucas asks him to sustain the howl of anguish even longer—and, on the next take, the actor lets loose with a gothic horror shriek.

"Okay. One bit of breathing," George says, "and we're done."

"723 take one," Robert says and rolls the shot that has the mask going on Darth Vader.

Take. "Let's do one more and make it more raspy," Lucas says.

Take. "Okay, we're done. Thank you. That's it. It was great."

"It's looking awesome," Christensen says of the film.

"Well, wait until you see the whole thing."

#### ABBEY ROAD STUDIOS, LONDON WEDNESDAY, FEBRUARY 2, 2005

Studio 1, Soundtrack Recording-Day 1

Just across the hallway from Studio 2 where the Beatles recorded most of their music, members of the London Symphony Orchestra (LSO) file into Studio 1, many of them hanging their coats on the backs of their chairs. Some musicians have walked; some biked or took the tube. In a roughly thirty-by-fifty-yard room, sounds of instruments being tuned fill the air—horns, oboes, violins.

The acoustically enhanced room is connected to a control booth and a series of utilitarian sub-offices. Lucas will listen to the recording sessions primarily from the booth, though he'll occasionally take a seat upstairs in the producer's lounge, where McCallum is monitoring the proceedings. In the middle of the sea of instruments is a rectangular platform raised a few inches off the ground. This is where John Williams will shortly take his place as conductor. On each of these virtuosos' music stands has been placed the sheet music for their specific instruments for this morning's "cues" (parts of the score). There are more than forty cues for *Revenge of the Sith*, and, as of today, this is the schedule for their recording (the titles of the cues are placeholder only):

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Day 1: Wednesday, February 2, 2005
       Padmé's Visit (reel 6, cue 3 for that reel)
6M3
1M7
       The Death of Dooku
6M4
       Heroes Collide
       Palpatine's Seduction
4M3
Day 2: Thursday, February 3, 2005
6M9
       Revenge of the Sith
Revenge of the Sith DVD Version
       Good-Bye, Old Friend
3M5
2M5
       Grievous Travels to Palpatine
5M7
       Anakin's Dark Deeds
2M3
       Another Happy Landing
6M6
       Yoda Falls
5M1
       Palpatine Instructs Anakin
       Drawing Swords
4M1x
Day 3: Monday, February 7, 2005
5M3
       Lament
7M3
       The Birth of the Twins
7M4
       The Death of Padmé
       Padmé's Funeral
7M6
3M2a
       Palpatine's TV Set
       Get 'em, R-2!
1M4a
       A Home for the Twins
7M7
Day 4: Tuesday, February 8, 2005
6M7
       The Boys Continue
7M2
       Anakin Crawling
4M4a
       Fighting with Grievous
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Plans for the Twins

7M5

7M1	Padmé's Ruminations The Immolation Scene Good Guys Arrive
2M1 5M4 5M6	Wednesday, February 9, 2005 [no title] Swimming, Droids, and Yoda Farewell Moving Things Along Palpatine's Big Pitch
1M3 2M6 3M7 6M2 6M8 3M8	Saturday, February 12, 2005  Boys into Battle Scenes and Dreams Riding the Lizard A Moody Trip Rev. Yoda to Exile Obi-Wan Fares [sic] Droids News of the Attack
3M6 4M4 3M2	Sunday, February 13, 2005 Going to Utapau Rolling with Grievous Hold Me Be Careful of Your Friend
1M4 3M1 4M6 1M6	Monday, February 14, 2005 They're Coming Around Council Meeting I Am the Senate Count Dooku's Entrance Bail's Escape
1M5	Thursday, February 17, 2005 The Elevator Scene It Can't Be

#### Not Assigned

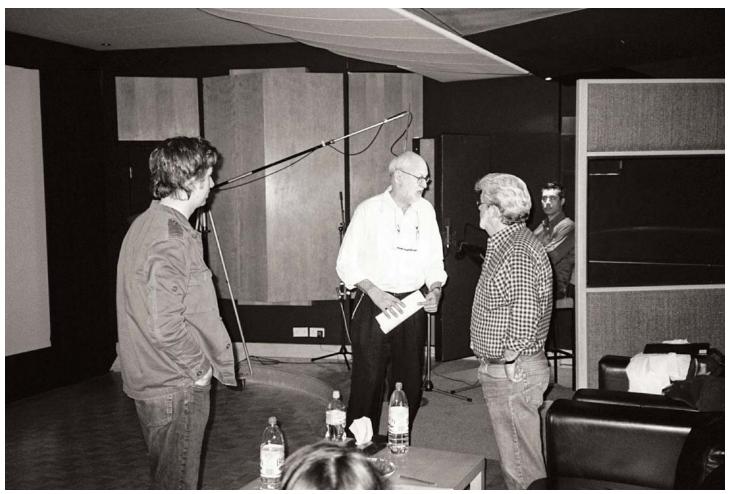
7M8 4M5

2M4 Revisiting Padmé 6M5 \*\*Choir Only\*\*

End Credits

Dialogue with Mace

Note: The Star Wars theme will not be re-recorded; a preexisting version will be used for Revenge of the Sith. Additional days 10 and 11 are scheduled for February 18 and 19, if needed.



Left to right: Supervising sound editor Matt Wood (Grievous), Frank Oz (Yoda), Lucas, and Silas Carson (Nute Gunray/Ki-Adi-Mundi) at Goldcrest Post. Oz has just finished his ADR, while Carson is about to begin his. (J. W. Rinzler)

"When the orchestra comes, they will not have seen the music," Williams says, "which speaks to the level of musicianship that we have not only in London, but with the great American orchestras that are also wonderful. The sight reading that we talk about in [relation to the] *Star Wars* orchestra recording sessions is phenomenal. It makes my job in rehearsing, working it up, and getting it ready to record a lot easier than it used to be. And though it begins with sight reading, it goes so far beyond that. There's a whole area of comprehension that comes with it."

Because the LSO is scheduled to start at 10 A.M., Williams takes the stand—gray pants, black belt, black sweater—at 9:55 A.M. and talks to his music editor Kenny Wannberg. Of course there is excitement in the air. A cinema-sized screen is on one wall, behind the musicians but in Williams's eyeline, so that he can conduct to the film's pacing.

About a minute after Williams takes his place, the noise level in the room increases substan-

tially as nearly all the musicians do their last warm-ups and every seat is filled. Williams claps his hands and they all fall silent. The lead violinist plays a long note so everyone can tune to his instrument, and the sound swells as the last preparations are made. Williams stands, hands in pockets.

One of the lead musicians takes the mike and says, "It is a great pleasure to welcome John Williams, George Lucas, producer Rick McCallum, and music editor Ken Wannberg." He then congratulates a few musicians who have actually played in all six films. Williams takes the mike and also congratulates the "survivors."

"We'll begin with 6M3," he says, raising his baton—and on Williams's cue the orchestra launches into "Padmé's Visit" with a unity and beauty that is unforgettable. The film is not projected, as this is a rehearsal, but one can hear already echoes of Episode II's "Love Theme" and Episode V's "Darth Vader's Theme." Williams conducts with both arms mostly, and sometimes with just the baton in his right hand. As the orchestra plays, he turns the pages of his score.

After the first run-through, he makes a few comments and they begin again—but this time he stops them, often between measures, correcting as he goes.

"Good eighths, please," Williams asks at one point. "Horns, at the beginning of nine, together, but very short . . . ," he asks at another point. "Let's separate twenty-four, people."

Williams turns toward the control booth and says, "I think it sounds very good, Shawn [Murphy, scoring engineer]," who agrees and they prepare for a take—that is, a recording of the cue.

Streamers exactly like those used in ADR sessions signal the onset of the cue, and Williams starts the orchestra, this time synced perfectly with the film. The cue begins with Padmé's arrival on Mustafar. As Anakin becomes angry, the music takes a dark turn; as Padmé backs away from him, "Darth Vader's Theme" is played softly. When Obi-Wan appears, the music is sad and subtle, which Lucas had requested during the music spotting session. The music then builds to a crescendo as Anakin chokes Padmé and the first lightsaber blow is struck.

"Beautiful," Williams says after the first take. At the end of the second take, with a sweeping gesture of his right arm, he stops the orchestra.

"The conducting is an interesting part of film music," Williams says, "particularly with a *Star Wars* film, where the music is choreographed to the action so specifically. The synchronization of the musical activity with the film is what the conductor is responsible for—it's a big part of the job. And in many ways it's the most enjoyable part of the job, because it's the moment where the music gets up off paper, where it's just an abstraction, and becomes a live human thing."

On said paper, a glance at the orchestra sheet music reveals the following instruments in the following vertical order: "Flutes, Oboes, Clarinets (4), Bassoons (3), Horns (8), Trumpets (4), Trombones (4), Tuba (2), Percussion (big Japanese drum, 3 deep drs., piatti, cymbal), Timpani, Synth (1), Piano, Harp, Violin (30), Viola (14), Bass (8)."

In the lounge upstairs, Hayden Christensen arrives. As they play through the scene again, Christensen remarks that, with the passing of time, he understands better the scene's emotional

arc and that yesterday's ADR felt good. During a break one of the female musicians climbs the staircase to ask for his autograph.

For "Dooku's Death," five giant drums are played to signal his beheading.

Take. Williams decides to add the drums to a later percussion-only session that will facilitate the recording process.

At 11:50 A.M., they have successfully recorded the first two cues and begin rehearsing "Palpatine's Seduction," during which slightly skewed rhythms reflect Anakin's skewered psyche in the scene.

"That was a good learning session for me," Williams says after the first take, and he enters the control booth where he and Lucas watch the scene while listening to the playback.

"When we work in the studio," Williams explains, "we typically do a recording of that piece and then go inside the control booth where we can hear the playback, the result of what we've just done. I like to do that because I will always learn something. I'll hear something that needs to be brought out or reduced. And also the orchestra players will come into the booth; if they're section leaders, [they] may want to come in and see how [they're] doing and how their colleagues are measuring up—but a lot of times they will come in just for the fun of hearing themselves. But the playbacks are important: They give George Lucas a chance to discuss with me what I'm doing, and maybe he makes suggestions about what I might do to make a point that he wants to make which I haven't emphasized. So it's a serious but also a fun part of the recording process."

This particular time, Lucas remarks that they're moving rapidly through today's cues. "We have plenty of music, George, don't worry," Williams jokes.

As they continue to record, Lucas reads *The New York Times*. After the next take Shawn says to Williams through an intercom: "We're not together right at the downbeat of the piece—we're consistently not together at twenty-seven."

"The release note at twenty-seven?" Williams asks.

"Yes. Really good otherwise."

At 12:25 P.M., rehearsal begins for "Heroes Collide."

"That was good," Lucas says to a visitor. "Now we have to see how it plays in the film."

At 1 P.M., the orchestra breaks for lunch. The majority of the musicians adjourn to the cafeteria, while McCallum, Lucas, and Williams listen to a playback of the music in the control booth.

"Awesome," Rick says.

"I think if the chorus comes in there [on "Heroes Collide"], that'd be great. We had the drums . . . ," Williams says, but then turns to Shawn. "Is this on our bit of percussion suite?" "No."

"Well, let's add them. There are a couple of places it could be more driving. When we come back, let's do one without any percussion."

"That'd be great," Lucas agrees.

"It's promising," Williams says.

"I think it'll be great," Lucas reemphasizes. "I think the real problem is: Do you have any notes

left for the rest of the movie?"

Later in the afternoon, the LSO has made such good progress that they move up "Revisiting Padmé," which accents the reunion of Anakin and his wife—but, while the scene is mostly smiles, the music tells us that their situation is tinged with foreboding.

"I think the greatest opportunity we have in music with films," Williams remarks, "is to create an emotional element in a scene that may be already there. And if it isn't there we might suggest it. If there's a scene between two very animated and opposed people who are actually lovers, the music may be telling [the audience that] there's something else, a kind of undertext about what their mental state may be."

Next "The Immolation Scene" is attacked. After a recording take, Williams and the lead musicians file into the control booth to watch the playback. One of the musicians, who is watching for the first time Anakin bursting into flames, exclaims, "Wow. I just can't believe it!" Lucas mentions that one of the Elstree pickups might affect the scoring of the cue. The addition of Padmé's line on the medbed makes the scene longer than the musical cue.

"Any idea how long the new part is?" Williams asks.

"Ten seconds maybe," Lucas replies. "It's a real emotional moment and I don't know if a stretch of a chord is going to do it; I think it might need a chord switch on Obi-Wan's face."

Williams agrees, but says, "I think we'll be all right."

After further review of the cue's finale, Williams says, "I just don't like what I did there at all," and laughs.

A short time later, the orchestra and Williams end early.

"I think it was a great first day," Lucas says to the composer.

"We did a lot, about twenty minutes," Williams notes. "But it's still a big list tomorrow."

He leaves, and Lucas and Wannberg discuss how to incorporate the pickups and the reel delivery schedule.

"Ultimately we'll only have one reel that's problematic," Lucas explains. "We're finally getting control of this thing."

"But it's the last film, George!" Wannberg jokes.

"I'm not under control." Lucas smiles. "I'm still causing as much trouble as I ever did."

#### ABBEY ROAD STUDIOS, LONDON THURSDAY, FEBRUARY 3, 2005

Studio 1, Soundtrack Recording-Day 2

"Horns, in thirteen, the metric shape should be the same as five," Williams says. The rehearsals for "Revenge of the Sith" are taking longer than yesterday's as the piece is more difficult. The cue involves the end of the Mustafar duel, and so is dramatic and then quiet when Anakin's limbs are severed.

"Shawn, what effect does that have on you?" Williams says as he turns away from the orchestra toward the control booth. "I don't think we're overplaying it. It's hard to say, *Play more soft-*

ly on this."

"John," one of the musicians asks, "when it gets the loudest, is it possible that the brass level be increased?"

"Yes. Shawn, could we do that?"

"Where would that be?" Shawn asks, in turn.

"Thirty-six and fifty-one . . . and seventy-two are the spots, Shawn. And it may be that the crescendi is making us late," Williams remarks, and then turns back to the orchestra. "People, it may be that when we can get to a crescendo—don't play them too loudly."

In the control booth, after a few takes, Lucas says to Williams, "The focus really has to be on the emotional content."

Director and composer discuss the different instruments, and the latter again reassures, "I think we're going to be in good shape."

"I think it's important to get the drums free on their own separate track so we can control them," Lucas notes, and Williams agrees. One woman watching the moment when Anakin is dismembered covers her mouth as she gasps.

Later that morning, George and John are listening to the playback of "Good-bye, Old Friend."

"When Obi-Wan is on the [Jedi cruiser on his way to Utapau]," Lucas says, "there should be more tension. There are two horns in there that seem to be resolving the tension, but we shouldn't be that happy yet."

He and Williams discuss possible solutions. "Once in a while George will say, 'Try that or try this,' "Williams explains, "and I can try it and very often it will work better, but . . . the possibilities are so myriad in all of these scenes, from the musician's point of view. There are so many maybe even very good ways to do it that we hope we've settled on one of the best approaches. But eventually we have to commit to a performance."

After lunch, they record "Grievous Travels Toward Palpatine."

"In *Revenge of the Sith*, there are three or four pieces of new material," Williams says. "A couple of them are lamentations; they accompany some very dark turns in the action. And there's also a kind of fun piece, which includes a lot of percussion, for Grievous.

"But in this film more than any of the other five, there are references to earlier scenes, which seem to me and to George to be part of the way we want to tell the story, musically. There's a reference to what we call the 'Force Theme,' which is the positive side of the Force, and it's referred to more and more in this film. And there are even some references to Princess Leia's forthcoming arrival, so we hear her theme now for the first time in several films. And there are quotations of what we called the 'Imperial March,' but it's actually 'Darth Vader's Theme,' the archbaddy, the archvillain of all time. It's a combination of new material and old material, all organized within the specific outline—so it's quite a musical tapestry.

"Part of music for films that's very important is the melodic part, which is an opportunity for a composer to create a melodic identification for a particular character or a place—so that when you see that person, or that person is suggested even by someone's thought, that theme can be

played and it's a link for the audience. It's an aural identification, which provides an additional magnetism for the viewer. So in terms of atmosphere, identification of melody, action, choreographic timing elements in the music, it's really part of the corpus, the body of what a film is. Bernard Herrmann [Citizen Kane (1941), Vertigo (1958), Psycho (1960), and many others]—who was one of the greatest film composers ever, if not the greatest one—always said that music is part of film; you can't take it away. If you strip the music out of most films, they go flat, dead. So it's one thing to talk about music and film, but what we really need to be talking about is the synthesis, the coming together of these elements that produce the experience that we have. From a composer's point of view it's a wonderful opportunity."

Playing to the scene in which Darth Vader slaughters the Separatist Council, which is intercut with drama in the Senate, the LSO records "Anakin's Dark Deeds," or "5M7." In the booth, Lucas says to Williams, "It's beautiful. Wow. I have only one issue—it's always with horns—I don't know why. I have nothing against them. But during Padmé's speech in the Senate, there are two horns—I think it'd be better if they weren't there."

They discuss it, come up with a solution, and then tackle another problem with the percussion, which is resolved by swapping out one for another set that might sound better in this particular room.

"Working on 5M7, clarinets and horns please do not play," Williams says back in the studio, "and those instruments resume playing on fifty-three. Basses, the opening nine measures, would you play louder." Take. "Trombones, why don't you play a semi-quaver at the end of fifty-seven. And do not play the fourth beat of forty-nine and resume at fifty-three; I should've said that before."

The day comes to an end toward five o'clock. The musicians leave for their homes, Lucas and McCallum prepare for tomorrow's ADR, and Williams returns to his hotel. A few days later, he would say there, "George and I have been working now on *Star Wars* for over twenty-five years. I have the same kind of association with Steven Spielberg, which makes me very lucky. And it's not something we planned. In retrospect it's kind of like a good marriage; you look back at it after all those years and say, 'Wow, we really made it, you know, and in spite of all the obstacles.' So it's like any good thing that comes to an end: There's a bittersweet aspect to it. But in this particular case and for me there's a sense of real pleasure in having been able, given the opportunity and the energy, to complete this whole picture. I feel very lucky and very happy about it."



Anthony Daniels (C-3PO), Frank Oz (Yoda), and Lucas at Goldcrest Post. (J. W. Rinzler)

#### GOLDCREST POST, LONDON SATURDAY, FEBRUARY 5, 2005

Before Lucas and Frank Oz (Yoda) arrive, Matt Wood and the recording mixers discuss how the Motion Picture Association of America (MPAA) has rejected the *Revenge of the Sith* trailer, which was not unexpected. Often there's some back-and-forth between a production and the MPAA before trailers are approved. Apparently, the certification group is objecting to shots that have clone troopers pointing guns at people, which is a no-no.

A few minutes later, Oz arrives, chewing gum, and removes his long coat and scarf.

"This is funny and sad. I've done five of these things," he says to Wood.

McCallum is busy elsewhere today, so Sue Wood, who was first AD at Elstree, is filling in for him. When Lucas arrives, Oz exclaims, "Good morning, George!"

"Good morning, Frank!"

"I've decided I'm just not doing this," Oz deadpans, "because I don't want it to end."

"So what are you doing here?" Lucas asks.

"I'm having fun," Oz says with a smile, "thanks to your largesse." Adding, "Let me get rid of the gum and we'll start."

"There are maybe three new lines," Wood says.

First, they play the scene for Oz in which Anakin seeks Yoda's counsel in the Jedi Master's quarters. "There's only one line in there that gives me pause," Lucas says. "It's when you're being a psychiatrist: 'These visions you have.'"

"But I'm keyed in to Rob's performance [animation], right?" Oz asks, wondering if he has to match Yoda's lip sync.

"Well, that's the great thing about digital . . . you can change anything!"

"I'm just glad that the negative of Citizen Kane is locked away," Oz jokes.

"Seriously, that's why I'm a member of the Film Foundation [filmmakers for film preservation]," Lucas says. "A *director* should be able to change his film—but nobody else. Everywhere else it's not a problem, but in America the corporations own the copyright."

Turning back to the scene at hand, he says, "We'll go through it line by line. If we're both happy with it, fine; if either of us want to redo it, we'll redo it."

"You lead the way . . . ," Oz says, and clears his throat.

Take. "George, I'm trying to loop the sync," Oz admits, "and I just can't do it because Yoda closes his mouth too soon."

"That's okay. Rob can fix it."

Take. "That was great."

"Do you want to hear that back?" ADR mixer Robert Farr asks.

"I would love to," Oz replies. After listening, he says, "Let's do three in a row, get a rhythm, and see what George thinks of them."

"You're getting a little high-pitched on 'these,' "Lucas notes. "Maybe if you start with your normal voice and go lower."

Twelve takes. "We got three really good ones . . . ," Lucas says.

They then do Yoda's line, "Death is a natural part of life," and Lucas explains that "this line counters the line where Palpatine says that the Sith have 'many abilities some consider to be unnatural.' Yoda is the natural guy."

Later, Lucas talks to Oz about future projects. "I was thinking about doing a bit where Yoda just talks about the Force. It might be going too far, but it might be fun to have Yoda a little jokey, not just strong and wise."

"He could be cooking in his house on Dagobah," Oz agrees.

"We have this other little thing we're doing," Lucas continues, "this Clone Wars cartoon on TV. It's so successful, we're going to put it out as half-hour shows, and all the main characters are in it." He then adds, "Have you ever thought about directing an animated film?"

"I've been asked, but it takes a such a long time and I do like to work with the actors."

"Well, you don't have to be there the whole time; you can jump in," Lucas notes.

Getting back to the job at hand, Wood has a question about Yoda's syntax, specifically the phrasing of one of his lines in the Alderaan cruiser: "Isn't there a rule?" he asks.

"Sure there's a rule," Lucas replies, "and the rule is: That's the way he'd say it. Don't you know your Yoda grammar?"

"George, are you going to have some walking sounds in there?" Oz asks.

"We have a ton of that stuff that we can pepper in there," Wood says.

But there's a line that Yoda says while he's walking, and Yoda normally grunts a little while walking, so Oz would like to do that one again so the dialogue fits into the grunting. George agrees and ultimately they decide to redo the whole scene with walking sounds and dialogue.

As the ADR session comes to a close, and as Oz prepares to leave, he and Lucas reminisce. "Yoda is the illegitimate son of Kermit and Miss Piggy. You and Henson created him, along with

Freeborn," Lucas says, referring to Jim Henson, creator of the Muppets, and Stuart Freeborn, who created many of the puppets and prosthetics of the first trilogy.

"I remember the worst day in *Star Wars*," Oz recalls. "We were way behind [during the shooting of *The Empire Strikes Back*]. [Director Irvin] Kershner was putting pressure on Stuart, and there was tremendous pressure in the room. I was fiddling with Yoda's head—and I dropped it and it cracked! It was one of the worst things. Stuart just wanted to have a drink and go away."

Lucas mentions how he's been fighting to get voice-over actors greater Academy Award recognition. "Actors who work in animation are just as valued and important as any other actor on the set," he says.

"I can tell you a story," Oz says. "Jim [Henson] and I were in a TV commercial; we were sitting in barrels waiting for our cue, for a long, long time, until we finally crawled out—and realized that the crew had left for lunch and had just completely forgotten about us!"

At that point, Anthony Daniels (C-3PO) arrives, and Oz exclaims, "Tony! It's been so long!" Additional memories are discussed, but Oz has to leave and it's Daniels's turn at the mike.

After quickly re-recording the rest of his lines, Lucas and Daniels prepare to loop the protocol droid's last scene in the film, which takes place on the Alderaan space cruiser. As he stands with R2-D2, the droid learns that he's to have his memory wiped and reacts with, "Oh, no."

"This is your last line and the last line of the film," Lucas says. "And your next line [in the saga] takes place in the same corridor and is the first line in the next film."

"'Did you hear that? They've shut down the main reactor,' "Daniels quotes."

"Should we add a little, 'Huh?' "Wood asks, "when Bail says the line about wiping his mind?" Lucas admits the new interjection, and Daniels does a take.

"Try it a little more deflated," Lucas directs.

Take. "I think 'what' is better than 'huh' at the beginning," Lucas notes, and the line is changed.

Take. George asks Daniels to balance out the "Oh, no" and to elongate the "no."

After a few more takes, they decide to keep the "Oh, no" that Daniels recorded in Sydney, which he'd performed in the editorial suite on the Avid. Though the sound is not ideal, Wood thinks he can make it work in the finished movie.

"But it was great to add that 'What!' " George points out.

"So is that it?" Daniels asks. "I'm out of work?"

"You're out of work," Lucas confirms. "Very good. Well, thank you, Tony."

And the two arrange for Daniels to attend a scoring session the next week at Abbey Road Studios.

Note: Wednesday, February 16, 2005

Roger Guyett receives the Visual Effects Society's top award, for Outstanding Visual Effects in a Visual Effects Driven Motion Picture. The award, which Guyett shares with Tim Burke, Theresa Corrao, and Emma Norton, was for the overall visual effects for *Harry Potter and the Prisoner of Azkaban*.

# CONCLUSION SKYWALKER RANCH, CALIFORNIA MONDAY, FEBRUARY 21, 2005

The soundtrack recording sessions finished, Lucas is taking a short break in Europe while McCallum heads back to ILM, where finals continue to be cranked out. With a few hundred shots left and only a few weeks to go, everyone is nevertheless confident that *Revenge of the Sith* is in good shape. One of the next major steps is the final mix, which will be done at Skywalker Sound. "Johnny Williams will have written wonderful music with all of his talent," Burtt explains. "And then what happens is I have to adjust [the sound design] to the music. I have to revisit every moment of the movie, and if there's something rhythmically wrong, we'll have to adapt."

At this point, in terms of their opinion of the movie, people working on the film can be divided into two groups: those who are really enthusiastic, and those who admit they can no longer objectively evaluate their efforts.

"People really care about this film," Roger Guyett sums up. "There's a certain legacy and quality that carries on in the *Star Wars* films, and people will be forever discussing them."

"I'm way too close to it right now," Rob Coleman says, for his part. "I think it's very good and I'm excited. It feels right and I'm hoping we can sneak up on the audience. This movie is dark and it's violent and it's well crafted. I did see the new trailer and it gave me goose bumps."

"The *Star Wars* saga is tragic in many ways," John Williams says. "But there's also a new birth in this one, in the plural. So I think it has all of the contour of the great human stories, in which people do terrible things and accomplish glowing, lustrous, and wondrous things also. It's fascinating, this whole segment that George has concocted. It isn't my place right now, but I want to extol George Lucas for what he's been able to do.

"If you can create in your writings characters who are memorable and who make an imprint upon people's minds locally or around the world—that's a tremendous achievement, whether you're Dostoevsky, Pushkin, Dickens, Walt Disney, or George Lucas. To create Mickey Mouse or to create Yoda, and have everybody in the world know who that is—that's a great achievement for a writer, any writer, at any level.

"And, you know, George Lucas is still a young man. He might surprise all of us."

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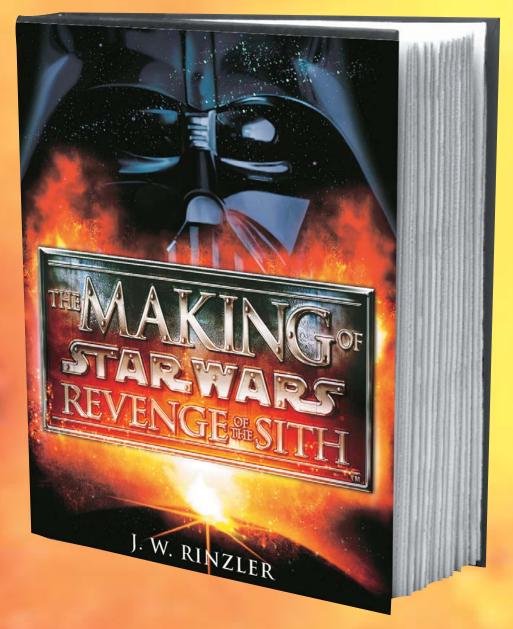
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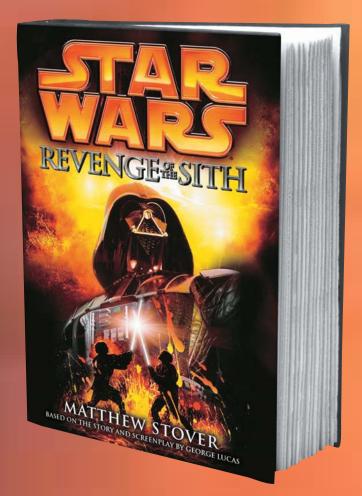
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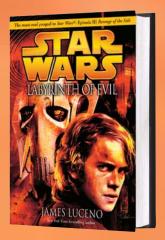


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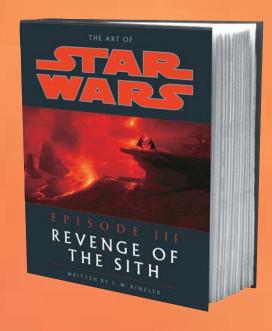
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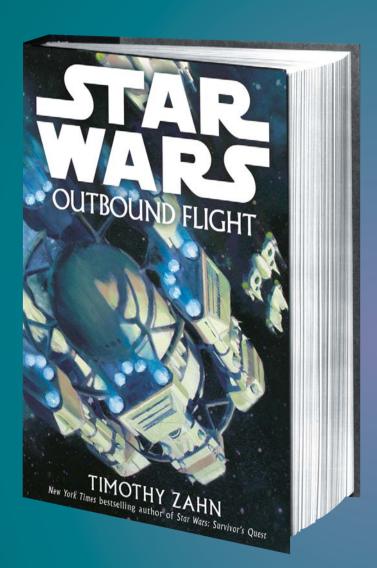
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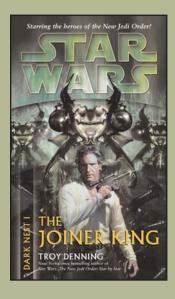
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