# AVATAR

AVATAR takes us to a spectacular world beyond imagination, where a newcomer from Earth embarks on an epic adventure, ultimately fighting to save the alien world he has learned to call home. James Cameron, the Oscar®-winning director of "Titanic," first conceived of the film 15 years ago, when the means to realize his vision did not yet exist. Now, after four years of production, AVATAR, a live action film with a new generation of special effects, delivers a fully immersive cinematic experience of a new kind, where the revolutionary technology invented to make the film disappears into the emotion of the characters and the sweep of the story.

We enter the alien world through the eyes of Jake Sully, a former Marine confined to a wheelchair. But despite his broken body, Jake is still a warrior at heart. He is recruited to travel light years to the human outpost on Pandora, where a corporate consortium is mining a rare mineral that is the key to solving Earth's energy crisis. Because Pandora's atmosphere is toxic, they have created the Avatar Program, in which human "drivers" have their consciousness linked to an avatar, a remotely-controlled biological body that can survive in the lethal air. These avatars are genetically engineered hybrids of human DNA mixed with DNA from the natives of Pandora... the Na'vi.

Reborn in his avatar form, Jake can walk again. He is given a mission to infiltrate the Na'vi, who have become a major obstacle to mining the precious ore. But a beautiful Na'vi female, Neytiri, saves Jake's life, and this changes everything. Jake is taken in by her clan, and learns to become one of them, which involves many tests and adventures. As Jake's relationship with his reluctant teacher Neytiri deepens, he learns to respect the Na'vi way and finally takes his place among them. Soon he will face the ultimate test as he leads them in an epic battle that will decide the fate of an entire world.

#### **BEGINNINGS**

"AVATAR is the most challenging film I've ever made," says writer-director James Cameron. And that is a declaration with resonance, given Cameron's global renown as a master storyteller: his "Titanic," "The Terminator," "Terminator 2: Judgment Day," "Aliens," "True Lies," and "The Abyss" were groundbreaking films featuring a mix of spectacle, compelling narratives and characters, and technical wizardry resolutely in service of story and emotion.

AVATAR's central figure, Jake Sully (Sam Worthington) is a relatable everyman who unexpectedly rises to become a hero, as events draw him deeper into a clash of civilizations, between the Earth corporations bent on "developing" Pandora and the indigenous Na'vi. Jake is a former Marine who places honor and duty above all, but he must eventually choose between his personal honor, in defense of what is right, and his supposed duty to those who have tasked him with his mission.

"I wanted to create a familiar type of adventure in an unfamiliar environment," Cameron explains, "by setting the classic tale of a newcomer to a foreign land and culture on an alien planet. The story is by design classic in its broad strokes, but we have plenty of twists and turns in store for the audience. I've dreamed of creating a film like this, set on another world of great danger and beauty, since I was a kid reading pulp science fiction and comic books by the truckload, and sitting in math class drawing creatures and aliens behind my propped up textbook. With AVATAR, I finally got my chance."

#### WHERE AND WHEN

AVATAR takes place on Pandora, a moon with an Earthlike environment that orbits a gas-giant planet called Polyphemus in the Alpha Centauri-A star system. At 4.4 light years away, Alpha Centauri is our nearest stellar neighbor, and when it is discovered that Pandora is rich in a rare-earth mineral called Unobtainium, the race is on to mine the new world's resources. Unobtainium does not exist in our solar system, but it is the key to solving Earth's energy crisis in the twenty second century, so the Resources Development Administration (RDA) is spending hundreds of billions of dollars to mine the distant world. Our story takes place in 2154, three decades after a mining colony was established on Pandora. The encroachment by human activities into the territory of the

indigenous Na'vi has created increasing tension between the two species and has set them down a path to war.

By a twist of fate, the death of his twin brother, Jake Sully is thrust into the middle of this tense situation. He is on Pandora to be the newest "driver" for the Avatar Program, an attempt by human scientists to create a "bridge of trust" with the Na'vi by using genetically engineered avatar bodies to walk among these alien giants in a familiar form. But Jake is co-opted by Colonel Miles Quaritch, the head of security for the human colony, to infiltrate the local clan and learn how to control them or defeat them. Quaritch is the commander of Secops, the private security force that defends Hell's Gate against the fierce predators of Pandora and the equally fierce Na'vi. They are a scruffy but well equipped mercenary army, complete with heavily armed tilt-rotor aircraft and "AMP Suits"—huge exeskeletal fighting suits.

Jake becomes the "wrong guy" to have placed in such a volatile position. When he finds himself torn between the Na'vi and the RDA forces that are bent on destroying their ancestral home of 10,000 years, Jake takes action. And all hell breaks loose.

## **HOW THEY DID IT**

Cameron was not interested in using makeup to create his alien species. Humanoid aliens have been played by actors in makeup for decades, since the B-movies of the '50s, and on through four decades of "Star Trek" spin offs and other science fiction films and TV shows. Virtually every design and method for putting rubber onto actors' faces has now been explored, and in addition it is inherently limiting. The size and the spacing of the eyes can't be changed. The proportions of the body can't be changed, nor can the overall size of the character. And rubber appliance makeup is limiting to the actor's performance, because it acts as a barrier between the actor and the lens.

With the performance capture method, none of these negatives apply. Though the CG characters in AVATAR resemble the actors who play them, their fundamental proportions are different. The Na'vi eyes are twice the diameter of human eyes, and they are spaced farther apart. The Na'vi are much leaner than humans, with longer necks, and they have different bone and muscle structures, including most obviously, their three-fingered hands. As CG characters, the Na'vi and the avatars can be made much larger

than human. Blue make-up would have made the skin opaque, but with CG the characters can be given translucent skin which behaves like real skin, in which the pigment at the surface does not mask the red glow of the blood beneath, such as when strong sunlight hits the backs of the characters' ears. All of these subtleties combine to allow the creation of seemingly living creatures.

Cameron was looking for a way to take alien character creation into the 21<sup>st</sup> century. In 1995 Cameron saw the rapid advances in CG characters, and thought that his dream project set on another world might be possible to make. Having already created CG milestone characters in "The Abyss" and "Terminator 2: Judgment Day," Cameron wanted to push the CG arts to new heights, and so the visually ambitious AVATAR was written. But when the treatment was broken down by CG experts, Cameron realized that the technologies required for photorealism were still years off, so the project was shelved.

When Cameron revived the project in 2005, it seemed the techniques required were right around the corner. At that time there was still concern that the characters would not appear quite real, and would suffer from the disturbing "dead eye" effect seen in some early performance capture films. Cameron's team sought to go far beyond prior efforts, to ensure the complete reality of the characters. To do this, they developed a new "image-based facial performance capture" system, using a head-rig camera to accurately record the smallest nuances of the actors' facial performances. Instead of using the motion capture technique of placing reflective markers on the actors' faces to capture their expressions, the actors wore special headgear, not unlike a football helmet, to which a tiny camera was attached. The rig faced towards the actors' faces and the camera recorded facial expression and muscle movements to a degree never before possible. Most importantly, the camera recorded eye movement, which had not been the case with prior systems.

The head-rig system allowed actors facial performances to be captured with unprecedented clarity and precision. And since the head-rig system did not rely on the motion capture cameras of the past, those cameras were now being used only to capture body movement, so they could be moved much farther from the actors. This allowed the AVATAR team to use a much larger capture environment, or "Volume," than had ever been used before. At six times the size of previous capture volumes, the Volume for

AVATAR was used to capture live galloping horses, stunts requiring elaborate wire rigging, and even aerial dogfights between aircraft and flying creatures. So the revolutionary head-rigs were the key not only to the subtlest nuances of the characters' emotions, but also to the film's grandest spectacle.

Another innovation created especially for AVATAR was the Virtual Camera, which allowed Cameron to shoot scenes within his computer-generated world, just as if he were filming on a Hollywood soundstage. Through this virtual camera, the director would see not Zoë Saldana, but her 10-foot tall blue-skinned character, Neytiri. Instead of Sam Worthington and Sigourney Weaver, he would see their giant blue avatars, complete with tails and huge golden eyes. And instead of the austere gray space of the Volume, he would see the lush rainforest of Pandora, or perhaps the floating Hallelujah Mountains, or the human colony at Hell's Gate.

After working out the details of how to exactly capture the actor's performances, the next step was to enlist the aid of Peter Jackson's Academy Award®-winning visual effects powerhouse WETA Digital, in New Zealand. WETA's groundbreaking photoreal characters like Gollum in the "Lord of the Rings," and the utterly real-seeming King Kong, led Cameron to believe that they could breathe life into his Na'vi characters.

It was critical to Cameron from the beginning that every detail of the actors' performances be preserved in the final CG character as they appear on the screen. WETA assured him that their team of world-class animators would make it their mission to convey one hundred percent of the actors' performances to their Na'vi or avatar characters. This involved insuring that highly accurate data be recorded at the moment the scene was performed, and it also required over a year of work by the animation team to create the "rigs" that allowed the CG characters to emote exactly like the actors whose performance they were mirroring.

#### IS IT ANIMATION?

Ask the animators at WETA, and they'll tell you that the avatars and Na'vi are animated. Ask Jim Cameron, and he'll say the characters were performed by the actors. The truth is that both are right. It took great animation skill to ensure that the characters performed exactly as the actors did. But at the same time, no liberties were taken with

those performances. They were not embellished or exaggerated. The animators sought to be utterly truthful to the actors' work, doing no more and certainly no less than what Sam, Zoë or Sigourney had done in the Volume. Of course the animators added a little bit, with the movement of the tails and ears, which the actors could not do themselves. But even here, the goal was to stay consistent with the emotions created by the actors during the original capture. So when Neytiri's tail lashes and her ears lower in fury, they are merely further expressing the anger created by Zoë Saldana in the moment of acting the scene.

"Actors ask me if we're trying to replace them," says Cameron, "On the contrary, we're trying to empower them, to give them new methods to express themselves and to create characters, without limitation. I don't want to replace actors; I love working with actors. It's what I do, as a director. What we're trying to replace is the five hours in the makeup chair, which is how you used to create characters like aliens, werewolves, witches, demons and so on. Now you can be whoever or whatever you want, at any age, even change gender, and without the time and discomfort of complex makeup."

Saldana trained for months to create a physical reality for her character, so that she could fully express Neytiri's natural athletic grace. She knew that this was not just a voice performance for a typical animated film, but instead a "total performance," and that every nuance of her facial expressiveness and her body movement would be captured.

Cameron and the actors worked together in the Volume for over a year, on and off. It was every bit as intense a working relationship as on a photographic film set, except that there were no lights, cameras or dolly track. It was pure acting. And this allowed everyone to really focus on performance, and the emotional truth of each moment, without all the distractions of photography. Director and actors alike were enthralled by the process, and enjoyed the rapport and focus that performance capture allowed. But it was not until Cameron and his cast saw the first finished scenes coming back from WETA that they completely realized how revolutionary this movie was going to be. Neytiri, Jake and Grace were alive.

With AVATAR it was critical to achieve an absolute authenticity of performance for all the many characters. AVATAR's CG characters would be, says Landau, "real, soulful and emotional." Adds Cameron: "Every nuance and bit of performance was

created by the actors, who do all the things you see their CG characters do in the film, down to the slightest hand gesture. These characters ARE precisely and only what the actors created."

AVATAR goes a step farther, by placing these photorealistic characters into a world that is also computer generated but seems completely real. Every plant, every tree, every rock is created and rendered in the computers of WETA Digital, in New Zealand. Significant breakthroughs in lighting, shading and rendering allowed WETA to create a photo-real world which was alien in its details, but which strikes the eye as completely natural. Over a Petabyte (one thousand terabytes) of digital storage was required by WETA for all the CG "assets" of the film... all the myriad plants and animals, insects, rocks, mountains and clouds. To put this in perspective, "Titanic" required 2 terabytes to create (and sink) the ship and its thousands of passengers, about 1/500<sup>th</sup> the amount used for AVATAR.

In addition to all this complexity, AVATAR was made in stereoscopic 3D. So not only did WETA need to work in 3D in creating their CG scenes (as did the other visual effects vendors such as ILM), but the live action scenes would need to be shot in 3D as well. For this Cameron used the Fusion Camera System, which he had co-developed with Vince Pace. It took seven years of development to create the Fusion system, which is the world's most advanced stereoscopic camera system. The cameras performed flawlessly on the set of AVATAR, allowing the live action scenes to merge smoothly with the CG scenes into a unified whole.

Because of the many layers of technology developed specifically for this project, AVATAR was by far the most challenging of all of Cameron's films to date. The filmmakers found themselves in uncharted territory, figuring out the answers as they went along. Eighteen months were spent developing the performance capture "pipeline" before a single scene was captured with the cast. "I've always tried to push the envelope," Cameron points out, "But this time it pushed back. So we had to push harder. I liken the experience of making AVATAR to jumping off a cliff and knitting the parachute on the way down."

But these revolutionary technologies are just tools in the filmmaker's "toolbox," and are always in the service of the story, emotion and characters. Says producer Jon

Landau: "Ultimately, the audience's reaction to AVATAR is not going to be about the technology; it's going to be about the characters and story Jim created. The technology allows Jim to tell a story that otherwise couldn't be told." Adds Cameron: "It always boils down to this question: Is it a good story? Ultimately the discussion is going to be about the characters – alien and human – and their journeys."

Landau compares Cameron's use of these groundbreaking tools in AVATAR to the way he used then-cutting-edge advances in his Best Picture Oscar-winning "Titanic." "On 'Titanic' Jim used visual effects to make people feel like a part of history; on AVATAR, he is using new technology to transport people into the future to another world." Cameron notes, "The technology is at such a high level that it disappears, leaving only the magic... the feeling that you're really there, and that the story, the characters, the emotions are real."

# THE ACTORS, CHARACTERS – AND THEIR JOURNEYS

AVATAR explores the hero's journey of Jake Sully, a wounded former Marine confined to a wheelchair, whose bravery and destiny help define a world he didn't even know existed. When Jake is recruited to travel to the moon Pandora to take on an enormous challenge – the details of which he is initially unaware – he barely hesitates. "Jake had joined the Marines for the hardship, to test himself," says Cameron. "So when he's asked to travel to Pandora, he picks up his pack and, as the Marines would say, 'grunts on."

Jake's disability, hard-headedness and courage make him an immediately recognizable and relatable figure. "He's an everyman with an emotional resonance to which audiences can relate," says Landau.

Jake has been recruited to travel to Pandora by the RDA, to replace his genetically identical twin brother, a young scientist who trained for the mission but died just before shipping out from Earth. Jake is no scientist, but his DNA makes him uniquely qualified, since his brother's DNA was combined with that of Pandora's indigenous Na'vi to create a human-Na'vi hybrid...or avatar. Now only Jake can "drive," or telepathically operate, what was once his brother's avatar. Through his avatar body, Jake is given a new purpose, new challenges, and an adventure that will take him to his limits – and beyond.

Says actor Sam Worthington: "Pandora gives Jake the opportunity to find himself, realize his potential, and understand that through his choices, he can become a better man."

Jake is a rich and complex character with a rare combination of passion, strength, street smarts and soul. It's a role requiring a lot from an actor – a fact that Cameron acknowledged when he, Landau and casting director Margery Simkin began their search to fill the part. "The trick about Jake was not writing the character," says Cameron. "The trick was finding the guy to play him."

After spending months looking at actors in the U.S. and Europe, Simkin reported to Cameron that she found a candidate...in Australia. Sam Worthington, Simkin told the filmmaker, had a "visceral quality and would make audiences believe that people would follow him. There was an intelligence and intensity in his eyes that never wavered."

Intrigued, the filmmakers offered Worthington an audition, but he was initially skeptical due to the secrecy surrounding the project and the scant details about the character of Jake being offered to Worthington at that time. "I got a phone call to do this audition, but they wouldn't tell me anything about the script or even who the director was," Worthington recalls. "And I thought, 'Well, here's another waste of my time.' Then, a week later, I got another phone call…'Look, Jim Cameron wants to fly you to L.A. to audition for him.' And I said, 'Yes, but for what?'"

Of course, the audition was for AVATAR and a role Worthington would come to embrace. But even after Cameron filled him in on the story and on the character of Jake, adding an intriguing question to complete his pitch to the actor – "Are you ready to start the adventure?" – Worthington had one earthbound priority to fulfill before beginning his journey to Pandora. "I told Jim, yes, of course I'll join him on the adventure – but first I've got to get the brakes fixed on my car."

For Cameron and Landau, Worthington was worth the wait. "I think one of the hardest things to find in an actor of Sam's age is a combination of sensitivity, vulnerability and strength, and Sam has all of that," says Landau.

Worthington's innate fearlessness not only helped him capture Jake's spirit and courage, it stood him in good stead with his director, a bigger-than-life figure in his own right. "I take my work seriously, just like Jim takes his work seriously," says Worthington. "We both come at the work wanting to give it everything we've got."

While many of the actors, including Worthington, received special physical and weapons training, Worthington was more interested in the mental preparation to portray Jake. "I didn't want my prep to be like boot camp," he says. "Anyone can do push-ups. I hung out with Jim's brother, John David, a former Marine. To me it was more about capturing the way these Marines see the world – and how their training can make them think they're unstoppable."

Jake's first encounter with Pandora's indigenous Na'vi is a fateful one, leading to unexpected emotional resonances, as well as high-stakes action and adventure. While exploring the moon's lush rainforest, Jake is attacked by some of its deadliest animals. As he faces certain death, Jake is rescued by Neytiri, a fearless and beautiful huntress, and a member of the nearby Omaticaya Clan. Their meeting is charged with strong emotions, both negative and positive, and ultimately a connection that neither could have anticipated. "The first thing Jake notices about Neytiri is that she's really hot," laughs Sam Worthington. "Then he starts to realize she's a strong, independent woman who can help him become a better person."

Neytiri's initial impression of Jake is not a favorable one; in fact, it's contemptuous. Even as an avatar, Jake represents to Neytiri the humans' slash-and-burn mentality, which threatens the Na'vi's very existence. To save Jake's life, she has had to kill viperwolves, whose viciousness makes them no less an integral part of the planet's ecosystem, to which the Na'vi have a strong connection. "Neytiri, like all her people, doesn't understand the ways of the humans and their methods and mission of human cruelty," says Zoë Saldana, who portrays Neytiri. "The Na'vi also can't understand how the humans mistreat the environment, which is holy to the Na'vi."

"In my mind, Neytiri and her people represent our better selves in how they live in their world – in symbiosis, empathy and harmony," adds Cameron. "This is something to which we should all aspire. To that end, I think the story celebrates a connection to the environment, maybe at a time when we've lost touch with it."

Neytiri's instinctual gifts allow her to see beyond Jake's coarseness. "She sees something about Jake to which she is attracted," says Saldana. "Sure, at first, she absolutely hates him, but her feelings become more complex, confusing her and forcing her to make the most important decisions of her life."

The character of Neytiri points to Cameron's interest in creating strong female characters, and Neytiri joins such previous Cameron iconic heroines as "Aliens's" Ellen Ripley (played by Sigourney Weaver, whose performance became a template for action heroines – and who reunites with Cameron on AVATAR after over twenty years since their landmark collaboration), "The Terminator's" (and "T2's") Sarah Connor, "Titanic's" Rose DeWitt Bukater, "The Abyss's" Lindsay Brigman, and "True Lies's" Helen Tasker. None of these characters can be reduced to being simply a love interest, and Neytiri follows that rich tradition, combining strength, grace, athleticism, beauty, sexuality, vulnerability and emotional clarity. "Zoë captured every aspect of the character I envisioned," notes Cameron, who especially admired her "combination of delicacy and fierceness and incredible physicality," developed through years of professional dancing.

"Neytiri was the most physically demanding role I've ever done, and I trained for months before production to capture the character's grace and power," says Saldana. "I wanted to incorporate my body into a character, and AVATAR was an amazing opportunity to do that." Saldana's reaction to the CG renderings of Neytiri? "I thanked Jim. Neytiri is sexy and cut, long and lean. And the performance was all me!"

Saldana's pre-production training regimen included riding, martial arts, archery, and movement study and practice. In addition, she and other principal cast members traveled with Cameron to Hawaii, which substituted for the environment he had envisioned for Pandora. "We had to live without sophisticated technology, tools and comforts," Saldana recalls. "I was almost naked for three days, digging and climbing and muddy like a dead rat," she laughs. "I was missing creature comforts, and I was like, 'I can't deal with this.' And Jim said, 'Oh come on, Neytiri, suck it up!""

Once the cast and filmmakers arrived at the Los Angeles performance capture stage, Saldana was thankful to have experienced the Hawaii adventure. "On this bare stage, which had no sets, we had to act as if we were in Pandora's mud, water, humidity, trees, elevation – everything," Saldana says. "Being in Hawaii gave us a mental imprint on which we could draw when we had to simulate an action on the virtual stage."

Another female in Jake's new life on Pandora is Grace Augustine, a scientist who runs the Avatar Program. A trained botanist, Grace has lived on Pandora for fifteen years, having long departed Earth because the overcrowded, ecologically devastated

planet no longer has biodiversity worthy of study. On Pandora, Grace moves back and forth between her scientific work on the human base, Hell's Gate, and her fieldwork as an avatar in the Pandoran rainforest. "Grace is trying to create a bridge of trust with the Na'vi but she keeps getting sabotaged by the soldiers on the base," says Sigourney Weaver, who portrays Grace. "Grace loves Pandora and the Na'vi with all her heart, and hopes she can somehow protect them from the forces of industrial Earth."

Grace is not pleased by Jake's arrival on Pandora to join the Avatar Program. She sees him as ill prepared, if not totally unqualified to become part of an elite scientific team. "Grace is livid about Jake becoming an avatar," says Weaver. "She's thinking, 'He's here because he fits the suit?!" referring to his DNA match with the avatar's former "driver," Jake's deceased scientist brother.

Grace comes to have a change of heart about Jake, who impresses his new boss with his burgeoning affection for and respect of the Na'vi. Weaver enjoyed playing the Jake-Grace dynamic opposite Sam Worthington, whom she sees as a new action hero – and more. And, Weaver – forever beloved for her role as Ellen Ripley from the "Alien" film series – obviously knows a thing or two about action movie icons. "It's hard to play action heroes," she explains. "You have to be very specific about your approach. People think that action movies are all about physicality; they are not. You have to have the other 'lives' going on at the same time. You have to endow the character with so much specificity. I saw Sam do all of that on AVATAR."

Augustine's *bête noir* is Col. Miles Quaritch, head of security for the human base on Pandora. Quaritch's mission is to facilitate the RDA's goal to mine Pandora – and not to win the hearts and minds of the Na'vi. He has contempt for the Avatar Program because it runs counter to his mission, which is to protect the humans who live and work on Pandora.

Quaritch has qualities that are less than admirable, but actor Stephen Lang says he found much to admire – and even pity – in the character. "Quaritch has a sense of mission and discipline and that appealed to me," says Lang, who earlier this year starred as a Depression-era FBI agent in "Public Enemies." "He's an able frontline leader; no one doubts his abilities." But is he a villain? "Well, he's certainly not a hypocrite. With Quaritch, what you see is what you get.

"I found Quaritch to be very moving for what he lacked – that his soul was in such a state of chaos and decrepitude. It's a sad thing for him to be in a veritable Eden and yet be incapable of understanding it. I think he's relatable to many people who've experienced the trials and anguish of war."

Another capable and tough human at Hell's Gate is Trudy Chacon, a tilt-rotor pilot who's tasked with shuttling both humans and avatars from the base to science sites out in the wilderness. But unlike Quaritch, Trudy is cool, laid back and definitely not like the other soldiers. "Basically, Trudy takes care of the scientists in the Avatar Program, flying them back and forth from the lab to their duties in country," explains Michelle Rodriguez, who takes on the role – another great James Cameron action heroine.

Rodriguez, who drew attention for her film-starring debut, the acclaimed independent drama "Girlfight," appreciates Cameron's ability to write great female characters, as well as his perceptions about acting and actors. "I think Jim really has the ability see through people," says Rodriguez. "He really understands people for what and who they really are."

Norm Spellman, another scientist/avatar in the Program, was the project's golden boy, having worked and studied for his journey to Pandora for five years. But that changes when Jake arrives. "Norm is book-smart but he is no match for Jake's innate leadership skills," says Joel David Moore, who plays Norm and whose many credits include the comedy smash "Dodgeball: A True Underdog Story." "Norm is resentful and jealous of Jake, but like so many on Pandora, he comes to admire Jake and be inspired by him." Indeed, Jake's arrival triggers a dramatic new journey for Norm.

Keeping a watchful eye on the mining operation, the scientists and all the activities at Hell's Gate is Parker Selfridge, the smart, forceful, charismatic station administrator who is focused on the success of RDA's operations on Pandora. Giovanni Ribisi ("Public Enemies," "Lost in Translation") says that Selfridge is "calm and ruthless in pursuit of his goals. He's an administrator but has a lot of hubris and considers himself more of a CEO or corporate president." But even a hardened corporate type like Selfridge, who notes that the "one thing the RDA stockholders hate worse than bad press, is a bad quarterly statement," can undergo life altering changes on Pandora.

Other key roles in AVATAR are taken by CCH Pounder ("The Shield") as the Na'vi matriarch Mo'at, whose command and dignity holds the respect of her people; Wes Studi ("Last of the Mohicans") as Na'vi clan leader Eytukan, a stern, commanding presence who provides for the Na'vi and protects them from harm; Laz Alonso as Tsu'tey, the clan's most accomplished hunter, who constantly challenges Jake throughout the latter's journey on Pandora; Dileep Rao ("Drag Me to Hell") as Dr. Max Patel, a scientist in the Avatar Program; and Matt Gerald ("Terminator 3: Rise of the Machines") as Corp. Lyle Wainfleet, a cruel Secops trooper who typifies the humans' contempt for the Na'vi.

Providing added dimensions to specific aspects of the actors' performances are noted linguist Paul Frommer, Ph.D., who worked with Cameron to devise an entire language for the Na'vi; as well as Terry Notary, a former Cirque du Soleil performer, and celebrated choreographer Lula Washington, who respectively helped the create Na'vi movements and the choreography for the Na'vi dancers.

As with so many aspects of AVATAR, the Na'vi language brings together the completely original with the familiar and relatable. Frommer, a professor at USC, explains: "The Na'vi have similar sound limitations as humans, enabling the Avatar scientists to actually learn and speak [the Na'vi tongue]."

Early in the process, Cameron provided Frommer with the kinds of sounds the filmmaker had in mind for the Na'vi. Frommer then designed a linguistic palette. "It was all about giving Jim possibilities and options," says Frommer. "Some sounds he liked; some not. Then we locked in the language's structural properties, pronunciation rules, and how the words were built."

This complex work resulted in the creation of a vocabulary of over a thousand words, as well as a specific structure and grammar, all of which the actors learned with skill and speed. The cast also worked closely with dialect coach Carla Meyer to fine-tune the dialect for the invented tongue.

Sam Worthington's linguistic challenges were heightened by the fact that the Australian native had to learn to speak not only a new language; he had to acquire an American accent. "It was like learning two languages," says Worthington. "And let me tell you: the Na'vi [language] was easier than the American accent!"

"I spent at least two hours a day working on the American accent and learning the Na'vi language," Worthington continues. "I worked to phonetically break the language down, so it didn't sound like I'm acting through gauze." Worthington notes that Jake's grasp of the Na'vi language is a work-in-progress throughout the story, which allowed or even necessitated the occasional linguistic slip-up.

Zoë Saldana and Laz Alonso, both fluent in Spanish, found it easier to learn the Na'vi language, walking away from the AVATAR shoot as probably the only actor/trilinguists in the world fluent in....Na'vi. But perhaps the most fun with the invented patois was had by the film's crew, which adopted specific Na'vi words – *skowng*, meaning "moron," was a particular favorite – to playfully tease one another.

Dance and movement studies also enabled the actors to delve further into their characters. Na'vi dance choreographer Lula Washington, artistic director of the Lula Washington Dance Theater, notes that the Pandora natives celebrate themselves through dance. "They're an elegant, proud people who love their land. In that respect they're close to our aboriginal cultures." The dancers from Lula's troupe became part of the cast, as members of the Omaticaya clan, and their graceful, feral movement can be seen throughout the film.

Terry Notary created movements inspired by indigenous cultures as well as animals like big cats and primates. Notary explains: "We worked to answer questions like, How would the Na'vi touch? How would they reach? How would they move when they're happy? And how would they use their tail?"

## **CAPTURING EMOTION**

With the actors working tirelessly to incorporate all these physical, linguistic, and emotional nuances that were central to their characters and to Cameron's vision, the filmmaker was determined to capture it all in the actors' computer generated incarnations

Worthington and the other actors found it liberating to be working on the bare stage known as the Volume, while wearing special performance capture suits and headgear. "We embraced the performance capture and had a lot of fun with it," says Worthington. "Even though Jake's avatar is ten feet tall and blue, it has my personality and soul. It's spectacular that Jim can do that.

"Performance capture is incredibly freeing," Worthington continues. "You can't hide, so every take has to be truthful. At first it's a little nerve-wracking, but you forget you're wearing headgear and a few hundred dots on your face."

"You wonder if you'll have the mental capacity to look at the gray, stark [performance capture] stage, and see a humongous snake or a lush forest," adds Laz Alonso. "I mean, the Volume is as drab as you can get. But thanks to Jim's direction, performance capture and the virtual camera, something great starts happening – you really start to see these animals and this incredible environment. You get so deep into this world that you start seeing, smelling, hearing, and feeling Pandora."

Joel David Moore says the way the Volume sparked the imagination reminded him of a back-to-basics approach to acting. "Working on the performance capture stage takes you back to the old theater days," he explains. "All you'd have [on the theater stage] is a wall, a table, and some chairs. You had to imagine everything else."

Another revolutionary advance was the virtual camera, which not only made the CG work director-centric and performance-centric, it created a new production paradigm that gave Cameron the unprecedented ability to actually see an actor's CG character – and the CG environments – in camera, as he worked with the actors in the Volume. "The virtual camera allowed Jim to direct actors in an immediacy never before possible. At the same time, actors get a much better feel for their CG character because they get to see the CG scene and environments almost immediately, instead of having to wait months—for the effects house to deliver the shots," explains Landau. The in-camera CG imagery had only the resolution of a video game; but after Cameron completed filming and editing a specific sequence, WETA would then work on it for months to create the final, high-resolution photographic images. In effect, each shot was created twice; once with Cameron in the Volume, and again after WETA completed its months-long work finishing the shot.

The virtual camera, which resembles a videogame controller with a video monitor attached, is not really a camera at all because it doesn't even have a lens; instead, it emulates a camera as it is "fed" the CG images by a bank of state-of-the-art computers surrounding the Volume. A small screen on the device displays the CG image fed to it by these computers.

This allowed Cameron to shoot the action from any angle or approach, giving him unprecedented spontaneity, flexibility and options on the virtual production stage. "For example, Jim could tell us to create a five-to-one scale in vertical," says WETA's Stephen Rosenbaum. "And when he moves the camera, instead of moving it three feet, it's a 15-foot crane move, in real time. In effect, Jim could turn the camera crew into a team of 10-foot-tall Na'vi."

"Long after the actors had gone home, I would still be in the Volume with the virtual camera, shooting coverage on the scene," says Cameron. "Just by playing back the take, I can get the scene from different angles. We can re-light it. We can do all sorts of things."

"It's filmmaking on a different level – like comparing grade school to a doctoral program at M.I.T.," says Laz Alonso.

Another groundbreaking tool in Cameron's "toolbox" was the Simul-Cam, which integrated, in real time, CG characters and environments into the film's live action Fusion camera eyepiece. The technology essentially treats a photographic camera like the virtual camera, taking the virtual production toolset and superimposing it on the physical production. "The ability to shoot on a live action set and see in your camera eyepiece CG characters and environments that are not there, allowed Jim to shoot that scene with the same sensibility he would a live action scene," explains Landau.

#### **CREATING PANDORA**

Since all the action of AVATAR takes place on Pandora, whether within the human base at Hell's Gate or out in the wilds of the rainforest, every single thing that went before the cameras or was rendered in CG had to be designed from scratch. In parallel with the technology development, the design process took two years before shooting began. The filmmakers enlisted a team of world-class artists to design every character, creature, plant, costume, weapon, vehicle, and environment in AVATAR. They created not one culture, but two: the highly technological human colony with all its vehicles and weapons, and the Na'vi society.

As he did with the characters, Cameron created Pandora to be recognizable without losing its exotic, never-before-experienced qualities. It is a world that merges the

classic and familiar. "We wanted to remove the creatures and flora from being Earth-like, just enough to remind you that you're on another world, but at the same time, you'd find them accessible," says Cameron. Trees measuring over one thousand feet and mountains that somehow float, are among the landmarks that inspire awe for their sheer imagination and scope – but whose designs stem from structures familiar to everyone.

"James Cameron didn't just create and make a motion picture set on a distant world; it was if he had actually traveled there, taken copious notes, then returned and put every detail he absorbed on paper, and then on film." says production designer Rick Carter.

That was the impression the world renowned filmmaker left on his department heads, cast, and just about everyone who worked on AVATAR. Collaborating with many of the industry's top artists, Cameron oversaw the conceptual art, virtual sets, and practical sets. He scrutinized very design detail of AVATAR – each creature, blade of grass, tree, mountain, cloud, vehicle, and costume.

"I think Jim finished AVATAR a long time ago in his mind," says co-production designer Robert Stromberg, who oversaw much of the design of Pandora. "He brought it to us to recreate." Rick Carter adds, "It was tough to keep up with Jim because he was presenting a world he had seen, and not just invented. He had seen it and was reporting back to us. Jim would explain his design ideas in such detail that you would think these fictional animals really existed. That's how much thought he put into each and every animal and insect. He knows what they eat, how they sleep, and how they interact with one another."

Cameron, Stromberg, Carter, and their teams would regularly pose a key question

– "Would that [design] work?" The filmmakers' goal was to have audiences suspend
their belief, and recognize and relate to what they were seeing on screen.

Jake arrives at the human military and scientific base, Hell's Gate, a scar carved by the hand of man in the middle of this virgin world. As Jake soon discovers, the rainforest outside Hell's Gate is rich with exotic flora and fauna, as well as vicious wildlife. Pandora is, as Cameron describes, "the Garden of Eden with teeth and claws."

There are many Na'vi clans scattered around Pandora, but the one Jake comes to know is the Omaticaya Clan, who have lived inside of the 1000 foot tall Hometree for

10,000 years. The Omaticaya clan uses the different tiers of the tree's interior structure as their village. The social hierarchy of the Omaticaya is clearly defined, with Eytukan, the "Olo'eyctan" or clan leader, at the top. Eytukan turns out to be Neytiri's father, and her mother Mo'at, shares power as the clan's "Tsahik" or shaman. Tus'tey, a strong and proud young hunter, is next in line for the position of Olo'eyctan, and is promised to Neytiri in an arranged marriage.

Pandora's many wonders include the world's neural network, through which all its plant and animal life are connected. Akin to a human nervous system, this network enables all life on Pandora to function as a single harmonious system. The center of this network – and the moon's heart and brain –is a massive, gnarled and ancient willow tree that is the Na'vi epicenter, an extension of their lifeblood, and a place of regeneration and knowledge. This "Tree of Souls" is situated at the center of Pandora's most powerful magnetic field, the Flux Vortex. Eons ago the invisible field created the unusual geological formations of arches that form rainbows of stone, above a deep caldera, with the Tree of Souls at its center.

Living amidst these incredible environments are myriad creatures, some of which were created by AVATAR's in-house creature design team under Neville Page, with the others designed by John Rosengrant's team at Stan Winston Studios. The most fearsome of Pandoran creatures is the Thanator. "The Thanator could eat a T-Rex and have the Alien for dessert," says the filmmaker. "It's the panther from hell." Then there are the Viperwolves, which Cameron describes as "hairless with shiny skin that looks like overlapped armor. Most disturbing are its paws, which are like leathery hands."

A winged creature known as the Banshee is a key figure in Jake's journey; in a Na'vi rite of passage, Jake must dominate and ride a banshee to assume a rightful position in the clan community. The test's stakes are further heightened by the fact that the banshee that most wants to kill him is the "chosen one" he must capture.

Pandora's Direhorses, as the name suggests, resemble in some ways terrestrial horses – but with several important flourishes as conceived and designed by Stan Winston Studios and Cameron, the latter describing the animal as a "six-legged alien Clydesdale with moth-like antennae."

Pandora's diverse menagerie also includes the deer-like Hexapede; the ferocious Hammerhead Titanothere, a rhinoceros-like herbivore with a bad attitude and a head like a sledgehammer; and the Leonopteryx, a the king predator of the sky, striped scarlet, yellow and black, with an 80-foot wingspan. A smaller and gentler Pandoran species is the jellyfish-like Woodsprite, which waves silky tendrils to move gracefully through the night air. Called Atokirina by the Na'vi, they are actually seeds of the sacred Utraya Mokri "Tree of Voices," and thus an important part of the "soul" of the rainforest. When they land upon Jake, Neytiri interprets this as an important sign, and things take an unexpected turn.

Academy Award winner Richard Taylor and his team at WETA Workshop designed props and weapons for both the Na'vi and the heavily armed RDA. While renowned artist TyRuben Ellingson designed many of the vehicles used by the military forces based at Hell's Gate –and which figure prominently in the an epic third-act battle pitting machine against banshee, and hardened soldier against Na'vi warrior.

The AMP Suit ("AMP" is an acronym for "Amplified Mobility Platform") "amplifies" the movements of its human operator. The AMP Suits and their soldier occupants are transported by what is perhaps the RDA's deadliest aircraft – the C-21 Dragon Gunship. This giant rotorcraft resembles a predatory insect and has multiple canopies. Almost as destructive is the AT-99 Scorpion Gunship, a high speed, highly maneuverable military attack aircraft. And on a world with no landing strips, these tiltrotor aircraft have the important capability of vertical takeoffs and landings. While the military aerial vehicles in AVATAR are futuristic rotorcraft, they were intended to seem as familiar as the Huey gunships of the Vietnam era, to ground the audience in a strong sense of reality.

AVATAR's largest vehicle, over a kilometer in length, is the ISV Venture Star, an interstellar ship that transports RDA personnel – including Jake –to Pandora. Its antimatter engines propel it to seven tenths the speed of light, but the voyage to Pandora still takes almost six years, during which time the passengers are frozen in cryogenic suspended animation. To reach the planet's surface from orbit, the newcomers board the Valkyrie TAV (Trans-Atmospheric Vehicle), a distant descendant of the space shuttle.

The costume designs by Mayes C. Rubeo and Deborah L. Scott provide yet another gateway into the Na'vi culture. Although many of the costumes and accessories are worn by CG creations, the items were created practically, to best communicate the subtleties of the costume textures, the weaving styles, and the translucency of the jewelry. Practicality and comfort define the Na'vi clothing, reflecting the grace and beauty of Pandora's indigenous people.

#### **LIVE ACTION PHOTOGRAPHY**

The work of director of photography Mauro Fiore, ASC was focused on creating the gritty look of the industrial complex at Hell's Gate. "What they were capturing in performance capture and what I was creating in the live action sequences needed to cohesively exist in one movie," says Fiore, who also shot "The Kingdom" and "Smokin' Aces." Fiore embraced the 3D Fusion camera system, and after extensive testing, tackled the live action shooting with style and precision. The resulting images blend seamlessly with the CG created by WETA Digital and ILM.

Most of AVATAR's live-action scenes were shot in Wellington, New Zealand, where enormous sets were erected. This endeavor was an incredible undertaking; the production created a huge sub-structure of over 150 contractors to build the sets. The practical sets included the Link Room, which houses the sarcophagus-like link that transports the humans' consciousness into the avatar bodies, the Bio-Lab – a science facility and home to the amnio tanks that house the avatar bodies that have grown to adulthood during their six-year journey from Earth to Pandora; the Ops Center, which is the central nervous system of the Hell's Gate base; and the Armor Bay military stronghold, which houses the AMP Suits and choppers.

In all of AVATAR's environments, Cameron creates an immersive experience in which audiences will feel like they're alongside the characters on their adventures. He and Landau have long been champions of 3-D cinema and have worked tirelessly to use that format to enhance film's immersive qualities. But they note that they intend AVATAR to also be an immersive experience in 2-D, and the film will play widely in that format.

"Jim and I have been sharing our passion for 3-D with Distribution, Exhibition and worldwide audiences," says Landau. "We feel a 3-D renaissance is finally here. We live our lives in 3-D, so why not experience movies that same way. That being said, in either 2-D or 3-D, you will feel like you've been to a distant world and walked among its inhabitants."

Many 3-D films of an earlier era used the format as a "gag" or effect unto itself – throwing objects at audiences or arranging characters or props that would appear to come out of the screen and into the theater. For Cameron, 3-D is a window into a world, where the format, instead of calling attention to itself, disappears into the narrative.

As he was developing AVATAR, Cameron set to work on a new digital 3-D camera system, which he developed with partner Vince Pace of Pace Technologies, using Sony and Fujinon HD technology. But before AVATAR became a reality, Cameron's goal with the new digital 3-D camera was to bring back the experience of deep ocean exploration with unprecedented clarity to a global audience. His historic exploration of the inside of the Titanic was the subject of Cameron's 3-D IMAX film, "Ghosts of the Abyss," followed by "Aliens of the Deep."

Cameron's experiences on these films not only advanced his vision for AVATAR's three-dimensional presentation, it also informed one of the film's signature design and lighting elements: At the bottom of the ocean, Cameron had witnessed a phenomenon in which certain life forms literally glowed with an almost otherworldly light amid the relentless gloom. Cameron applied this "bioluminescence" to Pandora's environment, which comes to life at night via this affecting radiance.

# FINISHING UP

AVATAR's post-production process, like almost everything else about the film, was decidedly atypical. On most films, editing begins in post-production, but on AVATAR, Cameron and fellow editors Stephen Rivkin, A.C.E. and John Refoua, A.C.E. began cutting initial captured sequences during pre-production. The editors and their Avids were a regular presence on set during production, delivering to WETA sequences on a monthly basis. "Before we ever shot a frame of live action film, we had probably delivered seventy minutes of edited footage to WETA," says Landau.

A key part of the post-production period was composer James Horner's score, which combines classic symphonic elements that propel the film's epic action, with sounds that transport us to another world; the latter includes vocalists singing in the film's Na'vi language, as well as unusual acoustic and electronic instrumentalists.

Movie fans and music watchers have eagerly anticipated this new Cameron-Horner collaboration; Horner's work on 1986's "Aliens," yielded one of the cinema's finest action film scores, and 1997's "Titanic" made movie and soundtrack history. For AVATAR Horner reunited with "My Heart Will Go On" collaborator Simon Franglen to create a new song. "I See You" is sung by international sensation Leon Lewis, and can be heard in the end credits of the film. The song expresses the Na'vi idea of "seeing," when a person understands with their heart and spirit, not just with their mind.

As he entered the final stages of AVATAR, Cameron was eager to share his vision with the world. He previewed extended scenes at key domestic and international exhibitor gatherings, and at the massive Comic-Con pop culture enclave. Pleased with the response to these early looks, Cameron continued to fine-tune the editing and review the finished or near-finished visual effects work coming in daily from WETA Digital and the other visual effects vendors (including ILM, Framestore, Prime Focus, Hybride and hy\*drau"lx), all to make AVATAR a one-of-a-kind experience for moviegoers. "Jim doesn't make movies for himself," says Jon Landau. "He makes them for the audience." Adds Cameron: "I really want audiences to have a completely satisfying cinematic experience. And I hope audiences will walk out of the theater saying, 'I didn't see a movie; I experienced a movie."

\* \* \*

#### RealD

RealD 3D is the new generation of entertainment, with crisp, bright, ultra-realistic images so lifelike you feel like you've stepped inside the movie. RealD 3D adds depth that puts you in the thick of the action, whether you're joining favorite characters in a new world or dodging objects that seem to fly into the theatre. RealD pioneered today's digital 3D and is the world's most widely used 3D cinema technology with over 9,000 screens under contract. RealD will have over 4,500 screens installed in 48 countries by the AVATAR release. And unlike the old days of paper glasses, RealD 3D glasses look like sunglasses, are recyclable and designed to comfortably fit on all moviegoers, and easily over prescription glasses. Don't just watch a movie, experience a new dimension of entertainment with RealD 3D. (www.RealD.com)

## **Avatar: An IMAX 3D Experience**

Concurrently with the film's nationwide release in conventional theatres, Avatar: An IMAX 3D Experience will be released in IMAX® theatres beginning December 18, 2009. Avatar has been digitally re-mastered into the unparalleled image and sound quality of The IMAX Experience(r) through proprietary IMAX DMR® technology. With crystal clear images, laser-aligned digital sound and maximized field of view, IMAX provides the world's most immersive movie experience.

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# **ABOUT THE CAST**

**SAM WORTHINGTON** (Jake Sully) graduated from Sydney's prestigious National Institute of Dramatic Art (NIDA) in 1998. Upon graduation, he appeared in the stage production of "Judas Kiss," directed by Neil Armfield, for Company B at the Belvoir Street Theater.

With smaller roles in the international films "Hart's War," "The Great Raid" and "Rogue" under his belt, Worthington screen tested opposite Daniel Craig for the role of James Bond in "Casino Royale." Although he did not land the much-coveted part, it proved to be the perfect dress rehearsal for the following year. After an exhaustive casting search, James Cameron hand-picked Worthington to star in AVATAR, Cameron's first narrative film since his 1997 Oscar-winning blockbuster, "Titanic."

Worthington starred opposite Christian Bale in "Terminator Salvation," which grossed \$370 million worldwide.

In addition, Worthington recently completed shooting two character-driven dramas: "Last Night," opposite Keira Knightley, and "The Debt," with Helen Mirren. The former revolves around a husband and wife, both of whose fidelity is tested over the course of 36 hours. The latter, directed by John Madden, tells a post-World War II story of three Mossad agents confronted years later by their scandal-ridden past.

Worthington also stars in "Clash of the Titans," directed by Louis Leterrier. The film is scheduled to release on March 26, 2010.

Worthington made his feature film debut with the Australian film, "Bootmen," in which he played Adam Garcia's brooding older brother. His performance garnered him an Australian Film Institute (AFI) Award Nomination for Best Performance by an Actor in a Leading Role in 2000. Additional Australian film credits include "Dirty Deeds" with

John Goodman, Toni Collette and Sam Neill; "Getting' Square" with David Wenham; and Geoffrey Wright's contemporary adaptation of "Macbeth," in which Worthington played the title character.

He received numerous accolades for his layered performance in Cate Shortland's critically-acclaimed and commercially successful "Somersault." Worthington earned an AFI Award for Best Actor in a Leading Role and a Film Critics Circle of Australia (FCCA) Nomination for Best Actor in 2004. The film made a clean sweep of the AFI Awards, winning in all 13 film categories – the first time this had ever occurred in the awards' history.

Worthington's television credits include the acclaimed Australian productions "Love My Way," which won an AFI for Best Television Drama Series; and "The Surgeon," which was nominated for an AFI for Best Telefeature or Miniseries. He also starred in "Delivery Man," one of the episodes of "Two Twisted," a "Twilight Zone"-like anthology series produced by Bryan Brown.

**ZOË SALDANA** (Neytiri) is a rising star in Hollywood. She has built her reputation as a versatile and respected actress by choosing roles that she feels passionately about.

Saldana is most recognized for her memorable performance as Eva, in the film "Center Stage." Saldana's other film credits include "Vantage Point," "Haven," "Guess Who," "Pirates of the Caribbean: The Curse of the Black Pearl," "The Terminal," "Dirty Deeds, "Temptation and Constellation," "Get Over It," "Crossroads," "Snipes" and "Drumline." Her television credits include appearances on "Keeping It Real," and "Law & Order."

In 2004, Saldana accepted the Young Hollywood One to Watch award presented by *Movieline* magazine for her performance in "The Terminal."

Saldana recently was seen in J.J. Abrams' blockbuster film "Star Trek," in which she portrays Nyota Uhura opposite Chris Pine, Zachary Quinto, Eric Bana and Winona Ryder. Saldana stars in the upcoming film "Death At A Funeral," also starring James Marsden and Martin Lawrence, and "The Losers," alongside Chris Evans, Jeffrey Dean Morgan and Jason Patric. An adaptation of the DC-Vertigo comic book, "The Losers" is

about a Special Forces team betrayed by its handler and left for dead. The "losers" regroup in the interest of revenge, for the opportunity to remove their names from a secret CIA death list, and to conduct covert operations against the CIA and its interests.

Saldana was born and raised in New York. She currently resides in both New York and Los Angeles.

**SIGOURNEY WEAVER** (Dr. Grace Augustine) has created a host of memorable film characters, both dramatic and comic, from "Alien's" Ellen Ripley to "Gorillas in the Mist's" Dian Fossey. She has captivated audiences and won acclaim as one of the most esteemed actresses on both stage and screen.

Born and educated in New York City, Weaver graduated from Stanford University and received a Masters degree from the Yale School of Drama. Her first professional job was as an understudy in Sir John Gielgud's production of "The Constant Wife," starring Ingrid Bergman.

Weaver made her motion picture debut in Ridley Scott's blockbuster "Alien." She later reprised the role of Warrant Officer Ripley in James Cameron's "Aliens," which earned her Academy Award and Golden Globe nominations for Best Actress. She again brought Ripley back to life in David Fincher's "Alien 3," which she also co-produced, and "Alien Resurrection" for director Jean-Pierre Jeunet.

Following "Alien," Weaver had starring roles in three back to back hit movies: "Gorillas in the Mist," in which she portrayed primatologist Dian Fossey, the Mike Nichols comedy "Working Girl," and "Ghostbusters II." Weaver received her second and third Academy Award nominations and was awarded Golden Globes for her performances in "Gorillas in the Mist" and "Working Girl." Other films include the thriller "Copycat," Paul Rudnick's comedy "Jeffrey," Roman Polanski's gripping film adaptation of "Death and the Maiden," "Half Moon Street" with Michael Caine, Ridley Scott's "1492," "One Woman or Two" with Gerard Depardieu, "Eyewitness" with William Hurt, and Showtime's live-action film "Snow White," based on the original Grimm's fairytale, which earned her an Emmy® nomination and a Screen Actors Guild nomination.

In 1997 Weaver joined the ensemble of Ang Lee's critically acclaimed film "The Ice Storm" playing alongside Kevin Kline, Joan Allen, Elijah Wood and Christina Ricci. Her performance earned Weaver a BAFTA Award, a Golden Globe nomination and a Screen Actors Guild nomination for Best Supporting Actress. She later gave a galvanizing performance in "A Map of The World," Scott Elliott's powerful drama based on the novel by Jane Hamilton, which earned Weaver critical praise and a Golden Globe nomination for best actress. Alongside crewmates Tim Allen and Alan Rickman, she delighted audiences with her flair for comedy in the science fiction comedy "Galaxy Quest," directed by Dean Parisot, which proved to be a hit of the 1999 holiday season. She followed this with the popular comedy "Heartbreakers," playing opposite Gene Hackman and Jennifer Love Hewitt.

In 2003, Weaver played the cold-blooded, red-headed warden in the hit comedy "Holes," directed by Andy Davis, and starred in the film version of "The Guys," with Anthony LaPaglia, directed by Jim Simpson. Following this, Weaver appeared in M. Night Shyamalan's "The Village" and received rave reviews for her performance in "Imaginary Heroes," written and directed by Dan Harris.

In addition to her film credits, Weaver has also taken time to shine on the stage. Weaver started out on Off-Off Broadway in Christopher Durang's "The Nature and Purpose of the Universe," "Titanic" and "Das Lusitania Songspiel." She and Durang cowrote "Das Lusitania," which earned them both Drama Desk nominations. She has appeared in numerous Off-Broadway productions in New York, working with the playwrights John Guare, Albert Innaurato, Richard Nelson and Len Jenkin. In regional repertory, she has performed works by Pinter, Williams, Feydeau and Shakespeare. Weaver received a Tony® Award nomination for her starring role in "Hurlyburly" on Broadway, directed by Mike Nichols. She played Portia in the Classic Stage Company of New York's production of "The Merchant of Venice." In 1996, Weaver returned to Broadway in the Lincoln Center production of "Sex and Longing," written by Christopher Durang.

Weaver originated roles in two A.R. Gurney world premieres, "Crazy Mary," at Playwrights Horizons, and "Mrs. Farnsworth," at the Flea Theater. She also starred in Neil LaBute's play "The Mercy Seat," opposite Liev Schreiber. Weaver also originated

the female lead in Anne Nelson's "The Guys at The Flea," commissioned and directed by Jim Simpson. The play tells the story of a fire captain dealing with the aftermath of 9/11.

Recent films include "Infamous" with Toby Jones and Sandra Bullock; Jake Kasdan's "The TV Set"; "Snow Cake," opposite Alan Rickman; "The Girl in the Park," opposite Kate Bosworth; "Vantage Point" with Dennis Quaid and Forest Whitaker; and the Tina Fey/Amy Poehler comedy "Baby Mama." In 2008 Weaver lent her voice to Pixar's box office smash "Wall-E," as well as to "The Tale of Despereaux" with Matthew Broderick, Dustin Hoffman and Emma Watson.

Upcoming films include "Crazy on the Outside," which marks Tim Allen's directorial debut; Universal Pictures and Working Title Film's comedy "Paul," starring Simon Pegg and Nick Frost, as well as Seth Rogen and Jason Bateman; and Andy Fickman's comedy "You Again," alongside Jamie Lee Curtis and Kristen Bell.

In TV, Weaver received an Emmy nomination for lead actress for her role as Mary Griffith in Lifetime's "Prayers for Bobby," which was also nominated for Outstanding Made for Television Movie.

STEPHEN LANG (Col. Miles Quaritch), an actor of uncommon transformative power, has built a distinguished career on the stage and in film. Whether the role is Hamlet or Babe Ruth, "Stonewall" Jackson or Vaslav Nijinsky, Ike Clanton or Charles Winstead, Lang disappears into the part, creating indelible portraits of characters both historical and imagined.

This year has been a banner one for Lang on screen. In addition to his role in AVATAR, he portrayed Special Agent Charles Winstead in Michael Mann's "Public Enemies," and took on the key role of General Hopgood opposite George Clooney in "The Men Who Stare at Goats."

Lang's theater credits are extensive on and off Broadway, as well as nationally and internationally. Premieres include Aaron Sorkin's "A Few Good Men," John Patrick Shanley's "Defiance," Steve Tesich's "The Speed of Darkness," and Arthur Miller's "Finishing the Picture." He has performed leading roles in classics by Moliere, Williams, O'Casey, Beckett, Shaw, Shepard, Sophocles and Shakespeare, at some of the nation's

finest theatres, including The Goodman, The Guthrie, The New York Shakespeare Festival, Circle in the Square, The Kennedy Center, BAM, and a host of others.

Lang has performed his solo play "Beyond Glory" around the world, including 101 performances at The Roundabout Theatre. He received the Chairman's Medal for Distinguished Service from the NEA for bringing "Beyond Glory" to American troops stationed across the globe.

Lang's work in film has been no less varied and distinctive. For his performance as General "Stonewall" Jackson in "Gods and Generals," he received The Grace Prize. Other films include "Last Exit to Brooklyn," "Tombstone," Gettysburg," "The Hard Way," "Manhunter," "Band of the Hand," "Trixie" and "Fire Down Below."

On television, he gave a popularly and critically acclaimed performance as the titular baseball icon in "Babe Ruth." He was a series regular on Michael Mann's classic "Crime Story," and was the elusive One-Armed Man in the latest television incarnation of "The Fugitive."

**MICHELLE RODRIGUEZ** (Trudy Chacon) is a versatile actress known for her ability to combine a tough-girl physicality with a natural beauty and unforced sex appeal.

She was recently seen in the hit thriller "Fast & Furious," as well as in "Battle in Seattle," co-starring with Charlize Theron. She will both star and co-produce her first film, a historical drama, with her production company Cheshire Kat, entitled Trópico de sangre.

Born Mayte Michelle Rodriguez in Bexar County, Texas, she worked as an extra for two years, satisfying her curiosity about moviemaking. After that, she decided to pursue acting and landed her first audition from an ad she spotted in *Back Stage* newspaper, and was soon acting in the hit indie film "Girlfight." The role garnered Rodriguez numerous awards and much critical acclaim. This success quickly launched her as a young star on the rise in Hollywood.

Still going strong off of the success of her acting debut, she went on to co-star opposite Danny Glover in the Showtime network drama "3 A.M.," and the adrenaline-charged mega-hit "The Fast and the Furious," starring opposite Vin Diesel and Paul Walker. An avid video-game fan who has since lent her voice to various popular games,

including "True Crime: Streets of LA," "Driv3r" and "Halo 2," Rodriguez jumped at the opportunity to take a role in "Resident Evil," an adaptation of the hit video-game series.

Her other feature film credits include "Blue Crush"; the summer blockbuster "S.W.A.T.," starring opposite Samuel L. Jackson and Colin Farrell; and "Control," with Ray Liotta.

In 2005, a new chapter of her career began when she took a starring role in ABC's hugely popular television series "Lost," playing haunted and hardened ex-cop Ana-Lucia Cortez, who was revealed during the show's second season after making a brief appearance at the end of the first.

Rodriguez is launching a clothing line called Ishkadada, from which a portion of the profits will benefit various animal and children's charities.

**GIOVANNI RIBISI** (Carter Selfridge), winner of the 1999 ShoWest Newcomer of the Year award, has since established himself as a popular screen presence capable of playing a wide variety of roles.

Earlier this year, he appeared in director Michael Mann's "Public Enemies," starring opposite Johnny Depp. Upcoming is the independent film "The Rum Diary," opposite Johnny Depp, based on the Hunter S. Thompson novel.

Ribisi recently shot the independent film "Middle Men," a comedy chronicling the early days of the Internet porn business. The story centers on a straight-and-narrow businessman brought into a world that would eventually turn into a multibillion-dollar industry.

Ribisi was recently seen in "The Dead Girl" for director Karen Moncrieff. The film, which was nominated for Best Feature at the 2007 Independent Spirit Awards, is a quintet of stories about seemingly unrelated people whose lives converge around the murder of a young woman. Ribisi plays the mysterious Rudy, who forms an unlikely bond with a woman (Toni Collette) who finds the body.

Among his best-known films are Steven Spielberg's "Saving Private Ryan," Sofia Coppola's "The Virgin Suicides" and "Lost in Translation," Anthony Minghella's "Cold Mountain" and David Lynch's "Lost Highway." Other credits include "Perfect Stranger," "Flight of the Phoenix," "Boiler Room," "Gone in Sixty Seconds," "The Other

Sister," "Sky Captain and the World of Tomorrow," "Suburbia," "Heaven," "First Love Last Rites," "That Thing You Do," "The Mod Squad," "Masked and Anonymous" and "The Big White." He received an Independent Spirit nomination for his performance in Sam Raimi's "The Gift."

In addition to his numerous film credits, Ribisi also has an impressive list of television guest starring roles. In 2007, he earned an Emmy nomination for Outstanding Guest Actor in a Comedy Series for "My Name is Earl." Ribisi also made guest appearances on "The X-Files" and "Friends."

Ribisi and his twin sister Marissa were born and raised in Los Angeles where he still currently resides. Beginning his acting career at the age of nine, he studied theater under the prestigious acting coach Milton Katselas.

JOEL DAVID MOORE (Norm) started his film career with the role of Owen in the blockbuster Twentieth Century Fox feature "Dodgeball: A True Underdog Story," starring Ben Stiller and Vince Vaughn. Soon after, he starred in the Happy Madison production 'Grandma's Boy" and was a critic's favorite in "Art School Confidential," starring John Malkovich and Anjelica Huston. Other film appearances include the recent courtroom thriller "Nothing But the Truth" (opposite Jesse Metcalfe and Michael Douglas), the horror film "Hatchet," the drama/ fantasy "El Muerto" and the comedy "Hottie and the Nottie," starring opposite Paris Hilton.

More recently, Moore directed and starred in the dramatic comedy "Miles from Home," a short film following the mishaps of an awkward couple. In his feature directorial debut, "Spiral," Moore captures the introverted world of a disturbed artist. In this project, Moore attained the rare feat of writing, directing and starring in a major feature film.

CCH POUNDER (Mo'at) stars in the new FOX comedy series, "Brothers." Pounder also has a recurring role in the SyFy network series, "Warehouse 13." Her most recent film credits include "Orphan," "The No. 1 Ladies Detective Agency" (for which she received her fourth Emmy nomination) and "Rain," which earned praise at the Los Angeles Pan African Film Festival.

For seven years, Pounder portrayed Claudette Wyms on the critically acclaimed FX series "The Shield," which earned her many accolades including an Emmy nomination, NAACP Image Award nomination, the MIB Prism Award, two Golden Satellite Awards, the Genii Excellence in TV Award from the Southern California Chapter of the American Women in Radio & TV, and the LOOP Award from Lupus LA.

Pounder's other honors include an Emmy nomination for her role as Dr. Angela Hicks on the NBC series "E.R,." and an Emmy nomination for her work in an episode of "The X-Files." She received a Grammy® Award nomination for Best Spoken Word Album for "Grow Old Along with Me, the Best is Yet to Come," and won an "Audi" – the Audio Publishers Association's top honor – for "Women in the Material World."

Pounder's other film credits include "Bagdad Café," "Prizzi's Honor," "Postcards from the Edge," "Robocop 3," "Sliver," "Tales from the Crypt," "Face/Off" and "End of Days."

**WES STUDI** (Eytukan) is a native Oklahoman, Vietnam veteran, sculptor, musician, author, activist, full-blooded Cherokee, and legendary actor. Best known for his roles in "Dances with Wolves," "The Last of the Mohicans" and "Heat," Studi discovered his true calling in life much later than most actors.

Born in Nofire Hollow, Oklahoma in 1946, Studi is the eldest son of a ranch hand. He spoke only the Cherokee language until he was five years old, when he was sent to Chilocco Indian Boarding School in Northern Oklahoma, where he remained until high school graduation. Unlike many young Native American boarding school students, he did not forget his native tongue.

Studi graduated high school and in 1967 was drafted into the Army, serving 18 months in South Vietnam with the 9th Infantry Division in the Mekong Delta. At one point, his company was pinned down – and nearly killed – by friendly fire.

After an honorable military discharge, Studi became involved with Native American politics. He joined the American Indian Movement and participated in the Trail of Broken Treaties protest march in 1972, where hundreds of Native American activists marched on Washington, D.C. He was one of a group of protesters who briefly occupied

the Bureau of Indian Affairs Building. In 1973, Studi participated in the occupation of Wounded Knee, South Dakota, for which he was arrested and later released from jail on the condition that he would depart the state.

Shortly thereafter, Studi moved to the Cherokee reservation in Oklahoma. He enrolled at Tulsa Junior College on the G.I. Bill, where he helped start a Cherokee newspaper. During his college years, Studi began teaching the Cherokee language professionally. Later attending Tahlequah University, Studi continued his work to benefit the Cherokee Nation.

After college, Studi shifted his attention to running his own horse ranch and became a professional horse trainer. At the same time, he began acting at The American Indian Theatre Company in Tulsa. In 1988, he landed his first film role, in "Powwow Highway," and made his TV debut in a small role in the ABC TV-movie "Longarm."

In 1990, he landed the role of a Pawnee warrior in "Dances with Wolves." Two years later Studi was cast in the role he is most-famous for, as the vengeful Magua in Michael Mann's "The Last of the Mohicans."

Studi played the title character in Walter Hill's "Geronimo: An American Legend," alongside veteran actors Gene Hackman and Robert Duvall; Studi won a Western Heritage Award (shared with cast and crew). He also made memorable appearances in the film's "Heat" (as Al Pacino's partner), "Crazy Horse" and "Deep Rising." In 2002, Studi brought to life the legendary character Lt. Joe Leaphorn, for a series of PBS movies produced by Robert Redford, based on Tony Hillerman's books *Skinwalkers*, A Thief of Time and Coyote Waits.

In 2005, he portrayed a character inspired by the Powhatan warrior Opechancanough in the 2005 Academy Award-nominated film "The New World," directed by Terrence Malick. Studi's other film credits include: "500 Nations," "Big Guns Talk," "Broken Chains," "The Doors," "Highlander," "Ice Planet," "The Killing Jar," "Lone Justice 2," "Mystery Men," "Ned Blessings," "Seraphim Falls," and the acclaimed television films "Comanche Moon," "Streets of Laredo" and "Bury My Heart at Wounded Knee." His recent projects include "The Only Good Indian," which premiered at the 2009 Sundance Film Festival, as well as the television series "Kings," which aired earlier this year.

In addition to acting, Studi has many interests in which he is prolific including sculpture, tennis and jazz guitar. He is an internationally recognized expert in indigenous languages and has worked as a language consultant on several films. He is a stone carver working in soapstone and other soft stones, and author of two children's books, *The Adventures of Billy Bean* and *The Further Adventures of Billy Bean*, both written for the Cherokee Bilingual/Cross Cultural Education Center. In 2006, Wes was honored with the Golden Boot Award.

LAZ ALONSO (Tsu'Tey) portrayed the lead villain role of Fenin in "Fast & Furious," the fourth installment of the film franchise. He also had lead role in Spike Lee's movie "Miracle at St. Anna." Another recent film credit is the independent feature "Por Vida," also starring Danny Glover and Snoop Dogg.

Born and raised in Washington D.C., Alonso graduated from the prestigious Howard University School of Business with a Bachelors Degree in Business Administration with a Concentration in Marketing. After college, he worked on Wall Street as an investment banker. Alonso eventually started his own marketing business with some partners. The company promoted mainstream products to the urban/trendsetting market. Owning and operating a successful business allowed Alonso to explore his burgeoning passion for acting. He began taking classes in the evening to hone his craft, and it didn't take him long to begin landing roles in commercials and videos. Alonso moved to New York City to further his acting work.

His past movie credits include lead roles in the hits "Stomp The Yard" and "This Christmas," a lead role in 2006 Roland Joffe psychological thriller "Captivity," and an ensemble lead role in the 2005 film "Jarhead," directed by Sam Mendes. His television work includes guest-starring roles on "The Unit," "Bones," "CSI: Miami," "The Practice," "NCIS" and "Eyes."

# **ABOUT THE FILMMAKERS**

JAMES CAMERON (Director-Writer-Producer-Editor) was born in Kapuskasing, Ontario, Canada, and grew up near Niagara Falls. In 1971, he moved to Brea, California where he studied physics at Fullerton Junior College while working as a

machinist and, later, a truck driver. Setting his sights on a career in film, Cameron quit his trucking job in 1978 and raised money from a consortium of local dentists to produce a 35mm short film.

The visual effects in this film led to work on Roger Corman's "Battle Beyond the Stars" (1980), on which he served as production designer, matte artist and visual effects director of photography. Next, he became second unit director on Corman's subsequent sci-fi thriller, "Galaxy of Terror" (1981).

In 1983 Cameron wrote three scripts: "Rambo: First Blood Part 2," "Aliens" and "The Terminator." He directed "The Terminator," starring Arnold Schwarzenegger, in 1984. It became an unexpected box office hit and made *Time* magazine's ten best films of the year list.

Cameron subsequently directed "Aliens" (1986), then wrote and directed "The Abyss" (1989). Following that, he wrote, produced and directed "Terminator 2: Judgment Day" (1991), "True Lies" (1994), and "Titanic" (1997). He also co-wrote and produced "Point Break" (1991) and "Strange Days" (1994), and produced "Solaris" (2003).

His films have blazed new trails in visual effects and set numerous performance records both domestically and abroad. "Titanic" currently holds both the domestic and worldwide box office records having grossed over \$1.8 billion at the global box office. Cameron's films have also earned numerous nominations and awards from a variety of organizations, culminating in "Titanic's" fourteen Academy Award nominations (a record) and eleven Oscars, including Cameron's three Oscars for Best Picture, Best Direction and Best Editing.

In 1999, Cameron co-created the one-hour television series "Dark Angel." The show ran for two seasons on the Fox Network and gained a loyal following and a number of prestigious nominations and awards, including the People's Choice Award for Best New Television Drama. It also launched a new star: Jessica Alba.

Cameron also set to work on a digital 3-D camera system, which he developed with partner Vince Pace. The goal was to bring back the experience of deep ocean exploration with unprecedented clarity to a global audience.

Using this new camera system, Cameron proceeded to make underwater documentaries with his company, Earthship Productions. His team's historic exploration of the inside of Titanic was the subject of Cameron's 3-D IMAX film, "Ghosts of the Abyss." In May 2002, Cameron guided his robotic cameras inside the wreck of Bismarck, which resulted in groundbreaking discoveries about the sinking of the legendary German battleship, and the Discovery Channel documentary, "James Cameron's Expedition: Bismarck.

Cameron's team then made three expeditions to deep hydrothermal vent sites in the Atlantic, Pacific and Sea of Cortez over a two-year period, which became the subject of "Aliens of the Deep," also released in 3-D IMAX. He was joined in his exploration of these extreme environments by a team of young scientists and marine biologists to study how life forms discovered there represent life we may one day find on other planets and moons in our solar system. Most recently, Cameron returned again to the Titanic to complete his interior exploration of the ship, which was showcased in the Discovery Channel's program, "Last Mysteries of the Titanic."

Cameron continues to work with his engineering partner, Vince Pace, to develop camera systems and tools for 3D photography, for movies, documentaries, sports and special events. Their Fusion Camera System is the world's leading stereoscopic camera system, and has been used on AVATAR, "Journey to the Center of the Earth," "Hannah Montana: Best of Both Worlds," "U2:3D," "Tron: Legacy," and "The Final Destination," as well as numerous special event projects, such as the NBA All Star Game.

Cameron is also continuing to develop a number of ocean projects, and other environmentally themed documentaries.

JON LANDAU (Producer), an Academy Award winner, has repeatedly demonstrated an ability to oversee and deliver major motion pictures. The combination of Landau's thorough understanding of the most complex state-of-the-art visual effects technologies, his ability to work hand-in-hand with the highest caliber creative talent, and his motivational ability with crews of all sizes has enabled him to play a significant role in numerous major motion pictures.

As a part of Lightstorm Entertainment, Inc., Landau, along with director James Cameron, has been developing digital production tools that will enable filming and mass

digital distribution of 3-D films. Landau is also working in close collaboration with Microsoft and its partners to streamline the production and visual effect process through the use of cutting-edge "Virtual Production" technologies.

Under the Lightstorm Entertainment banner, Landau has also produced such films as James Cameron's "Titanic" and Steven Soderbergh's "Solaris." Previously, Landau co-produced Warren Beatty's "Dick Tracy" and the family comedy hit "Honey, I Shrunk the Kids." Throughout the early '90s, Landau was executive vice president of feature film production at Twentieth Century Fox.

MAURO FIORE, ASC (Director of Photography) is currently guiding the camera work on Joe Carnahan's "The A-Team," out next summer from Twentieth Century Fox. Previously, he shot Peter Berg's "The Kingdom," Michael Bay's sci-fi epic "The Island," as well as Joe Carnahan's black comedy "Smokin' Aces." He has also collaborated with director Antoine Fuqua on two feature projects—his Oscar-winning urban thriller, "Training Day" (for which Denzel Washington earned a best actor trophy), and the African war drama "Tears of the Sun," starring Bruce Willis.

A native of Calabria, Italy, Fiore immigrated to the U.S. as a child, settling with his family in suburban Chicago. He studied his craft at the city's renowned Columbia College, where he first met another budding cinematographer, future Oscar<sup>®</sup> winner Janusz Kaminski. The pair would become fast friends during college and, later, reunite when Kaminski relocated to California to attend the American Film Institute. After Kaminski began working as a gaffer for B-movie maven Roger Corman, a phone call beckoned Fiore back from Europe to join Kaminski in Hollywood as his key grip on Corman's low-budget productions.

When Kaminski commenced his collaboration with Steven Spielberg, Fiore proceeded to assist him as gaffer and second-unit cameraman on "Schindler's List" (for which Kaminski scored his first Academy Award), "Amistad" and "The Lost World: Jurassic Park."

His first credit as director of photography was on Kaminski's directorial debut, "Lost Souls." He followed with "Driven" and "The Center of the World." His big-

screen credits also include "Get Carter," "Highway," "Love From Ground Zero," "An Occasional Hell," "Breaking Up," "Soldier Boyz" and "Dominion."

He has also directed second-unit photography on such projects as "The Rock" and "Armageddon" (both for director Michael Bay and cinematographer John Schwartzman) and worked in various capacities on "The Adventures of Huck Finn," "Vida Loca" and "One False Move."

Fiore maintains an active profile in the advertising commercial world, where he has collaborated with director Antoine Fuqua on the Pirelli Tires spot "The Call," featuring Naomi Campbell and John Malkovich, and one of the famous BMW spots, "Ticker,' starring Clive Owen.

RICK CARTER (Production Designer) has been designing sets for the world of film and television for over 25 years. He collaborated with director Steven Spielberg on "War of the Worlds," "Munich," "Artificial Intelligence: A.I." (for which he was nominated for both the AFI Production Designer of the Year and the Art Directors Guild Award); "Jurassic Park," "The Lost World: Jurassic Park," and "Amistad" (which earned another Art Directors Guild Award nomination), as well as the Spielberg-produced series Amazing Stories.

Carter joined director Robert Zemeckis on "Polar Express," "Cast Away," "What Lies Beneath," "Death Becomes Her," "Back to the Future Part II" and Part III, and "Forrest Gump," for which Carter earned an Academy Award nomination. Upcoming for Carter is the action-thriller "Sucker Punch," directed by Zack Snyder.

ROBERT STROMBERG (Production Designer) recently collaborated with director Tim Burton on the 3-D film "Alice in Wonderland." Stromberg has worked extensively in various visual effects capacities, on the films "G.I. Joe: The Rise of Cobra," "There Will Be Blood," "Tropic Thunder," "The Golden Compass," "3:10 to Yuma," "Pirates of the Caribbean: At World's End," "Ghost Rider," Walk the Line," "Sky Captain and the World of Tomorrow," "Master and Commander: The Far Side of the World," and many others.

He was nominated for an Oscar (shared) for Best Visual Effects for his work on "Master and Commander: The Far Side of the World," and in 2008 won an Emmy (shared) for his work on the HBO mini-series "John Adams." He also won Emmys (shared) for his work on "Star Trek: The Next Generation" and "Star Trek: Voyager."

**JOHN REFOUA, A.C.E.** (Editor) previously collaborated with James Cameron on the 3-D documentary "Ghosts of the Abyss." His other feature credits include the comedies "Reno 911!: Miami" and "Balls of Fury." Refoua has worked extensively in television, on series including "Reno 911!," "CSI: Miami," and "Dark Angel," the latter co-created and executive produced by James Cameron.

**STEPHEN RIVKIN, A.C.E.** (Editor) won the American Cinema Editors' Eddie Award (shared) for his work on "Pirates of the Caribbean: Curse of the Black Pearl," and was nominated for an Eddie for "Pirates of the Caribbean: Dead Man's Chest" and "Pirates of the Caribbean: At World's End."

JOE LETTERI (Senior Visual Effects Supervisor) is a three-time Oscar winner – for his visual effects work on the last two "Lord of the Rings" films and "King Kong." He was nominated for "I, Robot." Letteri is a partner in the New Zealand-based digital effects house WETA Digital. Prior to joining WETA, he worked at ILM. Letteri's other credits include "X-Men: The Last Stand," "The Day the Earth Stood Still," "Van Helsing" and "The Water Horse."

JAMES HORNER (Music), whose most recent work is "The Spiderwick Chronicles" and Mel Gibson's "Apocalypto," is one of the most celebrated of modern film composers. Having created the music for dozens of the most memorable and successful films of the past two decades, Horner was honored with two Academy Awards and two Golden Globes for James Cameron's "Titanic." In addition, he has earned Academy Award nominations for his Original Scores for "House of Sand and Fog," "A Beautiful Mind," "Braveheart," "Apollo 13," "Field of Dreams" and "Aliens," and for the Original Song "Somewhere Out There" from "An American Tale." He has also garnered

five more Golden Globe nominations and has won six Grammy Awards, including Song of the Year in both 1987 ("Somewhere Out There") and 1998 ("My Heart Will Go On").

In April 1998, Horner's "Titanic" soundtrack completed an unprecedented run of 16 weeks at #1 on *Billboard's* Top 200 Album Chart, setting a new record for the most consecutive weeks at #1 for a score album.

Known for his stylistic diversity, Horner's most recent film credits include "All The King's Men," "The New World," "The Legend of Zorro," "The Chumscrubber," "Flightplan," "The Forgotten," "Troy," "The Missing," "Bobby Jones, Stroke of Genius," "Radio," "Beyond Borders," "Enemy at the Gates," "Dr. Seuss' How the Grinch Stole Christmas," "The Four Feathers," "The Perfect Storm," "Freedom Song," "Bicentennial Man," "Mighty Joe Young," "The Mask of Zorro," "Deep Impact," "The Devil's Own," "Ransom," "Courage Under Fire," "To Gillian on Her 37th Birthday," "The Spitfire Grill," "Casper," "Legends of the Fall," "Clear and Present Danger," "The Pagemaster," "Bopha!," "The Pelican Brief," "The Man Without a Face," "Patriot Games," "Thunderheart," "Sneakers," "The Rocketeer," "Glory," "In Country," "Field of Dreams," "Honey, I Shrunk the Kids," "The Land Before Time," "Willow," "An American Tail," "The Name of the Rose," "Cocoon" and "Cocoon: The Return," "Gorky Park," "48 Hrs." and "Another 48 Hrs.," "Star Trek II" and "Star Trek III." He also wrote the score for the 2006 film "The Good Shepherd."

MAYES C. RUBEO (Costume Designer) was the costume designer on "Dragonball: Evolution," "Apocalypto," "Sunshine State," and "The Arrival," among other feature films. Her television credits include the film "Fidel," for which Rubeo was nominated for a Costume Designers Guild Award, and "The Librarian: Quest for the Spear."

**DEBORAH L. SCOTT** (Costume Designer) was honored with an Academy Award for Best Costume Design in 1998, as well as a BAFTA Award nomination, for her work on James Cameron's record-breaking blockbuster "Titanic."

Scott collaborated with director Michael Bay on "Transformers: Revenge of the Fallen," "Transformers," "The Island" and "Bad Boys II"; and for with Steven Spielberg on his science fiction thriller "Minority Report."

She also designed the costumes for "Get Smart," starring Steve Carell and Anne Hathaway, "Reign Over Me," starring Adam Sandler, Don Cheadle and Jada Pinkett Smith; "Seraphim Falls," with Liam Neeson and Pierce Brosnan; and Andy Garcia's directorial debut, "The Lost City." Scott's other feature film credits include "The Upside of Anger," "The Patriot," "Wild Wild West," "Heat," "The Indian in the Cupboard," "Legends of the Fall," "Sliver," "Jack the Bear," "Hoffa," "Defending Your Life" and "Back to the Future."

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