

What Makes an Award-Winning Visual Effect?

by [Graham Edwards](#)

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- Actor John Krasinski and Academy President Cheryl Boone Isaacs announce the Best Visual Effects nominees for the 88th Annual Academy Awards in the Academy's Samuel Goldwyn Theater. Photograph by Matt Petit / ©A.M.P.A.S.

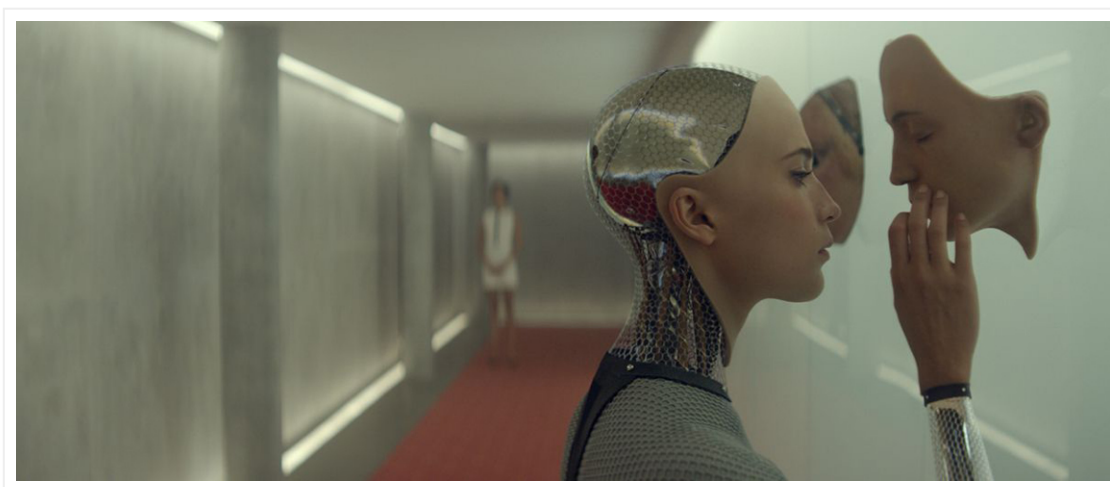
The [Oscars](#) are just around the corner. The [14th Annual VES Awards](#) will be presented later today. Among the memorable movies nominated for extraordinary achievements in visual effects this year are *Ex Machina*, *Mad Max: Fury Road*, *The Martian*, *The Revenant*, and *Star Wars: The Force Awakens*.



But just how do you choose between a sexy robot, monumental vehicular carnage, extra-terrestrial super-science, trials and trauma in the North American wilderness, and an entire galaxy filled with beeping droids and exploding spaceships? In an age where seamlessly-integrated, photoreal effects are taken completely for granted, what constitutes a "good" visual effect?

In search of some answers, we asked an international panel of visual effects professionals this simple question:

“How do you go about judging award-winning visual effects?”



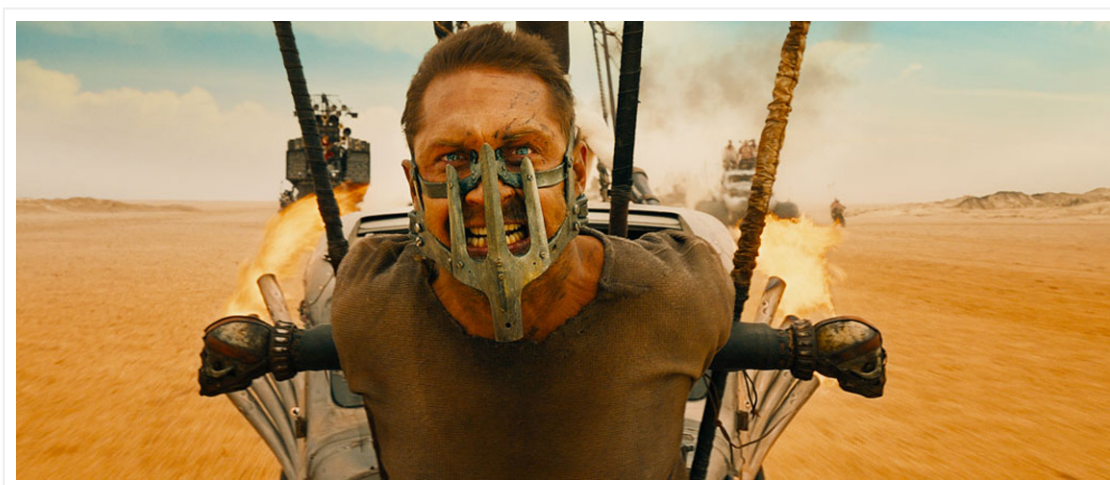
- 88th Annual Academy Awards nominee for Best Visual Effects: “Ex Machina” – Andrew Whitehurst, Paul Norris, Mark Ardington, Sara Bennett. Image copyright © by Universal Pictures.

It's a question that could take us into some rocky territory. Luckily for us, Randall Smith, visual effects supervisor at Pixomondo, has sketched out a road map to help us on our way:

“I judge visual effects based on three criteria. First I’m looking for accuracy and photorealism — visuals so realistic that the viewer accepts what they are seeing, and their disbelief is momentarily suspended. Secondly, I’m looking for pure, artistic expression. The best effects stand out when the artists aren’t held back by the limitations of a cost-effective solution, and instead aim towards new discoveries within their art. Last — and most importantly — the measure of a great effect will always be its success in storytelling. It’s amazing that a Muppet, with a team of artist’s hands shoved up its backside, can create a compelling story with a huge range of emotion. In comparison, some of most expensive effects shots often fall flat, losing the narrative and thereby losing the viewer.”

Parallel to Smith’s three basic criteria, Marque Pierre Sondergaard, texture artist at Atomic Fiction, suggests studying visual effects through two different lenses, which he describes as the “yin and yang of visual effects”:

“On one hand, you have visual effects that impress you when you are later told that the sequence was actually CG, and you never guessed. On the other hand, you have visual effects that seduce you with dazzling visuals and make no attempt to blend with the wallpaper. An example of the first would be Jurassic Park. At the first viewing, I kept asking, ‘How did they have real dinosaurs on set?’ The second could be exemplified by Guardians of the Galaxy, where the over-the-top world of a comic book makes no excuses for bending the laws of physics if it results in cool images.”



- 88th Annual Academy Awards nominee for Best Visual Effects: “Mad Max: Fury Road” – Andrew Jackson, Tom Wood, Dan Oliver, Andy Williams. Image copyright © by Warner Bros. Entertainment.

What’s the Story?

There’s no shortage of people ready to agree with Randall Smith’s assertion that successful storytelling is the key to great visual effects. Here’s what Alex Hessler, CG supervisor at Tippett Studio believes:

“The effects which tend to win awards are those that play the largest role in telling a great story. The technical advancements of visual effects come second to how good the story is, and how well that story uses the effects. So often, the script and direction is the deciding factor.”

Start thinking about story, and you'll probably find yourself contemplating the film as a whole. But narrative also exists at the level of an individual shot, as Kent Matheson, environment artist at Tippett Studio, points out:

“Like Douglas Adams’ secret to flying, generally I judge visual effects shots by whether or not I can forget I’m watching an effect. I want my imagination to be carried along with the story. And not only the story of the film or sequence. Each shot has a mini-story in itself, and everything in that shot has to work together, and be balanced and integrated in support of that.”

For Will Cohen, CEO/executive producer at Milk VFX, the power of story has never been in doubt:

“Outstanding visual effects must always support the storytelling.”



— 88th Annual Academy Awards nominee for Best Visual Effects: “The Revenant” – Rich McBride, Matthew Shumway, Jason Smith, Cameron Waldbauer. Image copyright © by 20th Century Fox.

Art VS Science

It's all very well talking about story, but what about the nuts and bolts of creating visual effects? In an industry that relies on artistic vision and technical excellence in almost equal measure, surely there's a place for innovation at the awards table? Storytelling advocate Will Cohen agrees that there is:

“Award-winning work should be somehow special and — by definition — push the boundaries in some way, whether artistically or technically.”

However, herein lies a problem. Faced with one bunch of visual effects that's dripping with artistic achievement, and a second that's technically out of this world, which do you vote for? Nicolas Chevalier, visual effects supervisor at Cinesite, mulls it over:

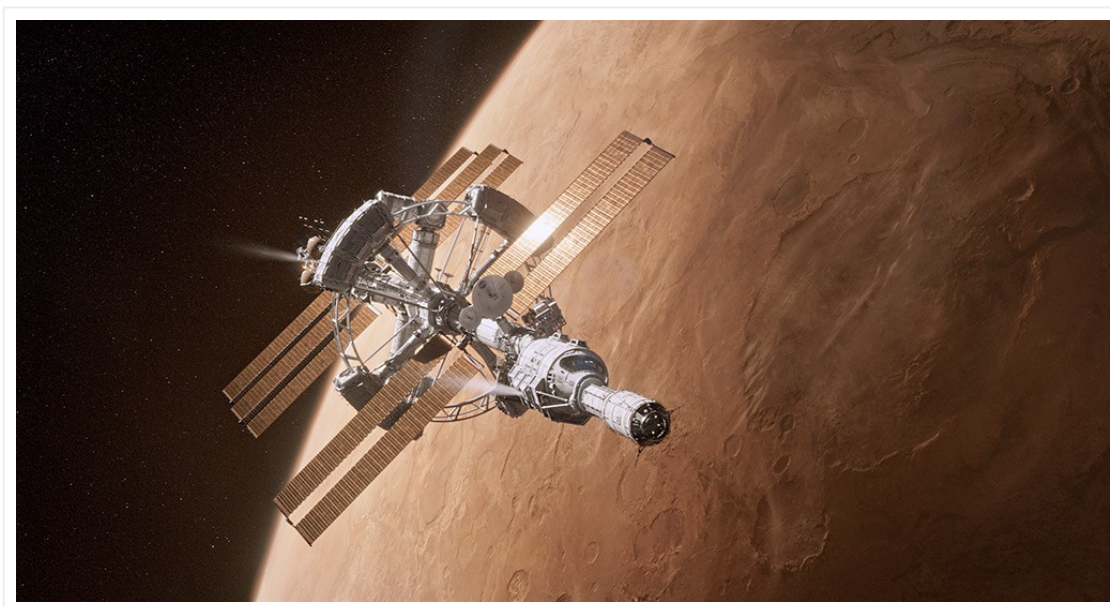
“Now that techniques allow us to create highly complex imagery, we need to rely on the artistic side of the work. Of course, you still have to obey certain rules to make a visual effect believable — lighting and physics to start with — but ultimately the work needs to serve the story, at any price. I guess this year’s Oscars selection reflects this.”

Some people — such as Mat Krentz, visual effects supervisor at Image Engine — consider technical achievement to be the most important check-box when making that final judgement call:

“Because of my compositing background, the first thing that I look for is if a shot technically works. If I spot any problems, then I immediately take note. I try to break down the process of how a final shot was achieved, and figure out what steps might have been taken to get there. I’m always impressed when seeing something new or inventive, as long as it was executed and finished appropriately.”

While maintaining a balanced view, Rudy Grossman, CG supervisor at Atomic Fiction, notes that technical innovation itself has many different facets:

“Great visual effects seamlessly support and tell a film’s story through aesthetic visuals created by an innovative use of technology. However, innovation isn’t always the development of new technology; it can also be a creative use of existing tools to make successful visuals in a new way.”



- 88th Annual Academy Awards nominee for Best Visual Effects: “The Martian” – Richard Stammers, Anders Langlands, Chris Lawrence, Steven Werner. Image copyright © by 20th Century Fox.

The Quest for Reality

We’ve gone into this debate under the assumption that visual effects need to look photoreal in order to be considered ‘good’ — but is that really the case? Jim Gibbs, visual effects supervisor at Atomic Fiction, is confident about what modern movie audiences expect to see:

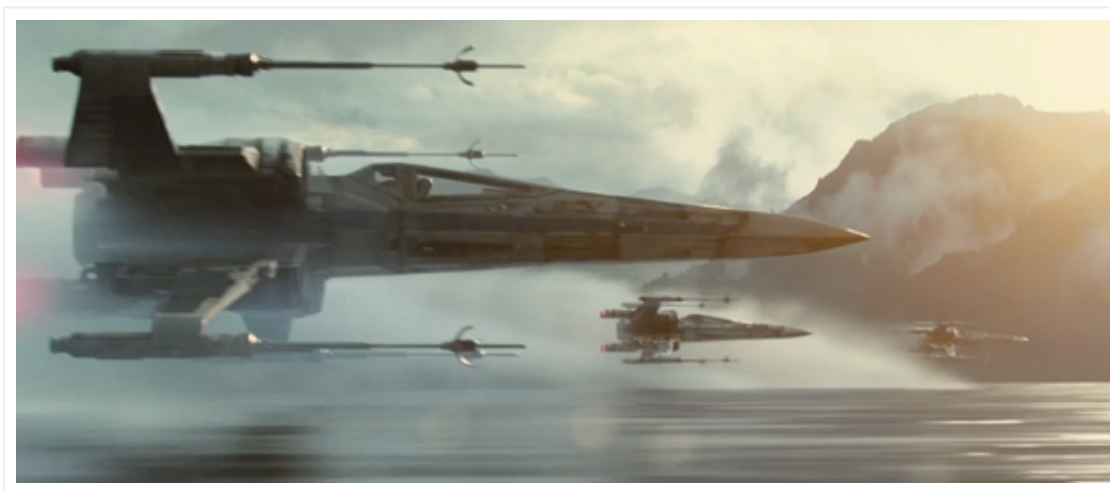
“We’ve reached a point where visual effects are expected to look seamless to audiences that have become more discerning, and accustomed to a high level of detail and realism.”

So, what are the advantages of serving up visual effects that look realistic enough to be called ‘invisible’? Peter Rogers, creative producer at Bait Studio, offers his opinion:

“I think that truly unforgettable visual effects are those that go unnoticed on first viewing. Those kinds of shots add to, rather than detract from, the narrative, helping to enhance the director’s vision, and building a truly believable world on screen. If you can forget you are watching a visual effects shot despite having industry knowledge, because you are so immersed, then you know that it’s doing the job it was intended for.”

While most seem to agree that photorealism is critical, where does that quality feature on the list of awards criteria? Shawn Walsh, visual effects executive producer at Image Engine, ranks it near the top:

“While respecting the banal, yet crucial, on-set data acquisition and chosen methodology of execution in post-production, ultimately seamlessness is always a must-have element in the success of the work. In the case of something like Chappie, we want the audience to forget they’re looking at a computer-generated robot.”



- 88th Annual Academy Awards nominee for Best Visual Effects: “Star Wars: The Force Awakens” – Roger Guyett, Patrick Tubach, Neal Scanlan, Chris Corbould. Image copyright © by Disney/Lucasfilm.

Putting Everything in Context

So far, we’ve looked at ways of measuring visual effects by breaking them down. Do they tell the story? Are they artistically or technically successful? Do they look real? But can we really study visual effects, and their component parts, in isolation? Isn’t it really all about the complete moviegoing experience? Mark Stetson, creative director and senior visual effects supervisor at Zoic Studios, suggests that it might be:

“I try to watch visual effects the same way I watch ‘best picture’ candidates — as an emotional response to a matrix of every aspect of filmmaking. Since our work is like a subset of almost the entire production — including production design, cinematography, performance, editorial, and image finishing — so must our work sit in the movie. If anything technical jumps out, we failed. If filmmakers find a new way to integrate the visual effects work into the production, we win. Despite the feeling that we can do anything in visual effects, there are still many boundaries to push, especially in the realms of animation — and more especially in virtual human actor performance. So I see plenty of opportunities for more ‘Wow!’ moments to come!”

As far as Shawn Walsh is concerned, context really is king:

“When I judge visual effects work, the context for the work is very important. Where is the location? What is the narrative implication of the action? How will this work affect the viewer?”

Likewise, Jim Gibbs believes that the very best visual effects succeed because of their contribution to the production as a whole:

“Visual effects that receive acclaim are well woven into the filmmaking process. They develop clever ways, and/or new technologies, to help achieve the director’s vision with the resources available. The final shot or sequence appeals to the audience as a vehicle for story-telling, and the process appeals to the visual effects and moviemaking community as interesting and forward-thinking.”

If you take the advice of Andrew Morley, visual effects supervisor at Cinesite, you won’t dream of judging the merits of an individual visual effects shot without also assessing its impact on the rest of the movie:

“Assuming technical correctness and excellence, a ‘good’ visual effect is hard to define, and consequently to judge. Shots make scenes, scenes make sequences, sequences make the film. A single shot — whether it contains visual effects or not — can influence the audience’s immersion within the entire film. Likewise, the qualities of the film, the story, the performances of the actors, and the vision of the director can all affect the feeling of an individual shot. The work needs to be judged taking into account the whole film. So, a mind-blowing, clever, beautiful visual effects shot that is ‘good’ will only ever enter the realms of ‘unforgettable’ if the film itself is up there in the stratosphere of the best films. If the film is forgettable, certainly the visual effects will disappear into the pixel grave of history.”



- Winner of the 87th Academy Award for Best Visual Effects: “Interstellar” – Paul Franklin, Andrew Lockley, Ian Hunter, Scott R. Fisher. Image copyright © by Warner Bros. Entertainment.

How Much is Too Much?

One criticism frequently levelled at today's effects-heavy tentpoles is that the sheer weight of visual imagery threatens to overload viewers' senses and derail flimsy storylines. Randall Smith is as familiar with the trend as the rest of us:

“Much of what we see today is visual effects for the sake of visual effects, effects that are distracting the viewer, begging for attention.”

Jim Gibbs agrees that, when it comes to judging films in a best visual effects category, excess should not necessarily lead to success:

“In an age of movies with gratuitous and over-the-top effects for the sake of visual spectacle, those that truly stand out are those which not only instil a sense of wonder in the audience, but are absolutely necessary to the film and the way the story is being told.”

Another person who also prefers quality over quantity is Aladino Debert, creative director at Digital Domain:

“Given the maturity of the industry, and the evolved expectations of what constitutes award-winning work, I'd say it comes down to a combination of uniqueness, art direction and technical prowess. I believe you need those three elements in order to really make me pay attention and consider it worthy of an award. Quantity does not impress me, but creative choices and the smart use of visual effects do.”



- Winner of the 86th Academy Award for Best Visual Effects: “Gravity” – Tim Webber, Chris Lawrence, Dave Shirk, Neil Corbould. Image copyright © by Warner Bros. Entertainment.

It's a Tricky Business

One thing's for sure, the more you break down the business of creating visual effects, the more you appreciate just how challenging the craft really is. Given their complexity, is it even possible to judge visual effects at all? Mike Janov, VFX supervisor at Atomic Fiction, is all too aware of the difficulties involved:

“There really is no one way to judge ‘award-winning visual effects’ — there are so many aspects that go into a final image. There are many decisions made on-set that act as a canvas for whoever is doing the visual effects — camera, lens, camera movement, composition, lighting, and so on. After a shoot wraps, it’s up to the talent of a visual effects studio to bring the shots to life. More decisions need to be made based on the previous on-set choices. How do you take a plate to the next level? Are the effects making the image a more emotional experience for the audience? Are they being pushed to a level of realism never seen before? Is the intention of the visual effects clear, making the overall viewing experience better?”

Even when you do identify ways to facilitate the judging process, there are plenty of ways in which logical argument can get subverted, as Anders Beer, animation director at Image Engine, remarks:

“At its core, visual effects work is about creative problem-solving. That much has never changed. So, measuring great visual effects means weighing the difficulty of the problem against the quality of the solution — measuring the quality of the solution is always going to be subjective. Unfortunately, some of the most challenging visual effects problems that get solved are too dramatic or political to make it into the visual effects breakdowns. And many of the solutions are misrepresented in the breakdowns to promote studio marketing or even personal agendas.”

One of the big challenges for visual effects professionals is how to present their work to judging panels made up of people who know little — if anything — about visual effects. Aidan Fraser, VFX supervisor at Atomic Fiction, identifies some of the issues:

*“Nowadays, one can’t determine the line between CG and practical simply by watching the film. The judges of visual effects awards need to see breakdown reels even to know what is visual effects and what isn’t. The obstacles a team had to overcome and the innovations they made along the way must also be considered in judging the final image. For example, our hope is that you watched *The Walk* and believed that Joseph Gordon Levitt learned to juggle five clubs while balancing on a slack line. However, to judge the visual effects in the film, you would have to know that those shots were digital face replacements. Also, the massive 1970s New York environments become more of an achievement when you know the time and budget constraints of the film, not to mention the scale of cloud computing never before seen in cinema. You have to understand the process to accurately judge the product.”*

No two visual effects shots are the same. Similarly, every awards ceremony differs from the next. That’s why Guy Williams, visual effects supervisor at Weta Digital, adjusts his judging criteria according to the prize that’s up for grabs:

“For the VES awards, I judge a shot by its merit against other effects – in other words, I take into account the difficulty of the effect, and the creativity of the solution. For the Academy, I base it more on how the effects contribute to the storytelling. For both awards, quality is also a main concern – although the industry is so evolved now that most nominated films are skirting the edge of perfection, so it isn’t usually a deciding factor.”

In an age when the term “CG” is seen by some uninformed individuals as a dirty word, visual effects professionals can take heart from the knowledge that much of their work is going more unnoticed — and is therefore more successful — than ever, as Peter Rogers observes:

*“Recent successes like *Mad Max: Fury Road* and *Star Wars: The Force Awakens* have both led to audiences praising the return to ‘all-practical’ effects. This shows how seamless really good visual effects can be.”*

Here’s another thought. Because many judging panels are ignorant of the visual effects process, is the “context is king” model really the best way to measure success in the craft? Brooke Lyndon-Stanford, visual effects supervisor and owner at Atomic Arts, and chair of the London branch of the Visual Effects Society, shares his personal reflections on the Academy of Motion Picture Arts and Sciences voting process:

“For me, it is extremely important to take the visual effects out of their context — we are here to judge the quality of the actual work, and nothing else. To this end, it is vital that we understand what we are looking at, and judge it on its own merit. A badly scripted film can still contain excellent effects, and just because a film is by a great director should in no way elevate the perceived quality of the effects.”

*“Having sat through the AMPAS VFX branch bake-off on a few occasions, it is clear that the way we should judge visual effects is very different from how the Academy judges them. I sat beside a senior studio executive at the bake-off for the 2012 Oscars, for which a movie we had contributed to — *Rise of the Planet of the Apes* — was nominated. Seeing the other films in contention, in my naivety, I declared that *Apes* would be a shoo-in for the Oscar. It was the first ever live-action*

movie where the lead was totally computer generated — a pivotal moment in movie history. The exec disagreed — history showed that, where there was a movie in contention by a director favoured by the Academy which wasn't quite good enough to receive 'serious' awards, members would vote for their film in other categories. I was astounded that this could ever happen, and genuinely didn't believe him. Hugo, directed by Martin Scorsese, won the 2012 Academy Award for Visual Effects.

“To be fair, Academy judges are hindered to a great part because the Academy (which incidentally has a median age of 62), still does not allow breakdowns in the reels shown to them, so how can they be expected to understand what they are looking at? I chatted to a couple of grey-haired Academy members after the bake-off who were amazed at how we got the apes to act so well on camera.”

The bottom line has to be that visual effects is, at is always has been, an incredibly difficult category to judge, as Will Cohen admits:

“Creativity will always be difficult to judge. Much of the time, what is perceived to be award-winning work is subjective opinion and personal taste, and will depend on the comparative quality and impact of the batch of works that are created in a particular year.”



- Winner of the 85th Academy Award for Best Visual Effects: “Life of Pi” – Bill Westenhofer, Guillaume Rocheron, Erik-Jan de Boer, Donald R. Elliott. Image copyright © by 20th Century Fox.

The Feelings of the Panel

Our panel of experts has discussed at length the myriad ways by which visual effects can be judged. However, perhaps the most useful insights they can give us are concerned not with what they *think*, but how they *feel*. So away with the commentary — let's allow the emotions to speak for themselves:

“When watching a film, I’m always hoping for an emotional experience that is unforgettable. Ideally, when there are visual effects, I’m not evaluating the image technically, simply enjoying the experience and being left wanting more!”

Mike Janov, VFX supervisor, Atomic Fiction

“The visual effects which hold a special place in my heart are those that leave an emotional imprint, long after the initial viewing. Cutting through the fog of obligatory effects found in most features are a few, rare beacons of how this craft can truly shape an experience. That happens when the creators are so good that you genuinely feel joy or sadness for an illusion made of triangles. In those moments, an artist transcends the medium, and the computer vanishes.”

Vince Cirelli, visual effects supervisor, Luma Pictures

“In recent years, we have learned the hard way that bums on seats and big budgets alone don’t necessarily produce award-winning, eye-watering and envy-inducing visual effects. We shouldn’t strive to pull the rabbit out of the hat with as much fireworks and fanfare as possible. What turns heads is when you can subtly feel the passion, the pain, the endurance and creativity a project demanded of its crew. When disadvantages get turned into advantages, when problems turn into solutions — that’s when a show reaches its ‘bliss point’ and turns from a 99-cent fast-food burger into a well-aged French Camembert, melting in your mouth, challenging your nose and tickling your taste buds.”

Guido Wolter, 2D supervisor, One of Us

“Once in a blue moon, you will find a visual effect that includes both extraordinary amounts of artistic vision and near-perfect realism. The moment may go overlooked by the audience, because it fades so completely into the story supporting it. These moments will be studied for years to come.”

Randall Smith, visual effects supervisor, Pixomondo

“For me, award-winning visual effects are always those that are the deepest, richest, and most captivating — not the largest or most flashy. The effects which facilitate a visual result that is otherwise unachievable, and in so doing return incredible value to the filmmaker.”

Shawn Walsh, visual effects executive producer, Image Engine

“Perhaps the best visual effects are the ones that fool the experts — when even we, as professionals in the industry, forget that we are watching a character, event, or place that never actually existed.”

Rudy Grossman, CG supervisor, Atomic Fiction

“Good visual effects tell a story that can’t be told using any other tools. If you were to remove the effects, you’d leave an irreparable hole.”

Niketa Roman, PR manager, Tippett Studio

“As is true with all artistic challenges that go into the making of a film, we are in the business of contributing to the director’s vision. One should judge the success of a visual effect by its artful addition to a film, the ingenuity that went into its creation, and by the degree to which it creates

an exceptional experience.”

Brian Flora, art director, Atomic Fiction



- Winner of the 84th Academy Award for Best Visual Effects: “Hugo” – Rob Legato, Joss Williams, Ben Grossmann, Alex Henning. Image copyright © by Paramount Pictures.

And Finally ...

Of all our contributors, only one was brave enough to offer up a working blueprint of what actually constitutes an award-winning visual effect. Frankly, we’re not convinced that Dominic Parker, VFX supervisor at One of Us, was entirely serious when he compiled his ultimate checklist. Nevertheless, if you’re a visual effects artist keen to display one of those heavyweight gold trophies on your shelf, maybe you should try following his step by step instructions:

“An award-winning visual effect should have an A-list actor in front of a greenscreen, three or more practical elements, a complex CG pass — maybe of some kind of space creature or something being blown up — with multiple angles of view, there should be a non-nodal camera move, and when all this stuff is stuck together there should be some kind of cool effect over the top which makes it feel organic.”

Thanks to all our contributors from the following companies:

- [Atomic Arts](#)
- [Atomic Fiction](#)
- [Bait Studio](#)
- [Cinesite](#)
- [Digital Domain](#)
- [Image Engine](#)
- [Luma Pictures](#)