

The Empire Strikes Again: A Review of Star Wars: Episode 1 The Phantom Menace

From Lev Manovich,

special correspondent,
reporting from San Diego,
USA,
The Earth,
The Federation,
May 23, 1999.

You would think that San Rafael, California would be the ideal place to watch the premiere of new Lucasfilm extravaganza, the first truly all-digital feature (%95 of all shots in the movie were computer generated or assembled), two years in pre-production and four years in post-production -- the movie which displays the NATO unmatched rendering power and which for sure will get Ars Electronica top prize -- Stars Wars: Episode 1 The Phantom Menace.

It is there, at Industrial Light & Magic located in San Rafael that most of the movie was rendered; and indeed, I can see some traces of Northern California in the film. The humans wear tasteful all-natural cotton clothes; the older Jedi Knight looks like a CEO of some hot Internet start up in the Silicon Valley who writes books about social dangers of computing on the side; Skywalker's mother features minimal make up and understated but dignified manner, a Northern California type you see frequently in San Francisco expensive restaurants.

However, San Diego is a perfect location to see Stars Wars: Episode 1 as well, especially now. Let me explain. San Diego has the largest concentration of Airforce and Navy bases in the U.S. and until recently was known largely as a military town; it is thus a key place in the Federation's power grid. When I drive between San Diego and Los Angeles, I pass a long stretch of the base. Quite often one can see a few military helicopters in training, flying back and forth, sometimes quite close to the highway. The wall surrounding the base features a line in big letters written by an unknown Navy poet: "No Beach is Out of Reach."

I am stationed not on the base but in the Art Department of the University of California, San Diego. When I first got here three years ago I went into the campus bookstore and asked if they have the best in Star Wars criticism -- Paul Virilio's "War and Cinema." I was told that that they had two copies in stock for a year but none was sold so they send it back to the distributor. The center of the bookstore meanwhile was occupied by numerous Java and C++ textbooks; it seems there were hundreds of different ones. The campus itself originally was a military base; a few years ago one of my colleagues still had his studio in a former military building which are still found here and there throughout the campus.

In 1960s University of California, San Diego was one of hotbeds of student movement. Herbert Marcuse, one of the ideologists of this movement, was teaching here and Angela Davis (now herself a professor at the University of California, Santa Cruz) was one of the students. (When I was a pupil in the school in Moscow in the early 1970s I once had to draw a big poster which said "Free Angela Davies!" Later we were all marching under a cloudy Communist sky, as Star Destroyers were flying above us... this was long, long ago, in the galaxy far away which later was liberated by the Federation.) The University of California did not know how to get rid of Marcuse; so they changed the age of mandatory retirement in the University system, and Marcuse had to retire. Today

very few traces of all this are left. The students worry about the final exams, not the war in Yugoslavia. Yes, and they do worry about Star Wars.

May 1999. All across the USA long lines of young Star Wars fans lined up to catch the first show of the new (or rather, old, as it takes place before the original Star Wars trilogy) movie. They camped out before the movie theatres, sleeping in lawn chairs. Some were dressed up in self-made costumes of Star Wars characters: Luke Skywalker, Princess Leia and so on. (See www.starwars.com for details).

The US newspapers dropped or reduce the stories about the war in Yugoslavia in order to cover the much anticipated premiere. The attention of the whole nation was focused on the set of pixels ready to flicker on a movie screen for a couple of hours. The pixels simulating grass, the sky, metal and skin, arms and legs, humans and non-humans. The pixels crafted by thousands of people during six years of movie's production. The pixels which make up Star Wars: Episode 1 The Phantom Menace.

I waited couple of days for the passions to die out and for the lines of fans to disappear, then walked to the box office and asked if I can buy the ticket. Surprisingly, it worked. Inside, I bought a Big Coke; found an empty seat; placed the Coke into the special round opening on the left of the seat and prepared to be carried away by the Force.

The Hollywood industry is structured around the collective and corporate authorship and decisions by committee; the focus groups and marketing pie charts rule over the Romantic genius. Therefore it produces films which are characterized by a bricolage, post-modern, or, to use more contemporary language, plug-in structure. As noted by Jay David Bolter, in order to appeal to different market segments a single movie combines a number of genres and styles. Like Eisenstein's montage of attractions, a contemporary Hollywood

product fires a sequence of unrelated stimuli into its audience, designed to hit whoever happens to be in the dark. A chase scene; a 70s reference; a love story sub-plot; a character borrowed from last year's hit; an early 80s reference; and so on. In short, Hollywood strategy is blanket bombing, not laser guided missiles.

Star Wars: Episode 1 is no exception to plug-in architecture of Hollywood movies, although its segments seem to hold better than in a typical Hollywood product. Still, it is less a coherent building than a set of Photoshop filters. Despite the perfect digital compositing, the human characters seem to exist in their world, separate from fully digital sets. The race on the Tatooine where young Skywalker first shows his stuff forms a self-contained mini-movie of its own. The computer-generated creatures add the comic gigs. Lovers of desert landscapes get the sands of Tatooine; the northerners can enjoy the forest of Naboo; while the dwellers of New York and Tokyo can enjoy the super density of Coruscant, this ultimate metropolis which tops whatever Rem Koolhaas can ever imagine.

What I saw was of course wonderfully crafted. It was truly epic both in its scale and the attention to detail. Indeed if our civilization has any equivalent to Medieval cathedrals, it is special effects Hollywood films. Assembled by thousands of highly skilled craftsmen over the course of years, each such movie is the ultimate display of collective craftsmanship we have today. But if Medieval masters left after themselves the material wonders of stone and glass inspired by religious faith, today our craftsmen leave just the pixel sets to be projected on movie theatre screens. A kind of immaterial cathedral made of light, with noise of film stock mixed in together with human labor during the movie projection. The religious references are still present, both in the story (for instance, Skywalker was conceived without a father) and in the virtual sets.

The virtual sets of Stars Wars: Episode 1 are splendid in their glory although sometimes quite vulgar. Endless waterfalls are stuck in too many shots, the particle systems obeying the masters of the Skywalker Ranch. Of course, we

know that the law of digital aesthetics is "copy and paste" and that once you rendered a perfect waterfall, you are tempted to use it over and over. Of course it is the same waterfalls which, scaled down, you will find in the courtyards of corporate buildings throughout California. As Fred Turner pointed out to me, in the civilization built on the desert (i.e., California), display of water signifies power and wealth. This explains the waterfalls of Star Wars' sets. These sets are ultimate in corporate campuses planning. You can imagine Coruscant housing some future Microsoft / Disney / Getty conglomerate or other mega-corporation.

The overall visual aesthetics of the movie is a comic book painted by Veronese or Titian. The virtual architecture is rich and self-assured; in contrast, the cinematography is quite modest, even understated. Indeed, if you spend many months building a virtual set, and if, given even the massive computing power of NATO's rendering farm, it is still takes a few hours to render every single frame, you want to show the result in all its ray traced glory, without messing it up by shadows or camera moves.

Thus many shots of the movie look as though they came from some 3D computer animation textbook or from SIGGRAPH exhibition floor. A shining ship with a reflection map composed over a live plate of a landscape. Another live plate with thousands of Battle Droid -- the same 3D object cloned over and over. And so on.

Many shots of the movie also reminded me of the kind of animations which were dreamed about by my undergraduate students a few years ago when I was teaching 3D computer animation in another University before being send to San Diego. This was in the days before Alias and Wavefront merged together and before Softimage was bought by Microsoft. None of the students ever finished their animations because they did not have enough rendering time. But George Lucas has enough workstations to render any of his fantasies. The best force in

all of the Federation. So now these boys can go to the movies to see the ultimate student 3D animation of all times.

If you take away the humans and the plot, what you are left with, on some basic level, is pure display of computational resources. In a nutshell, Stars Wars: Episode 1 is a shameless advertisement for NATO, a showcase for Western technology. Millions of polygons and millions of particles making every frame. And every frame dense with detail whose only motivation seems to be to show off human and computer labor which went into its making. The armies of modelers, animators, technical directors, programmers and plain "paint monkeys" (the industry name for the low-level artists employed by special effects houses) being translated into the endless rows and columns of vehicles and architectural details filling every shot. The skies dark from the vehicles crossing them back and forth. The endless fields of Battle Droids shown from every angle; the endless flocks of various vehicles flying over Coruscant.

In all its rendered glory and with all its shots featuring the endless armies of Droids, the automated soldiers of the future, Stars Wars: Episode 1 is the ultimate military parade. It reminds me of the parade which took every year in the Moscow's Red Square when I was growing up, when one Empire was displaying its force for another on pre-arranged dates. Today only one of these Empires is left. And it is now putting on its own parade, both on the fields of Europe and on the movie screens around the world. Lets hope that Anakin Skywalker and his friends are on our side.