

Emmys: DP Rick Lopez Lenses The Men Who Built America



Andrew Carnegie, J.P. Morgan, John D. Rockefeller, & Cornelius Vanderbilt

The American Dream. Many of us chase it. But what is it? Can you name yours? In the insightful series, *The Men Who Built America*, Executive Producer Stephen David and the HISTORY Channel teamed to chronicle the lives of some of America's most visionary men and their American Dreams.

Part documentary. Part narrative. The four, two hour specials 'delorean' us to the 18th and early 19th centuries when pioneers Cornelius Vanderbilt, John D. Rockefeller, Andrew Carnegie, J.P. Morgan and Henry Ford built their legendary empires. The location heavy series directed by Patrick Reams and lens'd by cinematographer Rick Lopez had roughly five days per hour of show to complete the project.

TMWBA was the first collaboration between the director and cinematographer. "Stephen David was really the mastermind behind this series," says Lopez. "They contacted my agent to set up an interview, but at that time it was for the trailer they intended to use to pitch the show. I ended up not getting that job, but after it went to series, Stephen called and wanted me to come on board. It was the only circumstance I had in my career where I was hired on before the director. When I met with Patrick, we really saw eye to eye on the project so we both knew the collaboration was going to work."



DP Rick Lopez (black hat) and Director Patrick Reams (white shirt/notebook)

Since this was an era of oil, natural gas and few light sources, choosing color, contrast, and camera movement became key aspects to the visual storytelling. Patrick and Rick broke down the script into distinct ideas. “Patrick described the script with an arc,” says Lopez. “For Patrick, J.D. Rockefeller brought light into the era. He illuminated homes and businesses with kerosene, so when he came into the picture, we wanted to transition from a cooler place to something warmer.”

Though the trailer was shot on film, the series used the Arri Alexa to help speed up the post production process. An issue Rick noted early on was the HD camera giving off a contemporary look. “With a period piece, it allows you to work off a blank slate,” says Lopez. “You get to decide how someone will see the past, and we wanted to make sure to create a treatment that didn’t feel too modern.” Referencing films like *The Prestige*, Rick wanted the narrative visuals to be more like you were looking at an old photograph rather than looking at the past through a modern lens. “Our approach was to get the vibe of the period. I feel like if you depart too far from it because it’s a fact based script, then it becomes an impediment to digesting the story,” adds Lopez.



On set with DP Rick Lopez on a J.L. Fisher dolly & the Arri Alexa camera

The script involved many moving parts. The narrative sequences. Some stock footage and the interviews that spread throughout. “Our shooting pace was important,” says Lopez. “We treated it as you would approach a movie or an episodic, and broke down the schedule based on what we wanted to devote the most attention to.” Rick took the liberty of shooting in Log C and used Arri’s Look Creator software to create treatments he could reference on set. “With the Alexa having the ability to add in a LUT, I am often viewing the treatment and it’s very helpful,” says Lopez. “It especially guides the lighting, and can provide assistance for the make-up department and production design.”

To paint a picture of early America, production designers Sharon Lomfsky and Ernesto Solo were brought in and utilized Harpers Ferry, a historical town in West Virginia to backdrop much of the narrative work. “The locations are really a testament to Sharon’s and Ernesto’s work,” says Lopez. “We would occasionally green screen the end of the block which VFX supervisor Glenn Allen and his team would later extend, but to their credit, they did a remarkable job making our locations feel and look genuine.”



The crew setting up a crane shot with the Arri Alexa

While locations are one way to authenticate a story, lenses can help too. Cooke S4 Prime Lenses became the workhorses for the first unit DP. “We tried to stay on Primes as much as humanly possible,” says Lopez. “For a show like this, the softer the look the better. I’d use diffusion filters and smoke to distress the image. I tested vintage glass but worried that the eccentricities of the lenses would slow us down. The Cookes were a happy compromise -- I really like how they render the human face.”

TMWBA took place during the Industrial Revolution and that drove the spark to Rick’s lighting and in-camera work. “This was the time when cities were unbelievably polluted. If you go back and read some accounts, it was like some people almost never saw the sun,” says Lopez. “I was praying we would get overcast for our exterior work because that would help convey the grimy, dingy look we were going for.”

To further improve the exteriors, Rick would allow the image to go cool, underexposed and steer away from high contrast to recreate the darker side of the Industrial Revolution. “To me, high contrast is a very contemporary inclination so I wanted to stay away from that,” says Lopez. “If you look at a sequence like the Homestead riot, it would have been a very different feeling if it was shot in direct sun.”

Both smoke and diffusion played as a catalyst to the visual compositions. ISO as well. “I don’t subscribe to shooting at high ISOs,” says Lopez. “If you’re shooting in low levels of light, it’s harder to create just the right amount of contrast. The difference in stops might be a handful of foot candles, and that ends up being too low contrast. To me, you have to use light levels that differ enough from existing ambient light in order to have a nice dynamic range in the image. One of the things I see in HD nowadays is projects shot at low levels often have a muddy look to

them. So even if I'm shooting at an 800 rating, I'll often light to a brighter ISO and ND down -- otherwise it feels too flat to me."

Rick bounced around from ASA 800 as he wanted to shoot a fair amount of the series wide open - particularly for the exteriors. "I don't mind flicking the ISO down to 400 or 320 or 160. I know people will say you're affecting the highlights, but you have to shoot on a schedule," says Lopez. "Time is such the enemy. If you want to maintain depth of field your options are limited. You either have to quickly throw on ND or you adjust your ISO. To me, the image characteristics don't vary greatly -- especially on overcast days when there are not many highlights."



Finalizing a tracking shot on a J.L Fisher dolly

Scope played a key factor when it came to the coverage for the narrative sequences. "I tried to stick to classical camera movements," says Lopez. "We were primarily on dollies or a slider and our one flourish was using cranes which was paired with our CG work. Depth was one rule we had. With such grand locations, we tried to stage the characters in depth to show off the scope of the sets. If there was a beat change, we tried to block actors movements perpendicular, instead of parallel to the camera. When someone was threatening someone in a scene, which happened a lot, we would crowd the frame."

Another idea Rick fought to stay away from early was the use of close ups on long lenses. "I fought early on to stay away from long lenses," says Lopez. "To me, the use of long lenses is very contemporary. When you're on one in a close up, you see a very narrow field of view."

Rather than shooting on a 100mm or 135mm, we would march the camera in for a close up on a wider lens like the 32mm or 40mm. This way you could feel the space - it creates a comment on the character. When you're shooting close in these great locations, it's much better to see J.P. Morgan and the huge mansion behind him rather than just his face."

To light, Rick looked to gaffer Andy Howell who he worked with before on *America's Most Wanted*. "Andy is great. I met him in Miami and he has a terrific eye," says Lopez. For the show, Rick didn't use one fluorescent fixture, but instead, a gamut of tungsten or HMI units. "We often went with a soft, underexposed top light so we could shoot almost 360 degrees with very little adjustment," says Lopez. "This way we were built for speed. We would also put as many lights as we could on a dimmer and Andy even made a custom light source for us. A 'Lopez Light' he'd call it. It was a China Ball with muslin underneath it. I was looking for a very specific quality of light and the double diffused muslin had this great organic look."



J.D. Rockefeller during his moment of certain change

One of the key lighting cues in the nominated episode, *A New War Begins*, is when J.D. Rockefeller misses a train that ends up derailing and would have killed him. Being a religious man, he sees this as a sign from God and it forever changes him. "J.D. had two angles to him," says Lopez. "He literally brought light because he made his fortune through kerosene, but he was also a competitor. Patrick saw him as a half good guy, half bad guy. Whenever possible, we'd add side light to give him a sense of mystery." To further cue J.D. in this second-chance-at-life-moment, Patrick and Rick framed him perfectly in front of a church window with a subtle hint of backlight. "We tried to give him an angelic glow from there on out," mentions Lopez. "Hopefully, it wasn't too over the top."

Visual effects landed into the series thanks to the helping hand of VFX supervisor Glenn Allen and the team at Brainstorm Digital. "Glenn played an important role in a lot of the crane work we did," says Lopez. "Like for the Panama Canal sequence or the Homestead riot, Patrick would

explain the vibe of the scene and Glenn would help us along so we wouldn't crack the budget.” For the Homestead riot, Patrick wanted to show the imbalance of steelworkers and Pinkertons. “We only had about 50 or 60 steelworkers at the time,” says Lopez. “We wanted to use the crane so we were coming in over the heads of the Pinkertons and you couldn't see much of the steelworkers. Then, when the head of the Pinkertons walked over to talk, we wanted to go up and show this enormous sea of workers. Glenn would help set our camera movement limits. This way they could easily clone the thousands of steelworkers later in post.” Not only did Glenn help them stay within budget with his expertise, he worked closely with second unit DP John Ealer to go back on additional days to shoot the VFX plates for populating.

“John did a good chunk of the footage,” says Lopez. “Main unit did the larger scenes, but John would get a lot of the scenes that demanded less production firepower. I can't applaud him enough for how seamlessly he matched all the work. Everything from the guys touring the steel plant, the heroic style shots, or the men reflecting on deals they made or lost – just excellent.”



Working at the train depot station in Strasburgh, Pennsylvania

Besides the house shooting, the crew managed to luck out with all the train work. A train depot in Strasburgh, Pennsylvania provided all the practical work which was shot over a few days. “We had three cameras to use for most of the work,” says Lopez. “We would shoot the main unit stuff and then John would come in behind us and get additional footage with the actors while we continued to shoot other scenes.”

Final grading for the episode was done by Sam Daley at Technicolor. “I only had time to set the look with Sam, who is great,” says Lopez. “I explained to him over the phone before going in what we were going for and sent him a bunch of reference stills. It turned out really well.”

Even with an aggressive schedule, the New York native recalls how much he enjoyed working on this show. “I would do period pieces till I retire,” laughs Lopez. “I am a history buff, and working on this project with Stephen, Patrick, Glenn, John, Andy and the rest of the guys and crew was a great experience. I would happily do it again.”

Photos: Top publicity still by Zach Dilgard. Behind the scenes stills provided by Rick Lopez.