Paul Cameron, ASC Captures the Futuristic Look of "Reminiscence"

Cinematographer Paul Cameron, ASC and DIT Michael "Strawberry" Romano Detail the Challenges of Shooting the Film Noir



Set in 2050 in Miami and New Orleans, writer/director Lisa Joy's first feature "Reminiscence," is described as an "analog noir love story." In 2013, the spec script she wrote was on "The Black List," and eventually picked from the list for development. By the time it was green-lit, she had three seasons of "Westworld" on her resume, as producer/showrunner, giving her a pool of seasoned creatives to mine for "Reminiscence," including cinematographer Paul Cameron, ASC, ("21 Bridges," "Pirates of the Caribbean: Dead Men Tell No Tales," "Collateral") production designer Howard Cummings ("Lovecraft Country," "The Laundromat") and several camera crew.

The storyline involves a future world that has been decimated by rising water levels and unbearable heat, leading to riots as people struggle to survive among a world divided into 'haves' and 'have-nots.' The only thing that brings happiness to people is to relive their memories, in what is known as the Nostalgia Machine. With a cast including Hugh Jackman, Rebecca Ferguson and Thandiwe Newton, the film is being dually released in theatres and on HBO Max.

Cameron received the script in the summer of 2018 from Joy, and shortly thereafter she enlisted the A-list actors and financing from Film Nation. They collaborated on a sizzle

reel based on the story idea, which she took to the Berlin Film Festival in 2019. After a brief bidding war, Warner Bros. moved ahead with the project. "She is an amazing filmmaker," Cameron remarked. Being that it was her first feature film, he felt it was important "not to impose my aesthetic during the conceptualization of the film. I wanted Lisa to find her way with the material," he said. "She was very specific that the world during the day should feel unbearable with the heat, and that needed to be shown visually. She asked me to keep the skin tones and general feel as warm as possible."

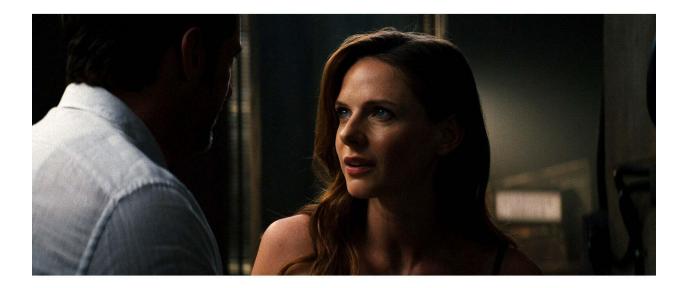


Director of photography PAUL CAMERON behind the scenes on Warner Bros. Pictures' action thriller "REMINISCENCE." Photo by Ben Rothstein

Together with Cummings, the three of them began collaborating on scouting locations and prep. "We spent endless hours on locations, staging and blocking almost every scene," Cameron explained. "Fortunately, having written the script, she was able to guide us moment by moment through the emotional beats of the film and communicate her vision. What I enjoyed the most is she would literally act out the characters so we could discuss rough blocking for principal photography."

Despite initial conversations about shooting on film, Cameron chose Sony VENICE, because he needed "to shoot at a higher ISO and lower light levels for live projection. I knew it was the right camera for the film. The 2500 ISO base is extraordinary." He paired the VENICE with Cooke anamorphic full frame lenses, "which have a timeless character to them, favoring a vintage look," he explained. "I love the way they render faces in close-ups." He used one additional lens, a vintage 38mm anamorphic lens, "because it has a unique flair characteristic; it's a very active lens. That was for the reminiscing scenes," he said.

The film takes place primarily in Miami, with locations originally slated only for New Orleans, "but Lisa put her foot down and we shot five days in Miami," said Cameron. "We shot the ground riots with Hugh, and the ground train exteriors, as well as quite a bit of drone sequences. I had units shooting 24 hours/5 days per week, including a rooftop scene with Hugh and Rebecca. Lisa was adamant that a scene between the two of them happen on the old integration tower, which had a small balcony. Ultimately, we had to carry everything up there, with no way to light on a day with mixed weather."



REBECCA FERGUSON as Mae in Warner Bros. Pictures' action thriller "REMINISCENCE." Photo courtesy of Warner Bros. Pictures

During prep, Cameron enlisted the help of colorist Dave Cole, Fotokem, who he had worked with on Season 3 of "Westworld." "I wanted a very photographic analog look for the film and Dave helped me with that. Unfortunately, our DI happened during the pandemic and Dave was working on 'Dune,' so I ended up going to Shane Harris at Picture Shop." Cameron was able to work out a collaboration between Fotokem and Picture Shop using the Gary Marshall theatre, and finishing the HDR with Cole.

DIT Michael "Strawberry" Romano ("Palm Springs," "Unbelievable," "A Teacher") had worked previously with Cameron on "Westworld" utilizing the Sony VENICE. Given his deep knowledge of the camera and Livegrade, Cameron urged him to come on board, despite the fact that production had already started. "Michael is so fast at balancing shots that we were basically giving completely timed dailies every day," said Cameron. "The Livegrade is great with projection so you can see the balance." For Romano, 2500 ISO "is a magic bullet for the VENICE. For a night scene, we used 2500 and 500 for the close-ups, but when you put the Livegrain on top of it, you can't tell the difference," he explained. "The 2500 has more texture to it, but 500 is so sterile, and Livegrain removes your ability to tell at that level. Basically, they couldn't tell the difference between 500 or 2500, and we had to cut both together." Cameron added that he wanted Livegrain on the film so it had a bit of texture, but looking at it before the Livegrain, it confirmed what he already knew, that the images "are incredibly clean, with only a minute loss of chroma with certain colors. You have to be a color scientist to see it."



Director of photography PAUL CAMERON behind the scenes on Warner Bros. Pictures' action thriller "REMINISCENCE." Photo by Ben Rothstein

A key element in this film is the Nostalgia Machine, which is a complicated projection system that allows the characters to revisit their memories. Cameron experimented a few years prior with projection on various semi-transparent screens. For "Reminiscence," he designed the projection system to create an illusion, knowing one of the challenges would be low light levels. "I built a 280-degree Halo Gauze Projection Screen with a 20-foot diameter and projected the memory footage live with three 20K projectors. The images were then mapped to blend onto the circular Halo Gauze Screen." This created a powerful illusion, "so I had to use a higher ISO and shoot at 2500, which was a substantial amount more than I thought I would shoot at."

Shooting the images needed for the Nostalgia Machine, as well as the actors, posed other problems for Cameron. "When you are on set, and seeing a character and projecting it, the actual shot and horizon line need to line up in a different kind of projection, called frustum projection. Here the projection was meant to feel as if they

were perfect memories that were integrated into the set itself. It meant shooting not only the live action scenes playing out in the Nostalgia Machine, but where Hugh would be on the set. In a scene, he is walking around, with a POV here, and then a rear high angle shot. Essentially, we had to shoot practicals as well as the rear projection, utilizing three cameras and two setups."

Romano had a "42-minute pre-call and we were in it. There was a massive amount of work that had been done to figure it out before I got there. On my end, I showed up with all the conceivable tools that are needed, and it's about figuring out how to plug all the tools together." Needing to match so many key scenes in the film, Romano explained the intricacy of timing. "When Hugh Jackman is walking around, as we track with him, we are tracking around her at the same time. It's bending perspective as we shoot. It does this because of the volumetric space we are shooting inside; the system knows where the camera is and perspective corrects for its off-axis position. Once we have that information, we feed it into the computer to create these geometric positions, so there is no distortion."



NATALIE MARTINEZ as Avery Castillo and HUGH JACKMAN as Nick Bannister in Warner Bros. Pictures' "REMINISCENCE," Photo courtesy Warner Bros. Pictures

Cameron also understood how important the romantic aspect to the film was for the director. "She wanted warm tones, the heat of Miami. You take a cue like that and make these actors incredibly beautiful. For me, lighting spaces is one of the most important aspects, and the feeling of light on one's face. Because of the film's premise with the Nostalgia Machine, light comes from 360 degrees, and I love to make it as three-dimensional on faces as much as possible." The office that housed the Nostalgia

Machine in it was a heavily rigged stage, "and I predominantly used wireless LED lights, raised and lowered banks of light, and utilized big light sources," he explained.

Romano added, "The Halo gauze material itself was accepting the set lights. But we needed a different ratio, in which the projectors were brighter, so we went to 2500 base exposure. We effectively turned up the sensitivity of the camera, and all the lights appeared brighter, so it allowed the projector to be brighter and not have spill from all the other lights on the screen. We were able to achieve this by making the VENICE camera more sensitive, which is something we would not have been able to do with a camera that didn't have two base EVs."

Romano had done such extensive work with the VENICE in low light on "A Teacher," "that I was confident it was the right camera," he enthused. "There isn't another camera I would consider using that could shoot at that EV with that noise level and Chroma reproduction. It is almost too noiseless at 500, but that's where the Livegrain came in."



HUGH JACKMAN as Nick Bannister and REBECCA FERGUSON as Mae in Warner Bros. Pictures' "REMINISCENCE." Photo courtesy of Warner Bros. Pictures

Included in the film are several water sequences, given the premise of the film's apocalyptic rising water levels. One of the more challenging water sequences involved Hugh floating away from Rebecca, which was shot in a small pool they train divers in. "Although we did a concept drawing of the shot where they are receding from each other, that became the most important underwater shot. The reality is that to find a tank in New Orleans is impossible," he explained. "We broke that entire sequence down into very specific moments, and we had to know the cutting pattern of the scene so we could shoot those elements."

As a fight ensues underwater, the lighting became the biggest challenge for Cameron, since the small pool had no space above, and no room along the bottom of the pool. "It was tricky, since we had to work with visual effects in a work space that was literally 12x12," Cameron explained. "We put in a rolling gantry, which I built on I-beams, and added mirrors on the gantry. Then we had 10K Xenons on the pool, which became the source that went into the pool, while we worked on a combination of the shafts of light that went into the pool."

Part of that water sequence began in an old rectory of a church. "We flooded the ground floor of the rectory, leading up to when the piano crashes through the floor," Cameron explained. "Then we built a tank, so Hugh can dive into it. It was broken up into the live set, where we replicated three walls, then he dives in, and climbs out and comes up to the character (Cliff) who he knocked out." Cameron asked Cummings if he could hang old, yellowed, pull-down drapes, "and we warmed the light up a bit. As they are fighting, Cliff pulls the curtain down and the light blasts onto Hugh. We ultimately took the shaft of light down from the piano to light the tunnel of water that Hugh dives into."



HUGH JACKMAN as Nick Bannister in Warner Bros. Pictures' action thriller "REMINISCENCE." Photo courtesy of Warner Bros. Pictures

One of Cameron's favorite shots is when Jackman is chasing a younger girl for information at an outdoor water market, shot at an abandoned Six Flags amusement park just outside of New Orleans. "When I was scouting, what stuck out was the rollercoaster ride, which was being pulled down into the mangroves; but even more so, I was shocked by this brilliant Ferris wheel," he said. "I thought it would be great to rewire the ride and have the lights on and flashing behind Hugh for the scene. The whole area

was filled with dozens of boars and alligators, and they relocated the animals so we could light and rig." Cameron worked with a rigging electric that assured him he could wire it for lighting. "We pulled up and the electrician plugged the Ferris wheel in. The lights came on and started flashing and Lisa was in disbelief. The shots are brief, but I love the background," he added.



HUGH JACKMAN as Nick Bannister and REBECCA FERGUSON as Mae in Warner Bros. Pictures' "REMINISCENCE." Photo courtesy of Warner Bros. Pictures

Production finished shooting the film in 54 days, a day earlier than planned, to which Cameron gave kudos to the production team, noting he had the support of great ADs and producers who understood what the challenges were. "For as long as I can remember, this is the only film where nothing was shot after principal photography. We shot all the inserts and additional photography as we went. Often times, Lisa came with an idea on set that seemed out of the box. Little did I know she saw all those shots and cuts in her mind and knew she wanted these heightened emotional moments for the edit. The end result of the way it looks on film is very close to what Lisa conceived," he said.

Romano added, "There was some trial and error, as there is on every set. There was a lot of planning to get us to that point. And it was a big sigh of relief when it worked." Cameron agreed. "The layered script was quite complicated and a challenge to visualize, quite honestly, as it involved creating complex timelines and memories. But working with a cohesive team helped bring Lisa Joy's vision to life." "Reminiscence" is now in theaters and streaming on HBO Max.



HUGH JACKMAN (center) behind the scenes on Warner Bros. Pictures' action thriller "REMINISCENCE." Photo by Ben Rothstein