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RODRIGO PRIETO, ASC, AMC REED MORANO, ASC DAVID FRANCO LAUNCH HBO'S ROCK OPERA

PLUS: PETER LEVY, ASC, ACS RACE





Three cinematographers craft a unique period look for Vinyl, HBO's deep dive into the music scene of 1970s New York City.

By Patricia Thomson

ome 15 years ago, when Mick Jagger first had the idea for an onscreen history of rock, he never imagined television as the ideal medium — a feature film seemed the way to go. But the long gestation paid off. First Martin Scorsese, then writer-producer Terry Winter and HBO linked arms with the Rolling Stones front man, and Vinyl has now come to fruition during the golden age of cable.

"Now is the perfect time for the story to be done in this format," says Rodrigo Prieto, ASC, AMC, who shot The Wolf of Wall Street for Scorsese before reteaming with him on Vinyl's pilot, and then handing the show's reins to fellow cinematographers Reed Morano, ASC and David Franco. "It probably would have been a pretty interesting movie, but a series gives you the chance to see a whole era."

As eras go, the 1970s are a musical gold mine. Punk and glam rock were emerging from the underground, and disco was igniting dance floors even as soft-rock sirens like Karen Carpenter and diehards like Robert Goulet still crooned on the airwaves. All these musical forms are woven into Vinyl's 10 episodes, with everyone from Alice Cooper to Led Zeppelin written into the script.

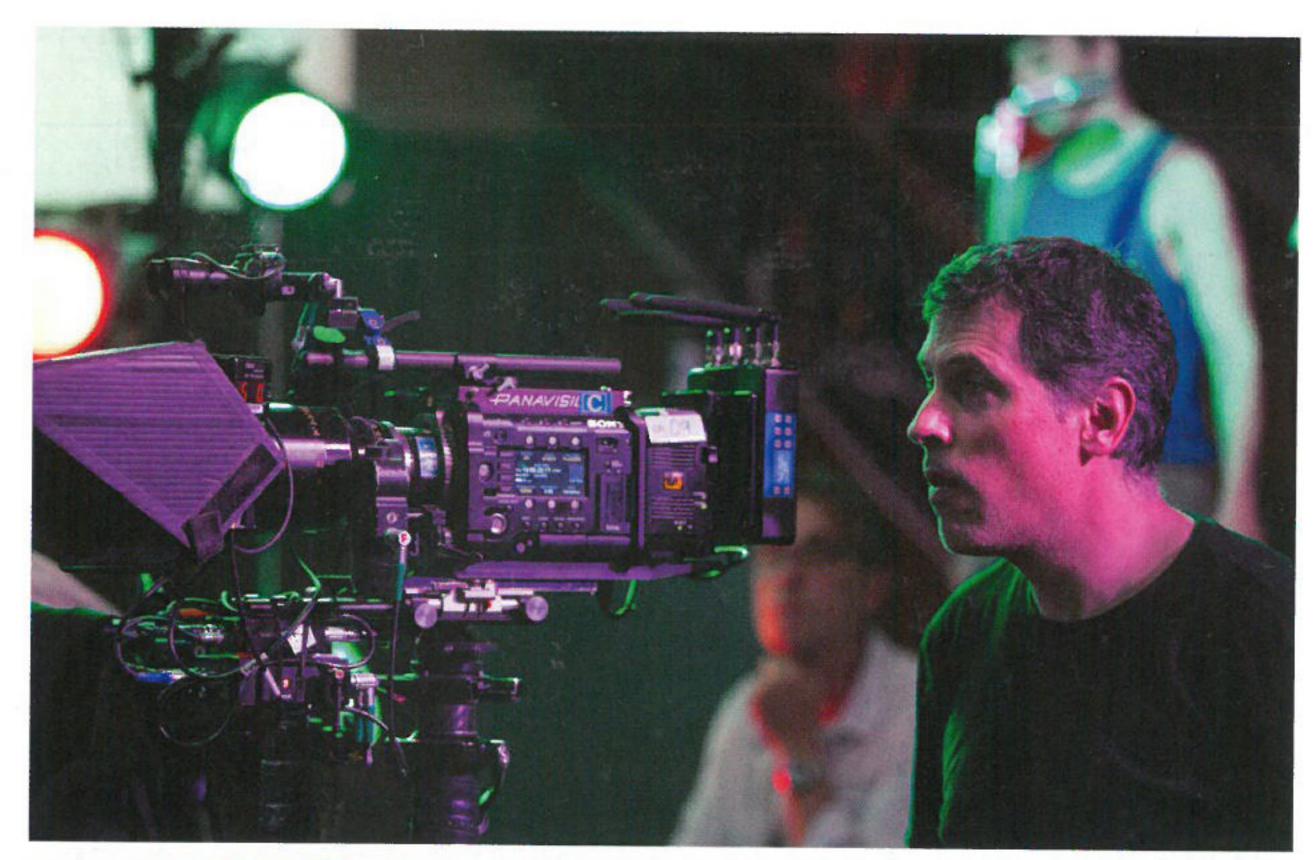
The plot centers on Richie Finestra (Bobby Cannavale), the brazen, desperate, coke-fueled head of American Century, a fictional New York record company that's at its nadir when the series begins. The story follows

Richie as he attempts to rescue his company by commanding his staff to land new talent.

Vinyl sees executive producer Scorsese going back to his '70s roots the New York of Mean Streets and Taxi Driver. "For me, Scorsese represents that era and that New York — how raw it was, how edgy," says Franco, a veteran of HBO's Boardwalk Empire (another Scorsese project) and Game of Thrones. "That's the mood we're trying to keep all the way through." Scorsese set the stage with the pilot, and he remained involved in subsequent episodes, attending tone meetings and watching dailies and first cuts.

The Scorsese bravura is evident from the start, as the pilot opens in a dark alley, with Richie in his car, "looking for sugar." Just after he scores his fix, and as he's reaching for a detective's business card on the front seat, he is interrupted by a group of youngsters running down the alley and literally over the roof of his car toward a club. He follows, transfixed, pushing his way through dancing bodies and colored lights toward the stage, where the proto-glam New York Dolls are whipping the crowd into a frenzy. The sequence includes dutch angles, low angles, side angles, an overhead shot inside the car, a wild camera somersault as the kids run over the sunroof, a crane shot that tracks to the club, handheld interiors, and dreamy slow motion of the singers' whipping hair and gleaming lipstick, and of Richie soaking up the pulsating crowd's energy. It's "an assault of visuals," as Morano puts it. She remembers her jaw dropping as she watched the pilot, thinking "Oh, my God — how are we going to keep making the show look this dynamic when we have less than half the amount of time?"

Shot mostly on New York locations and at Steiner Studios, Vinyl had 12 to 14 production days per episode, as compared to the pilot's 30. "For TV, it's 'luxurious," Prieto acknowledges, "but the pilot is almost two hours long — so we did a Martin Scorsese feature in 30





Finestra (Bobby Cannavale), the head of American Century Records, struggles to save his company — and his soul — in the HBO series Vinyl. This page: Rodrigo Prieto, ASC, AMC (top) shot the pilot episode, after which Reed Morano, ASC (middle) and David Franco (bottom)
alternated episodes
for the remainder of the season.



Top: Prieto and crew capture a birthdayparty scene a Richie's Connecticu home. Middle: Rich with his wife, Devon (Olivia Wilde), a former actress and model who was par of Andy Warhol' Factory scene in 1960s New York City. **Bottom: The crew** preps a sunset scene with Devon and **Ingrid (Birgitte Hjort**







days! Marty wasn't like, 'This is TV. We're going to shoot quickly and move on.' Not at all. It didn't feel any different from The Wolf of Wall Street AC Dec. '13]. Frankly, I don't know how we did it. He had shot lists that were tremendous."

Scorsese sequestered himself for a week to write those lists, scrawling annotations and drawings on the script, which Prieto would then decipher. The somersaulting camera, for instance, involved stripping out the car's backseat, squeezing in a hi-hat riser and Lambda head, tilting the camera 180 degrees as the kids ran over the sun roof, and ending upside-down. During the New York Dolls concert, Scorsese wanted the camera to swoop over the audience and end in a medium shot of the singer. With no way to get a crane inside the Brooklyn-church location, Prieto put the camera on a Movi M15 stabilizing system, hung that on a pulley rope, then let it swing like a pendulum. "Of course, there was another rope so it wouldn't hit the singer," Prieto notes.

"That's what makes Marty's way of shooting very 'Scorsese," he continues. "He designs shots that are startling. What's exciting is that I have to figure out how to do it! He doesn't think, 'Okay, we'll use this particular crane or another.' He just thinks of the image; he's very visual in that way."

Seeing those kinds of shots in the



Top and middle: Cast and crew shoot a New York **Dolls concert scene** for the pilot episode. Bottom: Richie enjoys the

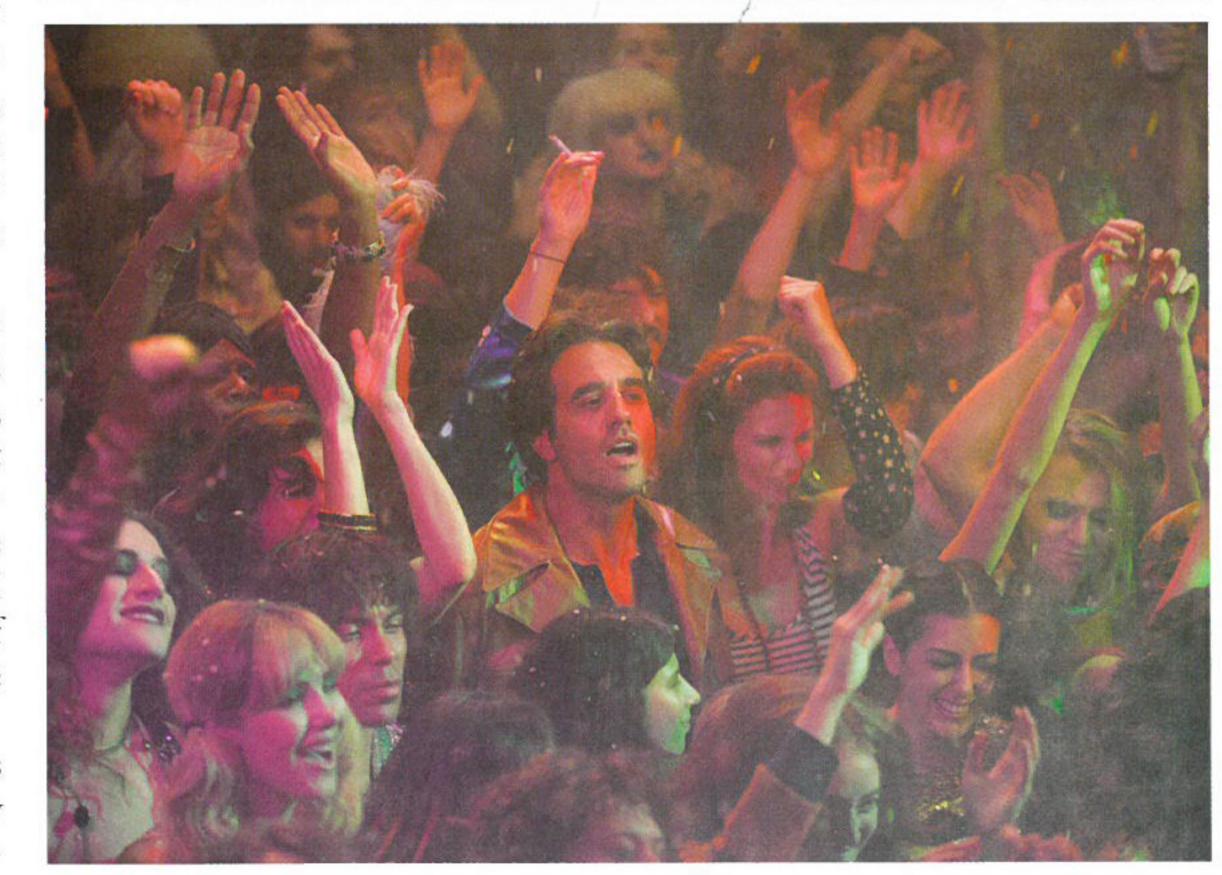
pilot was "very liberating," says Franco, who alternated episodes with Morano, per HBO's methodology, beginning with episode three. "The beauty of the pilot is that anything goes," he says. "Everything was possible as long as it served the story."

Morano adds that the pilot features a fearless use of color and a cyan tinge throughout, especially in shadows and night exteriors. "The color felt of another era," she says. There was also heavy contrast and grain structure that was reminiscent of Super 16mm. "You wouldn't mistake it for such," she notes, "but it was almost like watching an entirely new format — like, what is this? It's not digital, it's not film, but it feels right for this world."

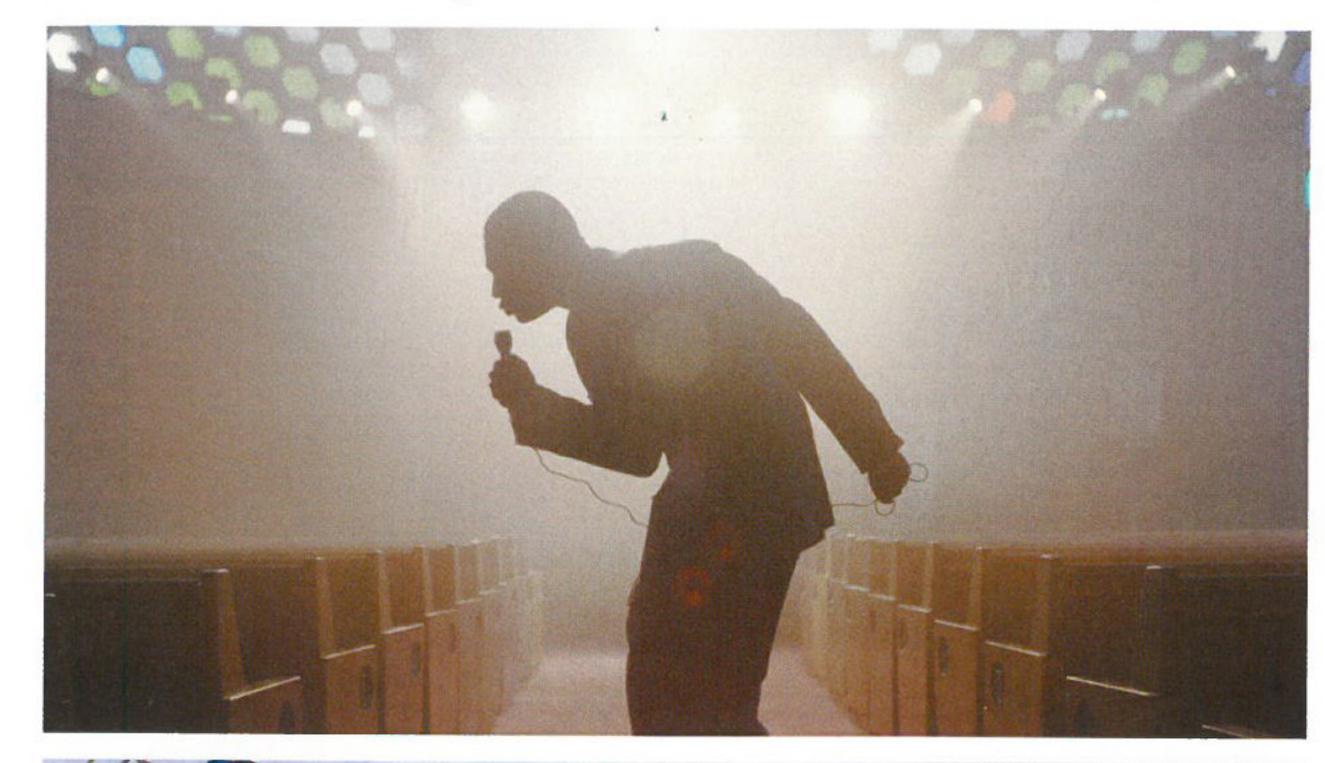
Prieto spent a good bit of time arriving at that look. Initially, he and Scorsese were leaning toward film, possibly mixing 16mm and 35mm. But HBO executives told them that regardless of what they picked, the rest of the series would need to be digital. "So I started experimenting with ways of making digital feel filmic, with the texture of 16mm," says Prieto.

One key to that strategy was LiveGrain, a texturing tool created by technologist and director-cinematogra-





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Top: Shot by Morano, the fourth episode begins with an R&B umber that transitions — without cutting into a funeral scene. Middle: For the scene, Morano's crew rigged three 12Ks on a truss that was suspended between two scissor lifts placed outside the location. Bottom: Morano captures a musical sequence featuring Buddy Holly (Philip Radiotes) near the Coney Island Cyclone roller coaster.



pher Suny Behar. HBO had begun using LiveGrain when True Blood switched to digital in its seventh season, and continued with it for Togetherness. The network urged Scorsese and Prieto to meet with Behar to see LiveGrain's capacity to transform sharp, quiet digital into an analog film look with live texture and three-dimensional depth. "We don't do a traditional overlay process, like a lot of film-emulation plug-ins you buy," explains Behar. "And we don't do a digital-sprite mechanism, which basically creates digital noise and spreads it over the image. Those processes tend to look fake, like noise floating above an otherwise clean image. What we do is analyze every pixel of every frame and map it to the corresponding point on the characteristic curve of a specific film stock."

The LiveGrain asset library has more than 50TB of film source material, comprising 50 stocks from Super 8 to 65mm in both Fuji and Kodak. Texture is acquired from analog grain. "I basically shoot about 2,000 feet of film to sample one stock," says Behar. "In LiveGrain, we have the ability to not only match any curve we want, but then to modify and shape that curve. Basically, we redraw the characteristic curve of the film stock in the LiveGrain process, so it has highlights, mid-tones and shadows, and a shoulder and toe. Once we have that curve built, we can modify it and create custom stocks."

That's precisely what was done for Vinyl. During their initial meeting, Prieto was interested in seeing how LiveGrain emulated certain stocks on footage shot by an Arri Alexa and a Sony CineAlta PMW-F55. These included Kodak Vision2 500T 5260 pushed one stop (as he had used on Babel; see AC Nov. '06), Vision3 500T 5219, and 16mm Vision3 500T 7219 both regular and pushed. They shot a day's worth of test material to more clearly isolate the stocks' textural char-

"It's very organic," Prieto says of the system. "It's not applying just an overall grain-noise movement. Grain



Egg crates help shape the light for a scene set in a casino.

on film behaves differently at [different light levels], and the system applies actual film grain at low lights, mids and highlights. You can also play with it and use, say, 35mm grain on the highlights and 16mm grain on the lowlights. What we found exciting, and the reason we decided to go with digital, is that we could actually design our own 'film stock' with exactly the amount of grain we wanted."

Once Behar got a handle on Prieto's preferences, he built two custom stocks from components in their library. Both are variants of 7219. For one of them, dubbed "Marty 16," Behar explains that "we made the shadows a little more coarse and thinned out the highlights." The second, "Extreme 16," live preview, allowing users to see was developed for club scenes, psychedelic bits and raunchier locations. "Rodrigo wanted the feeling of a 'pushone,' but without the implications in the mid-tones," says Behar. "Because we tion LUTs. He was particularly curious control the curve, we said, 'Okay, we'll go with the push-one, but thin out the skin tones.' So essentially you have the skin tones of a regular 7219, but the rest of the characteristic curve reacts like a push-one of 7219."

looks, LiveGrain was installed in Deluxe New York's DaVinci Resolve and Nuke bay. (LiveGrain has its own lossless cross-platform codec with up to 15:1 compression.) To apply Prieto's presets, colorist Steve Bodner would simply add a node to the end of the node tree, drop one in and activate it. Occasionally, Morano and Franco went further and tweaked the curve while color-correcting a scene, but for consistency's sake, everything was always based on the presets. For this season of Vinyl, the cinematographers saw the applied texture no earlier than dailies and in the case of most episodes, the final cuts. Behar has since developed a LiveGrain in real time on set.

Prieto also compared F55 and Alexa footage after going through one of Deluxe's own U-Look film-emulaabout the F55's new color gamut — S-Gamut3.Cine/S-Log3. "Combined with the U-Look, it created a very specific feel to the color," says Prieto, who felt the skin tones were richer and the blues a little more cyan than the

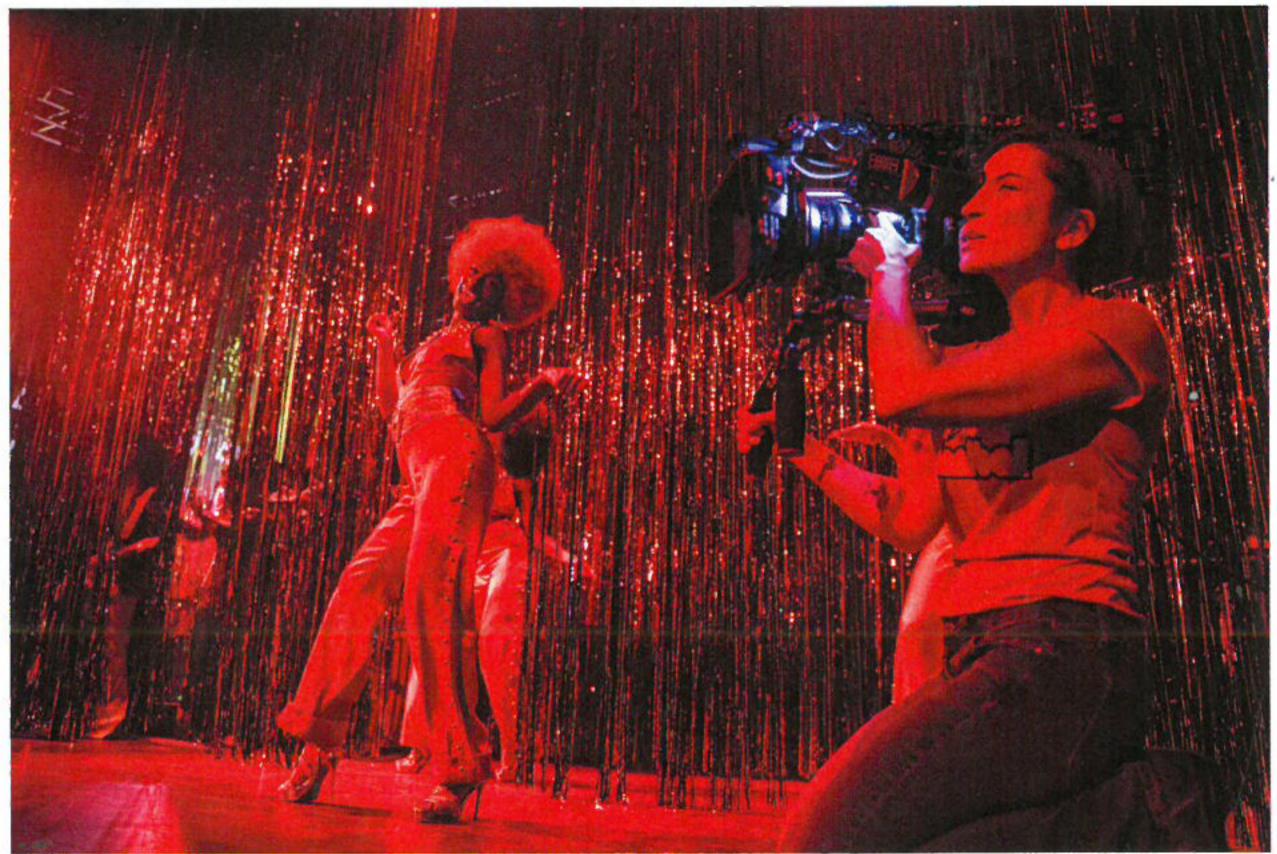
After Prieto signed off on the slightly purplish blue of the processed Alexa footage. "That gave it a particular feel that I really liked." The look was fine-tuned in the LUT, where Prieto boosted saturation and contrast. As he notes, "The combination of this S-Gamut3.Cine with the U-Look and LiveGrain created a look that worked for the series."

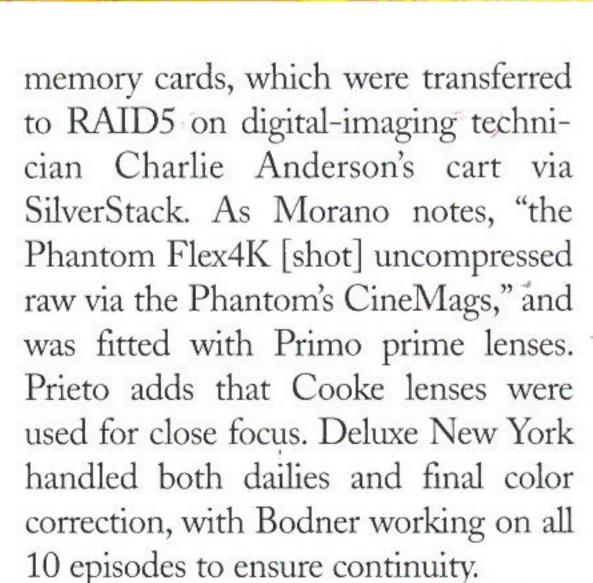
Bodner notes that LiveGrain and U-Look have their own discrete roles: "U-Look is a film-emulation LUT that manipulates the color, contrast, brightness, etc. — the overall color [data]. Livegrain is a plug-in that adds grain to the image, so it adds texture and does not affect color at all."

At Prieto's request, the F55 was retained for the duration, giving Morano and Franco access to the same color gamut, LUT and LiveGrain templates used on the pilot.

Season one of Vinyl was a primarily single-camera show with a B camera always on hand to accommodate different directors' methodologies. A third F55 came into play for concert scenes, plus a Vision Research Phantom Flex4K for slow motion. The F55s recorded 16-bit raw 4K onto AXSM



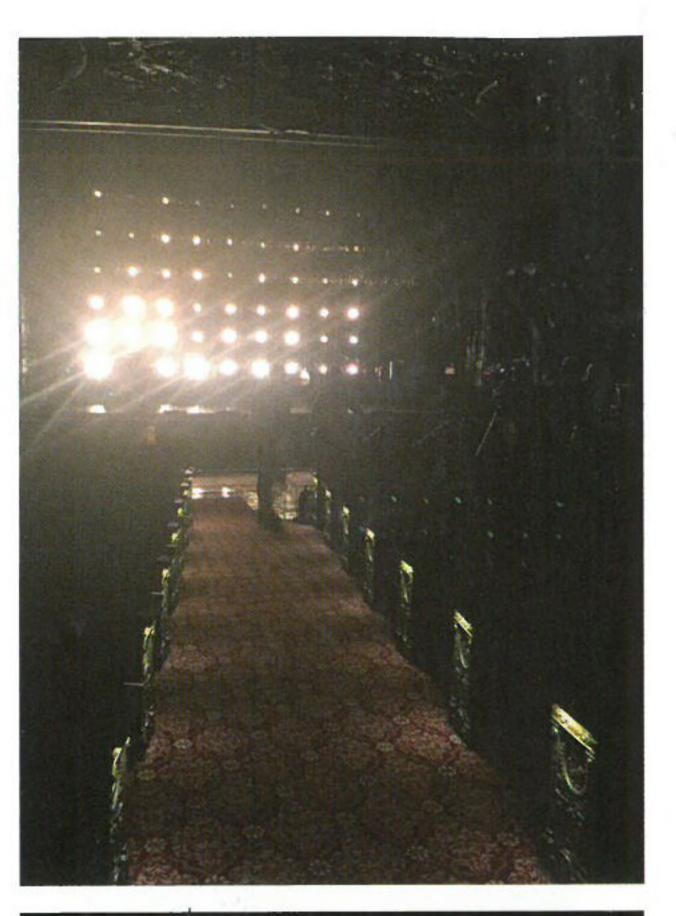




Panavision supplied the production's Primo lens package and Franco estimates that he used primes 75 percent of the time on the F55, with the 27mm and 40mm being his work-

horses. "The luxury of the show is that it allows the time to be able to use the prime lens," he notes. The production also carried three Panavision Primo zooms: 17.5–75mm (T2.3), 24–275mm (T2.8) and 19–90mm (T2.8), the latter of which saw the most action. "Because it was the Seventies, we try to insert those zoom shots," he says. Meanwhile, the F55's ISO was kept steady at its native 1,250.

Music, of course, is the series' lifeblood. Beyond performances integral to the plot, music's most distinctive, unexpected appearance is in the "interstitials" — periodic interludes that are dreamlike and surreal. There's Howlin'



For a funkadelic concert by the fictional singer Hannibal (Daniel J. Watts, top left), Morano had gaffer Ben Noble rig 64 500-watt Par cans on a black pipe grid. The Pars, which were run through a dimmer system, created a wall of light behind the performers.

Wolf belting out "Smokestack Lightning" on the American Century fire escape, Ruth Brown singing the blues in an empty conference room, Bo Diddley playing his square guitar by the pool at Richie's Connecticut home, and Karen Carpenter in the car with Richie's wife.

The cinematographers still have a hard time articulating exactly what these scenes are. "They're dreamy musical moments that are almost like an emotional 'narration' to the show," says Morano. Adds Franco, "It's like a way to cleanse your palate." Prieto offers, "I just took it as part of Richie's inner aural experience. Marty didn't elaborate."

Prieto first heard about these sequences shortly before production started; they were neither in the script nor discussed in prep. "Someone told me, 'Oh, Marty is thinking of shooting these little musical pieces.' I said, 'What are you talking about?' I went to see Marty, and he started explaining this idea of these musical pieces. He said, 'I know it's not scheduled, but we need to figure out how to do it."





Franco made bold use of red gels for the re-creation of a performance by Alice Cooper (Dustin Ingram), staged in a Red Hook warehouse.

Prieto had an idea that was inspired by a film that Scorsese had shown him during an unrelated discussion. "Marty showed me some clips from a Lauren Bacall movie," he says, in which a jilted lover imagines Bacall appearing in his apartment, theatrically lit. "I thought, 'Why don't we do that for the musical interludes? Let's light it with color, like a stage, but see the location.' So that's how that came about."

Bold theatrical lighting and the creative adaptation of locations became the name of the game. In one instance, Prieto knew he had to shoot Bo Diddley near Richie's pool at night, since the interlude followed a birthday

party in that setting. And he knew it should play largely in silhouette, to help disguise the actor. They happened to have a Rosco X24 X-Effects projector lighting the house and characters in the party scene, with its moving blue-green filter emulating water effects from the pool, and gaffer Bill O'Leary suggested pumping out additional smoke and using that projector to create a rippling backlight on Diddley. "It's super-weird," says Prieto, "and it was just this projector. We had to shoot that one real fast; others were more thought-out."

Prep was especially important when an interstitial segued into the next scene without cuts. Episode four begins

this way: In a long oner, a Steadicam moves down an aisle, following R&B singer Otis Blackwell, who is lit by a strong, white backlight. Just as the camera catches up and comes around, the theatrical light dims and sunlight enters through a wall of hexagonalpaned colored glass, revealing a funeral service underway for a music-industry heavyweight. "In keeping with Rodrigo's interstitials in the pilot, we wanted it to feel very theatrical when [Blackwell is] singing, then essentially go back to reality when we'd come around and reveal the pews," says Morano.

The scene was one of her biggest setups, and when they finally found the right location — a synagogue on Long Island — she knew it would work. Behind the podium rose a wall that stopped short of the ceiling, which gave her a platform on which to place lights "almost like a theatrical formation," Morano says. "I could have 10 Source Fours backlighting this singer and flaring the lens as he came down the aisle." To push light through the synagogue's wall of colored glass, gaffer John Oates positioned three 18Ks on the ground outside, to be manually panned. Then key grip Charlie Sherron constructed a truss that spanned two scissor lifts and carried three 12Ks mounted in motorized Arri MaxMover stirrups, enabling remote pan and tilt. On Oates' cue, the Source Fours would sequentially dim, and the 12Ks and 18Ks would pan. "It was a very fun oner," says Morano.

For musical performances that are part of the main drama, the cinematographers had occasion to light everything from a solo blues musician in a dive bar, to clubs like CBGB, to huge, "funkadelic" concerts. When Franco had need to hunt down references for Alice Cooper circa 1972, he could find only black-and-white photographs, so imagination was required. For the shock-rock group's rehearsal space, filmed in a Red Hook warehouse, Franco went all-out with the red gels, "just to make it as bloody as possible!" he says. Franco erected a lighting truss

over the rehearsal stage and hung "100, maybe 200" era-appropriate Par cans. "In the 1970s, the lighting was very basic," he says. "We just got a good dimmer-board operator to help us program all that." The scene also made dramatic use of Alice Cooper's actual guillotine prop.

Vinyl's most elaborate reconstruction was episode two's flashback to Andy Warhol's Exploding Plastic Inevitable multimedia extravaganza at the Dom club, where Richie meets his wife-to-be, Devon (Olivia Wilde). Here, the Velvet Underground plays, as Warhol's screen tests and short films project onto the backdrop, along with groovy gobo patterns.

Since the production did not have rights to Warhol's original films, Morano had to re-create them herself, as well as the whole psychedelic show. "It was really a kind of overwhelming challenge to jump into on my first episode," she says. To imitate Warhol's screen tests of Nico, Baby Jane, et al., Morano used an Arriflex 16 SR3 with Zeiss Super Speed MKIIs and Kodak Tri-X black-and-white reversal 7266, pushed two stops for extra grain. Then, for the show, she armed herself with unusual patterned gobos. "Andy had these crazy-weird gobos — one was a red projection with white cut-out circles. We couldn't find one, so we special-ordered it from Rosco." In addition, she says, "Andy was using certain projectors to project images himself during that show, so it was re-creating that and, with the props department, finding the right projectors for him to hold. Also, finding the right angle at which to project the screen tests on the background [while ensuring that they didn't project onto the band, and that the gobos did] — it was an interesting and trippy experiment."

Punk music is represented by the Nasty Bits, whose front man — played by Jagger's son James — gets a career boost thanks to the (very personal) attentions of an American Century secretary. Wanting something "messy" to contrast with the colorful glam rock



The Velvet Underground performs at Andy Warhol's Exploding Plastic Inevitable multimedia extravaganza, a show featured in an episode-two flashback.

of the New York Dolls, Prieto established the stripped-down, monochro-right there on the stage, shaking the matic punk look in the pilot. "I lit very simply," he says, "with direct, frontal hard light. I put some Par cans behind fluorescents give the audience a cyan them. One is malfunctioning; we had it hue.

flickering on a dimmer board. I was camera, really feeling the energy. That was very fun." Meanwhile, Cool White

Carrying that look forward, in episode three Franco had "one light in center stage flooding [the Nasty Bits]," he explains. "When we're behind them, it's just one light again at the back of the bar, all backlit, and that's it." For this, he built his own period-appropriate unit. "I took one of those old TV scoop lights and put my own 2K bulb in, and hung that above the bar." When the Nasty Bits have their big moment in the series finale, Morano stepped things up by shooting only white light into a disco ball, à la Pink Floyd.

On the other extreme was a huge, funkadelic concert by Hannibal, a character modeled on Sly Stone. "It had to be an amazing, ultimate-experience concert where we understand how big of an artist Hannibal is and how pivotal for American Century," says Morano. "I wanted to do a wall of light behind him, inspired by a film I shot called Shut Up and Play the Hits, about LCD Soundsystem. In that concert, they had

rectangular LEDs backlighting them, which were really iconic. So I thought, what if we do a Seventies version of that? A wall of Par cans. The light would come up as Hannibal comes on stage, and it's huge.

"Ben Noble, our rigging gaffer, rigged 64 500-watt Par cans on a black pipe grid, hooked into our dimmer system and the theater's dimmer system," Morano continues. The vertical grid was 60' long by 40' high, rigged off three 1-ton motors. "On each side of the stage, we also had three trees with six 1,000-watt Par cans on them, plus three 10Ks rigged on the second level facing the stage.

"For Hannibal's main performance, I operated a handheld camera on the stage," she says. "Then I had operator Steve Consentino down in the pit to do a Steadicam pass on Hannibal from there." Additional material came from crane shots and Phantom slowmotion details, like Hannibal flipping

his Afro at 500 fps.

The musical performances "were grueling, but the most fun," says Franco, whose opinion was echoed by the other cinematographers. "It's the usual 'Russian Army rolls over the hill' situation — just one line in the script, but quite a bit of work!"

Prieto opines, "The Seventies was a time of excitement, of experimentation, of anything goes, of fun, of change. To photograph that is really exciting, and as a visual strategy, I thought we should keep it that way. Once you have that look-up table and grain, it's really just play. Be free and enjoy it. That was the mantra: just go for TECHNICAL SPECS

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Digital Capture

Sony CineAlta PMW-F55, Phantom Flex 4K

Panavision Primo, Cooke