

mo-sys *spotlight on*

The Cacodelphia Story

Unlike alien invasions with poisonous snowstorms over Buenos Aires,
success doesn't appear out of nowhere...



The Birth of Cacodelphia Studios

'The Eternaut', Netflix's hit adaptation of the 1957 comic book is the biggest audio-visual project in Argentina's history.

The series has just been released, but to finally bring this iconic story to the screen, new production methods and facilities were required. The story of how the project was developed starts five years ago, when the world really did come to a stand-still.

Since 2014, Gastón Gallo, Co-Founder & Director of Cacodelphia Studios, was already a film director in his own right, but he also had an extensive background as a leading authority on LED for film and events. As with so many businesses, technicians and artists, 2020 was a year that pushed Gastón to pivot, so with location shooting out of the question, Gastón combined his two areas of expertise to open the first of Cacodelphia's studios. In and of itself, this was no easy feat.

"The main challenge was, undoubtedly, to establish a Virtual Production studio in Argentina, which would also be the first in South America", Gaston explains. "This meant we had to convey the advantages of Virtual Production to local producers, directors, and DOPs. Thankfully their response was very encouraging, recognising the obvious benefits of filming in a controlled space with hyper-realistic settings and cutting-edge technology."



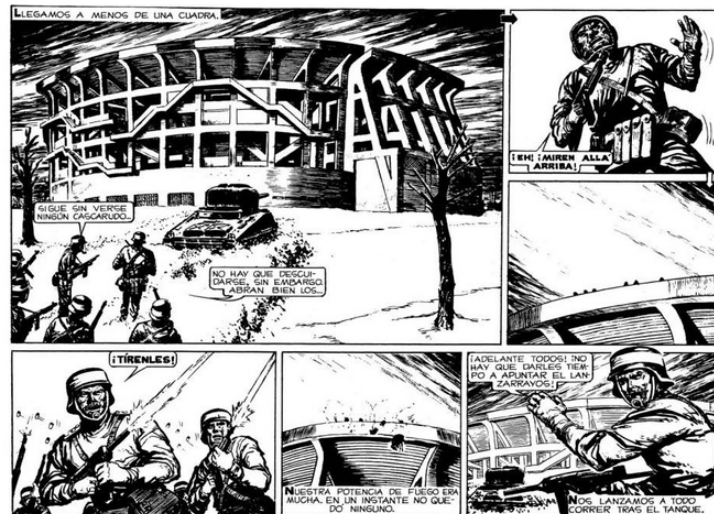
Studio Inauguration 2021

A Cultural Legacy

The Eternaut holds huge cultural significance in Argentina, not only for its vision and story, but because of its author, Héctor Germán Oesterheld, who was 'disappeared' for his opposition to the military dictatorship of the 1970's.

The iconic status of the source material has led many to try to bring his highly symbolic work to the screen, but all previous attempts failed due to budget limitations and a lack of technology that could truly do justice to the original work.

In 2020 Gaston's newly established studio caught the attention of K&S Films. The Buenos Aires facility included an LED wall system that allowed him to shoot commercials during the pandemic, producing projects such as the Argentinian



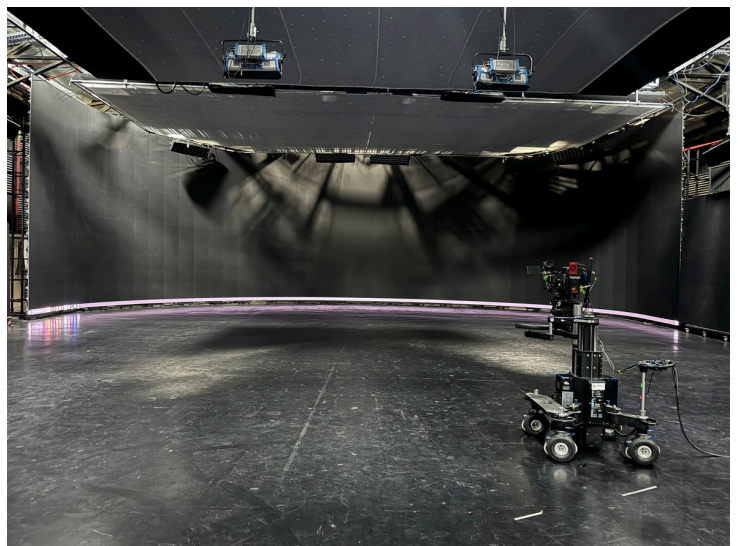
campaign launch for the Peugeot 208, by utilising the LED wall as a back projection system...

Could Virtual Production (VP) be the key to overcoming the technical roadblock and finally translating Oesterheld's vision to the screen?

Bringing the Pieces Together

This is how the collaboration between K&S Films and Cacodelphia Studios began, and before long Gastón would need a second LED wall studio to run tests as he and his team developed a methodology for the production of *The Eternaut*. However, another partnership would be required to bring all the pieces together for a viable workflow. Gastón needed real-time camera tracking, and for this he reached out to Mo-Sys.

In 2021, the doors of Cacodelphia's second studio were opened. This space was capable of full Virtual Production, with the on-set camera movements mirrored perfectly in the virtual world, in real-time, thanks to Mo-Sys' StarTracker technology. With all the VP elements in place, Gastón was able to go beyond tests...



'Cuando Duerme Conmigo',
the first VP film to be
produced and shot in
Latin America



Not Just For Sci-Fi

Virtual Production isn't just in-camera VFX, it's a more efficient way of shooting, where the location comes to you. With so many filming restrictions in place during the pandemic, VP became an obvious choice for the makers of independent feature *'Cuando Duerme Conmigo'*. Cacodelphia's facilities would allow them to bring New York City into the Argentinian studio and create a safe shooting environment for the first VP film to be produced and shot in Latin America.

"'Cuando Duerme Conmigo' was filmed during the pandemic, and we needed to minimize the shooting hours. Since it's a story based on the interaction of two characters with a lot of dialogue, we decided to work with two cameras to record the shots and reverse shots simultaneously, enabling us to work faster."

As the *'Cuando Duerme Conmigo'* shoot got underway at Cacodelphia's facilities, supported by Gastón and his team with a workflow using two StarTracker Classics, K&S Films and Netflix engineers were keenly observing.

"As we filmed with two cameras, we had to maintain the parallax, that's why we used two Mo-Sys StarTracker systems that, together with the Mo-Sys VP Pro, gave us an outstanding result."

As Gastón goes on to explain, by leveraging multiple StarTrackers, the crew were able to adopt different shooting strategies throughout the shoot, depending on the scene.

"Thanks to the previous work we did with the Mo-Sys team to get the lenses, they were already set up in VP Pro. This meant we were able to shoot both multi-camera and with lens changes, with everything running very smoothly."

This independent feature was not only a VP first for Latin America, it was also a use-case that validated the methodology which would be adapted to make *'The Eternaut'* a viable project.

The Data

To recreate the epic scale of Oesterheld's comic book panels in live-action, with a snow-covered Buenos Aires, the production would need a hybrid approach of location shooting, Virtual Production and a huge array of CG elements.



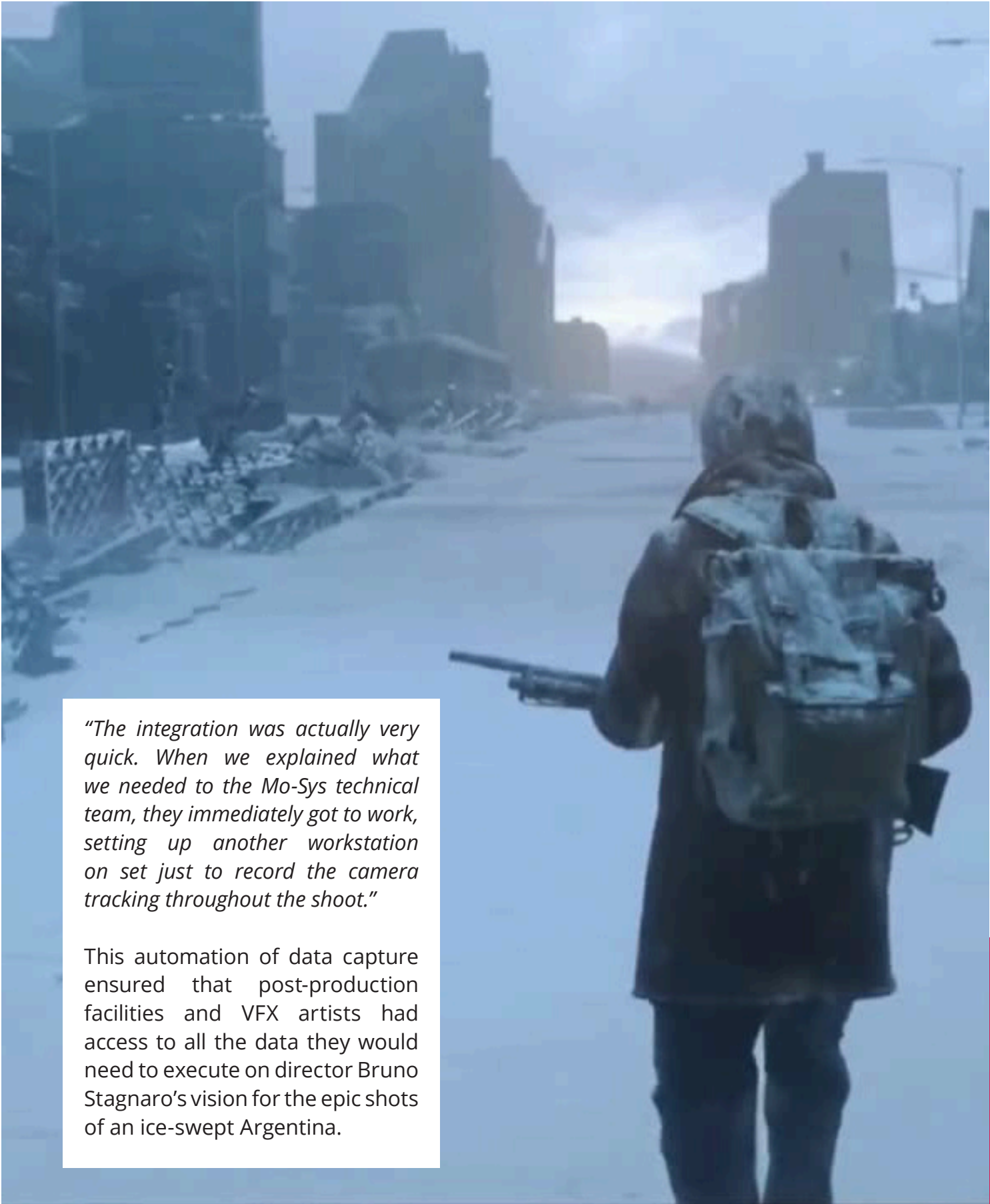
However, to stitch all of these different techniques together would require a workflow that could reliably capture, encode and transfer all the tracking data for delivery to the post-production teams. Gastón feared that the workflow developed for Cacodelphia's 2021 character-driven drama might need a significant overhaul to meet these greater challenges. Of course, he reached out to his partners at Mo-Sys once again...

"Since the director wanted to film the main scenes of 'The Eternaut' inside our studios, the camera kept capturing everything outside the LED volume. To solve this, a virtual set compilation was required in post-production. This seemingly complicated project was incredibly smooth thanks to the Mo-Sys VP Pro software that allowed us to record all the camera tracking information and deliver that data to the post-production team so they could complete the necessary compilations. A complete success!"

The Cacodelphia team were able to leverage VP Pro to ensure that all tracking data was captured and saved automatically alongside the Sony Venice 2 camera footage for secure transmission to Unreal servers.

Ricardo Darín - Juan Salvo

Considered an icon of Argentine cinema and one of the most influential actors in the Spanish-speaking world.



"The integration was actually very quick. When we explained what we needed to the Mo-Sys technical team, they immediately got to work, setting up another workstation on set just to record the camera tracking throughout the shoot."

This automation of data capture ensured that post-production facilities and VFX artists had access to all the data they would need to execute on director Bruno Stagnaro's vision for the epic shots of an ice-swept Argentina.

The Eternaut

Behind the Scenes



Number of Unreal Engine environments: **30**

Number of Virtual Production scenes: **60**

Number of Virtual Production sessions: **70**



The Location Comes to You

Location filming always presents the risk of disruption due to weather, logistics and any number of other unforeseen shooting challenges.

As production on *The Eternaut* progressed, location delays risked extending the entire shoot schedule. However, the Virtual Production pipeline proved so robust that producers were able to re-allocate a great number of additional scenes to be shot at the Cacodelphia facility.

“Many scenes in the series that weren’t originally planned to be filmed in VP were rescheduled to be shot in the studios. Filming in VP gave the production a convenient location that didn’t require large crew movements and, above all, sped up filming, which is very important when it comes to producing content.”





We did it together! Our Mo-sys equipment, operated by our technicians in our studios, knowing that at every moment we had the support we needed. We made history in our country.

By the time the production wrapped, the VP crew had delivered sixty scenes for the project, utilising thirty different Unreal Engine environments. However, the increased workload designated to Virtual Production meant a large increase in the number of real-world locations and environmental objects that would have to be recreated digitally using scanning techniques.

"K&S Films took advantage of the pandemic to virtually scan an entire neighbourhood in Buenos Aires using LIDAR scanners and drones. Vehicles, trucks, highways, and more were also scanned. A massive undertaking to recreate an apocalyptic Buenos Aires."

Despite the ready availability of empty streets at the time, ideal for any scanning project, these processes were extremely complicated and

time-consuming, but with the advent of hybrid scanning techniques and the 'Scan-to-Shoot' workflow, photorealistic 3D environments can be generated in hours, not weeks. Gastón is eager to break new ground again, and his eyes light up at the prospect of a streamlined and accessible scanning process, already developing his next VP project.

As more and more prestige productions embrace Virtual Production as a more efficient alternative to location shooting, building relationships between producers, facilities and technology providers is essential to harness the full potential of this rapidly evolving technology. Reflecting on the *The Eternaut* and his partnership with Mo-Sys, Gastón is emphatic, *"In Argentina, at least, Cacodelphia Studios and Mo-Sys made history together."*

NETFLIX



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Virtual Production Solutions
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Virtual Production Academy

Specialists in Virtual Production Solutions, VP Academy Training, Camera Tracking, Robotics and Remote Production Systems, Mo-Sys has over 25 years of industry experience designing, building and installing full turnkey and bespoke studio solutions.



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