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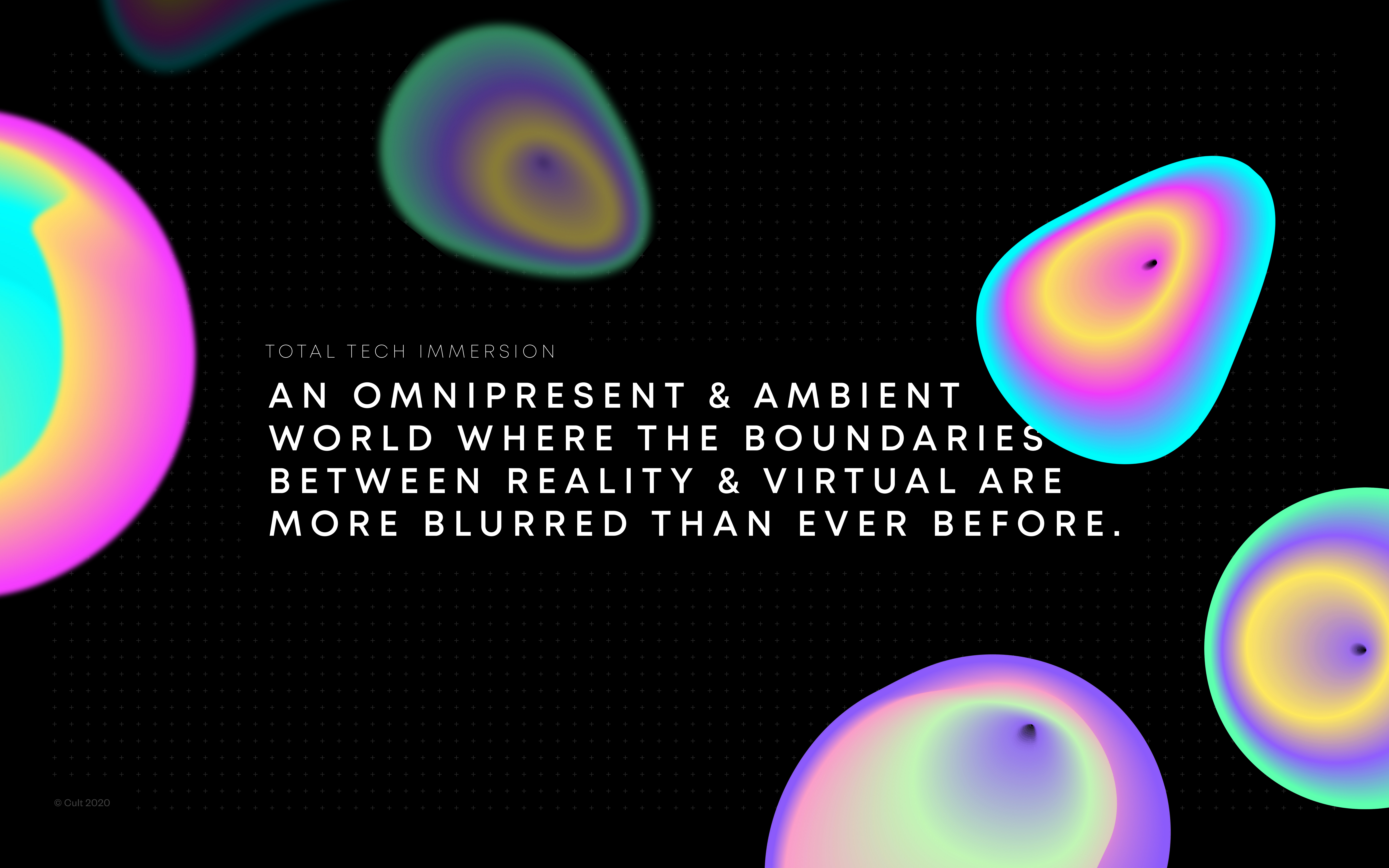
FUTURE



PRESENTS

THE
CREATOLOGY
REPORT

01_06_20



TOTAL TECH IMMERSION

**AN OMNIPRESENT & AMBIENT
WORLD WHERE THE BOUNDARIES
BETWEEN REALITY & VIRTUAL ARE
MORE BLURRED THAN EVER BEFORE.**

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FASTER THAN 4

Ultra-fast, high-capacity 5G is the gateway to a world of unprecedented interconnectivity. It's a change that will transform the way we interact with tech and, more importantly, the way tech interacts with us.

In other words, after years of hype it means we will now officially be living in the Internet of Things and life will look fundamentally different. Just in time, it seems, as the coronavirus pandemic has necessitated greater reliance on the internet for entertainment, communication and more.





INTER CONN- ECTED

Almost any device or appliance will connect to the internet, but these smart devices will also connect to each other, creating smart, cognitive environments. Data will be gathered and deployed to power tech-driven solutions that will make life more convenient and efficient.

As more of us are staying at home, the internet is becoming more environmental, just as the environment is becoming our touch-free portal to the digital world, with cars, pavements and urban areas emerging as the new canvases of creativity, media and entertainment personalised to our individual tastes.

DEEPER TECH

As our lives become more deeply enmeshed in the internet, our interactions with technology will become deeper, blurring the lines between the physical and virtual. Sophisticated applications of artificial intelligence (AI) and augmented reality (AR) will break down these barriers.

All this is giving rise to a culture where humans move comfortably in mixed-format spaces, just as much at ease communicating and hanging out with intelligent machines as with other people.



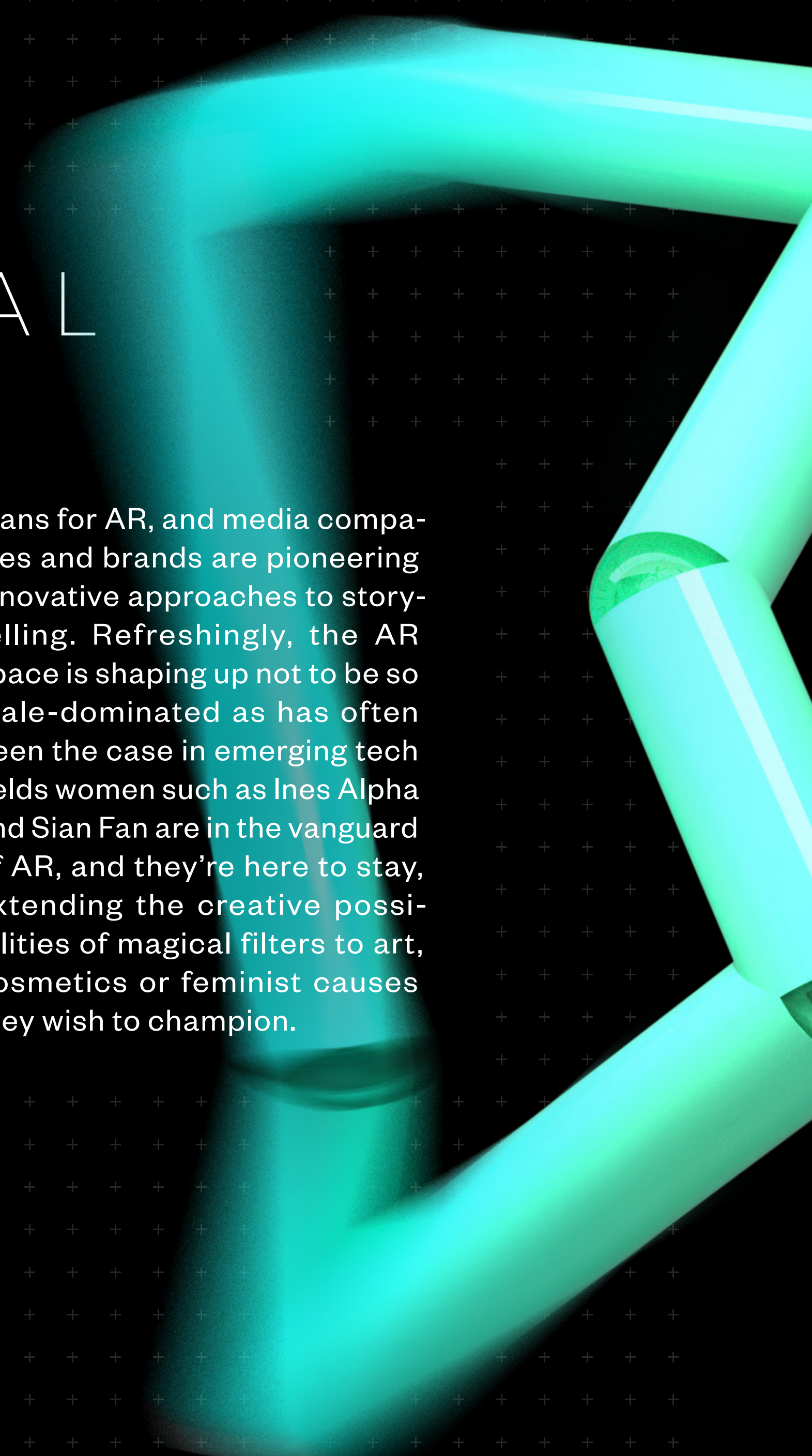


ARTIFICIAL CRAFT

This is changing the game for creativity and marketing, too. Artists are embracing AI as a collaborator, relying on AI-driven processes to create exhibits and art pieces that reflect our relationship to the environment.

The fashion industry is exploring the application of AR and its implications for sustainability, consumption and style. Competition is heating up as big tech firms forge ahead with their

plans for AR, and media companies and brands are pioneering innovative approaches to storytelling. Refreshingly, the AR space is shaping up not to be so male-dominated as has often been the case in emerging tech fields women such as Ines Alpha and Sian Fan are in the vanguard of AR, and they're here to stay, extending the creative possibilities of magical filters to art, cosmetics or feminist causes they wish to champion.



AI ART
EXHIBITS

PARADOXICAL SYMBIOSIS

Technology and nature have a symbiotic relationship, according to artists and studio directors Rick Farin and Claire Cochran of LA-based studio Actual Objects, who harness 3D design and digital filmmaking to give commercial audiences including those of the North Face and Paris designer Marine Serre a glimpse of their future environment.

“We truly believe that by gaining familiarity and understanding of technology and the work that can be created with it, we can gain a better understanding and appre-

ciation for our planet,” Farin tells Cult. The team explored this with Marine Serre, creating an apocalyptic world for AI models in the designer’s spring/summer 2020 campaign video, Marée Noire.

The film showcases couture-clad protagonists moving through three dystopian worlds transformed by climate change, from an “arid wasteland plagued by drought” to a “post-industrial volcanic landscape” and finally to a pipeline-filled terrain blooming with hybrid metallic-natural flowers.





AI art is the most collaborative of all & comes from the deepest recesses of human imagination.

Rick Farin

Studio Director, Actual Objects // Cult Futures Interview



EP2, AI-powered art exhibits, AI More than Human, See Image credit sheet in folder from Barbican and follow credits according to image selected

AI: MORE THAN HUMAN

It's this sentiment that guides Suzanne Livingston, who curated the Barbican Centre's exhibit "AI: More Than Human". As she tells Google Arts and Culture, the show aims to educate and ease people's fears around the growth of the technology.

One of the artists whose work was part of this exhibit is Memo Akten, whose immersive film *Deep Meditations* delivers,

according to its subtitle, "a brief history of almost everything in 60 minutes". Akten relied on neural networks to generate the images that the content is centred around, illustrating themes of love, nature, faith and identity. The soundtrack of spiritual chants was generated by a similar process. The result is a meditative picture of human experience that leaves viewers to draw their own conclusions.

"Deep Meditations: A brief history of almost everything in 60 minutes" at Sonar+D, Barcelona, Spain, 2019. (c) Memo Akten



DIGITAL LANDSCAPES

Turkish artist Refik Anadol followed a comparable process for his 30-minute movie Machine Hallucination. Anadol used machine-learning algorithms to collect 9.5 million images of New York City, which were then processed into a series of stunning large-scale visuals depicting a variety of natural, urban and otherworldly landscapes.

Brands such as Huawei are finding practical environmental uses for AI and AR, protecting Unesco World Heritage Sites. The smartphone brand recently debuted its newly released map feature for its P40 smartphone via a collaboration with the China's Dunhuang Academy to give tourists to the Mogao Caves in Gansu Province an immersive, virtual experience, enabling them to engage with the cultural relics without needing to enter or crowd the grottoes.





EP2, AI-powered art exhibits, Machine Hallucination at Artechouse NYC, Image credit Refik Anadol Studio

TOTAL
SMART
CITY

ES



EP2, Branded total-smart cities,
Toyota Woven City, Image credit note

WOVEN CITIES

The future of autonomous vehicles, smart homes and hyper-connectivity is already here, but architects and brands want to know how these technologies can better coalesce in the very fabric of our urban landscapes to optimise lifestyles and sustainability. Toyota and Danish architecture studio BIG are crafting Woven City, a real-life prototype for this, at the base of Mount Fuji in Japan.

With people, buildings & vehicles all connected with each other, we'll be able to test AI in virtual & physical realms, maximising its potential.

Akio Toyoda

president of the Toyota Motor Corporation

TALKATIVE TECHNOLOGY

“With people, buildings and vehicles all connected and communicating with each other through data and sensors, we will be able to test connected AI technology in both the virtual and physical realms, maximising its potential,” says Akio Toyoda, president of the Toyota Motor Corporation. Woven City will start with 2,000 residents, many of them Toyota scientists and researchers.

From AI-driven homes that can monitor residents’ health and take care of chores, to autonomous vehicles and a tiered road network optimised for different

categories of pedestrian and vehicular transport, the goal is to pioneer a fully sustainable community powered by hydrogen cells.

“In an age when technology – social media and online retail – is replacing and eliminating our traditional physical meeting places, we are increasingly more isolated,” said BIG founder Bjarke Ingels during the launch. “The Woven City is designed to allow technology to strengthen the public realm as a meeting place and to use connectivity to power human connectivity.”



EP2, Branded total-smart cities, Toyota
Woven City, See Image credit in image details



LIVING IN A MIXED REALITY

Brands and creatives are also imagining what it would look like if the city was a canvas for their mixed reality exhibits. In Seoul, design studio Space Popular installed an immersive portal within the archway of an ancient gate at Deoksugung Palace.

Called Gate of Bright Lights, the screen plays a video that virtually gives viewers a doorway into the past before the gates appear to shut and reopen to more futuristic digital displays. “Through social media, websites

and blogs, everyone is now the ruler of their own palace, with gates open to the public through the platforms and interfaces of a connected digital world,” Space Popular told Dezeen.

“These new virtual palaces in which we increasingly live our lives are much like the highly structured ornamental system of Dancheong, carefully ordered through icons, buttons, links and feeds and laboriously decorated with colours, fonts, layouts and graphics.”



光明門

EP2, Branded total-smart cities, Gate of Bright Lights, Image credit Space Popular

MIXED REALITY ARTISTS

Apple gives users the opportunity to explore a contemporary art-filled alternative reality with an outdoor walking tour series created in collaboration with the New Museum and taking place in San Francisco, New York, Paris, London, Tokyo, & Hong Kong.

Artists Nick Cave, Nathalie Djurberg and Hans Berg, Cao Fei, John Giorno, Carsten Höller and Pipilotti Rist each created AR works designed to connect participants to various cityscapes - some works resting on monuments, others suspended in mid air.





BIG TEACH'S
AR PUSK



**SONGS
2020
THAT
MATTER
NOW**

EP2, Big Tech's Ar Push, New York Times Magazine
AR Covers, Image credit google x New York Times

TRANSPARENT TECHNOLOGY

Will AR glasses ever become a reality? What does music look like in a virtual world? Now more than ever, big tech companies are making serious investments to more seamlessly meld our physical and virtual existences.

Facebook announced at the Oculus Connect developer conference in September 2019 that its Reality Labs arm is working on AR glasses and a Live-Maps initiative that would take social networking into its next phase, making virtual connections feel hyper-realistic. Facebook has reportedly partnered with Luxottica, the parent company of Ray-Ban, to help

create its glasses, with a possible launch in 2023. The company has suggested LiveMaps would provide the basis for layering AR experiences on top of the physical surroundings. Mark Zuckerberg has talked of a future where AR enables people to keep in touch with faraway friends, or to live in one place and use an AR device to work in another.

Social video games such as Animal Crossing on Nintendo Switch, Pictionary-inspired Quick Draw on the Houseparty app and Jackbox party games are all interactive and ideal hangout options for the social distancing era.

As Apple works on creative, artistic applications of AR, the company is reportedly developing an AR app for iOS14, code-named Gobi, and a headset, to allow iPhone users to learn more about the world around them by scanning objects or products. According to findings from 9to5Mac, the technology is currently being tested at its own stores and at Starbucks.



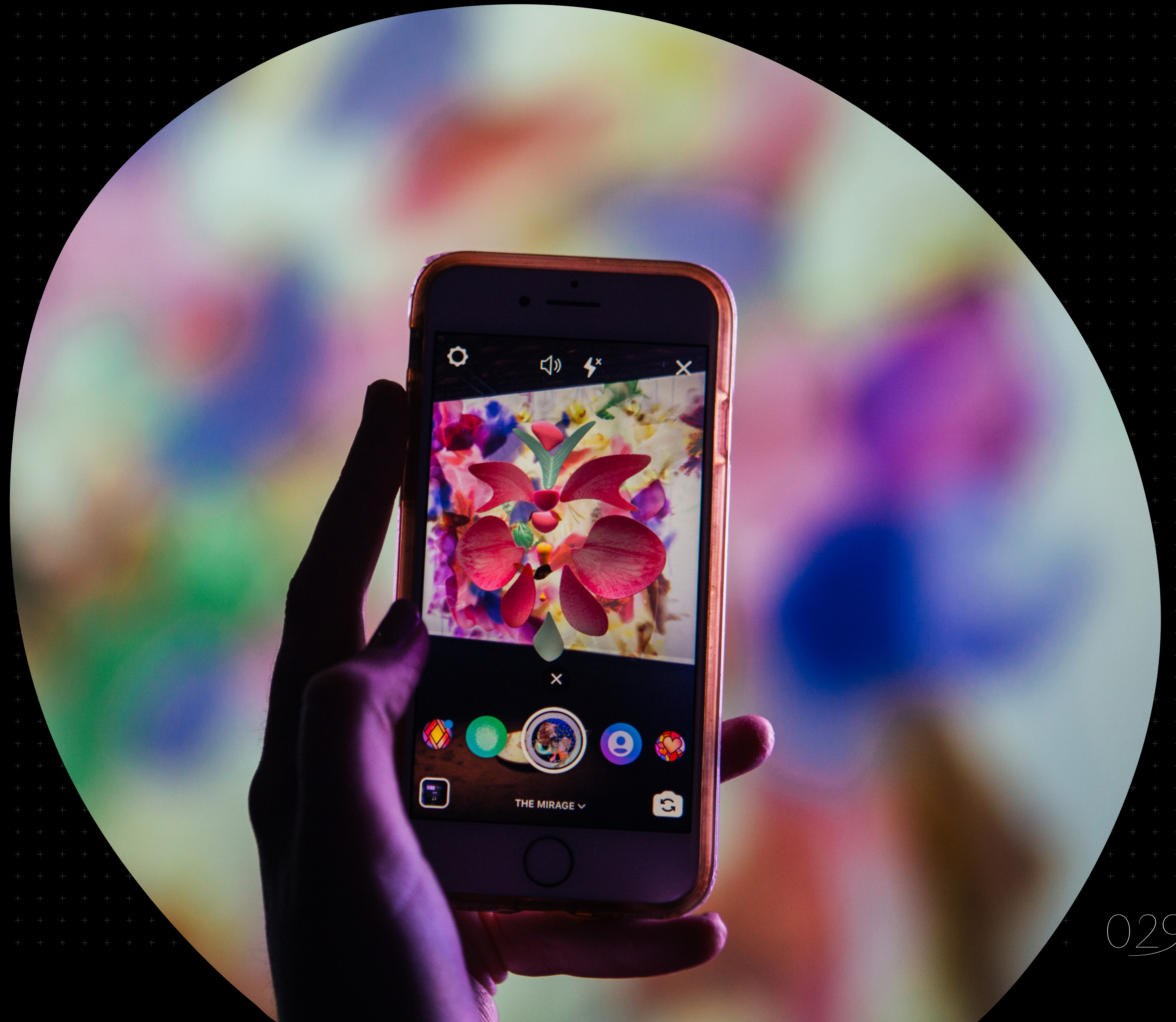
Spotify is exploring how listeners might interact with music differently when their experiences are layered with AR. In partnership with Magic Leap, Spotify released an app late in 2019 that lets users customise and curate their soundscape for each room of their home by virtually tacking albums, artists and tracks to the walls, above the bed, next to the computer and more all through its Magic Leap spatial computing headset.

PHYGITAL
FUTURE

REDE- FINING WORLDS

The fashion and beauty industries are primed for digital innovation; from virtual dressing rooms to AR make-up try-on apps, immersive technologies are increasingly making it possible for e-commerce and offline shopping to become a more fluid experience.

However, artists and designers such as Ines Alpha and Richard Malone are harnessing AR and 3D design to redefine fashion and beauty altogether in this new phygital world.



With 3D tools you can create impossible things that don't exist on our planet, allowing us to push the boundaries.

Ines Alpha

Artist & Designer // Cult Futures Interview



// FACE CHANGING AR // FACE CHANGING AR // FACE CHANGING AR

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EP2, Case Studies, Dior x Lines Alpha
Image credit Dior courtesy of artist

“Make-up is about transforming your face with anything so adding 3D elements on a face can also be make-up, but using a different set of tools,” Alpha tells Cult, referring to her AR work. Alpha’s recent collaboration with French clothing brand Koche and Italian brand Emilio Pucci took the face filter format common to Snapchat and Instagram messaging and brought it into the fashion week space, costuming models with colourful and ethereal 3D accessories and make-up, floating and pulsating in front of their faces.

“What’s super cool is that with 3D tools you can create stuff that is not possible in real life and that doesn’t exist on our planet, so you can really push the boundaries of what exists already and make otherworldly designs and create textures that are not doable in this world,” she says.



EP2, Case Studies, Dior x Lines Alpha
Image credit Dior courtesy of artist

SUSTA- INABLE TECH

Similarly, Malone and his team took their atelier skills to a technological realm with a sustainable, 5G-powered AR dress for television and radio presenter Maya Jama on the red carpet at BAFTA 2020.

In a collaboration with British mobile network operator EE, Malone used upcycled fabrics made from ocean waste and recycled wool for Jama's couture gown, which was fitted with 18 sensors that triggered virtual swathes of fabric to swirl and shapeshift with Jama's movements when viewed through a smartphone.



EP3, The Last Statement
T-shirt, Image credit Carlings

Brands are teasing the creative possibilities of AR, too. In its December 2020 collection, Carlings opted to make a statement on climate change through AR. Named one of Fast Company's most innovative companies in 2020, the Scandinavian label (known for launching a digital-only collection in 2018) released T-shirts whose graphics only appear using Instagram's AR filter, which has a targeting tracking feature that triggers the image via a logo instead of a face. The sustainable design allows the wearer to show off different looks without having to purchase multiple shirts.





ENTER
TAINMISENT
INTERFACES

IMMERSIVE ENTERTAINMENT

In a world where every device is smart, every device can be used for entertainment. Sony's Vision-S car concept, unveiled at CES 2020, is a radical vision of how the vehicle of the future will double as an entertainment hub. The Vision-S is decked out with touchscreens in the front and rear for gaming, watching movies, listening to music and tweaking the car controls, among other functions.

Making films is nothing new, but the movies of the future will use volumetric video to immerse the viewers in a 360-degree experi-

ence that they can travel within. In this realm, a single movie is a rich world that can be explored from limitless perspectives and narrative angles. The approach requires hundreds of sophisticated cameras, enormous stages and other high-tech equipment, as Intel Studios head Diego Prilusky outlined in a July 2019 TED talk.

It also rewrites the storytelling rulebook, creating truly non-linear hyper-personalised filmic experiences that mark an exciting new beginning and challenge filmmakers to keep up.





EP2, New entertainment interfaces,
Sony Vision-S car, Image credit Sony

PLAY- FUL AR

With AR filters now commonplace in day-to-day messaging, some companies are betting on their ability for engagement and storytelling. NFL's Dallas Cowboys has shown the way forward for sports franchises, presenting an AR-generated game that appeared to be taking place on the field during the half-time show at an actual game. The franchise also installed an AR photo station where fans could take a selfie with virtual renderings of Cowboys players.

Ahead of the Oscars in 2020, the Los Angeles Times worked with Yahoo News XR and LA-based immersive media company RYOT to create AR renderings of iconic gowns, which readers could virtually try on, effectively bringing the awards event into their home.





EP2, New entertainment interfaces, AR gowns,
Image credit Samuel Ubina courtesy of Micah 404



WORLDWIDE
WOMEN
INTERNATIONAL

It comes so rarely that
a new technology can
come out and women
can have a voice in it.

Estella Tse

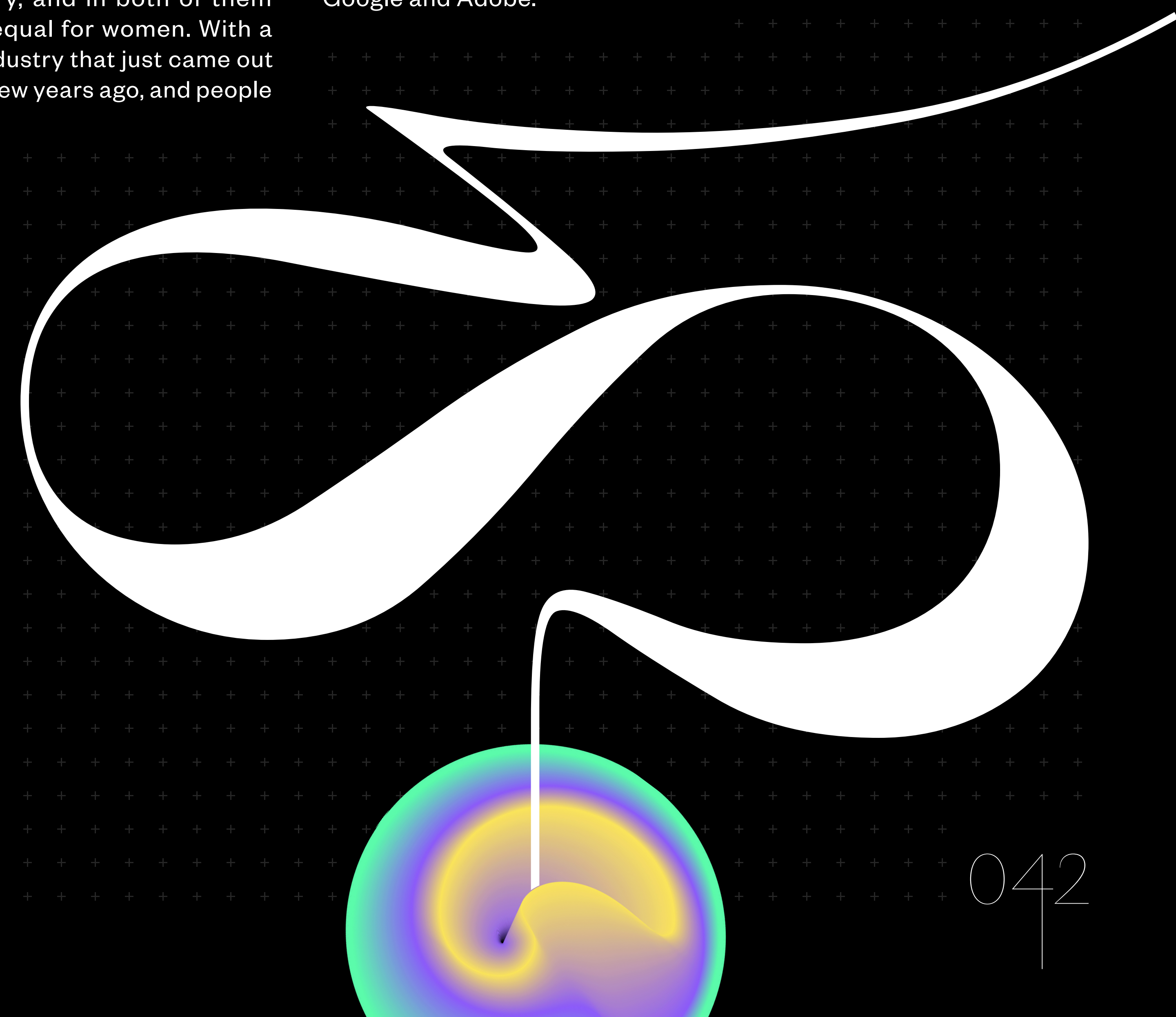
Artist in residence // Google & Adobe



ART & FEMTECH

From Sian Fan to Nicola Plant to Estella Tse, female artists are at the helm of some of the most groundbreaking work at the crossroads of creativity and technology. “There’s the tech industry and there’s also the art industry, and in both of them it’s unequal for women. With a new industry that just came out only a few years ago, and people

having access to this, women in VR have been, ‘Okay, this is our chance to set a standard where we have an equal playing field as much as we can,’” says Tse, who is a VR, AR and extended reality (XR) artist in residence with Google and Adobe.



VIRTUAL NARRATIVES

Tse's own work ranges from recreating Rembrandt's "Night Watch" painting in VR for the Netherlands Embassy in San Francisco, to crafting interactive VR narratives, namely her animated film Avaloki. As a VR filmmaker she seeks to capture the authentic emotions she wants her audiences to feel.

"That requires understanding visual storytelling, understanding colours and design and understanding how to build out an environment where it's conducive of that, and how you're using the medium in a meaningful way," she tells Cult. "It's not just a fad, you're not just using VR for trendiness, you're actually using it for the purpose of the medium. That's something I focus on a lot. It's like, why would I do this in VR? Why would I do this in AR? Can it can only be done in these mediums? That's how you tell something very, very impactful with the new technology."



LEARNING

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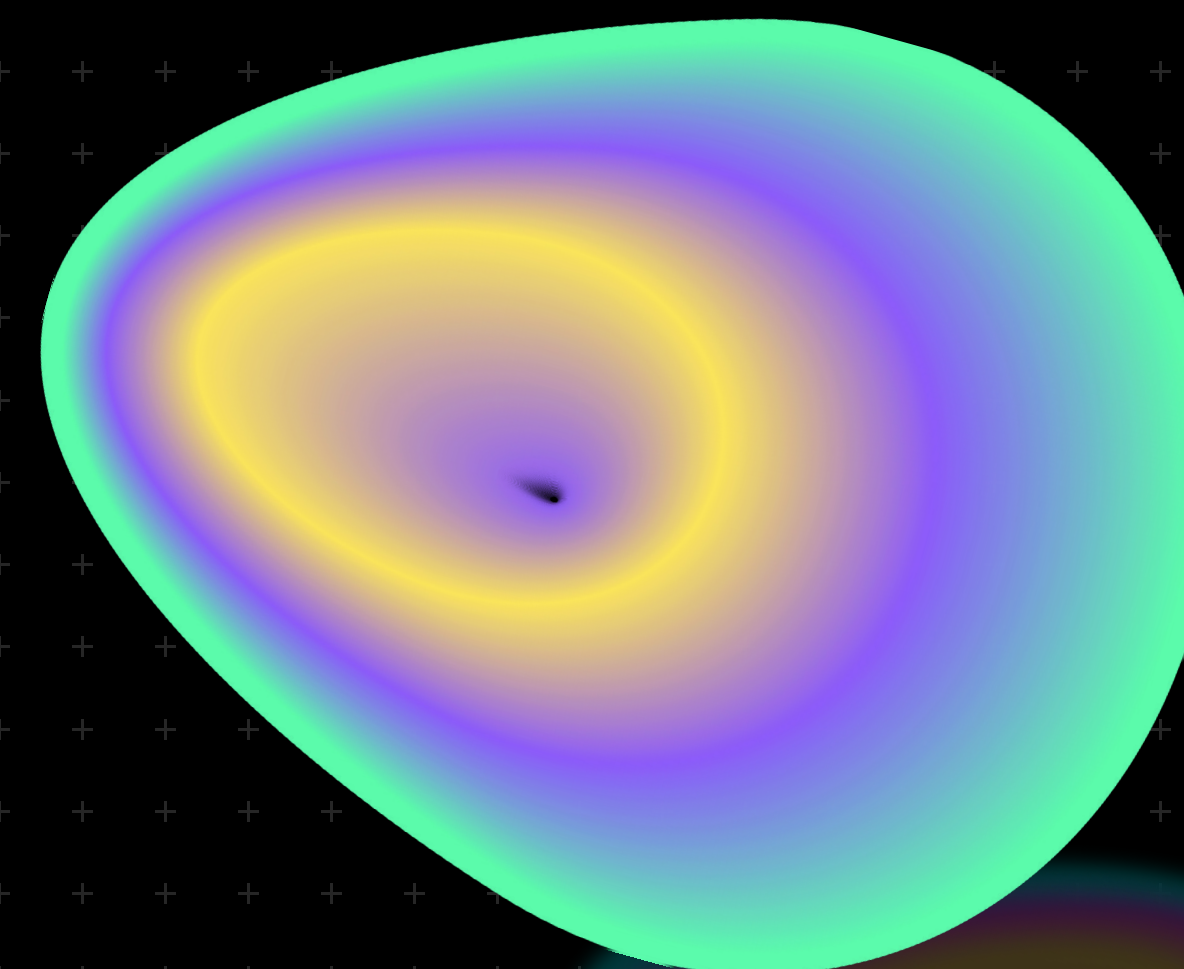


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It will also create an environment of hyper-contextual marketing and creativity, triggering information, media and messaging around consumers' unique location and profile.

01

The advent of 5G and mass uptake of AR will mean newly blurred lines between environments and digital platforms, as well as new opportunities for mixed reality entertainment, commerce and more.



03

AR will no longer be just a glitchy tool to imagine what a sofa looks like in your living room: it will become a key medium for new brand experiences that also have the potential to wrap in social networking behaviours.



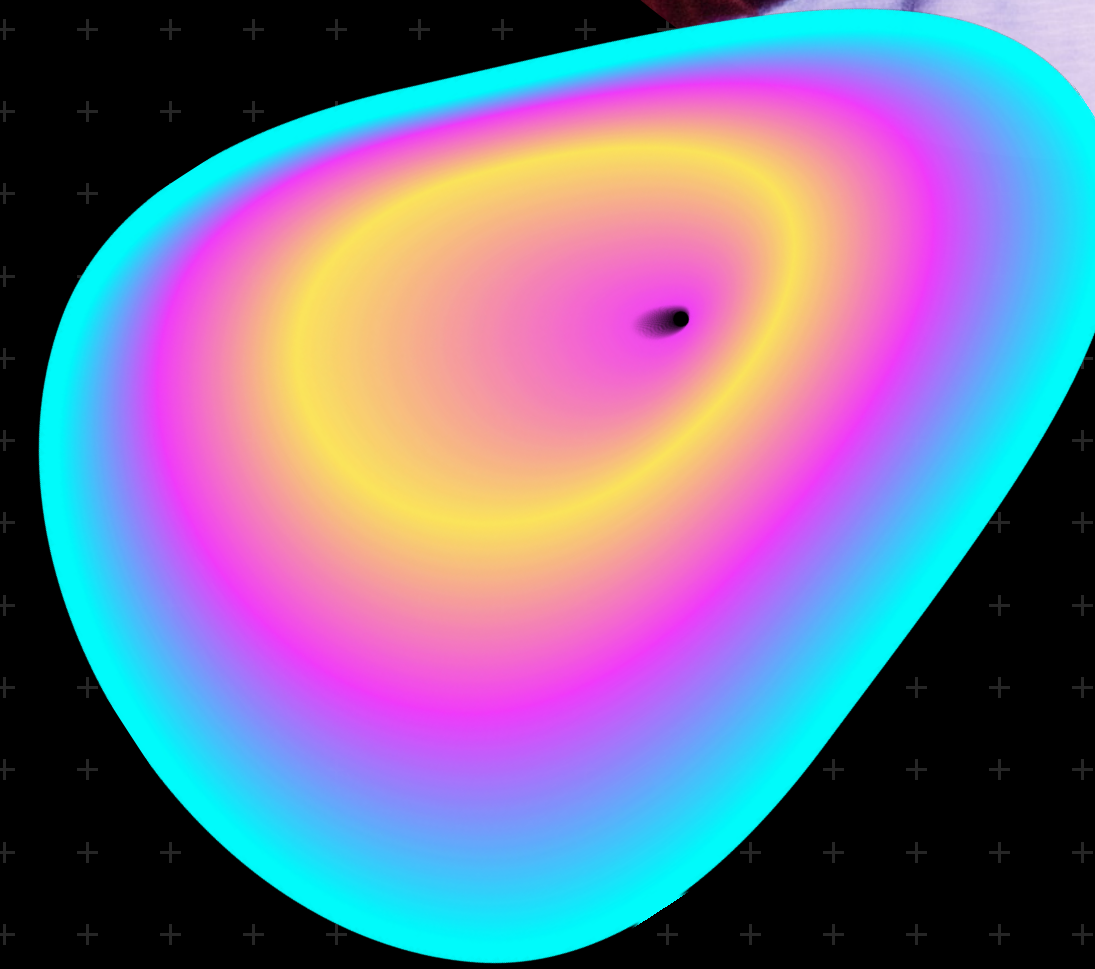
Image credit Apple // Image credit Samuel Ubinas courtesy of Micah 404 // Image credit Hugo Glendinning, Courtesy of artist



05

Artists are using AI to rethink exhibits and brand experiences, creating highly immersive, layered, interactive experiences and upending our notion of a traditional canvas. These are also blurring the cerebral with the commercial.

Artistic VR experiences are being used for wellbeing. Magazines are creating virtual art experiences that are also branded. Expect more.



04

The total tech immersion era means big changes to what we think of hardware and what tech looks like in the home and environments. Everything will be a smart device, a canvas for media when we want it to be and not when we don't.

A buttonless future where any surface can function as media portals and screens look set to be evolve into holograms.





CASE
STUDIES

“Catharsis” by Jakob Kudsk Steensen, London

Jakob Kudsk Steensen’s “Catharsis” exhibition at London’s Serpentine Galleries is more than a demonstration of the prowess of visual and audio artists creating AR simulations of the real world.

The success of Steensen’s immersive “slow media” installation is to envelop the viewer so comprehensively in its 3D ecosystem as to stir empathy for and longing to connect with nature itself. The stunning visuals are matched by the calls of forest fauna of Matt McCorkle’s lush audio textures, leading the viewer on a languid first-person journey through a centuries-old forest untouched by development.

These immersive realities are not intended as a substitute for reality, but as a complement and a call to treasure and protect the world around us.



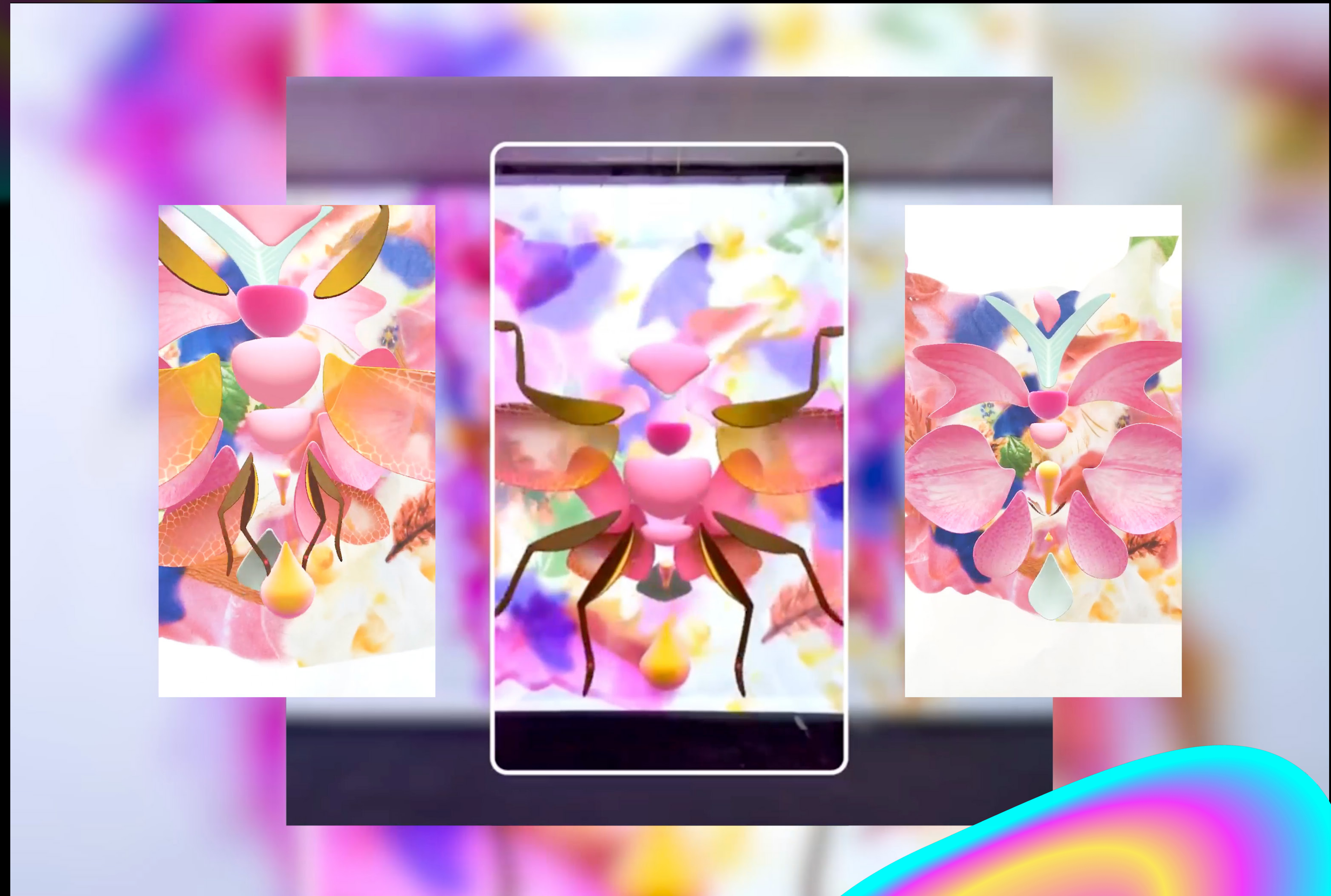


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“The Mirage” by Lucy Hardcastle at Refinery29’s 29Rooms

As the realm of our virtual lives expands, the line between the physical and virtual worlds becomes ever more confused. AR is one of the technologies speeding this development along, but in Lucy Hardcastle’s “The Mirage” the artist uses AR to help the viewer ask: what is real and what is illusion? “The Mirage” was displayed at Refinery 29’s 29Rooms festival in late 2019. Visitors use Instagram (with Facebook’s Spark AR) to scan around the installation.

As shapes shift and new features reveal themselves, the viewer is invited to question the duality between physical features and their virtual renderings.



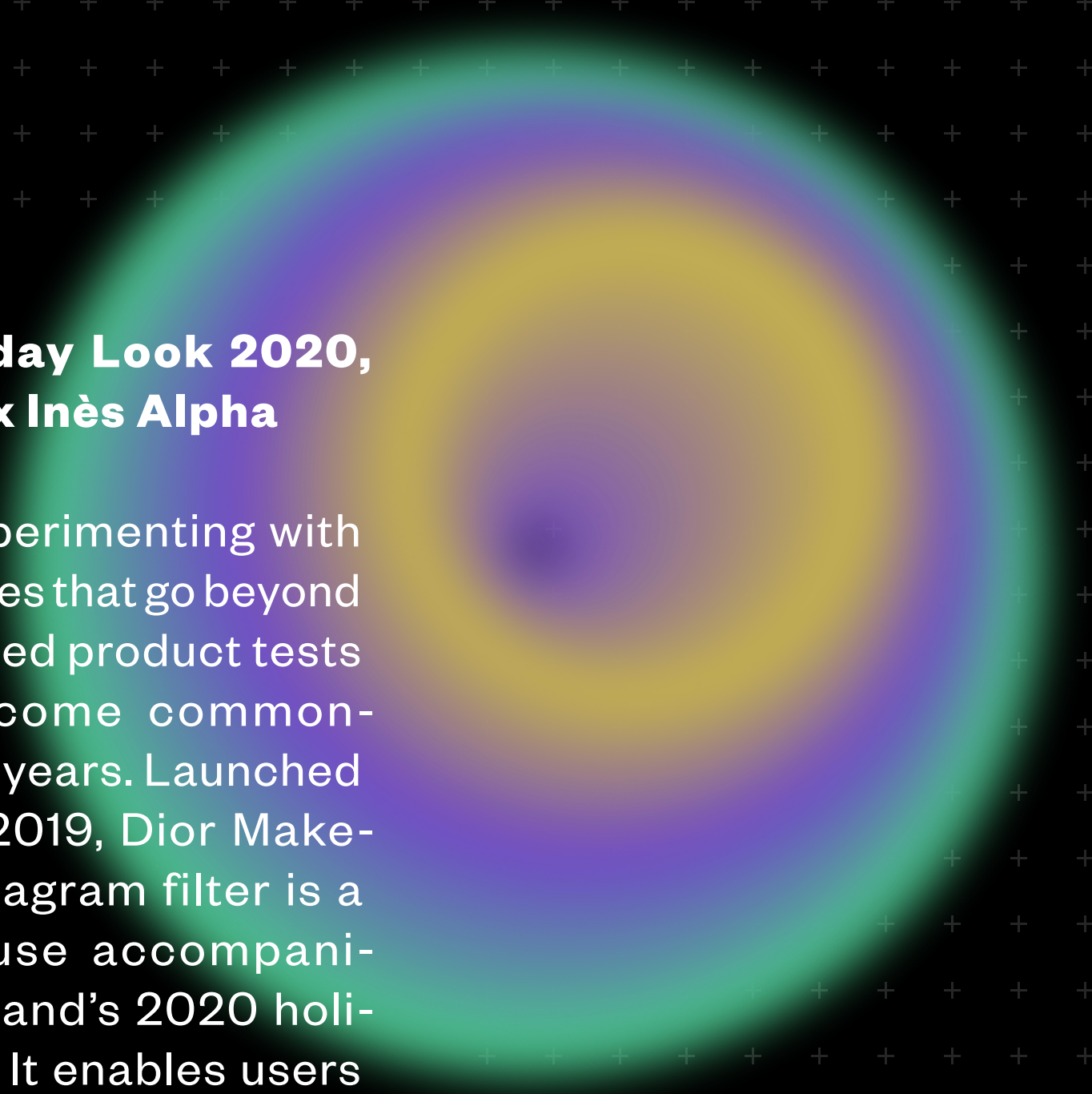




**Dior AR Holiday Look 2020,
Peter Philips x Inès Alpha**

Brands are experimenting with tools and features that go beyond the AR-enhanced product tests that have become commonplace in recent years. Launched in December 2019, Dior Make-up's 3Dior Instagram filter is a fun, easy-to-use accompaniment to the brand's 2020 holiday collection. It enables users to magically layer on to their faces animated eye shadow and bejewelled make-up looks. While using the filter, the user sees their eyes made up with an almost kaleidoscopic pattern of colourful sequins that appear to emerge from their cheek and brow bones.

3Dior was designed by Peter Philips, Dior Make-up creative and image director, in collaboration with digital artist Inès Alpha, whose colourful, boundary-breaking aesthetic is evident in the final result.





To book a private
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